


# Greater Bristol Bus Network Major Scheme Business Case

## Appendix 4N Evaluation Plan

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## 4N.1. Introduction

### THE PURPOSE OF THE EVALUATION PLAN

4N.1.1 This Evaluation Plan presents the key stages and timescales covering a range of monitoring and evaluation processes and follows the guidance contained in 'The Evaluation of Major Local Transport Schemes (May 2006) in terms of the purpose and scope of the evaluation process. The Evaluation Plan seeks to ensure that:

- ◆ Scheme objectives can be expressed as outputs (tangible effects of the scheme) and outcomes (changes such as travel demand and quality of service);
- ◆ Performance indicators reflect the scheme objectives and wider objectives;
- ◆ Baseline outcome and output data are available or a timescale for their collection is identified;
- ◆ Ongoing data collection and analysis is undertaken efficiently, timely and in sufficient detail to inform both the GBBN implementation programme and future transport investment priorities;
- ◆ Assessment of risks to scheme implementation is informed by the growing evidence base and informs the ongoing implementation programme;
- ◆ Analysis includes consideration of how and why activities were carried out or if they could be done differently;
- ◆ Evaluation includes assessment of policy effectiveness, the considers the likely conditions had the scheme not been implemented; and
- ◆ Stakeholder and public opinion is understood, in terms of the process as well as the scheme itself, and that any appropriate messages can inform the ongoing implementation process.

### THE EVALUATION AND MONITORING PROCESS

4N.1.2 The 'Guidance to Local Authorities Seeking DfT Funding for Transport Major Schemes', states "evaluation is about objectively monitoring and assessing the outcomes of a decision or investment. An evaluation, therefore, is an independent quantitative and qualitative assessment of the processes of implementing a scheme and its impacts. Evaluating major schemes will help the Department meet its commitment to assess the impacts of its policies, and provide the Department and authorities with valuable evidence to inform future scheme development and decision-making".

### THE PURPOSE OF MONITORING AND EVALUATION

4N.1.3 Evaluation and monitoring are two distinct processes and the guidance on 'The Evaluation of Major Local Transport Schemes: A Guide' (May 2006), states that these terms are often misinterpreted, or assumed to perform one and the same function. The guidance notes that the value of evaluation lies as much in the questions that are asked

# ATKINS

as in the results that follow. This Evaluation Plan sets out the process and the purpose for monitoring, which cover:

- ◆ The implementation programme to ensure costs, timescales are managed effectively and disruption caused by implementation works is kept to a minimum for all residents, visitors, commuters and businesses;
- ◆ The emerging outcomes, to ensure the scheme delivers against its objectives; and
- ◆ The policy and process, to ensure that the wider benefits of the scheme are understood and that any lessons learned can be incorporated into future schemes and shared within the four Councils; with any other councils and stakeholders developing similar schemes; and with the DfT to ensure that public money is being invested in schemes that deliver real benefits cost-effectively.

4N.1.4 The guidance also expects evaluation to go beyond checking the accuracy of appraisal predictions, by assessing whether a scheme achieved its objectives, and whether there were any wider or unexpected results. It is intended that data gathered will benefit the GBBN, and future schemes designed and implemented by the four Councils. Table 4N.1 summarises the key stages which form the basis of the Evaluation Plan.

**Table 4N.1 – Key Stages of the Evaluation Plan**

Stage	Description
Identify Scheme Objectives	<i>The scheme objectives are set out in the MSBC.</i>
Evaluation scoping	<i>Evaluation scoping begins with this Evaluation Plan, the purpose and aims of which are described in this Evaluation Plan</i>
Identify and appraise baseline data	<i>Baseline data is identified. Gap analysis has been undertaken to ensure that scheme objectives and indicators are fully represented by the available data</i>
Collect required data	<i>Timescales and data sources are also identified in Section 3.</i>
Analysis and Reporting	<i>Section 3 outlines the proposed timescales for data analysis and evaluation.</i>

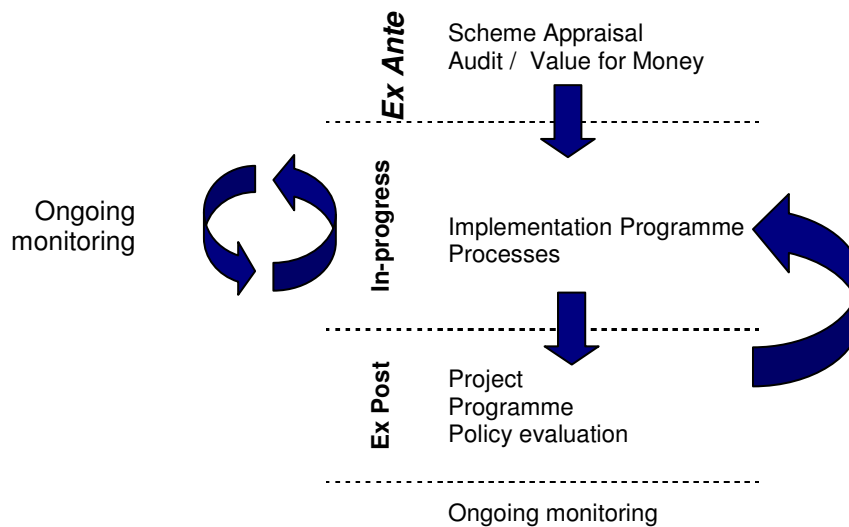
## 4N.2. The GBBN Evaluation Plan

### THE MONITORING AND EVALUATION PROCESS

4N.2.1 Monitoring and evaluation is an ongoing process which forms a natural progression from appraisal (modelling and forecasting) and audit (outcomes and value for money): The key stages are:

- ◆ In-progress reviews of the implementation programme and processes, including costs and outputs;
- ◆ Ongoing and post-scheme monitoring of emerging outcomes; and
- ◆ Post-implementation evaluation of the scheme aims and objectives and their place in the wider local and regional policy, including context.

**Figure 4N.1 - The Ongoing Monitoring and Evaluation Process**



4N.2.2 Evaluating major schemes in a holistic manner is a relatively new approach. Therefore it is important to work in partnership with other councils who are implementing similar evaluation plans and schemes. The DfT guidance will continue to form an important reference in taking forward the activities of the monitoring process, under the direction of the GBBN Evaluation Manager.

### MAXIMISING BENEFITS, MINIMISING PROBLEMS

4N.2.3 The DfT guidance on major schemes states that scheme evaluation should “identify any problems with the scheme and recommend potential improvements.” The GBBN covers ten corridors and will be delivered over a period of four years – there will be opportunities



# ATKINS

to improve on aspects of the implementation processes, programme management, and public outreach. The monitoring framework represented by this Evaluation Plan will ensure that lessons can be learned, and that a continual awareness and sharing of good practice can contribute to programme efficiencies and achieving maximum value for money from the substantial investment being made.

- 4N.2.4 The implementation programme has also been developed with the desire to achieve maximum benefits during the early years of the scheme, since early public impressions of the GBBN are likely to carry forward from the first corridor to the last.

## MANAGEMENT OF THE EVALUATION PROCESS

### Appointment of an Evaluation Manager

- 4N.2.5 An Evaluation Manager for the GBBN has been appointed in accordance with the DfT guidance. The GBBN Programme Board decided that the West of England Partnership Office (WEPO) would be the most appropriate organisation to provide the Evaluation Manager role. This is in keeping with WEPO's wider role of coordination and monitoring of the Joint Local Transport Plan to ensure consistency of methodology at sub-regional level. Bill Davies has been confirmed as the named individual for this role.
- 4N.2.6 The guidance states: *"The Evaluation Manager will need to define the Terms of Reference of the evaluation. This might include: goals; an outline scope (for later discussion); an outline analytical approach; criteria for assessing the quality of evaluation; availability of existing information sources; a draft work plan; and evaluation team selection. The Evaluation Manager would also be in charge of the tendering process (if applicable)".* The Evaluation Manager will also be responsible for managing the reporting process, which is outlined in section 4N.5. It will represent a key focus of communication for the:
- ◆ Project Board and Steering Group;
  - ◆ Provision of progress reports to Council Members and Officers;
  - ◆ Provision of feedback to DfT via the Government Office for the South West, and
  - ◆ Liaison with Stakeholders, special interest groups, local communities and the media.
- 4N.2.7 The Evaluation Manager will take into account the views and aspirations of relevant stakeholders when defining the full scope of the monitoring and evaluation process. The purpose and scope of evaluation will be reviewed by the Evaluation Manager throughout the implementation process. The Evaluation Manager will ensure that activities undertaken meet the Evaluation Plan objectives and answer the key questions which underpin them. This is a recent appointment, and therefore the Evaluation Plan will continue to evolve under the direction of the West of England Partnership and the project team.

## THE MONITORING PROCESS

- 4N.2.8 The monitoring process focuses on the key deliverables of each stage of scheme implementation, particularly the infrastructure and enhanced bus services delivered on



# ATKINS

the ground. The programme and the process itself will be monitored through the relevant milestone timescales and costs, as set out in the MSBC.

- 4N.2.9 To ensure that the monitoring process is cost effective, that data is consistent, and to avoid unnecessary duplication, data will be collected as part of the ongoing JLTP monitoring process. Where possible, and relevant, the data collected will be disaggregated to provide emerging outcomes for the individual corridors and the GBBN as a whole.
- 4N.2.10 Section 3 of this Evaluation Plan details the indicators and targets which have been set for the GBBN scheme. The GBBN indicators have been categorised against the JLTP objectives to ensure that all objectives are covered and that all indicators are directly relevant to the JLTP objectives. Since the GBBN will contribute towards achieving a number of the JLTP targets, the majority of GBBN targets are JLTP targets that have been stretched to take into account the GBBN’s anticipated contribution.

## THE EVALUATION PROCESS

- 4N.2.11 As highlighted in ‘The Evaluation of Major Local Transport Schemes’, the basis of an informative evaluation process lies in the questions that are asked, and having a purpose behind asking them. This guidance highlights that it can be difficult to define the scope of an evaluation process, and that areas of interest can change. The questions at this stage are indicative due to the current stage of the GBBN scheme; however they represent an initial view on the issues that will be relevant to evaluating the ongoing process, the achievement of scheme objectives, and eventually a post-scheme review of the contribution to local transport policies.

**Table 4N.2 - Evaluation Questions and Purpose (Initial Proposals)**

Stage *	Questions	Purpose
In-progress	Is the scheme delivering anticipated early benefits or negative impacts?	Ensure maximum positive outcomes are achieved
In-progress	Have bus operators improved services as part of the partnership - numbers of low floor buses, Real Time Passenger Information (RTPI) accuracy?	Ensure public sector investment is matched by planned bus operator contributions
In-progress and post-scheme	How is GBBN affecting modal choice?	Understanding the emerging impacts, and in particular how people have changed their travel behaviour
Process	Is the scheme being delivered to time and budget with minimum disruption in the locality?	Ongoing and post-scheme review, ensuring GBBN implementation is responsive, and future schemes can build on good practice and lessons learned

# ATKINS

Stage *	Questions	Purpose
Process	Where have cost efficiencies been realised or missed? How have outturn costs compared to estimates, and in particular to optimism bias and risk exposure?	Inform future scheme delivery and planning, particularly for cost estimates and risk awareness
Process and Outcomes / Outputs	Have public/stakeholder expectations and the media been met and managed – has communication been effective and could it be improved?	Helping to maximise positive perceptions  Developing an effective media relationship
Outcomes / Outputs and Policy	<b>Congestion:</b> Has congestion reduced and are journey times more reliable for buses and car users?	Are the emerging outcomes consistent with forecasts and expectations?
	<b>Environment:</b> Is air quality improving in Bristol (stretched target)?	Has the scheme and the policy (i.e. public transport improvements before demand restraint) addressed the full range of objectives, in particular on congestion, air quality and accessibility?
	<b>Accessibility:</b> Has accessibility improved to local services (LTP2 targets)?	
	<b>Safety:</b> Are the safety elements designed into GBBN leading to casualty reductions?	Understanding whether the safety improvements are effective or could be improved (allowing in-progress refinement on later corridors)
	<b>Sustainable Travel:</b> Has public transport patronage increased on strategic corridors and on other routes?  Have local bus patronage levels changed compared to previous trends and forecasts?  Are HOV percentages increasing?  Has cycling increased on the corridors?	Identifying good practice: has the scheme improved public perceptions and usage of buses? Does this have a knock on impact on other routes?  Increasing the technical understanding: are bus / HOV lanes effectively utilised and is it an efficient use of road space
Policy	Has the GBBN contributed to wider policies, particularly economic growth?	Understanding the impact of a major scheme on the wider range of corporate policies and priorities

4N.2.12 The proposed questions in Table 4N.2 will guide the development of the Evaluation Plan, and maintain focus on providing answers that will be useful to understand the extent to which the scheme has:

- ◆ Met its objectives and achieved the desired outcomes;
- ◆ Been efficient and cost effective in implementation; and
- ◆ Been consistent with expectations and policy.



# ATKINS

## 4N.3. GBBN Indicators and Targets

### INTRODUCTION

- 4N.3.1 This section sets out the indicators and targets that have been developed to monitor the GBBN. The indicators will provide the main focus for monitoring outcomes such as increases in bus patronage or service reliability, partnership outputs such as the number of low floor buses, and key infrastructure outputs such as the numbers of stops with RTPI.
- 4N.3.2 Data will also be required to monitor implementation of the scheme itself using relevant indicators to measure project costs, efficiencies and timescales.

### CATEGORISATION AND SUMMARY OF TARGETS AND INDICATORS

- 4N.3.3 To rationalise the GBBN indicators, the indicators were categorised against the objectives. This was to ensure that all objectives were covered and that all indicators were directly relevant to a scheme objective. Indicators have been sparingly selected so that the implementation programme is not hindered with unnecessary reporting processes. To rationalise the number of indicators a gap analysis has been undertaken to ensure consistency with the questions being asked, and that the indicators themselves are directly relevant to the GBBN scheme objectives.

### Rationalisation of indicators and targets

- 4N.3.4 This section summarises the indicators and targets which have been added, deleted and amended compared to the Programme Entry MSBC (July 2005) submission. The rationalisation process has also enabled the stretched targets presented in the Final JLTP to be reconsidered in light of the impacts of GBBN. The JLTP presents stretched targets resulting from the impact of “major schemes”, which includes the Bath Package in addition to the GBBN. Clearly some of the stretched targets would therefore not be achieved by the GBBN alone.

### Indicators Added

- 4N.3.5 Since Programme Entry in July 2005, Accession modelling has been used to produce the Final JLTP accessibility indicators; it has also become an important element in developing and delivering transport strategies and schemes. Targets have been developed in relation to access to health facilities (LTP1a) and employment (LTP1b). Baseline data has also been produced for educational facilities, however discussions with education partners are still on-going with targets yet to be developed (LTP1c). As part of the development of these targets it was considered how the GBBN will improve accessibility to local services.
- 4N.3.6 Accessibility to the Major Centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare’ has been added to the list of GBBN indicators since this monitors one of the GBBN/Bus Strategy objectives.



# ATKINS

- 4N.3.7 A JLTP local indicator relating to Park & Ride has been developed in relation to tackling congestion. The introduction of this indicator relates to the concerns regarding the lack of focus on this issue during the JLTP consultation. The Councils believe that having a specific target focused on the desired outcome of increased patronage on Park & Ride addresses this concern.
- 4N.3.8 The JTLP also proposes to adopt a local indicator relating to rail with a proposed stretched target taking into account both the GBBN and Bath Package major scheme bids.

### Indicators Amended

- 4N.3.9 The HOV indicator now measures the proportion of HOVs rather than journey times. This was considered to be a better reflection of impacts of new HOV corridors (on new HOV lanes there would be little continual improvement in journey time beyond the initial opening period, whereas numbers will hopefully continue to rise).

### Indicators Removed

- 4N.3.10 The Programme Entry MSBC suggested that the impact of GBBN could be measured by using some indicators which were adopted from the Provisional JLTP. A subsequent review of these indicators has demonstrated that many had little connection to the GBBN scheme. Other indicators had a broad connection to the GBBN, but were not aspects that GBBN could realistically influence in its own right. The indicators in Table 4N.3 have therefore been removed from the proposed evaluation and monitoring process, primarily for reasons of relevance to the fundamental questions being asked in the evaluation process.

**Table 4N.3 – Removed Indicators**

Indicator	Measure	Comment
Increase in public transport interchange opportunities	Increase bus satisfaction rate	Both of these targets are akin to the output targets common in the first LTP period. They would however be difficult to quantify, other than simply as a tick-box once each corridor and its associated bus service plan had been implemented. The major scheme bid proposed using bus satisfaction as a proxy for the measurement of these indicators, which would not be a suitable measure.
Increased cross-city Bus service levels		
On demand community service	To be added	Community transport targets were not directly relevant to these corridors and the inclusion of LTP2 accessibility targets was considered to relate to similar issues whilst being directly relevant to the GBBN network. The accessibility targets were added with stretched performance levels as the result of the major scheme.
Reduction in the fear of crime		



# ATKINS

Improve control of traffic flows and speed through VTM	To be added	These were considered to be not directly relevant to GBBN or not particularly meaningful to monitoring or evaluation of the major scheme. There were also no comparable LTP2 indicators and therefore no stretched contribution resulting from the Major Scheme. In particular, traffic management was considered to be better monitored through the other congestion and journey time targets.
Increase levels of pedestrian movements		A walking indicator was considered but was not taken forward in the final JLTP due to difficulties in achieving a robust and cost effective indicator that was representative of walking in the area. This is not considered a significant issue. Achieving other targets will require successful promotion of walking, for example to bus stops/rail stations or to school, once this indicator has been developed.
Investment in Low Floor Quality Vehicles		This is an output indicator. The investment in buses has been agreed with the bus operator First.

## GBBN Headline Indicators

4N.3.11 The GBBN headline indicators are those that monitor the objectives of the GBBN bid. The objectives for the GBBN bid are the same as those for the new JLTP Bus Strategy, which are to:

- ◆ Increase the number of bus passengers;
- ◆ Increase satisfaction with bus services;
- ◆ Improve bus reliability and punctuality and reduce bus journey times; and
- ◆ Increase the percentage of the population within 45 minutes journey time by bus of the major centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare.

4N.3.12 The GBBN objectives are therefore monitored by the following GBBN headline indicators:

- ◆ **Bus Patronage;**
- ◆ **Park and Ride Patronage;**
- ◆ **Satisfaction with Local Provision of Public Transport Information**
- ◆ **Bus User Satisfaction;**
- ◆ **Bus Punctuality; and**
- ◆ **Accessibility to the Major Centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare.**



BATH & NORTH EAST SOMERSET



ATKINS

JLTP Aims	To tackle congestion			To improve road safety		To improve air quality		To improve accessibility			To improve quality of life
	Promote use of alternatives to the private car	Encourage more sustainable patterns of travel behaviour	Manage the demand for travel by the private car	Ensure significant reductions in the number of the most serious road casualties	Achieve improvements for road safety for the most vulnerable sections of the community	Improve air quality in the Air Quality Management Areas	Ensure air quality in all other areas remains better than the national standards	Improve accessibility for all residents to educational services;	Improve accessibility for all residents to health services	Improve accessibility for all residents to employment	
JLTP Objectives											
Bus Patronage (BVPI 102)	✓	✓				✓		✓	✓	✓	✓
Park & Ride Patronage (Local 2)	✓	✓				✓		✓	✓	✓	✓
Satisfaction with Local Provision of Public Transport Information (BVPI 103)	✓	✓				✓		✓	✓	✓	✓
Bus User Satisfaction (BVPI 104)	✓	✓				✓		✓	✓	✓	✓
Bus User Satisfaction on the GBBN Corridors	✓	✓				✓		✓	✓	✓	✓
Bus Punctuality (LTP5)	✓	✓						✓	✓	✓	✓

JLTP Aims	To tackle congestion			To improve road safety		To improve air quality		To improve accessibility			To improve quality of life
	Promote use of alternatives to the private car	Encourage more sustainable patterns of travel behaviour	Manage the demand for travel by the private car	Ensure significant reductions in the number of the most serious road casualties	Achieve improvements for road safety for the most vulnerable sections of the community	Improve air quality in the Air Quality Management Areas	Ensure air quality in all other areas remains better than the national standards	Improve accessibility for all residents to educational services;	Improve accessibility for all residents to health services	Improve accessibility for all residents to employment	
<b>JLTP Objectives</b>  <b>Accessibility to the Major Centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare</b>	✓	✓				✓		✓			✓
	✓	✓				✓					✓
	✓	✓				✓					✓
<b>Rail Patronage (Local 1)</b>	✓	✓						✓			✓
<b>Congestion (LTP7)</b>	✓					✓					✓
<b>Change in Area-Wide Road Traffic Mileage (LTP2)</b>	✓	✓	✓				✓				✓
<b>Proportion of High Occupancy Vehicles (HOV) on corridors</b>	✓	✓	✓			✓	✓				✓



JLTP Aims	To tackle congestion			To improve road safety		To improve air quality		To improve accessibility			To improve quality of life
	Promote use of alternatives to the private car	Encourage more sustainable patterns of travel behaviour	Manage the demand for travel by the private car	Ensure significant reductions in the number of the most serious road casualties	Achieve improvements for road safety for the most vulnerable sections of the community	Improve air quality in the Air Quality Management Areas	Ensure air quality in all other areas remains better than the national standards	Improve accessibility for all residents to educational services;	Improve accessibility for all residents to health services	Improve accessibility for all residents to employment	
JLTP Objectives	Accessibility to Health	✓	✓						✓		✓
	Accessibility to Employment	✓	✓							✓	✓
	Accessibility to Education	✓						✓			✓
	Air Quality (LTP8)	✓	✓	✓							✓
	Number of Cycling Trips (LTP3)	✓	✓	✓				✓			✓
	Number Killed or Seriously Injured (all ages) (BVP1 99x)				✓	✓					
Number of slight injury casualties				✓	✓						✓



BATH & NORTH EAST SOMERSET



ATKINS

JLTP Aims  JLTP Objectives  (BVPI 99z)	To tackle congestion	Promote use of alternatives to the private car	To improve road safety	Ensure significant reductions in the number of the most serious road casualties	To improve air quality	Improve air quality in the Air Quality Management Areas	To improve accessibility	Improve accessibility for all residents to educational services;	To improve quality of life
		Encourage more sustainable patterns of travel behaviour		Achieve improvements for road safety for the most vulnerable sections of the community		Ensure air quality in all other areas remains better than the national standards		Improve accessibility for all residents to health services	
		Manage the demand for travel by the private car		Improve air quality in the Air Quality Management Areas	Improve accessibility for all residents to employment				
	Ensure that quality of life is improved through the other shared priority objectives								



# ATKINS

## GBBN INDICATORS AND TARGETS

4N.3.13 The tables presented in this section set out the GBBN indicators and targets covering the following aspects of data:

- ◆ What is being monitored and evaluated:
  - The headline indicator to be evaluated;
  - The target to be measured and monitored; and
  - The baseline level (or the timescale for collecting the baseline data).
- ◆ How it will be monitored:
  - The data source;
  - The review period, representing the data collection and internal assessment; and
  - The reporting process, representing the frequency, method and audience for progress reports.
- ◆ Awareness of the risks:
  - An indication of risks to the target itself; and
  - An indication of risks to the monitoring or evaluation process.
- ◆ Related issues:
  - Links to LTP2 targets; and
  - Notes of any related issues.

4N.3.14 Many of these aspects are discussed in the JLTP in more general terms as appropriate to the corresponding JLTP targets. The following tables are typically more specific to the GBBN scheme and the issues for the targets and monitoring processes as relevant to the GBBN corridors.

### *'What is being monitored and evaluated'*

4N.3.15 This identifies the indicator, which will be the focus of the questions being asked in the evaluation process; the target, which represents the desired outcomes/outputs; and the baseline position from which the achievements will be measured and evaluated.

### *'How it will be monitored'*

4N.3.16 This identifies the frequency of the data collection process and the source of the data. Routine analysis will be undertaken as the data is collected, allowing the project team to respond to any emerging negative or positive issues. The reporting process identifies how frequently and by what means the analysis will be disseminated more widely to relevant stakeholders.

4N.3.17 As emphasised in the DfT guidance, it is important to have an accurate assessment of baseline conditions before any impacts of works on the ground distort elements such as



## ATKINS

traffic flow and route diversions. This section ensures that baseline or the timescale for obtaining it will meet this requirement.

- 4N.3.18 It was agreed at a meeting between the Councils that traffic surveys will be undertaken in October 2007. Delaying surveys until October 2007 will allow the roadworks associated with the Broadmead redevelopment to be completed.

### *Awareness of the Risks*

- 4N.3.19 This identifies issues that could impact on the achievement of the target specifically for the GBBN corridors (rather than presented more generically for LTP targets, as was appropriate in the JLTP). The awareness of risks also identifies issues which might potentially delay or disrupt the data collection process, or might change how the data will feed in to the evaluation process.

### *Related Issues*

- 4N.3.20 This is an opportunity to take note of the links to JLTP targets, and to identify any other issues.
- 4N.3.21 Note, where an indicator follows the exact methodology as its JLTP indicator equivalent, the same indicator prefix is used, for example BVPI 102 Bus Patronage.



Table 4N.4 – BVPI 102: Bus Patronage

Indicator		Bus Patronage	
Targets	Baseline or timescale for collection	Data Source	
<p><b>Target:</b> Bus passengers to increase by 10% in the Greater Bristol area by 2010/11 (to 60.749M)</p> <p><b>LTP Target without Major Scheme:</b> 3% increase (to 56.883M)</p>	55.226M (2003/04)	Data supplied by the bus companies.	
<b>Review Period</b>	Fare box data to be reported annually		
<b>Reporting Process</b>	Though JLTP Progress Reports		
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ A range of actions by bus operators including service withdrawals and fare rises</li> <li>◆ Frequency reductions by the operator reduce the attractiveness of the bus network</li> </ul>		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Chapter 4 of Full Approval Major Scheme Business Case sets out Quality Bus Scheme agreements developed in partnership with main bus operator First.</li> <li>◆ Patronage gains will reduce the need to increase fares.</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Bus operators refuse to provide data</li> </ul>		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Data sharing agreement with main bus operator</li> </ul>		
<b>Links</b>	BVPI 102 – Bus Patronage		
<b>Notes</b>	<p>Bus patronage (mandatory indicator BVPI 102) is a key JLTP indicator for monitoring the impact of the wider JLTP strategy. The impact of the GBBN will be monitored on a corridor basis before, during construction, and on completion of the GBBN - bus patronage data is shared with the Councils by First Group through a confidential data sharing agreement.</p> <p>The monitoring of this target will be complemented by the annual on-bus passenger surveys which will allow analysis of modal change and abstraction from other bus services, walking and cycling. Trends in bus patronage and abstraction will be monitored annually and discussed with operators to minimise and reverse any such impacts.</p>		



**Table 4N.5 – Local 2: Park & Ride Trips**

Indicator		Park & Ride Trips	
Targets	Baseline or timescale for collection	Data Source	
<p><b>Target:</b> To increase Park &amp; Ride patronage by 20% by 2010/11 to 2.437M</p> <p><b>LTP Target without Major Scheme:</b> 2.355M</p>	2.031M	Data supplied by the bus companies	
<b>Review Period</b>	Annual		
<b>Reporting Process</b>	Though LTP Progress Reports.		
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Failure to secure necessary powers to implement priority measures contained within GBBN</li> <li>◆ Introduction of free bus travel for pensioners mean less chose to use the park and ride, instead using bus for the entire journey.</li> </ul>		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Value Management work undertaken as part of Full Approval Major Scheme Business Case to ensure schemes within GBBN are robust and deliverable.</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Bus operators refuse to provide data</li> </ul>		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Contractual requirement to provide data</li> </ul>		
<b>Links</b>	Local 2 – Park and Ride Trips		
<b>Notes</b>			



# ATKINS

**Table 4N.6 – BVPI 103: Satisfaction with Local Provision of Public Transport Information**

Indicator		Satisfaction with Local Provision of Public Transport Information	
Targets	Baseline or timescale for collection	Data Source	
<p><b>Target:</b> BVPI 103. Target to increase satisfaction with public transport information</p> <p><b>LTP2 Target without major scheme:</b> This is not a JLTP target.</p>	<p>2006/07: Bristol – 34% Bath &amp; North East Somerset – 50% North Somerset – 42% South Gloucestershire – 42% Weighted baseline 41%</p>	<p>BV103 is monitored by the Councils via for their Corporate Plans.</p>	
<b>Review Period</b>	Triennial (but potential to increase frequency of data collection)		
<b>Reporting Process</b>	Through LTP Progress Reports		
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Lack of resources to ensure information is up to date at bus stops</li> <li>◆ Poor performance of Real Time Passenger Information systems</li> <li>◆ Inconsistent branding and marketing across for Councils</li> </ul>		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Resource planning undertaken has part of Full Approval Business Case</li> <li>◆ Robust specification and assessment of RTPI supplier</li> <li>◆ Marketing and branding strategy agreed as part of Full Approval Major Scheme Business Case</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Bias in surveys towards non-bus users</li> </ul>		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Sampling technique used nationally as part of regular surveys</li> </ul>		
<b>Links</b>			
<b>Notes</b>	See notes in Table 4N.7.		



Table 4N.7 – BVPI 104: Bus User Satisfaction

Indicator	Bus User Satisfaction	
Targets	Baseline or timescale for collection	Data Source
<p><b>Target:</b> Increase bus passenger satisfaction rate to 60%</p> <p><b>LTP2 Target without major scheme:</b> 44%</p>	38% weighed according to population across the four Councils (2003/04)	Triennial Best Value surveys
<b>Review Period</b>	Triennial	
<b>Reporting Process</b>	Through LTP Progress Reports.	
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Perception bus service fails to improve</li> <li>◆ Negative media coverage influencing public perceptions</li> </ul>	
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Quality Bus Scheme agreements contained within Full Approval Major Scheme Business Case to secure standards of customer services, infrastructure and maintenance.</li> <li>◆ A Marketing Plan (see Appendix 4M) has been produced ensure that a positive relationship with the media is established and maintained.</li> </ul>	
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Misrepresentative sample</li> </ul>	
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Risk accepted.</li> </ul>	
<b>Links</b>	BV104 – Bus Satisfaction	
<b>Notes</b>	Information is collected Corporately in line with Audit Commission guidance.	



Table 4N.8 – Bus User Satisfaction on GBBN Corridors

Indicator	Bus User Satisfaction	
Targets	Baseline or timescale for collection	Data Source
<b>Target:</b> Target to be developed once baseline data has been collected	To be collected in October 2007	On-bus user surveys
<b>Review Period</b>	Annual	
<b>Reporting Process</b>	Through LTP Progress Reports.	
<b>Risks to Achieving Target</b>	See Table 4N.7 – BVPI 104: Bus User Satisfaction	
<b>Mitigation of Risks to Achieving Target</b>	See Table 4N.7 – BVPI 104: Bus User Satisfaction	
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Unforeseen network circumstances (e.g. road works) skew surveys results</li> </ul>	
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ The Evaluation Manger will liaise with Traffic Managers and First to determine appropriate timing for surveys</li> </ul>	
<b>Links</b>	BV104 – Bus Satisfaction	
<b>Notes</b>	This indicator focuses on the GBBN corridors and therefore it is expected that the target will be more stretching than the Greater Bristol wide BVPI 104 Bus User Satisfaction target.	



Table 4N.9 – LTP5: Bus Punctuality

Indicator	Bus Punctuality	
Targets	Baseline or timescale for collection	Data Source
<p>74.5% of buses starting route on time</p> <p>64.6% of buses on time at intermediate timing points</p> <p>57.1% of buses on time at non-timing points</p> <p>1.85 minutes excess waiting time on frequent services</p> <p><i>Trajectories to be achieved by 2012/13</i></p> <p><b>LTP Target Without Major scheme:</b> trajectories to be achieved by 2014/15</p>	<p>66.5% of buses starting route on time</p> <p>51.5% of buses on time at intermediate timing points</p> <p>40.1% of buses on time at non-timing points</p> <p>2.92 minutes excess waiting time on frequent services</p>	<p>First to provide information from RTPI timing points.</p> <p>Bus priority improvement partnerships: on-going surveys.</p> <p>Bus reliability surveys being undertaken as part of general LTP monitoring package</p>
<b>Review Period</b>	6 monthly	
<b>Reporting Process</b>	Though LTP Progress Reports 6 monthly reports to the project team and bus operators	
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ General increase in traffic levels as a result of individual developments and / or increases in economic prosperity in the areas as a whole</li> <li>◆ Long term sustained benefits are unlikely to be realised until post-scheme. Overall reliability will largely be unchanged as reliability improvements on completed corridors are balanced by commencement of works on other corridors</li> <li>◆ Parking infringements in bus lanes and on other highway improvements worsen bus reliability</li> </ul>	
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Strong development control and workplace / school travel planning policies to limit traffic growth from generators / attractors</li> <li>◆ The Network Management Plan will assist in reducing the impact of construction on the rest of the network. Trajectory in Joint LTP demonstrates that the highest proportion of reliability benefits are realised post scheme completion.</li> <li>◆ Traffic Managers of all four councils will ensure that an appropriate level of enforcement is provided.</li> </ul>	



# ATKINS

Indicator	Bus Punctuality
	Decriminalisation of parking enforcement by the remaining two councils will significantly assist in this process. The councils will work closely with the operator to consider innovative enforcement techniques including camera enforcement. Surfacing treatment of bus stops will further discourage parking and loading infringements
<b>Risks to Monitoring and Evaluation</b>	♦ Data may be invalid if road works affect reliability monitoring surveys.
<b>Mitigation of Risks to Monitoring and Evaluation</b>	♦ Careful planning of monitoring timescales to ensure data collection plans take into account the programmed highway works.
<b>Links</b>	LTP5 – Bus Punctuality
<b>Notes</b>	
<p>Once the fleet is fitted with Real Time Passenger Information the Councils and First will also be able to monitor the reliability of bus journey times remotely using the RTPI system. As soon as the Councils are satisfied with the data and the bus network has sufficient coverage of RTPI equipped vehicles, a proportion of monitoring arrangements will be transferred to RTPI to minimise the cost and time involved in data collection.</p> <p>‘Before’ data was collected in the preparation of this bid.</p>	

**Table 4N.10 – LTP1: Accessibility to Health, Employment and Education Facilities**

Indicator	Access to Health, Employment and Education Facilities	
	Targets	Baseline or timescale for collection
75-78% of households within 30 minutes travel time by public transport of those health facilities in the Bristol Health Service Plan	70% (2004/05)	Accession Modelling
82-84% of households without access to a car who live within 60 minutes travel time by public transport of those health facilities in the Bristol Health Services Plan	78% (2004/05)	
80-82% of households who live within 40 minutes travel time by public transport from key employment sites (those with 5,000+ jobs or more + Bristol Airport)	79% (2004/05)	
% of 16-19 year olds who live within 30 minutes travel time by public transport from a further education establishment to be determined (target to be determined following further partnership work)	81% (2004/05)	
% of 16-19 year olds who live within 60 minutes travel time by public transport from a further education establishment (target to be determined following further partnership work)	95% (2004/05)	
<b>LTP2 Target Without Major Scheme:</b> <ul style="list-style-type: none"> <li>◆ Access to Health - 75% and 82% respectively (30 minutes and 60 minutes)</li> <li>◆ Access to Employment – 80%</li> <li>◆ Access to Education - target to be determined following further partnership work</li> </ul>		



# ATKINS

Indicator		Access to Health, Employment and Education Facilities
Review Period	Annual	
Reporting Process	Through LTP Progress Reports	
Risks to Achieving Target	Congestion and delays to buses may mean that in real traffic conditions (as opposed to Accession modelling) the predicted journey times are unachievable	
Mitigation of Risks to Achieving Target	<ul style="list-style-type: none"> <li>◆ GBBN scheme design protect bus services from increases in congestion</li> <li>◆ RTPI system allows more sensitive route scheduling to take account of remaining delay</li> </ul>	
Risks to Monitoring and Evaluation	<ul style="list-style-type: none"> <li>◆ Inaccurate data</li> </ul>	
Mitigation of Risks to Monitoring and Evaluation	<ul style="list-style-type: none"> <li>◆ Quality control checks on data</li> </ul>	
Links	LTP1a – Access to Health; LTP1b – Access to Education; and LTP1c – Access to Employment	
Notes	<p>These targets are based on journey times, and are therefore unlikely to show interim benefits until the scheme is completed and traffic flows return to normal throughout the Bristol area.</p>	



## ATKINS

**Table 4N.11 - Accessibility to the Major Centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare.**

Indicator		Access to Major Centres	
Targets	Baseline or timescale for collection	Data Source	
<p><b>Target:</b> % of households within 45 minutes travel time by public transport to the major centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare</p> <p>Target to be determined by October 2007</p> <p><b>LTP2 Target Without Major Scheme:</b> This is not a JLTP indicator.</p>	Baseline to be determined by October 2007	Accession Modelling	
<b>Review Period</b>	Annual		
<b>Reporting Process</b>	Though LTP Progress Reports.		
<b>Risks to Achieving Target</b>	Congestion and delays to buses may mean that in real traffic conditions (as opposed to Accession modelling) the predicted journey times are unachievable		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ GBBN scheme design protect bus services from increases in congestion</li> <li>◆ RTP1 system allows more sensitive route scheduling to take account of remaining delay</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Inaccurate data</li> <li>◆ Coding of destinations inconsistent</li> </ul>		
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>◆ Quality control checks on data</li> </ul>		
<b>Links</b>			
<b>Notes</b>	<p>This indicator is derived from the GBBN and JLTP Bus Strategy objective which is to: "increase the percentage of the population within 45 minutes journey time by bus of the major centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare".</p>		



Table 4N.12 – Local 1: Rail Patronage

Indicator	Bus Patronage	
Targets	Baseline or timescale for collection	Data Source
<p><b>Target:</b> 117 based on impact of GBBN Package</p> <p><b>LTP Target without Major Scheme:</b> 115 (Annualised Index)</p>	100 (Annualised Index)	Passenger Counts
<b>Review Period</b>	Annual	
<b>Reporting Process</b>	Though LTP Progress Reports.	
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Fare increases on the rail network discourage passengers</li> <li>◆ Lack of investment in rolling stock makes rail travel less attractive</li> </ul>	
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Little mitigation against fare increases, however the Councils will continue to work in partnership with the rail industry to ensure that by facilitating increased patronage we can minimise the need to realise unregulated fares as far as possible</li> <li>◆ The Councils 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 the Greater Western franchise are welcome</li> <li>◆ Promotion of bus routes that facilitate interchange between rail and bus will help the target to be achieved</li> </ul>	
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Annual snapshot survey</li> </ul>	
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Trend data monitored, repeat surveys if significant disparities identified</li> </ul>	
<b>Links</b>		
<b>Notes</b>	This is a Greater Bristol wide indicator. The GBBN will contribute to achieving the target by improving interchange opportunities between bus and rail.	



Table 4N.13 – LTP7: Congestion

Indicator		Congestion on Identified Corridors	
Targets	Baseline or timescale for collection	Data Source	
On target routes to accommodate an expected increase in travel of 5% with a 13% increase in journey times	Extensive car and bus journey time and occupancy surveys were undertaken in 2005 and 2006 supported by ITIS data, in order to establish a base line position for consideration of an appropriate target.	Car and bus surveys	
<b>Review Period</b>	Annual		
<b>Reporting Process</b>	Through LTP Progress Reports		
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ By increasing the attractiveness of Bristol City Centre (for example through redevelopment) it may encourage an increase in trips</li> <li>◆ Continuing increases in traffic growth so that the benefits of the GBBN are not “locked in”</li> <li>◆ Further employment in peripheral locations difficult to serve by bus continues to increase reliance on the private car</li> </ul>		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ A Congestion Delivery Plan and accompanying Risk Management System has been set up to keep track of risks in achieving the target and ensuring early and efficient mitigation</li> <li>◆ If progress is off track, there will be a need to re-direct resources from other areas to ensure progress is accelerated. For example, further signal junction remodelling and upgrading works may be necessary to deliver additional journey time benefits on GBBN corridors</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Specific data collection methodology may affect comparability of data between GBBN and other councils' schemes</li> <li>◆ Data may be invalid if road works affect the traffic monitoring surveys</li> </ul>		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Monitor congestion in line with DfT guidance and best practice</li> <li>◆ Careful planning of monitoring timescales to ensure data collection plans take into account the programmed highway works</li> </ul>		



# ATKINS

	<ul style="list-style-type: none"> <li>Monitoring of the Congestion Delivery Plan will be centrally coordinated by West of England Partnership Office Joint Transport Team to ensure consistent data collection methodology.</li> </ul>
<b>Links</b>	LTP7 – Congestion, Congestion Delivery Plan
<b>Notes</b>	<p>This target focuses on 8 key routes in the urban area and establishing a trajectory to 2011. For a map of the routes, see the Congestion Delivery Plan. The routes are:</p> <ul style="list-style-type: none"> <li>Route 1: A4018;</li> <li>Route 2: A4174 (Avon Ring Road);</li> <li>Route 3: A420;</li> <li>Route 4: A4;</li> <li>Route 5: A370</li> <li>Route 6: A4;</li> <li>Route 7: A37; and</li> <li>Route 8: A432.</li> </ul> <p>As agreed with the DfT the M32 has been excluded from this indicator due to the disruption arising from the expansion of Broadmead shopping centre, which would not enable accurate congestion monitoring to be undertaken.</p> <p>Early implementation of the GBBN would enable the congestion target to be reviewed and potentially made more stretching.</p> <p>Congestion will be regularly monitored on the 8 selected routes against the target trajectory and the results reported in updates to the Congestion Delivery Plan (a daughter document of the JLTP) at 6 monthly intervals.</p> <p>The target has been developed using the Bristol Area Transport Study Model, developed jointly by the four councils in conjunction with consultant Atkins, for a 2011 forecast year. The model includes both a highway model, simulating all main junctions in the Bristol urban area, and a public transport network model. The model also incorporates travel demand from future traffic growth based on car availability and trip purpose, and that generated by major housing and employment development sites planned in the city and surrounding area up to 2011.</p>



Table 4N.144– LTP2: Change in Area Wide Road Traffic Mileage

Indicator		Change in Area Wide Road Traffic Mileage	
Targets	Baseline or timescale for collection	Data Source	
<p>Restrict level of traffic growth between 2004 and 2010 across the JLTP area</p> <p>Target: Restrict growth to 11% i.e. reduce predicted growth by 1% across the plan period</p> <p><b>LTP2 Target without major scheme:</b> Restrict growth to 12% i.e. cap growth at current levels - based on current forecasted traffic growth in plan area</p>	9,067 million vehicle kilometres (2004)	National Traffic Census data from DfT	
<b>Review Period</b>	Annual		
<b>Reporting Process</b>	Through LTP Progress Reports.		
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Wider changes affect the schemes ability to meet bus patronage growth targets e.g. economic growth, car ownership, fuel prices, public transport fares</li> <li>◆ Increased commuting becomes necessary due to continued imbalance between the location of employment and housing within the plan area.</li> </ul>		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ The Councils 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 LDF processes.</li> <li>◆ There will need to be very strong planning and development control policy.</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	There are no immediate risks as the data supplied by DfT.		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	Not applicable.		
<b>Links</b>	LTP2 – Change in Area Wide Road Traffic		
<b>Notes</b>			



BATH & NORTH EAST SOMERSET



## ATKINS

The change in area wide road traffic mileage is a mandatory LTP target (LTP2). Monitoring will be undertaken as part of the annual progress report process, using national traffic census data from DfT. Evaluation will consider the change in traffic levels compared to forecasts (as part of the general review of forecasts), and will be able to compare the forecast impacts of GBBN with progress against the LTP2 target.



Table 4N.155 - Proportion of HOV Vehicles on Corridors

Indicator		Proportion of HOV Vehicles on Corridors	
Targets	Baseline or timescale for collection	Data Source	
Target to be set following baseline surveys	Surveys to be undertaken October 2007	Traffic surveys	
<b>Review Period</b>	Annual		
<b>Reporting Process</b>	Through LTP Progress Reports.		
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Lack of public awareness about HOV and lack of sufficient real incentives to car share</li> <li>◆ Insufficient enforcement</li> </ul>		
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Strong travel plan policy to provide incentives for car sharing</li> <li>◆ Close working with police and Traffic Managers to develop appropriate enforcement regime</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	Data may be invalid if road works affect the traffic monitoring surveys		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	Careful planning of monitoring timescales to ensure data collection plans take into account the programmed highway works		
<b>Links</b>	None		
<b>Notes</b>	Regular monitoring undertaken for the existing HOV lanes will be extended to cover the new GBBN lanes. Baseline surveys to be undertaken in October 2007.		

**Table 4N.16 – BVPI 99x and BVPI 99z: Number of Deaths and Serious Injuries (All Ages) and Number of Slight Injury Casualties**

Indicator	Number of Deaths and Serious Injuries (All Ages) and Number of Slight Injury Casualties	
Targets	Baseline or timescale for collection	Data Source
<p><b>Number of Deaths and Serious Injuries (All Ages):</b> 25% reduction on 2001-2004 average by 2010 (to 381).</p> <p><b>Number of Slight Injury Casualties:</b> 5% reduction on 2001-2004 average by 2010 (to 3750).</p> <p><b>LTP2 Target Without Major Scheme:</b> 20% (to 406) and no increase respectively (to 3497)</p>	<p>KSI: 508 (2001-2004 average)</p> <p>Slight: 3947 (2001- 2004 average)</p>	Stats 19 Data / LTP Road Safety Monitoring
<b>Review Period</b>	Annual (three year rolling average)	
<b>Reporting Process</b>	Though LTP Progress Reports.	
<b>Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ Despite implementing road safety schemes, accidents continue to occur due to the human error element in accidents.</li> </ul>	
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ In addition to 'hard' road safety measures, the Councils will also be undertaking a programme concentrating on education, training and publicity to improve driver behaviour.</li> </ul>	
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ None – data is provided through STATS19.</li> </ul>	
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Not applicable.</li> </ul>	
<b>Links</b>	BVPI 99x - Number of Deaths and Serious Injuries (All Ages); BVPI 99z - and Number of Slight Injury Casualties	
<b>Notes</b>	<p>The stretched Road Safety target reflects both the safety improvements which are designed into the scheme, and the reinvestment of savings from efficiencies and prioritisations in the public transport budget.</p> <p>2011 is the first reliable year of data, which is three years from scheme opening in 2008. Early interim benefits are therefore likely to be difficult to reliably quantify.</p>	



Table 4N.17 – LTP3: Number of Cycling Trips

Indicator	Number of Cycling Trips	
	Baseline or timescale for collection	Data Source
<p>Increase in cycling levels by 40% to 140 by 2010/11</p> <p><b>LTP2 Target without major scheme:</b> Increase in cycling levels by 30% to 130</p>	100 (annualised index).	Representative sample of Automatic Cycle Counts and strategically selected Manual Counts
<b>Review Period</b>	Annual, however cycling data will be reviewed quarterly by comparing data against the same quarter of previous years data	
<b>Reporting Process</b>	Through LTP Progress Reports.	
<b>Risks to Achieving Target</b>	Some of the increased patronage as a results of GBBN may be abstract from cyclists.	
<b>Mitigation of Risks to Achieving Target</b>	<ul style="list-style-type: none"> <li>◆ GBBN Scheme has been designed to provide benefits for cyclists wherever practical.</li> <li>◆ The Councils will also continue to promote cycling through a range infrastructure and educational initiatives. Especially for residents, schools and employers adjacent to the GBBN Corridors.</li> </ul>	
<b>Risks to Monitoring and Evaluation</b>	◆ Bad weather affecting surveys	
<b>Mitigation of Risks to Monitoring and Evaluation</b>	◆ The Councils will work 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. Also continuous monitoring using automatic cycle counters will ensure that the weather will have less of an effect on monitoring relative to one-off cycle counts	
<b>Links</b>	LTP3 – Number of Cycling Trips	
<b>Notes</b>	<p>Before-monitoring has been undertaken to provide a 2004/05 baseline for cycling.</p> <p>On-bus satisfaction surveys will include questions to ascertain modal change which will allow identification of whether passengers would previously have cycled, or would have cycled as part of multi-modal journey.</p>	

**Table 4N.18 - LTP8: Air Quality**

<b>Indicator</b>		<b>Air Quality (Bristol AQMA)</b>	
<b>Targets</b>	<b>Baseline or timescale for collection</b>	<b>Data Source</b>	
Reduction in the concentration of NO <sub>2</sub> compared with 2003/04 baseline  Bristol 44.0µg/m <sup>3</sup>  <b>LTP2 Target Without Major scheme:</b> Bristol 46.0µg/m <sup>3</sup>	Bristol: 48.0µg/m <sup>3</sup> (2004).	Air quality monitoring (18 permanent sites)	
<b>Review Period</b>	Annual		
<b>Reporting Process</b>	Through LTP Progress Reports.		
<b>Risks to target</b>	<ul style="list-style-type: none"> <li>◆ Air pollution from other sources or from increasing traffic congestion, particularly outside GBBN corridors.</li> <li>◆ Substantial increases in housing numbers undermine the effects of achieved modal shift to cause increase in pollution at hotspots on the road network.</li> </ul>		
<b>Mitigation of Risks to target</b>	<ul style="list-style-type: none"> <li>◆ We will be working to link the pressures of growth in employment and housing to reduce the need for commuting by car.</li> <li>◆ As part of our work to reduce congestion across the JLTP area, we will be tackling congestion at pressure points on the network.</li> <li>◆ The implementation plan will be revised if air quality becomes an issue in a given location.</li> </ul>		
<b>Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ Unusually hot/dry weather leading to deterioration in air quality.</li> </ul>		
<b>Mitigation of Risks to Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>◆ It is impossible to mitigate against the weather, however evidence will be presented against impacts of the weather and lead to the target being assessed as on track despite poor air quality results.</li> </ul>		
<b>Links</b>	LTP8 – Air Quality		
<b>Notes</b>	Air Quality assessments are being undertaken to support the wider JLTP work.  Only the Bristol AQMA has been included for the purpose of this target as the Bath AQMA is		



BATH & NORTH EAST SOMERSET



# ATKINS

outside of the GBBN corridors.

GBBN will support a wider package of measures aimed at tackling congestion, improving air quality and reducing the impacts of excessive traffic noise. Whilst it is difficult to disaggregate the results of this monitoring to assess elements of the JLTP in isolation estimates will be made of the impact that has been made by the GBBN scheme.

The GBBN target essentially represents a stretch to the LTP2 target. As an area-wide target, there are no specific risks beyond a failure to achieve the target patronage increases and traffic reductions. Risks for the area-wide target are discussed in the JLTP document.

Parts of the GBBN infrastructure facilitate and support cycling and hence the stretched target would be achievable. Data from individual cycle counters should also be analysed to determine the contribution of the different GBBN components that support cycling towards the overall cycling figure.

## 4N.4. Impact Evaluation

### INTRODUCTION

- 4N.4.1 This section sets out how GBBN outcomes will be assessed against the forecasts of what would have been likely to occur without GBBN implementation (the 'counterfactual'). GBBN outcomes are those which have been identified by monitoring the indicators presented in section 3 (eg increases in patronage and bus user satisfaction).
- 4N.4.2 Assessment against the counterfactual will enable the actual impacts of the GBBN to be quantified. As outlined in 'The Evaluation of Major Local Authority Transport Schemes', assessments against the counterfactual are preferable to assessments against the 'before' situation. This is because the 'before' situation does not include background changes which have taken place during the scheme implementation period, such as increased trips and traffic congestion as a result of new developments. In terms of the GBBN this is an important point as many background changes are expected throughout the four year programme; these changes would occur (to different extents) whether or not the GBBN is implemented.
- 4N.4.3 There are two key considerations for assessing scheme outcomes against the counterfactual: how to forecast the counterfactual; and timescales to use when assessing scheme outcomes.

### FORECASTING THE COUNTERFACTUAL

- 4N.4.4 The counterfactual is not observable and therefore will require forecasting based on the 'before' situation, adjusted to take account of general trends occurring throughout the implementation period.
- 4N.4.5 In preparing this Full Approval MSBC the counterfactual has been generated in the Do-Minimum modelling scenario. The modelling definition of the Do-Minimum is constrained by the strict guidelines to only include committed schemes and excludes other changes such as:
- ◆ Impact of other Joint Local Transport Plan measures (such as parking restraint)
  - ◆ Impact of significant new development such as Cabot shopping centre in Bristol
  - ◆ Impact of other major scheme bids being funded and implemented
  - ◆ Impact of any Transport Innovation Fund development work
  - ◆ Impacts of legislative changes to bus regulation
  - ◆ Impact of changes in a national taxation system
  - ◆ Impact of wider economic change
- 4N.4.6 In preparing the full Joint Local Transport Plan (March 2006) the Councils have attempted to assess the broader impact of GBBN, taking into account wider transport interventions.



# ATKINS

4N.4.7 This has resulted in the GBBN specific headline targets contained within this Evaluation Plan. These targets will be compared against the targets that the Councils believe they can achieve without GBBN funding as set out in the Joint LTP.

4N.4.8 It is recognised that some of the potential issues could not be assessed at the time of preparing the Joint LTP. The actual 'counterfactual' will, therefore, continue to be monitored throughout the implementation of GBBN. Should the background situation change significantly over and above the assumptions set out in the Joint LTP then consideration will be given to amending the baseline targets with which to compare the implementation of GBBN.

## TIMESCALES FOR IMPACT EVALUATION

4N.4.9 It is recognised in 'The Evaluation of Major Local Authority Transport Projects' that some flexibility exists in terms of when an impact evaluation should be undertaken. Four possible time periods are provided in the guidance:

- ◆ Settling down period – when significant changes in demand are underway (first year after opening);
- ◆ Short term – when scheme awareness has stabilised, but with behavioural responses predominating as the main impact (typically 1-3 years after scheme completion);
- ◆ Medium term – typically 3-7 years after opening; and
- ◆ Long term – when the scheme is fully established and most wider impacts have had time to work through, perhaps in relation to land use changes and development locations.

4N.4.10 As outlined in section 3, the headline indicators for GBBN evaluation will be:

- ◆ Bus Patronage;
- ◆ Park and Ride Patronage;
- ◆ Satisfaction with Local Provision of Public Transport Information
- ◆ Bus User Satisfaction;
- ◆ Bus Punctuality; and
- ◆ Accessibility to the Major Centres of Bath, Bristol, Cribbs Causeway, the North Fringe and Weston-super-Mare.

4N.4.11 Therefore, the most relevant timescales for GBBN evaluation will be the 'settling down period' and 'short term', as a number of the headline indicators relate to behavioural (increased bus patronage) and service satisfaction impacts. These impacts should occur within a short time scale following GBBN implementation.

4N.4.12 Improvements in bus punctuality and accessibility to major centres should also be realised within a short time scale. The impact evaluation, as outlined in this Evaluation Plan, will therefore be complete within three years of GBBN completion.



## ATKINS

- 4N.4.13 In terms of the governance and reporting procedures linked to GBBN it is proposed that the Programme Board review the interim results of evaluation January 2012 covering the 'settling down period'. Consistent with Prince2 the Programme Board will then consider and approve the post-project evaluation plan. This will set out the ongoing evaluation and monitoring programme to assess the short term and medium term impacts of GBBN. The Evaluation Manager will report to the Programme Steering Group the results of this ongoing evaluation.
- 4N.4.14 Should this short and medium term evaluation identify issues that require interventions by GBBN Partners then the Senior Responsible Officer will be instructed to reconvene the Programme Board to review any issues and prepare an Exception Plan for the Programme Steering Group.

# ATKINS

## 4N.5. The Reporting Process

- 4N.5.1 The guidance emphasises the importance of “reporting regularly, with findings effectively disseminated so that other councils can identify transferable lessons for their schemes.”
- 4N.5.2 The Evaluation manager will be responsible for deciding the precise nature of reporting procedures, responding to the needs of the project team, stakeholders, and the best methods for keeping the general public informed about progress. Therefore the Evaluation Plan sets out an indicative process which represents a framework for providing feedback to all interested parties.

### OUTLINE TIMESCALES

- 4N.5.3 Principal Reporting Mechanisms include:
- ◆ Quarterly updates to GBBN Programme Board and Programme Steering Group;
  - ◆ Regular progress updates provided to DfT as requested;
  - ◆ Annual review reported GBBN Programme Board;
  - ◆ General media relations, providing public information and progress reports through the website and local press channels, in accordance with the GBBN Communications Plan; and
  - ◆ Post-project analysis review.

### PROGRAMME AND PROCESS

- 4N.5.4 The Evaluation Manager will liaise on a monthly basis with the Independent Programme Director. Reporting to the Programme Board will take place as part of the regular Highlight Reports.
- 4N.5.5 Project reviews will be held on a 12-monthly basis to recap on progress, set out the agenda and any key issues for the following 6-month period.
- 4N.5.6 It is important that a project spanning ten corridors and a four year implementation period does not lose sight of what is happening on the ground. Furthermore it is important to review on the processes being used and whether best use of resources is being achieved,
- 4N.5.7 Programme and Contract management will include progress checks against the programmed outputs for each corridor, with feedback reported in the quarterly Highlight Reports to the Project Board and Programme Steer Group.



Table 4N.19 – Programme Monitoring Indicators

Indicator	Data Source
% of GBBN tasks completed within 1 month of deadline	Task Order Tracker Spreadsheet
Actual Spend vs Planned Spend	Task Order Tracker Spreadsheet
Number of schemes with a) increased budget; b) increased timescale	Task Order Tracker Spreadsheet

4N.5.8 Indicators will be monitored through weekly progress reports (for key project stages and infrastructure elements) and reported to the project team on a quarterly basis for overall outputs. A summary note will be included within the 6-monthly progress note for Stakeholders, and overall progress will be reported in the annual progress reports.

**PROCESS MONITORING**

4N.5.9 The programme management processes set out in the Programme Handbook are designed to provide regular checkpoint at which the scheme’s progress will be assessed.

4N.5.10 In addition to Highlight and Exception Report the GBBN Programme Board will one a named individual with responsibility for Quality Assurance. The Programme Board will have at their disposal an internal Peer Review Group, External Quality Reviews and Gateway Review to assist with process monitoring.

**Peer Review Group**

4N.5.11 A peer review group will established to support Quality Assurance. All Programme Board members will be given the opportunity to provide staff for this group. All nominated staff must not be directly involved in delivery of any of the GBBN tasks set out in the task orders in Annex A.

4N.5.12 The Peer Review Group will be convened at the discretion of the Programme Board member with quality assurance responsibilities to meet and review actual progress against that planned. The purpose of the group is to provide an internal ‘challenge’ role to support the Programme Board when considering progress reports from the IPD. The group will not undertake any audits or reviews at this level but rather raise formal issues to via the nominated Programme Board member if concerns are identified.

**External Quality Reviews**

4N.5.13 It is proposed to complement the internal review group and formal Gateway Reviews with external reviews throughout the duration of the GBBN Programme. The reviews will take place at the discretion of the Programme Board at a minimum frequency of every 12



# ATKINS

months. The approval for such a review will include a detailed proposal for the reasons (linked to issues/risks Peer Review reports or change controls) scope, timescale and budgetary requirements for the review.

4N.5.14 All Quality Reviews will include the following minimum requirements:

- ◆ Establishment of a review team with the following roles: Review chairperson; Reviewer(s); and scribe;
- ◆ Agreed scope and timescale;
- ◆ Agreed list of documentation for the IPD and SRO to provide in advance; and
- ◆ Formal report following conclusion of the review with, if necessary, an Exception Report for the Programme Board to consider.

## Gateway Reviews

4N.5.15 Gateway Reviews will continue to be undertaken throughout the delivery timeframe of GBBN.

4N.5.16 DfT guidance requires a Gateway 4 to be completed before final payments can be made and commitment to undertake Gateway 5 following delivery.

4N.5.17 GBBN differs from the standard major scheme guidance since it has been agreed at the review December 2006 that a Gateway 0 Programme Review should be applied.

4N.5.18 As part of the agreement to undertake Gateway 0 reviews these will be configured to mirror the 'project' gateway reviews and cover in sufficient detail the issues that DfT require to have been examined in the review. Whilst we will seek to cover any 'mandatory' issues, the exact scope and nature of each review, as with all Gateway Reviews, will be agreed between the Project Partners and the DfT to ensure best use of both the 4Ps, reviewers resources and maximum 'added value' from the reviews.

4N.5.19 The Programme Board reserves the right to request additional reviews from 4Ps throughout the delivery of GBBN programme as it considers necessary.

## MEDIA HANDLING AND PUBLIC CONSULTATION

4N.5.20 Public and media relations are as important to GBBN as the delivery of new infrastructure or new buses. Positive media campaigns and communications, particularly via stakeholders and interest groups, will help maximise positive outcomes from the scheme.

4N.5.21 Negative media coverage can equally damage public perceptions of a scheme and have a measurable impact on outcomes such as bus patronage and traveller perceptions. GBBN therefore has established a Communications Plan (see Appendix 4K) which will be implemented under the direction of a Communications Officer.



# ATKINS

## 4N.6. Monitoring of the Construction Phase

- 4N.6.1 The Implementation Programme set out in the Full Approval Major Scheme Business Case was been subject to close scrutiny by the Traffic Managers of the four Councils to ensure that construction impacts are minimised.
- 4N.6.2 Following award of Full Approval the final dates for implementation will be confirmed and a detailed GBBN Network Management Plan will be produced and implemented to minimise the disruption during construction of the GBBN. The plan will include detailed traffic management plans for the implementation of each of the elements of GBBN. It will be developed in partnership with the Traffic Managers and in line with the responsibilities under the Network Management Duty. Works on each corridor will be co-ordinated to minimise the knock-on disruption along the route between each set of measures.
- 4N.6.3 The Network Management Plan objectives will be:
- ◆ The impact of reductions in highway capacity during construction to enable highway works and ensure safety for construction staff and users of the highway. Measures such as lane closures, whilst enabling works to be implemented quickly and efficiently, can often result in severe traffic congestion in peak periods. Where possible consideration will be given to off-peak restrictions, sensitive management of on-site measures (e.g. shuttle signals) and designation of alternative routes;
  - ◆ Detailed build times for individual scheme elements will take full account of the extent of lane closures determined to minimise congestion on the network;
  - ◆ Road closures for resurfacing will where possible be undertaken at night or on Sundays in order to minimise disruption, and consideration of maintenance priorities will be included to reduce future disruption by undertaking certain works in tandem with GBBN schemes;
  - ◆ Management of alternative routes will include dynamic traffic management through adjustments to signal phasing through the UTC system to accommodate diversionary flows. Signing should be carefully and clearly co-ordinated in advance of the commencement of works;
  - ◆ Timing of disruptive construction elements will include consideration of other highway works both in the vicinity of the scheme and on alternative routes;
  - ◆ Where appropriate abnormal load delivery vehicles will be subject to size and time of day restrictions to ensure that the impact on highway flow is minimised;
  - ◆ Stakeholders will be fully involved through regular liaison meetings. In particular, the bus operators will be given advanced notice of all works so that adjustments to route fleet allocations etc. can be planned in advance. Full details of underground services works by utility companies will be scrutinised well in advance of the commencement of works to ensure complementary agendas;
  - ◆ Signing of temporary parking restrictions to enable lining for bus priority and parking measures will be carefully planned to minimise the incidence of parking infringements disrupting implementation.



# ATKINS

## 4N.7. Implementation Plan Costs

- 4N.7.1 DfT guidance states that the monitoring and evaluation process should “be proportionate and cost-effective. Usually the extent of evaluation effort should reflect the costs and scale of the scheme. However, innovative or controversial schemes may require more significant evaluation”.
- 4N.7.2 There are no hard-and-fast rules regarding the budgets required for monitoring and evaluation purposes and, costs may vary considerably between different scheme types depending on the nature and frequency of data collection required. EU guidance suggests that an overall evaluation budget may cost around 0.5% of the programme budget, and The DfT scheme evaluation guidance suggests up to 10% for a scheme costing £10m (executive summary, para 6).
- 4N.7.3 These guidelines indicate a monitoring and evaluation budget of £50,000 per annum for the four year GBBN Major Scheme. This requirement will be met from four existing resources: -
- ◆ West of England Partnership Office (primarily the provision of the Evaluation Manager);
  - ◆ The Four Councils existing monitoring schedules;
  - ◆ Data provision and survey work by First; and
  - ◆ Reprioritisation of existing work programmes to support GBBN Evaluation Plan.

## 4N.8. Summary

- 4N.8.1 This Evaluation Plan has presented the key stages and timescales covering a range of monitoring and evaluation processes for the GBBN. The West of England Partnership will oversee the Evaluation Process and an Evaluation Manager for the GBBN has been appointed in accordance with the DfT guidance. This is a recent appointment, and therefore the Evaluation Plan will continue to evolve under the direction of the West of England Partnership and the project team.
- 4N.8.2 To ensure that the monitoring process is cost effective, that data is consistent, and to avoid unnecessary duplication, data will be collected as part of the ongoing JTLP monitoring process. Evaluation questions have been produced which provide an initial view on the issues that will be relevant to evaluating the ongoing process, the achievement of scheme objectives, and eventually a post-scheme review of the contribution to local transport policies. Performance indicators have been rationalised through a gap analysis to ensure consistency with the questions being asked, and that the indicators themselves are directly relevant to the GBBN scheme objectives.