

12. Targets and Indicators

Summary

- Best Value and LTP Indicators and trajectories for congestion, accessibility, air quality, road safety and asset management.
- Local Indicators for park and ride, rail and community transport.
- Regional Traveline indicator.
- Realistic but challenging targets.
- Managing and mitigating risks.

12.1 Introduction

12.1.1 Targets and indicators are important to enable the success of the JLTP to be judged. They allow progress towards positive transport outcomes and the contributions towards wider policy objectives, to be monitored. A wide range of targets and indicators are proposed comprising Best Value and other mandatory indicators set by the Government as well as local indicators.

12.1.2 This Chapter sets out proposals for these targets. Wherever possible targets relate to outcomes (real and measurable improvements), rather than outputs or inputs (the delivery mechanisms). The horizon year for each target is 2010/11 (unless stated) with each target also having a trajectory with interim milestones. The targets take account of the likely available funding as set out in Chapter 11 and aim to be realistic but challenging. Key risks to achieving these targets have also been recognised with mitigating actions identified.

Links to Wider Vision and Objectives

12.1.3 The targets and indicators are linked to the overall vision and objectives based on the four Shared Priorities as set out in Chapter 2 and shown in Table 12.1. Meeting these targets is also important to deliver wider policy objectives such as sustainable economic growth, housing

and social inclusion. Their connections to the regional and sub-regional spatial planning framework are described in detail in Box 1B and Table 4.1.

12.2 Developing the Mandatory Indicators and Targets

12.2.1 The JLTP sets out targets for the Best Value and LTP performance indicators. These are listed in Table 12.2 along with a number of local targets. Baseline data has been identified for each target and indicator in line with DfT guidance. With all targets, it is important to have in place a robust, reliable method of monitoring progress and achievement. This is to ensure transparency and comparability nationally and with other authorities. In this way, we can see how our plans for transport impact on important areas of everyday life and how the measures and steps we are taking compare with other authorities across the UK.

12.2.2 The targets and indicators put forward in Table 12.2 for this area are challenging, given the scale of the transport problems described in Chapter 3. Three potential outcomes for 2010/11 have been identified assuming different levels of funding. These relate to the three funding options set out in Chapter 4. They are the Government's financial planning guideline (Option A); the guideline plus successful major scheme bids for Bath and Greater Bristol (Option B); and finally the guideline funding for two Major Schemes plus additional demand management funding (Option C). We will update our targets, currently based around the guideline as the outcome of our Major Scheme bids and their timing becomes known. Table 12.2. gives a general indication of which targets would be modified if the Major Scheme Bids were successful.

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Table 12.1 - Targets Linked to Objectives

Aims	Objectives	Targets Ref no.	
To tackle congestion	Manage the demand for travel by the private car.	LTP2 LTP6 LTP7	
	Promote use of alternatives to the private car	BVPI102 BVPI104 BVPI187 LTP3 LTP5 Local 1 (rail) Local 2 (park and ride) Regional 1, 2, 3 (traveline)	
	Encourage more sustainable patterns of travel behaviour	LTP4	
	To improve road safety for all road users	Ensure significant reductions in the number of the most serious road casualties	BVPI 99x BVPI 99y
		Achieve improvements for road safety for the most vulnerable sections of the community	BVPI 99y BVPI 99z
To improve air quality	Improve air quality in the AQMAs	LTP 8	
To improve accessibility	Improve accessibility for all residents to health services	LTP1a	
	Improve accessibility for all residents to employment	LTP 1b	
	Improve accessibility for all residents to education	LTP 1c	
To improve the Quality of Life	Ensure quality of life is improved through the other shared priority objectives, contributing towards the enhancement of public spaces and of community safety, neighbourhood renewal and regeneration, healthier communities and tackling noise and protecting landscape and biodiversity	All indicators including BVPI223 BVPI224a BVPI224b and BV187	

Table 12.2 - Targets and Indicators

Indicator	Definition	Relevant JLTIP Objective	Target	Baseline (2003/04 unless otherwise stated)	Projected Outcome for 2010/11 based on			Source of Data
					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
Best Value Indicators (Mandatory)								
Road Condition (% where structural maintenance should be considered)	Principal roads BV223	To improve the Quality of Life	Reduce the percentage of principal roads where structural maintenance should be considered	33.9% (2004/05 baseline)	31.1%.	Successful MSB unlikely to make significant impact on maintenance	Increased funds could allow greater resources to be concentrated on maintenance	TRACS-Type survey method (mechanised)
Road Condition (% where structural maintenance should be considered)	Non-principal classified roads BV224a	To improve the Quality of Life	Reduce the percentage of non-principal roads where structural maintenance should be considered	Data unavailable. Baseline not established as per DfT guidance	Data unavailable but likely to be minimum target of no further deterioration	Successful MSB unlikely to make significant impact on maintenance	Increased funds could allow greater resources to be concentrated on maintenance	TRACS-Type survey method (mechanised) to be used to establish baseline
Road Condition (% where structural maintenance should be considered)	Unclassified roads BV224b	To improve the Quality of Life	Reduce the percentage of unclassified roads where structural maintenance should be considered	15.9%	11.3%	11.3%. Successful MSB unlikely to make significant impact on maintenance	Increased funds could allow greater resources to be concentrated on maintenance	Visual survey
Road Condition (% where structural maintenance should be considered)	Footway Condition BV187	To tackle congestion: promote use of alternatives to the private car	Reduce the percentage of the footway network where structural maintenance should be considered	27.5%	19.2%	19.2%. Successful MSB unlikely to make significant impact on maintenance	Increased funds could allow greater resources to be concentrated on maintenance	Visual survey

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Indicator	Definition	Relevant JLTP Objective	Target	Baseline (2003/04 unless otherwise stated)	Projected Outcome for 2010/11 based on			Source of Data
					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
Number of deaths and serious injuries (all ages)	Number of people killed or seriously injured on roads in the area (BV99x)	To improve road safety for all road users: ensure significant reductions in the number of the most serious road casualties	20% reduction on 2001-2004 average by 2010	508 (2001-2004 average)	406 (20% reduction)	381. Successful MSB likely to allow sufficient resource to be redirected to meet 25% reduction target	Increased funds could allow greater resources to be concentrated on KSI reduction	Data as supplied by the Police
Number of children killed and seriously injured	Number of children (aged less than 16) killed or seriously injured in the area (BV99y)	To improve road safety for all road users: achieve improvements for road safety for the most vulnerable sections of the community	25% reduction on 2001-2004 average by 2010	57 (2001-2004 average)	43 (25% reduction)	Successful MSBs unlikely to make significant impact on child KSIs. Small numbers mean it is more challenging to achieve a greater reduction	Increased funds unlikely to make significant impact on child KSIs. Small numbers mean it is more challenging to achieve greater reduction	Data as supplied by the Police
Number of slight injury casualties	Number of people whose injuries recorded as 'slight' (BV99z)	To improve road safety for all road users: achieve improvements for road safety for the most vulnerable sections of the community	No increase on 2001-2004 average number by 2010	3947 (2001-2004 average)	3947 (No increase)	5% reduction. Successful MSB could allow resources to be redirected in order to make some progress toward the 'stretched' target	Increased funds could allow greater resources to be redirected in order to achieve the 'stretched' target	Data as supplied by the Police
Number of bus journeys	Thousands of bus passenger journeys (i.e. boardings) per year in the area BV102	To tackle congestion: promote use of alternatives to the private car	Increase the number of bus passenger journeys by 2010/11 based on 2003/04 levels	55.226m	3% increase	12% increase. Successful MSB would have significant positive impact on bus services and	20-25% increase. Although MSB would concentrate resources, extra funding would allow further	Data as supplied by the bus companies

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					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
Bus Satisfaction	Percentage of respondents satisfied with local bus services (BV104)	To tackle congestion: promote use of alternatives to the private car	Increase bus satisfaction levels between 2003/04 and 2010/11	38% (weighted according to population across the four Authorities)	44% (Nationally defined minimum increase of 6% from baseline) – 2009/10 target	60%. Successful MSB would have significant positive impact on bus services and would therefore expect larger increase to be possible	60-75%. Although MSB would concentrate resources, extra funding would allow progress to be made towards the 'stretched' target	Satisfaction surveys, weighted according to bus use in each authority area
National LTP Indicators (Mandatory)								
Accessibility to Health (LTP1a), Employment (LTP1b), Education (LTP1c)	Access to Health, Employment, Education	To improve accessibility to health facilities, employment & education facilities	To improve access to health facilities in the Bristol Health Services Plan	70% of households, who live within 30 minutes travel time by public transport of those health facilities in the Bristol Health Service Plan	75% of households	75-78% of households	Further increases in the percentage of households would be expected	Accessibility Model
				78% of households without access to a car who live within 60 minutes travel time by public transport of	82% of households	82-84% of households	Further increases in the percentage of households would be expected	

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					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
				those health facilities in the Bristol Health Services Plan				
			To improve access to education facilities	79% of households who live within 40 minutes travel time by public transport from key employment sites	80% of households	80-82% of households	Further increases in the percentage of households would be expected	
			To improve access to key employment sites (those with 5,000 jobs or more + Bristol International Airport)	81% of 16-19 year olds who live within 30 minutes travel time by public transport from a further education establishment	To be determined following further partnership work	To be determined following further partnership work but improved access will be delivered	To be determined following further partnership work but improved access will be delivered	
				95% of 16-19 year olds who live within 60 minutes travel time by public transport from a further education establishment	To be determined following further partnership work	To be determined following further partnership work but improved access will be delivered	To be determined following further partnership work but improved access will be delivered	
				All accessibility baseline targets				

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					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
Change in area-wide road traffic mileage (LTP2)	Million vehicle kilometres per year in the area	To tackle congestion: manage the demand for travel by the private car	Restrict level of traffic growth between 2004 and 2010 across the JLTIP area	are based on 2004/05	Restrict growth to 12.0% i.e. cap growth at current levels - based on current forecasted traffic growth in plan area	Restrict growth to between 9.0% and 11.0% i.e. reduce predicted growth by 1.0% across the plan period	Restrict growth to between 9.0% and 11.0% i.e. reduce predicted growth by 1.0% to 3.0% across the plan period	National traffic census data from DfT (National Road Traffic Survey Data)
Number of cycling trips (LTP3)	Cycling trips at a representative number of counting points	To tackle congestion: promote use of alternatives to the private car	Increase level of cycling across the JLTIP area between 2003/04 and 2010/11	100 (Cycle trips converted to an annualised index starting at 100).	130. Increase cycling by 30%	140. Parts of MSB infrastructure facilitate and support cycling, so a larger increase would be achievable	150 or more. Increased resources and impact of demand management would allow greater impacts to be made	Representative sample of Automatic Cycle Counts and strategically selected Manual Counts
Mode share of journeys to school (LTP4)	Mode share of journeys to school	To tackle congestion: encourage more sustainable patterns of travel behaviour	No increased use of the car up to 2010/11	2007 baseline to be established as advised in DfT guidance of 9th June 2005.	Minimum DFT standard, i.e. no increase in car use as a proportion of total but will be reviewed once baseline data available	Minimum DFT standard. Limited impact of MSB. However reallocation of funding could allow further progress to be made	Reduce car use as a mode split. Could be some scope for impact through resources on measures such as school buses	Pupil level annual schools census (DfES's PLASC system to be confirmed)
Bus punctuality (LTP5)	Percentage of scheduled services arriving	To tackle congestion: promote use of alternatives to the	For timetabled services, the 2010 target will be	66.5% of buses starting route on time	74.5% of buses starting route on time	For timetabled services, the 2010 target will be	Based on achieving 90% target by	Observations of bus departure

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					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management		
	one minute early to five minutes late (or excess waiting for frequent services)	private car	based on a trajectory of meeting a 90% or 1.25 minutes excess waiting time target by 2014/15	51.5% of buses on time at intermediate timing points 40.1% of buses on time at non-timing points 2.92 minutes excess waiting time on frequent services	64.6% of buses on time at intermediate timing points 57.1% of buses on time at non-timing points 1.85 minutes excess waiting time on frequent services	based on a trajectory of meeting a 90% or 1.25 minutes excess waiting time target by 2012/13 rather than 2014/15	2012/13. Timescales required for implementation mean that extra benefit within this timeframe is unlikely	times at representative sample of bus stops	
Changes in peak period flows to urban centres (LTP6)	Change in peak period traffic flows to urban centres (over 100,000 population)	To tackle congestion: manage the demand for travel by the private car	No change in peak period flow to Bristol City Centre	Index based on peak period traffic flow (private cars) - converted to an index starting at 100 (2004 baseline)	All bus punctuality targets are based on a 2005/06 baseline	100	100	The impact of demand management requires detailed modelling	Cordon counts
Congestion (LTP7)	Awaiting DfT guidance	To tackle congestion: manage the demand for travel by the private car	"On target routes, accommodate an expected increase in travel of x% with a y% change in journey times."	To be determined (2005/06 baseline)		To be determined but further benefits are expected	To be determined but further benefits are expected	To be determined but further benefits are expected	Locally collected journey time and vehicle occupancy information

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					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
Air Quality (LTP8)	Measurement of Nitrogen dioxide (NO ₂)	To improve air quality	To reduce the concentration of NO ₂ in local air quality	Bristol 48.0µg/m ³ Bath 53.3µg/m ³ All air quality indicators are based on a 2004 baseline	Bristol 46.0µg/m ³ Bath 47.0µg/m ³	Bristol 44.0µg/m ³ Bath 40.0µg/m ³	Further improvements would be expected though detailed modelling required to determine whether Bristol would also meet the 40ug/m ³ threshold.	Air quality monitoring
Local Indicators								
Rail (Local 1)	Passenger numbers (boarders)	To tackle congestion: promote use of alternatives to the private car	To increase rail patronage	100. Passenger trips converted to an index starting at 100	115	at least 118	at least 125	Passenger Counts
Park and Ride (Local 2)	Number of passengers (boardings) on park and ride services	To tackle congestion: promote use of alternatives to the private car	Increase the number of park and ride passenger journeys by 2010/11 based on 2003/04 levels	2.031M	2.355M	To be determined but will be higher	To be determined but will be higher	Data as supplied by the bus companies
Community Transport and Demand Responsive Services (Local 3)	Number of passengers (boardings) on community transport and demand responsive services	To improve accessibility to education facilities/ health facilities & employment	To increase the number of passenger journeys (boardings) on community transport and demand responsive services	263,000	397,000	No significant increase expected as a result of Major Scheme Bid funding	Some increase may be possible as a result of further funding but this would have to compete with other priorities	Data as supplied by the service providers

Indicator	Definition	Relevant JLTP Objective	Target	Baseline (2003/04 unless otherwise stated)	Projected Outcome for 2010/11 based on			Source of Data
					Financial Guideline Only	Financial Guideline + 2 Major Schemes Bids	Financial Guideline + 2 Major Scheme Bids + Demand Management	
Regional Indicators								
Traveline data – timing point accuracy (Regional 1)	Traveline data completeness and accuracy measurement, to timing point level	To tackle congestion: promote use of alternatives to the private car	To provide accurate public transport journey data	100% (2005/06 baseline)	100%	100%	100%	Data supplied from Traveline
Traveline data – bus stop accuracy (Regional 2)	Traveline data completeness and accuracy measurement, to all stop level	To tackle congestion: promote use of alternatives to the private car	To provide accurate public transport journey data	94% (2005/06 baseline)	99%	99%	99%	Data supplied from Traveline
Traveline - verified Traveline data (Regional 3)	Verified Traveline data	To tackle congestion: promote use of alternatives to the private car	To provide accurate public transport journey data	60% (2005/06 baseline)	90%	90%	90%	Data supplied from Traveline

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12.2.3 The Best Value and Local Transport Plan mandatory and local targets outlined in Table 12.2 will form the basis for measuring progress towards meeting the JLTP's Shared Priorities and asset management objectives. The thinking behind these targets is outlined below. Table 11.2 in Chapter 11 illustrates how different block elements of the implementation programme contribute to meeting the targets. It is critical that we deliver the programme. Failure to do this will have a major impact on our ability to meet the JLTP targets. Targets are both ambitious and realistic with evidence drawing upon modelling, local experience from LTP1 and historical trends as well as an evaluation of the impacts of the proposed interventions.

Congestion-Related Targets

Congestion Target (LTP7)

12.2.4 We have been working closely with the Department for Transport and the nine other large urban areas identified to report on congestion to develop an appropriate indicator (LTP7). Through the Congestion Monitoring Working Group, DfT and the local authorities have agreed a suitable indicator for monitoring congestion. This is an indicator of average journey time per person per mile expressed in the form of:

“On target routes, accommodate an expected increase in travel of x% with a y% change in journey times.”

12.2.5 This indicator measures both changes in private car journey and public transport journey times compared with changes in the overall number of people travelling both by private and public transport.

12.2.6 In consultation with the DfT a representative sample of routes was identified across the Greater Bristol area. These eight routes are set out in Figure 12.1 and form the base for monitoring this indicator. Extensive surveys have been carried out on these routes including private vehicle journey times. It had been hoped that the national ITIS database

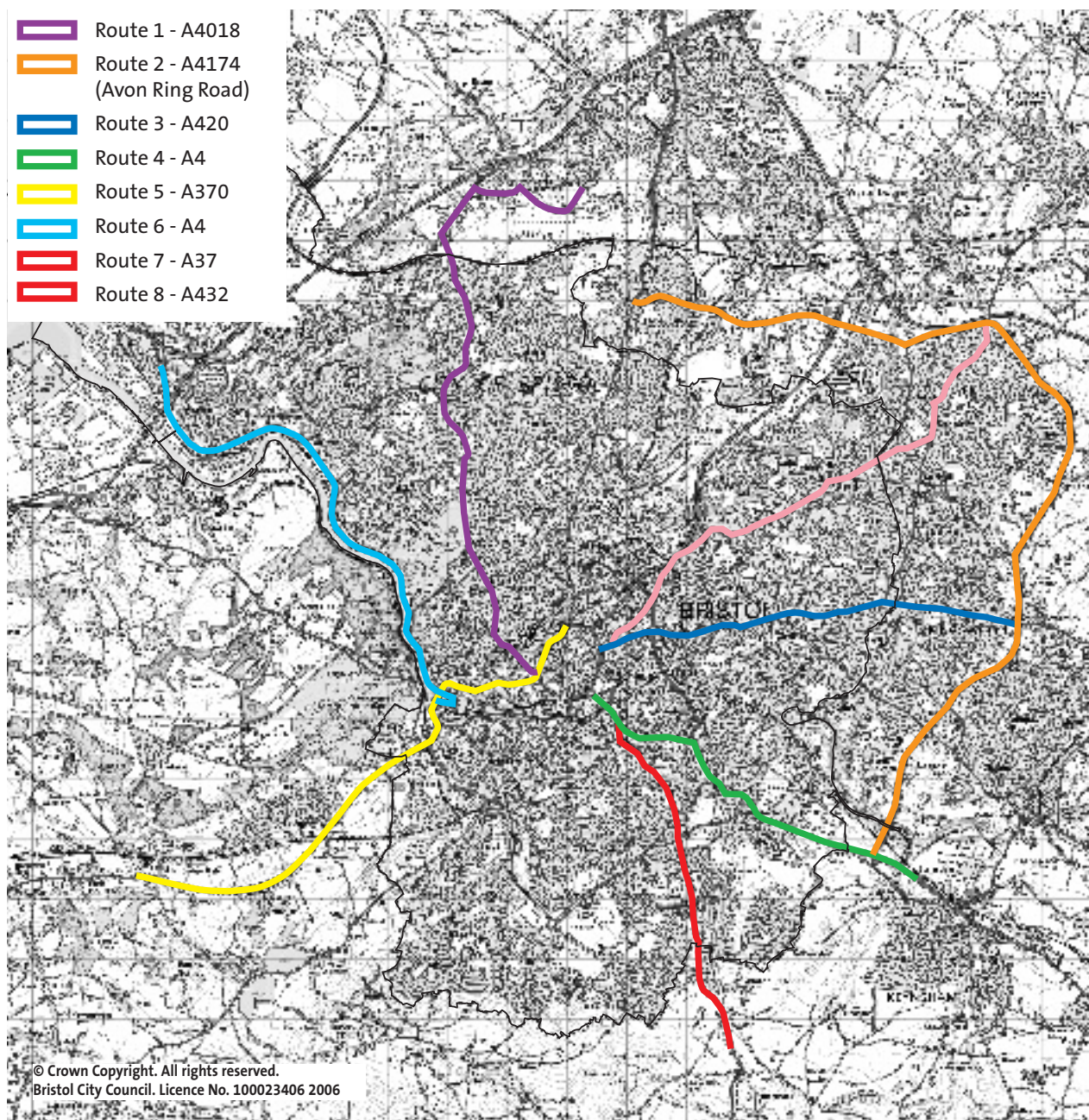
could provide information for this element of the indicator. Delays, however, in the delivery of this data means that the indicator will be developed using this locally collected information. As agreed with DfT, a target and trajectory will be shown as part of the LTP Delivery Reports to be submitted in July 2006, rather than setting a target in this JLTP.

12.2.7 The data collected on the selected routes, comprising of journey times (for both private vehicles and buses), traffic flows, bus patronage and car occupancy, are being analysed to provide the 2005/06 base year figure. This will be reported in July 2006.

12.2.8 The strategy to address congestion as set out in this Plan, is being assessed as to its impacts on the target routes. This is being done through an Emme2/Saturn multi-modal transport model of the Bristol urban area. The model will provide robust evidence of how the interventions set out over the five years of the Plan are likely to impact on each of the eight routes. This is in terms of forecast growth in private and public transport trips and associated journey times. These forecasts will be combined and reported as one indicator with associated targets and trajectories in LTP Delivery Reports in July 2006.

12.2.9 Monitoring of the routes will be conducted annually over the life of the JLTP, supplemented by ITIS data when appropriate. These results will be used to monitor the effectiveness of the delivery of the congestion strategy. Feedback from this monitoring will be used to manage the delivery programmes, providing evidence on which to base any re-prioritisation of resources in future years if necessary. Achieving targets to limit growth in area-wide road traffic mileage (LTP2) and peak period flows to urban centres over 100,000 population (LTP6) helps meet JLTP objectives for tackling congestion and managing the demand for travel by the private car.

Figure 12.1 - Congestion Monitoring Routes. (LTP7)



Area-Wide Traffic Mileage Target (LTP2)

12.2.10 The target to limit growth in area-wide road traffic mileage (LTP2) has been set at 12% and has been derived from traffic models held by the four Councils. This is more stretching than the 12.9% target set out in the Provisional Plan and reflects further modelling work on the likely impacts of the plan on traffic growth in the JLTP plan area. The results of the most recent consultation also supported more challenging congestion-related targets. The target includes traffic on the motorways, which is controlled by the

Highways Agency, and takes account of the recent construction of climbing lanes on the M4/M5.

12.2.11 If the Greater Bristol Bus Network and Bath Package Major Scheme Bids were successful then the growth in area-wide traffic mileage would be reduced to 11%. This modest reduction is because the impact of these schemes is concentrated on growth into the city centres rather than area-wide traffic growth. Table 12.3 shows a linear trajectory for this target and assumes indicative levels of funding.

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Table 12.3 - Area-Wide Vehicle Kilometres Target and Trajectory (LTP2)

Change in area wide total traffic mileage	Millions of vehicle kilometres	Year	2004	2006	2007	2008	2009	2010 JLTP Target
		Baseline						
		Trajectory	9,067	9,430	9,611	9,792	9,974	10,155

Table 12.4 - Bristol City Centre Peak Period Traffic Flow Target and Trajectory (LTP 6)

Change in peak period flows to urban centres	Index of peak period traffic flow (private cars) into Bristol City Centre (0700-1000)	Year	2003/04	2006/07	2007/08	2008/09	2009/10	2010 JLTP Target
		Baseline						
		Trajectory	100	100	100	100	100	100

12.2.12 Change in peak period flows to urban centres (over 100,000 population) (LTP6) has been modelled. This shows that a 8.1% growth in traffic is likely. It compares with the nationally defined minimum target of no increase, which with planning guideline funding is going to be extremely challenging to meet. Even if the £70M Greater Bristol Bus Network Major Scheme Bid is successful then the modelling has suggested that growth in peak period traffic would be reduced to 6.8%. This target applies to Bristol as this is the only centre in the JLTP area with a population of over 100,000. The target focuses on the peak period between 07:00 and 10:00.

12.2.13 Pressures on this target becomes most acute post-2008 when the redevelopment of Broadmead is complete. This significantly increases the retail size and attractiveness of Bristol City Centre. The target and trajectory are shown in Table 12.4 and assume the planning guideline only though Major Scheme funding is unlikely to lead to a more stretching target being adopted. We would welcome discussions on revising this target because we are concerned that this target is unrealistic and we are likely to fail it.

Public Transport Targets (BVPI102; BVPI104 and LTP5)

12.2.14 Targets for congestion also relate to public transport. For public transport the two Best Value indicators BVPI 102 and BVPI 104 (go to Tables 12.5 and 12.6) relate directly to the number of people using the services across the JLTP area, and how satisfied they are with the service. Modelling work for the Major Scheme Bids suggests that 3% growth is a stretching target at current funding levels. This is supported by experiences from the first LTP period where investment had allowed the decline in patronage to be halted and growth of a few percentage points to be achieved by 2004. Similar



Bus rail interchange at Bristol Temple Meads

Table 12.5 - Public Transport Patronage Target and Trajectory (BV102)

Number of bus passenger journeys	Thousands of bus passenger journeys (i.e. boardings)	Year	2003 /04	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 JLTP Target
		Baseline	Trajectory					
			55,226	55,226	55,502	56,057	56,337	56,883

Table 12.6 - Satisfaction with Bus Services Target and Trajectory (BV104)

Satisfaction with bus services	% of respondents expressing satisfaction	Year	2003/04	2006/07	2009/10 JLTP Target
		Baseline	Trajectory		
			38%	41%	44%

levels of investment are planned for the JLTP period. GBSTS also indicated that achieving patronage growth will be difficult. Growth of only 0.04% by 2016 is predicted at do minimum funding levels. This study showed that meaningful levels of growth required funding at the level of the Major Scheme Bids. At planning guideline of funding 3% will be challenging.

12.2.15 Since this modelling work has been completed, there have been major external factors that have needed to be considered. The first is the 30-40% increase in bus fares on services operated by the major operator in the last year (reportedly due to the increase in global oil prices and increased insurance premiums), which has led to a decline in patronage. The second has been the announcement of the introduction of free concessionary fares, which is expected to increase patronage by 5-10% nationally. Analysis has shown that in this area the impact of these factors roughly cancel each other out. Free concessionary fares will not be introduced until April 2006 so the impact of these is still uncertain.

12.2.16 Modelling suggests that successful Major Scheme Bids would allow 12% growth in patronage. This is supported by GBSTS. Table 12.5 shows the planned trajectory for public transport patronage and is based upon planning guideline only. The trajectory is non-linear to take account of

the actual decline in public transport use since 2003/04 and the anticipated growth from 2006/07. This growth is due to the introduction of concessionary fares when patronage levels are expected to have returned to 2003/04 levels. Growth from 2006/07 is non-linear to reflect the implementation programme (go to Chapter 11) and the completion of key showcase corridor improvements in 2008 and 2010.

12.2.17 People's overall satisfaction with bus services reflects a range of issues from cleanliness of vehicles to punctuality to fares. The JLTP can influence some but not all of these. Our recent experience shows that achieving bus satisfaction improvements is very difficult. It declined between 2000/01 and 2003/04 despite increased patronage over the same period. It should be noted that responses to satisfaction surveys do not come solely from those respondents who use the service.



Catching the bus in Thornbury

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12.2.18 Our implementation programme includes improvements to those elements that we can affect. Other factors, however, such as fares also play a part. We have not been able to identify a robust methodology that is able to link particular investments in bus services to improvements in satisfaction. We consider, therefore that the minimum standard of a 6% improvement (as our satisfaction is below 50%) is all that is likely to be achieved given our recent experience. We will review this target following the completion of satisfaction surveys in 2006/07. Again, in the absence of an established methodology a linear trajectory has been assumed. Major Scheme funding would allow more significant improvements, although these would not be realised until the end of the plan period as the improvements were completed.

12.2.19 In order to overcome the issue of each authority having to collect and report its own Best Value data, and following the advice of GOSW, the satisfaction target for the JLTP has been weighted according to population in each authority's area. In this way we ensure that we have a representative view of satisfaction across the entire JLTP area. Table 12.6 shows the planned trajectory for public transport satisfaction and is based upon the planning guideline only.

12.2.20 Bus punctuality targets have now been developed following the collection of baseline data in Autumn 2005. Around 10,000 individual observations were completed and targets and trajectories have been developed in accordance with DfT guidance. These require targets for 2010/11 to be developed based on the achievement of 90% punctuality by 2014/15. For high frequency routes (10 minutes or less) we have based the target and trajectory on achieving the Traffic Commissioner's excess waiting time target of 1.25 minutes.

12.2.21 Bus punctuality in the JLTP area is generally poor with only two-thirds of services starting on time. Punctuality



Weston-super-Mare by bus

along bus routes can fall below half. These results reflect the significant levels of congestion in the area. The size of the Bristol urban area, with long bus routes, is also a factor with more opportunities for delay to occur. Shortening bus routes has been considered in the past but this has a detrimental impact on accessibility. Analysis has shown that achieving an improvement in bus punctuality at planning guideline levels of funding is going to be very challenging in the context of a likely further deterioration in congestion (LTP1); growth in area-wide traffic mileage (LTP2) and growth in traffic levels in to Bristol City Centre (LTP6). Modelling results also show that total delays will increase, a view supported by GBSTS, unless investment levels are significantly increased. Therefore the improvements in bus punctuality that we are aiming to achieve are stretching.

12.2.22 If we are successful with our Major Scheme bids then we would be able to develop even more challenging targets. Achieving these targets will be very challenging at guideline levels of funding and therefore it is assumed that additional resources will be available in LTP3 to meet the 2014/15 target. The targets are non-linear to reflect the implementation programme and the completion of key priority measures, particularly on the proposed showcase corridors. Targets and trajectories are shown in Tables 12.7 and are based on the planning guideline only.

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Table 12.7 - Bus Punctuality Targets and Trajectories (LTP 5)

Bus punctuality (% of scheduled services one minute early to five minutes late or excess waiting time for frequent services)	Indicator	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
		/06	/07	/08	/09	/10	/11	/12	/13	/14	/15	
		Baseline					Target					
	% of buses starting route on time	66.5%	67.5%	68.5%	70.5%	71.5%	74.5%	78.4%	82.3%	86.1%	90%	
	% of buses on time at intermediate timing points	51.5%	53.1%	54.8%	58.4%	60.0%	64.6%	71.0%	77.3%	83.7%	90%	
	% of buses on time at non-timing points	40.1%	42.2%	44.3%	50.5%	52.0%	57.1%	65.3%	73.5%	81.8%	90%	
	Average excess waiting time on frequent services (mins)	2.92	2.75	2.60	2.30	2.15	1.85	1.70	1.55	1.40	1.25	

Table 12.8 - Cycling Trips Target and Trajectory (LTP 3)

Number of cycling trips	Index of cycling trips at a representative number of counting points	Year	2003	2006	2007	2008	2009	2010	
			/04	/07	/08	/09	/10	/11	
		Baseline	JLTP Target						
		Trajectory	100	114	118	122	126	130	

Mode Share for Journeys to School Target (LTP4)

12.2.23 Mode share for journeys to school (LTP4) will be monitored using national datasets with the information expected to be available in 2007, as advised by the DfT in updated guidance on 9th June 2005. Until this data is available and understood the minimum standards are proposed.

Cycling Target (LTP3)

12.2.24 In accordance with DfT guidance, an Area Wide Cycling Target (LTP3) has been set using an annualised Index of Cycling Trips using a base year for 2003/04. Cycle data is recorded as an Annual Average Weekday Total (AAWT), acting as a proxy of cycling trips across the JLTP area. Information has been collected using both automatic cycle count sites and strategically selected

manual count sites. In total 54 sites have been used to calculate the cycling index of which 26 are automatic sites and 28 are manual count sites.

12.2.25 The Provisional JLTP proposed a target of a 15% increase in cycling from 2003/04 to 2010. This has been reviewed and a stretching target of 30% is now proposed. Partly this reflects additional information on actual growth in cycling during the first LTP period and the increase in investment in cycling planned during the LTP2 time frame compared to the first LTP. Views expressed through the consultation process also sought a more challenging target. A linear trajectory has been assumed due to the sustained and consistent approach to cycling that is planned. Table 12.8 shows the planned trajectory for the annualised index of

12. Targets and Indicators

Table 12.9 - Access to Health Facilities Target and Trajectory (LTP 1a)

Access to health services by public transport within 30 minutes	Indicator	2004 /05	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 JLTP Target
	Baseline						
	All households	70%	72%	73%	74%	75%	75%
	All households without access to a car	78%	79%	80%	81%	82%	82%

cycling trips and is based upon the planning guideline only.

Accessibility-Related Targets (LTP1)

- 12.2.26 Use will be made of the accessibility planning software 'Accession' to monitor progress for mandatory indicator LTP1. Targets have been developed in relation to access to health facilities (LTP1a) and employment (LTP1b). Baseline data has also been collected for educational facilities but discussions with education partners are still on-going with targets yet to be developed (LTP1c).
- 12.2.27 The access to health targets focus on journey times by public transport to those facilities identified in Bristol Health Service Plan (BHSP) along with the Royal United Hospital in Bath. Two targets have been developed based on access by all households in the JLTP area and by households without access to a car. Access to health facilities for those who don't own a car is better than for all households. This reflects that these people tend to be concentrated in urban areas where the majority of health facilities are also located.
- 12.2.28 Further details on the BHSP can be found in Chapter 6. A key component of this is to extend the number of health facilities across the plan area. This is essential to meeting the improved accessibility target, rather than transport interventions. Partnership working and delivery of the Bristol Health Service Plan to the proposed timetable is critical in achieving both the target and more importantly the trajectory. Table 12.9 shows the access to health targets and trajectories. The target

is non-linear to take into account the construction programme of the BHSP. Further improvement to these indicators is expected beyond the end of the JLTP as the final elements of the BHSP will be delivered in 2013/14.

- 12.2.29 The access to employment target focuses on public transport access (within 40 minutes) for all households to the major employment centres across the plan area. These are defined as locations with a workplace population of more than 5000. The only exception to this is the inclusion of Bristol International Airport as a major employment site. This reflects the importance of the airport to the sub-regional economy and its likely rapid expansion during the course of the plan period.
- 12.2.30 Improvements in access to employment are highly dependent on changes and enhancements to the public transport network, either through faster journeys (as a result of bus priority measures) or through revised or new services providing additional journey opportunities. These changes or enhancements can make a significant difference on a particular corridor.
- 12.2.31 Across the whole plan area, the impact of these improvements is more modest and therefore the target for improvement in access to employment for all households is 1% and is not expected to be achieved until the end of the plan period (when the cumulative impact of all the plan improvements will be felt). This 1% improvement represents an additional 4,100 households being within 40 minutes journey time by public transport

Table 12.10 - Access to Employment Target and Trajectory (LTP 1b)

Access to employment by public transport within 40 minutes	Indicator	2004 /05	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 JLTP Target
	Baseline						
	All households	79%	79%	79%	79.5%	79.5%	80%

Table 12.11 - Access to Further Education for 16-19 Year Olds Target and Trajectory (LTP 1c)

Access to further education for 16-19 year olds by public	Indicator	2004 /05	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 JLTP Target
	Baseline						
	30 mins	81%	TO BE DETERMINED				
	60 mins	95%	TO BE DETERMINED				

to the major employment locations of the plan area. Table 12.10 shows the access to employment target and trajectory and assumes guideline levels of funding. A more stretching target would be possible if the Major Scheme bids were funded.

12.2.32 We have been working with education partners to look at access to further education for 16-19 year olds. Baseline data has been calculated but a target and trajectory have not yet been established. This will be developed during the plan period. As well as considering transport improvements, the location and range of courses available at a particular educational establishment is also important. Table 12.11 shows the access to Further Education information as it currently stands.

Road Safety - Related Targets (BVPI99)

12.2.33 We are committed to ensuring that the number of KSI casualties is significantly reduced. A revised KSI target has been developed in the JLTP, (20% reduction on the 2001- 2004 baseline average by 2010). Similarly, a revised target has been developed to reduce KSIs involving children (25% reduction on the 2001- 2004 baseline average by 2010). These

targets have been amended slightly to reflect the latest DfT guidance and to ensure they both use a 2001- 2004 baseline average. These targets are challenging in the context of roads that are significantly safer than the UK average (see section 7.1).

12.2.34 We have chosen the 2001- 2004 average as a baseline as it addresses previous concerns about under-reporting of KSIs by the Police for at least part of the period 1994-98. A linear trajectory has been assumed to reflect the sustained investment of the road safety programme. Table 12.12 and Table 12.13 show the trajectories for the KSI and child KSI targets and are based upon planning guideline funding.



Beware children in Alveston

12. Targets and Indicators

Table 12.12 - Killed and Seriously Injured Target and Trajectory (BV99x)

Number of deaths and serious injuries	Number of people killed or seriously injured on public roads	Year	2001	2006	2007	2008	2009	2010	
			-04						
			Baseline						JLTP Target
		Trajectory	508	485	465	445	425	406	

Table 12.13 - Child killed and Seriously Injured Target and Trajectory (BV99y)

Number of children killed and seriously injured	Number of people killed or seriously injured on public roads	Year	2001	2006	2007	2008	2009	2010	
			-04						
			Baseline						JLTP Target
		Trajectory	57	51	49	47	45	43	

Table 12.14 - Slight Injuries Target and Trajectory (BV99z)

Number of slight injury casualties	Injuries recorded as slight on public roads	Year	2001	2006	2007	2008	2009	2010	
			-04						
			Baseline						JLTP Target
		Trajectory	3947	3947	3947	3947	3947	3947	

12.2.35 In 2004 the slight casualty rate of 44 slight injuries per 100 million vehicle kilometres was better than the UK average of 49 slight injuries. However the June 2005 DfT guidance advised that numbers of casualties should be used instead of rates per vehicle kilometre and that the 2001-2004 average would be more appropriate than the single year 2004. A target of no deterioration in the number of slight casualty numbers has been adopted with a linear trajectory. Table 12.14 shows the trajectory for slight injuries based upon the guideline funding only.

Air Quality-Related Targets (LTP8)

12.2.36 Improving air quality has a direct relationship with targets to reduce congestion. Indicators measuring the changes in peak period traffic flows (LTP6) and congestion (LTP7), once it is developed, will be used as supporting indicators along with the mandatory air quality indicator (LTP8).

12.2.37 Following the settlement letter from GOSW in December 2005, the air quality indicator has been revised so that it is based on Nitrogen Dioxide concentrations rather than the geographic area affected by Air Quality Management Areas. Separate targets for the Bristol and Bath Air Quality Management Areas have been developed. Both of these targets show an improvement in air quality over the course of the JLTP but at guideline levels of funding remain above the EU target of $40\mu\text{g}/\text{m}^3$ by 2010. See Table 12.15 for the air quality target and trajectory. These targets assume average weather conditions. Abnormally hot/ dry weather that lead to deterioration in air quality would not necessarily mean the target is not on-track. Should this occur then the Authorities would provide evidence that weather conditions have had an unusually high influence on the indicator.

12.2.38 We have identified the additional measures required to meet the $40\mu\text{g}/\text{m}^3$

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Table 12.15 - Air Quality Targets and Trajectories (LTP8)

μg of Nitrogen Dioxide/ M^3	Indicator	2004	2006	2007	2008	2009	2010
		Baseline					JLTP Target
	Bristol AQMA	48.0	47.3	47.0	46.7	46.3	46.0
	Bath AQMA	53.3	51.2	50.2	49.1	48.1	47.0

Table 12.16 - Road and Footway Condition Targets and Trajectories (BV223; 224 and 187)

Road condition (% where structural maintenance should be considered)	Indicator	Data source	2003 /04 Baseline (unless stated)	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 JLTP Target
	Principal Roads BV223	TRACS	33.9% (2004/05)	33.9%	33.9%	33.0%	32.0%	31.1%
	Non-principal Road BV224a	Will be based on TRACS	NOT AVAILABLE	TRACS BASELINE DATA UNAVAILABLE. TARGET NOT REQUIRED AS ADVISED BY DFT JUNE 2005. FUTURE TARGET LIKELY TO BE BASED ON NO DETERIORATION.				
	Unclassified Roads BV224b	Visual	15.9%	14.3%	14.3%	13.4%	12.4%	11.3%
	Footways BV187	Visual	27.5%	21.4%	21.4%	20.7%	19.9%	19.2%

target. In Bath this would be achieved by the Bath Package Major Scheme bid. In Bristol the Greater Bristol Bus Network (costed at £68M) would lead to a further improvement, but the national air quality objective would still be unlikely to be achieved (an improvement to $44\mu\text{g}/\text{m}^3$ is expected). To achieve $40\mu\text{g}/\text{m}^3$ then substantial further investment would be required or demand management measures would need to be introduced. These require detailed investigation and evaluation.

Asset Management-Related Targets (BVPI223; BVPI224 & BVPI187)

12.2.39 Targets for asset management are based around the Best Value Performance Indicators (BVPI) 223, 224a, 224b and 187. Assumptions of annual deterioration in road or footway condition for each indicator have been made with generalised costs for repair applied. Further assumptions regarding an

allowance for urgent repairs and the use of revenue funding have also been made. The Transport Asset Management Plan (TAMP) will be produced during the first year of the JLTP and efficiency savings should be seen from this new process by the end of year 2.

12.2.40 Taking these factors into account trajectories have been developed on this basis and are shown in Table 12.16. It is envisaged that during the first 2 years of the JLTP no deterioration will be seen on these targets but that following the introduction of the TAMP, and its processes, around 3% improvement will be seen on each of these targets in the last 3 years of the JLTP.

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Table 12.17 - Rail Trips Target and Trajectory (Local 1)

Number of rail trips	Index of rail trips based on passenger counts at stations	Year	2003 /04	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11
		Baseline						JLTP Target
		Trajectory	100	105	108	110	112	115

Table 12.18 - Park and Ride Trips Target and Trajectory (Local 2)

Number of bus passenger journeys	Thousands of park and ride passenger journeys (i.e. boardings)	Year	2003 /04	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11
		Baseline						JLTP Target
		Trajectory	2,031	2,147	2,179	2,236	2,295	2,355

Table 12.19 - Community Transport/ Demand Responsive Transport Patronage Target and Trajectory (Local 3)

Number of community transport/ demand responsive passenger journeys	Thousands of passenger journeys (i.e. boardings)	Year	2003 /04	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11
		Baseline						JLTP Target
		Trajectory	263	352	367	378	387	397

12.3 Local Indicators

12.3.1 In addition to the Best Value and Local Transport Plan mandatory indicators, there are a number of other local indicators that will provide a useful method of assessing progress (go to Table 12.2).

12.3.2 Currently it is proposed to adopt a local indicator relating to rail. Rail provides an alternative to the car and as such is a useful contributor to tackling congestion. Growth on the rail network has been consistently strong and is largely dependent on the rail industry. We work closely, however, in partnership with rail operators and Network Rail on planning investment. The target and trajectory assuming guideline levels of funding is shown in Table 12.17.

12.3.3 Local indicators in relation to park and ride and community transport have also been developed and relate to tackling congestion and accessibility respectively.

These reflect local priorities and respond to concerns regarding the lack of focus on these issues raised in consultation. We believe having specific targets focused on the desired outcome of increased patronage of these services addresses these concerns. Targets and trajectories are shown in Table 12.18 and 12.19 respectively.

12.3.4 A walking indicator was considered but has not been taken forward due to difficulties in achieving a robust and cost effective indicator that was representative of walking in the area. This is not considered to be a significant issue. Achieving other indicators will require successful promotion of walking, for example to bus stops/ rail stations or to school, once this indicator has been developed.

12.3.5 Following the revision of the mandatory air quality indicator, the proposed local indicator has also been dropped.

Table 12.20 - Traveline Data Target and Trajectory (Regional 1, 2 and 3)

Southwest Traveline data accuracy	Indicator	Data source	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 JLTP Target
	Baseline							
	Traveline data completeness and accuracy measurement, to timing point level (Regional 1)	Traveline	100%	100%	100%	100%	100%	100%
	Traveline data completeness and accuracy measurement, to all stop level (Regional 2)	Traveline	94%	95%	96%	97%	98%	99%
	Verified Traveline data (Regional 3)	Traveline	60%	65%	75%	80%	85%	90%

12.4 Regional Indicators

12.4.1 Stretching regional indicators relating to the provision of accurate public transport information have been developed in partnership (Table 12.20). These relate to the public transport information provided through the South West Traveline service that is jointly funded by all the local transport authorities in the South West through the South West TRIP consortium. High quality public transport information has long been recognised as being crucial to encouraging alternatives to the car and therefore is an important indicator in measuring the Councils approach to tackling congestion.

12.5.2 The risks identified in this section are largely external risks. There remains significant internal risk in scheme planning and performance management. These areas are covered in Chapter 11 (Implementation) and Chapter 13 (Performance Management).

12.5.3 Table 12.21 sets out each of the targets as they relate to the plan priorities (Note that although each indicator may relate to more than one priority area, it has only been included under one heading). For each of these the principal risks are identified and ways to mitigate them are suggested.

12.5 Risks Associated with Delivering LTP Targets

Introduction

12.5.1 This section investigates and identifies the potential risks that may affect our ability to meet our targets. By recognising the factors that could damage our performance, it is possible to look at ways to avoid or mitigate these risks so as to reduce their impact and ensure that trajectories are adhered to, and targets achieved.

12. Targets and Indicators

Table 12.21 - Summary of External Risks Associated with Targets

Target	Risks	Mitigation
Congestion		
LTP2	Increased commuting becomes necessary due to continued imbalance between the location of employment and housing within the plan area.	We will work to ensure that economic growth patterns (and employment land sites) are brought forward in line with housing allocations through the Local Plan and Local Development Framework processes.
LTP6	Fare increases on routes into Bristol rise sufficiently to make the car a more attractive mode. By increasing the attractiveness of Bristol City Centre (for example through redevelopment) it will encourage an increase in trips.	Little mitigation possible at local level. However, we will be working closely alongside the operators to increase patronage and therefore reduce the need to raise fares as much as possible. Significant emphasis is being placed on improving bus routes into the city centre through the submission of a major scheme bid. In addition to this, we will work with developers to secure funding for improvements.
LTP7	Target parameters as yet undefined.	
BVPI102	Fare increases across the plan area rise sufficiently to make other modes more attractive. The provision of cheap or free parking in district centres is not addressed. Rural Bus Subsidy grant being reduced or removed within the JLTP period. Free concessionary fares introduced in 2006/07 may impact on patronage differently to that predicted (i.e. not as big an increase as anticipated).	Little mitigation possible at local level. However, we will be working closely alongside the operators to increase patronage and therefore reduce the need to raise fares as much as possible. The two Councils that have not yet taken on decriminalised powers over parking have made a commitment to do so within the JLTP period. We will work closely with town and parish councils to deliver appropriate local parking policies. Work with DfT to establish a longer-term delivery arrangement for rural services. Removal of funding would lead to a review of all revenue-supported services and reprioritisation accordingly. Close liaison with operators immediately after implementation to gauge impact so as to inform the likely trajectory. This will provide the earliest opportunity to assess against the target and to review if necessary.

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Target	Risks	Mitigation
BVPI104	Fare increases impact on passengers' perception of satisfaction with the services.	Little mitigation possible at local level. However, we will be working closely alongside the operators to increase patronage and therefore reduce the need to raise fares as much as possible.
	Perceived journey reliability negatively affects users' satisfaction.	We will work with operators to implement bus priority measures where appropriate to ensure reliability. We will also publicise the results of our punctuality monitoring (LTP5) to highlight the efficiency of the services.
	Negative media coverage influencing public perception and satisfaction, impacting on survey results.	We have developed a communication strategy to help publicise and inform public understanding regarding the transport improvements and major scheme bids we are developing.
BVPI187	Negative press coverage of condition of footpaths.	We will continue to work with the local press to ensure accurate press coverage and will prioritise works to reduce likelihood of claims.
	Increase in third party claims reducing funds for improvement works.	
LTP3	Unseasonably bad weather affecting cycling take up.	We will be working with employers to ensure that appropriate facilities are available on-site for changing/drying and will be continuing with a publicity campaign to encourage and promote cycling.
	New developments being brought forward without sufficient provision to encourage or facilitate cycling.	We will work closely with planning departments to ensure that the development planning and control process takes into account strategic transport issues. We will also ensure that all new developments meet at least the minimum standards for provision of cycle parking.
	New routes dependent on CPOs.	We will continue to work with town and parish councils, and with local residents to resolve land issues at an early stage. Where necessary we will build in additional time for consultation on schemes that are known to be controversial.
LTP5	Increased congestion causing reductions in bus reliability.	We are continuing to work closely with the bus operators to identify and implement appropriate priority measures. The submission of the Greater Bristol Bus Network Major Scheme bid is indicative of the partnership approach and commitment to ensuring reliable, efficient services.

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Target	Risks	Mitigation
	Inconsiderate parking (for example in bus lanes obstructing traffic) causing delays and eroding bus priority time savings.	We will ensure that adequate enforcement is undertaken. As mentioned previously we are working to progress the uptake of decriminalised parking enforcement powers in the two Council areas that do not yet have them.
Local 1 (Rail)	Fare increases on the rail network encourage passengers to switch cars.	Little mitigation possible at local level. We will continue, however, to work in partnership with the rail industry to ensure that by facilitating increased patronage we can minimise the need to raise unregulated fares as far as possible.
	Lack of investment in rolling stock makes rail travel less attractive.	We will work with rail operators to ensure that our investment in improved access to stations is met with improvements on the network. Proposals to improve rolling stock as part of Greater Western franchise welcome.
	Reduction in capacity at peak periods leading to overcrowding.	Little mitigation possible at local level, however we will continue to work closely with the rail operators to highlight where this is causing a problem. Proposal to maintain local trains in Bristol area will help maintain peak period train availability.
	Introduction/manipulation of parking charges at railway stations impacting on attractiveness of rail as a mode of travel.	This has occurred in the past and has been resolved through discussion with the rail operator. We anticipate working closely with the new operator and will take the opportunity of the recent award of the franchise to readdress this issue to ensure both our objectives are met.
Local 2 (Park and Ride)	Increased congestion impacts on bus journey times from park and ride site.	We will be working to address congestion issues and will be considering priority measures on these corridors where appropriate.
	Reduction in parking charges or increased parking provision in the city centre make travelling by car more attractive.	Where parking charges are not under the control of the Councils, we will work with private operators to ensure consistency and accordance with the aims of our Parking Strategy.
	Introduction of free bus travel for pensioners means less choose to use the park and ride, instead using the bus for the entire journey.	Any modal shift to wholly bus use will be represented in target BVPI102 (bus patronage). However, any transfer from concessionary fare pass-holders is also an

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Target	Risks	Mitigation
		opportunity to re-market park and ride and encourage modal-shift to new users.
Regional 1,2,3	Under-performance of the Database Manager.	Active management of the Traveline (South West TRIP) consortium.
Road Safety		
BVPI 99x BVPI 99y BVPI 99z	Safety schemes are delayed or not delivered on the ground due to extensive consultation (and often traffic regulation orders) being required.	We will work closely with residents, parish and town councils to determine appropriate solutions to road safety problems. We will ensure sufficient time for adequate consultation by careful management and forward planning of the implementation programme.
	Accidents on Highways Agency controlled roads increase resulting in missing of the target.	Work with the HA to encourage the implementation of schemes to improve road safety on their roads.
	Despite implementing road safety schemes, accidents continue to occur due to the human error element in accidents.	In addition to 'hard' road safety measures, we will also be undertaking a programme concentrating on education, training and publicity to improve driver behaviour.
	Yearly figures fluctuating due to small figures (in absolute terms) for example child KSI measurements.	We will work to identify the background trends and will look at the potential for using rolling averages in discussion with GOSW.
Air Quality		
LTP8	Unusually hot/ dry weather leading to a deterioration in air quality.	Impossible to mitigate against but evidence will be presented on impacts of the weather. May lead to target being assessed as on track despite poor air quality results.
	Substantial increases in housing numbers undermine the effects of achieved modal shift to cause increase in pollution at hotspots on the road network.	As with Target LTP2 we will be working to link the pressures of growth in employment and housing to reduce the need for commuting. As part of our work to reduce congestion across the JLTP area, we will be tackling congestion at pressure points on the network. The implementation plan will be revised if air quality becomes an issue in a given location.
Accessibility		
LTP1a	Inadequate links from new housing sites to new and existing health facilities.	We will work closely with developers through the local Development Framework process to ensure sites are brought forward

12. Targets and Indicators

Target	Risks	Mitigation
		in appropriate locations and will seek to secure contributions from developers where off-site works are required to provide access.
	New NHS facilities being delayed or not implemented as planned.	We will continue our partnership working with the Primary Care Trusts to ensure that transport and accessibility issues are identified at an early stage. We will also seek to identify potential transport opportunities to assist where appropriate. The target may need to be revised if sufficient mitigation measures are not possible. This will be discussed with GOSW.
LTP1b	Housing allocation pressures lead to increased disparity between employment need and creation.	As mentioned under Targets LTP2 and LTP8, we will be working to link the pressures of growth in employment and housing to reduce the need for commuting.
LTP1c	Insufficient education facilities provided within major housing developments.	Ensuring transport and land-use planning objectives are complimentary and mutually supportive.
Local 3	Withdrawal of uneconomic services by bus operators increasing the area to be covered by community transport and demand responsive services.	Little mitigation possible at local level. Continual monitoring of the accessibility impacts of service withdrawals will allow us to target resources appropriately to secure the greatest impact with regards to supported transport.
LTP1a LTP1b LTP1c Local 3	Increasing costs of service provision prohibit the continuation or expansion of certain services.	This is likely to remain an issue given the lack of correlation between rises in the level of costs and funding. However, we will continue to work with the private and voluntary sectors to ensure that gaps in service provision are minimised where possible.
	Withdrawal or reduction in rural grants/ subsidy causing budget pressures which in turn impacts on service provision.	As mentioned against BVPI102 we will seek to work with DfT to establish a longer-term delivery arrangement for rural services. The removal of funding would lead to a review of all revenue-supported services (scheduled/ demand responsive and community transport) and reprioritisation accordingly. In addition, we will also be working with partner organisations to develop capacity and develop alternative income streams so they become less dependent on Government funding.

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Target	Risks	Mitigation
Quality of Life		
BVPI 223	Escalating costs reduce the number of deliverable schemes within maintenance budget constraints.	The condition of the road surface also has an impact on road safety. Where practicable we will be looking to tie together these two needs (for example ensuring maintenance schemes consider road safety improvements and vice versa) to achieve efficiencies.
BVPI 224a	Significant risk of failing to ensure adequate road surface quality, leading to increased third party claims against the four Councils.	As above.
BVPI 224b		