West of England Joint Local Transport Plan 3
Strategic Environmental Assessment

Non Technical Summary

Introduction

This is the non-technical summary of the Environmental Report of the West of England's third local transport plan, known as the JLTP3. The Environmental Report forms part of a process known as Strategic Environmental Assessment (SEA). SEA is a process required by law for certain types of plan or programme, such as a local transport plan. The overall aim of the SEA process is to ensure better protection for the environment, population and human health by making decision-makers aware at an early stage of the likely effects of the plan on the environment and by seeking to introduce measures that can be undertaken either to avoid adverse effects or to help improve the environment.

The SEA process is undertaken in five stages. The following table indicates when the stages were conducted for this SEA:

	SEA stages	Dates Undertaken
A	Setting the environmental main environmental issues relevant to the plan area and developing objectives against which to assess the plan. This stage requires consultation with the Environment Agency, Natural England and English Heritage.	October 2009 – January 2010. Consultation undertaken between 11 December 2009 and 22nd January 2010)
B	Developing and refining possible alternative options for the plan and assessing the effects on the environment and human health.	February 2010 – May 2010.
C	Preparing the Environmental Report.	June 2010.
D	Consulting on the draft plan and the Environmental Report.	
E	Monitoring the significant effects of implementing the plan on the environment.	

This non-technical summary and associated Environmental Report represent stage C of the SEA process. This SEA has been undertaken by Halcrow Group Limited on behalf of the West of

England Partnership. The consultation undertaken as part of Stage A of the SEA process is reported in the Environmental Report, Appendix B.

The West of England's Third Joint Local Transport Plan (JLTP3)

The JLTP3 is being prepared by the West of England Partnership. The JLTP3 sets the strategy for transport provision for the West of England for the period 2011 to 2026. In addition it includes a delivery plan which will set the implementation plans for the shorter term, and it includes a series of supplementary documents which cover the strategy for road safety, walking, cycling, parking, public transport, rural transport, freight transport and traffic management in more detail. The West of England covers the unitary authorities of Bath & North East Somerset, Bristol, North Somerset and South Gloucestershire. The area that the JLTP3 would cover is indicated in figure NTS 1.

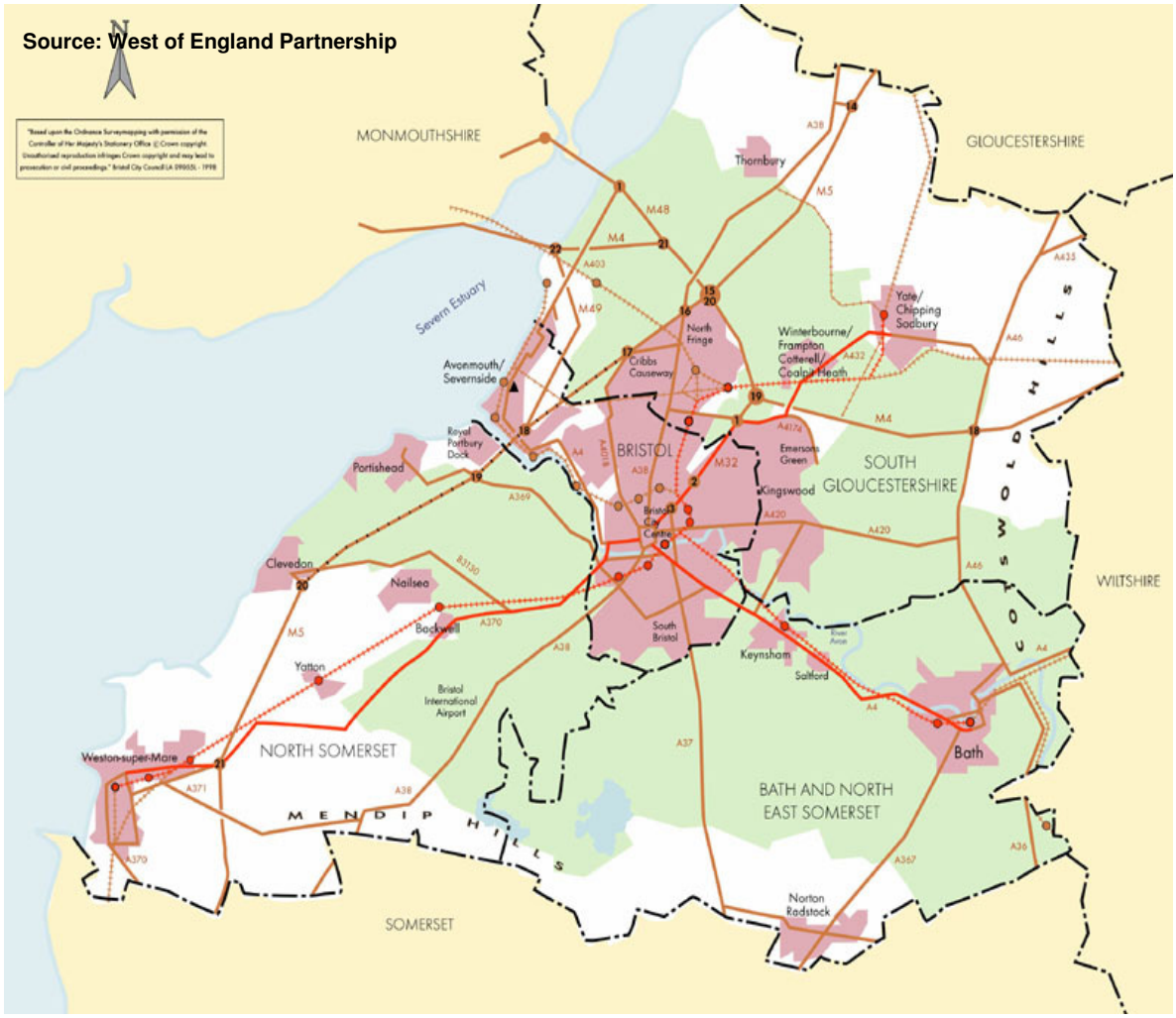


Figure NTS 1: The West of England Joint Local Transport Plan Area

The strategy of the JLTP3 seeks to meet the Department for Transport's five goals for transport, which are to:

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

The JLTP3 seeks to meet these goals and a series of local challenges by continuing to provide an integrated transport strategy. The strategy involves the provision of transport across all types of travel but with a particular focus on encouraging less private car use for shorter journeys and greater uptake of public transport, walking and cycling. The strategy contained within the draft JLTP3 represents a continuation of the existing strategy. It would promote the following schemes:

- Greater Bristol Bus Network
- Bath Package
- Weston Package
- Rapid Transit Aston Vale to Emersons Green Phase 1
- North Fringe to Hengrove Package
- South Bristol Link
- Greater Bristol Metro Project
- M5 Junction 21 Bypass
- Portishead Rail corridor
- Rapid Transit Ashton Vale to Emersons Green Phase 2
- Callington Road Link/Bath Road Improvements
- Yate Package
- Hicks Gate to Bath Bus Rapid Transit

Alternative Plan Options

As part of the SEA process it is necessary to consider what other reasonable options there would be to meet the plan goals and to provide an assessment of the effects these alternatives would have on the environment. In addition to the preferred option for the JLTP3 which is known as "Option 1, the Integrated Transport Option" there were five alternative options that were also considered reasonable. These options each had a different focus in terms of transport provision but were developed to take account of a similar amount of funding. They were:

Option 2: Highway Improvement Package. Under this option a greater proportion of the investment would go to improving existing roads and to providing new highway schemes.

Option 3: Enhanced Public Transport Package. Under this option a greater proportion of the transport budget would be focused upon public transport provision across the plan area. This

would include additional bus rapid transit services, some extension to the railway facilities and additional park and ride provision.

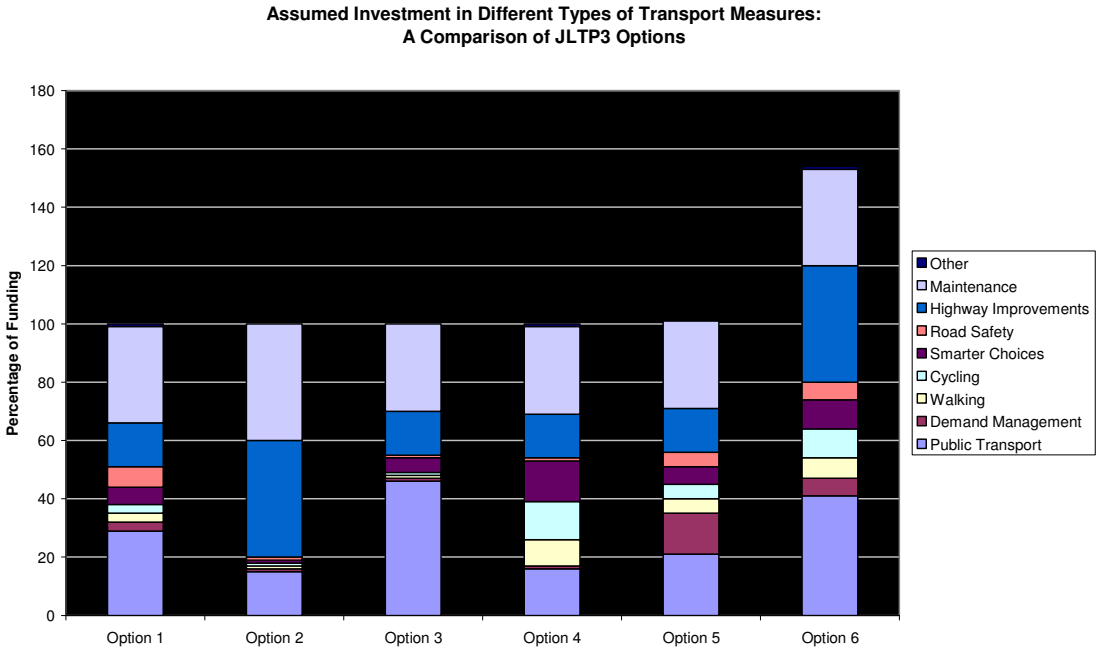
Option 4: Enhanced Smarter Choices Package. Smarter Choices is the term used to describe the promotion of modes of transport other than single-occupancy car use. In particular it focuses on encouraging much greater uptake of walking and cycling for local journeys as well as increased use of public transport. It is focused on behaviour change, rather than building new schemes, although under this option there would be more provision for cycling and walking infrastructure than under the other options.

Option 5: Demand Management Package. Under this option the existing capacity of the highway for cars would be reduced and greater space would be given over to public transport, walking and cycling. This would ensure greater priority was given to alternative forms of travel and the use of the car would become less convenient in urban areas.

Option 6: Road User/Work Place Charging. Under this option, charging would be in place so that drivers would be subject to a congestion charge in certain locations and some workplaces would be charged for parking provision. This option would allow additional money to be generated which would be invested in more transport schemes.

Figure NTS2 indicates how the options vary in terms of how assumed budgets would be allocated to different types of travel. Note that Option 6 is more than 100% due to additional revenue anticipated from applying road user and workplace charges.

Figure NTS2: Comparison of Options



In addition, the "Without Plan" scenario was also considered in order to assess how the current environmental issues would be likely to progress in the absence of the JLTP3. Under the "Without Plan" scenario it is assumed that schemes that have received programme entry would go ahead (the Greater Bristol Bus Network, Bath Package, Weston Package and Rapid Transit from Ashton Vale to Bristol Temple Meads South Bristol Link and North Fringe to Hengrove Package). It is also assumed that the emerging local spatial plans (emerging Core Strategies) would deliver as currently presented.

Schemes Common to All Options

A series of transport schemes would be included in all options since they are considered to be of strategic importance to the plan area in order to address existing problems, particularly congestion. These are as follows:

- Greater Bristol Bus Network
- Bath Package
- Weston Package
- Rapid Transit Aston Vale to Emersons Green Phase 1
- North Fringe to Hengrove Package
- Greater Bristol Metro Project
- M5 Junction 21 Bypass
- Portishead Rail corridor
- Rapid Transit Ashton Vale to Emersons Green Phase 2
- South Bristol Link

Environmental Context

The main environmental issues of relevance to the West of England are as follows:

- The population in the West of England has grown and is projected to grow a further 25% by 2026.
- The population is also ageing and it is estimated that the greatest increases among age groups during the plan period will be in the over 75s. Providing suitable transport for the needs of older people is therefore increasingly important.
- Nationally, there is a trend towards inactive lifestyles. Lack of physical activity is linked to a variety of health issues including premature deaths from cancer, strokes and heart disease as well as a trend towards being overweight and obesity. By undertaking more local journeys on foot or by bicycle there would be clear health benefits. However, within the

West of England, travelling by car or van is the most dominant form of travel. Recent initiatives in the West of England have seen the uptake of cycling increase by 50%.

- Accident rates are falling within the West of England. However, certain travellers are more vulnerable to road accidents, particularly motorcyclists, cyclists and pedestrians.
- Across the West of England, air quality is generally good. However traffic is the main source of air pollution in the area and Bristol, Bath and parts of South Gloucestershire suffer from poor air quality mainly caused by traffic.
- Climate change is occurring and average temperatures within the South West have increased. It is believed that climate change will lead to warmer, drier summers and milder, wetter winters. The frequency of storms, floods, droughts and heat waves is predicted to increase as a result of climate change and authorities are encouraged to take action to ensure services and facilities can withstand these new conditions.
- Wildlife and habitats are under pressure from development, particularly because of the need to accommodate new housing growth. The construction of transport links such as roads can fragment habitats and cause barriers to movement of wildlife. However, road verges can also provide valuable habitats if appropriately managed. There are protected wildlife sites of local, national and international importance in the West of England.
- Soil erosion is a key concern in the South West. Soils and agricultural land are also under pressure from new development. Soil is needed for food production and serves a number of other uses (such as the cycling of nutrients, and storage of carbon). The protection of soil is therefore an important consideration in sustainable development.
- Several areas in the West of England are at risk of flooding. This includes flooding from the Severn Estuary, flooding from rivers and ditches and flooding from drains. Flood risk is likely to increase with climate change.
- Material assets relates to the use of natural resources, the generation of waste and the state of existing transport infrastructure. According to WWF, globally, people are using about 25% more natural resources than the planet can replace. The state of the West of England's roads and paths may (among other factors) influence travel patterns and causes of accidents. North Somerset has the highest percentage of footpaths in need of repair compared with South Gloucestershire which has the lowest percentage. B&NES has the lowest percentage of residents who consider that road and pavement repairs have got better or stayed the same in the previous three years. The issue of footway maintenance is likely to become more important in the context of an ageing population.
- The West of England is rich in cultural heritage assets such as listed buildings, scheduled monuments and archaeological remains. The City of Bath is a World Heritage Site and therefore internationally valued. The protection of Bath as an internationally valued site is a key area of concern in relation to the potential effects of the local transport plan. Another key issue is how the JLTP3 responds to the likely increased demands on transport from a growing population whilst not compromising the local distinctiveness of the historic environment and assets that make the West of England attractive for residents and tourists alike.

- The West of England has a number of landscape designations including Greenbelt land, two Areas of Outstanding Natural Beauty (the Cotswolds and the Mendips), and a Community Forest (the Forest of Avon). An assessment sponsored by Natural England (Countryside Quality Counts) indicates that the character of the landscape around Bristol (Bristol, Avon Valley and Ridges) has been neglected over the past decade. Studies by the Campaign to Protect Rural England have identified increased light pollution and loss of tranquillity in the area. New transport infrastructure can have significant effects on the natural landscape, through land take, visual intrusion or light pollution and loss of tranquillity. Transport infrastructure can also incorporate inappropriate signage, lighting columns and road surfaces which detract from the local character of the landscape if not carefully managed. Therefore the potential impact of the transport plan on landscape character, built environment and areas of tranquillity has been considered as part of the SEA. Transport can play an important part in improving the general public's access to areas of high landscape and biodiversity value. This has recognised health benefits.

SEA Objectives

Based upon the understanding of the environmental context and a review of policies and plans, a number of objectives for the SEA were proposed and consulted upon. The agreed objectives upon which to assess the environmental effects of the JLTP3 are as follows:

1. Improve accessibility and mobility for a growing and ageing population.
2. Reduce transport related air pollution
3. Reduce transport related greenhouse gas emissions in line with national targets
4. Adapt transport network to effects of climate change
5. Maintain and enhance, restore or add to biodiversity and geological conservation interests
6. Promote active travel
7. Improve road safety particularly for vulnerable users and to reduce road casualties
8. Minimise adverse effects on soils such as loss, compaction, erosion and pollution from transport-related activities.
9. Minimise vulnerability of transport network to flood risk
10. Minimise waste produced and resources consumed by transport infrastructure and operation of the transport services.
11. Protect and where appropriate, enhance the rich diversity of the historical and cultural environment and archaeological assets.
12. Maintain and enhance the quality of the built environment.
13. Maintain and enhance the quality and character of the landscape.

Assessment of the JLTP3 and its Alternatives

The first step in the assessment process was to test whether the JLTP3 objectives were compatible with the SEA objectives. No draft JLTP3 objectives were identified as incompatible with the SEA objectives. However there were a number of potential uncertainties of compatibility which would depend largely on the types and magnitude of interventions promoted to address the identified challenges. Careful consideration will be required in relation to issues such as type, design and/or location of the transport measures that are promoted as to the level of effect they may cause on the environment. The results of the compatibility assessment were reported to the West of England Partnership in February 2010 to be taken into account when developing the JLTP3.

The next stage of the SEA was to assess the effects of the plan and its reasonable alternatives on the environment, based upon the above-mentioned SEA objectives. The assessment took into account the nature of effect (whether positive, negative, neutral or uncertain; the duration of effect (short term, medium term or long term), permanent or temporary and the scale of effect (whether it would be local, regional or national). The following significance criteria were used as part of the assessment:

++ **Major Positive**	The option would be significantly beneficial to the SEA objective by resolving an existing environmental issue and/or maximising opportunities for environmental enhancement.
+ **Minor Positive**	The option would be partially beneficial to the SEA objective by contributing to resolving an existing environmental issue and/or offering opportunity for some environmental enhancement. This effect would not be considered to be of significance.
N **Neutral**	The option would have a neutral effect on the SEA objective.
? **Uncertain**	There is insufficient detail available on the option or the baseline situation in order to assess how significantly the SEA objective would be affected by the option.
x **Minor Negative**	The option would partly undermine the SEA objective by contributing to an environmental problem and/or partially undermine opportunities for environmental enhancement. This effect would not be considered to be of significance.
xx **Major Negative**	The option would severely undermine the SEA objective by contributing to an environmental problem and/or undermining opportunities for environmental enhancement. This would be considered to be a significant effect.

The results of the assessment are reported in full in appendix D of the Environmental Report and are described in more detail in the Environmental Report. The following table presents the results in summary form along with the assessment of what is likely to happen to the environment if the JLTP3 were not implemented.

Summary Assessment of Effects of the draft JLTP3 (in bold) Compared with the "Without Plan" Scenario.

SEA Objective (shortened form of wording)	**Summary Assessment of Effects of JLTP3 (Preferred Option)**			Summary Assessment of Effects of Scenario Without the JLTP3		
	Short Term	**Medium Term**	**Long Term**	Short Term	Medium Term	Long Term
1. Improve accessibility and mobility for a growing and ageing population.	**+**	**++**	**++**	+	X	X
2. Reduce transport related air pollution	**?**	**+**	**+**	?	X	?
3. Reduce transport related greenhouse gas emissions	**X**	**+**	**+**	X	XX	XX
4. Adapt transport network to climate change	**N**	**+**	**?**	N	X	?
5. Maintain and enhance, restore or add to biodiversity and geological conservation interests	**X** **X**	**X** **?**	**X** **?**	X	X	X
6. Promote active travel	**+**	**+**	**?**	**+**	**N**	**X**
7. Improve road safety particularly for vulnerable users and to reduce road casualties	**+**	**++**	**++**	+	+	+
8. Minimise adverse effects on soils … from transport-related activities	**X**	**X**	**N**	X	X	X
9. Minimise vulnerability of transport network to flood risk	**+**	**+**	**?**	+	X	?
10. Minimise waste produced and resources consumed by transport infrastructure and operation of transport	**+**	**+**	**?**	+	X	?
11. Protect and…enhance the …historical and cultural environment and archaeological assets	**X**	**+**	**?**	X	X	?
12. Protect and enhance the quality of the built environment	**+**	**+**	**?**	+	X	?
13. Maintain and enhance the quality and character of the landscape	**X**	**X**	**X**	X	X	X

Comparison with Alternatives

In terms of assessed impacts upon the environment and human health, the draft JLTP3 preferred option ranked third best, although the first three options were relatively close in scores. The Demand Management option (Option 5) performed better because it would force people to into more active travel modes or public transport within urban areas. This was assessed to have more significant positive effects in terms of improving access (for those without a car), reducing air pollution, greenhouse gas emissions, increasing active travel, improving road safety, reducing resource use and enhancing the quality of the built environment. The Smarter Choices option (Option 4) did slightly better than the preferred option because it had more significant benefits in relation to active travel, air quality, greenhouse gas emissions and the built environment. While the Enhanced Public Transport option (Option 3) was very similar to the Integrated Transport option in terms of effects on the environment, the Highway Improvement Package (Option 2) was assessed to be the worst on the environment. The Road User Charging option (Option 6) did not do as well as Options 1, 3, 4 and 5 since it contained a number of highway schemes that would adversely impact upon the environment, however this option could be amended to prioritise non-road schemes and would perform better.

Recommendations to Improve the JLTP3

In order to improve the outcome of the JLTP3 in terms of its effect on the environment and human health it is recommended that more of the measures contained within Options 4 and 5 are included. Recommendations to improve the JLTP3 are as follows:

- Measures to lock in the benefits of reduced congestion in urban areas such as reallocation of road space. This means that less existing road space should be provided for car use and more should be allocated to travel by pedestrians, cyclists and public transport. This would help to make car use less convenient in urban areas and other modes more convenient. Implementation of these measures is likely to improve the assessment on SEA objectives 1, 2, 3, 6, 7, 10 and 12.
- Local parking charges to deter car use.
- Implementation of 20mph zones in residential areas. This would have significant benefits to safety as well as being likely to encourage more walking and cycling.
- More urban tree planting. This would be of benefit to the built environment by filtering out some air pollution as well as creating shade and having cooling effect on the urban environment, which would help improve conditions during heat waves.
- Improving highway drainage. This is recommended to help guard against surface water flooding (which is likely to become more of an issue with climate change).
- Undertaking detailed environmental assessments for park and ride to give priority to previously developed sites where feasible. Project level environmental impact assessments (EIA) should consider potential effects on archaeology, landscape, soil and biodiversity.

- Seeking to protect and enhance roadside habitats as part of routine maintenance regimes. It is recommended that advice is sought from the County Ecologists to identify opportunities for habitat enhancements.

Monitoring

A monitoring framework for the SEA will be developed following consultation on the Environmental Report. However, targets and indicators have been identified in the Environmental Report as relevant to the potential impacts of the JLTP3 on the SEA objectives. The targets identified are those that already exist for the area, including some identified for monitoring as part of the JLTP3.

Limitations and Difficulties Encountered

This assessment has been undertaken during a period of considerable uncertainty over future funding and policy direction due to the change in government and the current economic conditions. As such there is significant uncertainty over the "Without Plan" scenario. There is also considerable uncertainty in relation to the timing and delivery of the JLTP3, which may impact upon the timescales predicted as part of this SEA.

Other issues related to availability of data for the various environmental issues considered. It was not always possible to obtain similar data for all four unitary authorities. Sometimes national datasets had to be used due to the lack of available or up to date local data. Furthermore, there is uncertainty over the interpretation of some environmental trends. For example, although the population in the West of England is predicted to increase, the rate of increase predicted has been based upon recent trends which may not continue into the long term. Further limitations and difficulties are described within the Environmental Report.

Consultation

This Non-Technical Summary and the Environmental Report will be made available on the Travel Plus website http://www.travelplus.org.uk/.

If you would like any further information or if you have any comments on the SEA of the draft Joint Local Transport Plan we would be grateful to receive them. Comments should be sent no later than 30th September 2010 and submitted to the West of England Partnership by post or e-mail: **transport@westofengland.org.**

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