



Warwickshire County Council

LTP3 Strategic
Environmental Assessment -
Options Assessment

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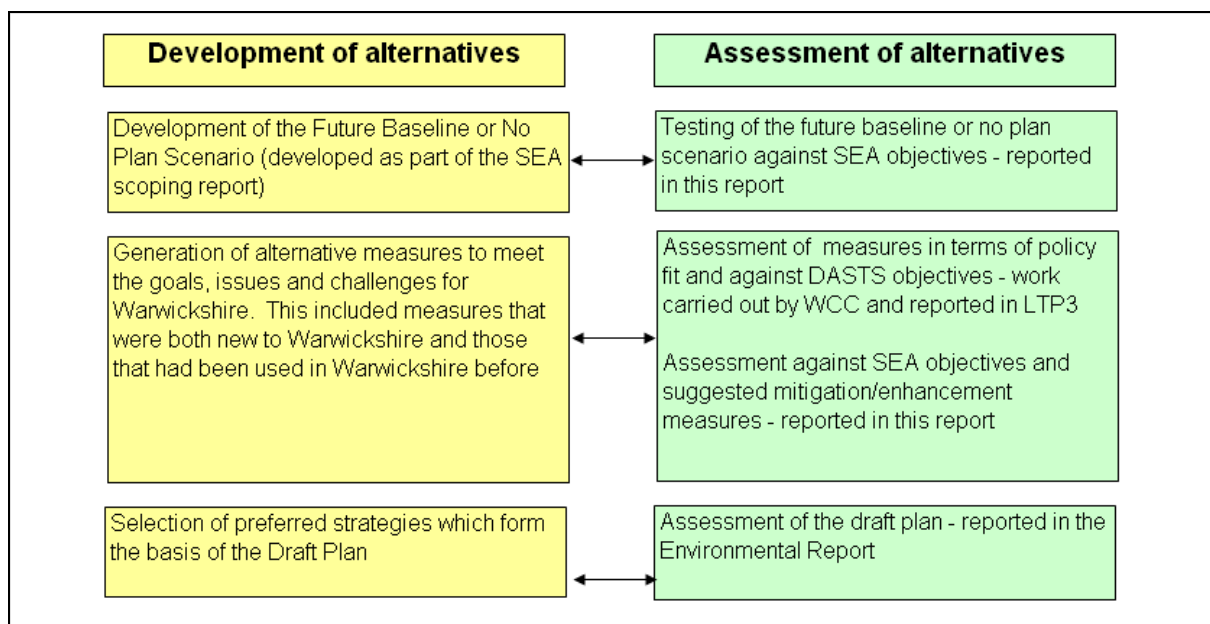
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1 Introduction

Strategic Environmental Assessment (SEA) involves an iterative process of collecting information, defining alternatives/options¹, identifying environmental effects, developing mitigation measures and making recommendations/revising proposals in the light of predicted environmental effects. The essential purpose of this element of the Warwickshire LTP SEA is to identify the 'likely significant effects' on the environment of the alternative options presented as part of the Local Transport Plan Process.

The approach Warwickshire County Council has taken to developing options (and ENVIRON's approach to assessing those options) is outlined in Figure 1.

Figure 1: Development and assessment of options



The methodology of the options assessment is outlined in Section 2 of this report.

¹ Please note that for the purposes of this assessment the options presented have been considered as options and as alternative options. Therefore this report uses the terms options and alternatives interchangeably.

2 Methodology

2.1 Testing the future baseline or no plan scenario

A required step in SEA is testing the likely evolution of the baseline environment in the absence of the plan. This scenario is called the 'future baseline' or the 'no plan' scenario. All of the subsequent strategies of the LTP are then compared against this no plan scenario to enable plan makers to see the difference the plan would make compared to a situation where no plan was implemented.

The definition of the future baseline assumes that the LTP will not be implemented. However, there are a number of other transport and development programmes and projects which are likely to go ahead even in the absence of the LTP. For this reason it is important to be clear about what is included in the future baseline. The assumptions made regarding the future baseline in Warwickshire are shown in Figure 2.

Figure 2: The Future Baseline

Continued operation of statutory functions of the Council:

- Home to school travel;
- Concessionary fares;
- Disability Discrimination Act measures;
- Rural Bus Subsidy Grant;
- Social services responsibilities;
- Fulfil highway and bridge maintenance duties;
- Promotion of road safety and measures to improve road safety and prevent accidents;
- Road design to minimise accidents and environmental impacts (i.e. low noise surfacing);
- Under Transport Act 1985 - duty to formulate general policies for support of public transport services which are a requirement but are not being provided on commercial basis: subsidised services;
- Provision and enforcement of on-street parking;
- Duties under the Traffic Management Act 2004 including civil parking enforcement and network management duties; and
- Accident investigation.

Other plans and programmes will deliver as planned:

- Major developments and other plans will go ahead;
- Highways Agency schemes that are on the Government's Targeted Programme of Improvements will go ahead; and
- Plans of other transport agencies not reliant on the funds from the LTP will go ahead.

Strategies within the current LTP that were not limited to the lifespan of the plan will not continue:

Although most of the strategies within the LTP2 are not planned to be time limited, in reality they are because many of them rely on future funding from the LTP3 allocation. Therefore, it has been

assumed that no further funding will be forthcoming from the LTP3.

The future baseline has been assessed against the SEA objectives in Assessment Table 1 at the end of this document.

2.2 Assessment of the alternative measures

The results of this assessment have been considered in conjunction with an appraisal that Warwickshire County Council has undertaken themselves on the impact of the measures on each of the five national transport goals. The deliverability and public acceptability of each measure was also considered. The details of this appraisal are reported in the Warwickshire Local Transport Plan 3. The analyses undertaken by the council and ENVIRON have then been used to select a package of measures that forms the Draft LTP.

At this stage in the assessment there is no detail available as to the location of the measures and how they will be implemented. Because of this lack of detail a much simpler approach has been used for this assessment compared to the assessment of the future baseline. For this assessment a simple checklist approach has been taken to assessing the potential impacts of the alternative measures. The assessment has not been undertaken against each SEA objective; rather they have been grouped into SEA topics (economy, climate, equality, safety and environment). A potential effect is indicated by a cross within the checklist which of the SEA topics is likely to be affected by each of the measures.

A column has been included which explains the reasoning behind these judgements and this also includes some of the relevant evidence that is available to help assess the effectiveness of such schemes. At the draft plan stage more information may be available on the implementation and location of these measures and this evidence will be used by the assessors at this point to help judge the likely effects of the plan. However it has been possible to make some recommendations at this stage on how measures might be taken forward to ensure their effectiveness. The assessment is shown in Assessment Table 2 at the end of this document.

SEA guidance also states that alternatives that are selected for testing also should be assessed for their cumulative effects. However, because of the lack of detail on the location and implementation of the measures this has not been possible. A cumulative assessment will be carried out as part of the SEA of the draft plan.

3 Defining Significance

It is important that each element of the plan is considered in relation to each SEA objective and effects identified and assessed in terms of how significant they are. The significance of the effects of the future baseline has been assessed and a description of how this has been undertaken is outlined below. Please note that because of the uncertainty related to the location of the measures and how they will be implemented it has not been possible to assess the significance of the measures at the options stage and this will be addressed at the next stage of assessment.

The SEA Directive specifies in Annex II the criteria that should be taken into account when determining likely significant effects. These criteria, which principally relate to the nature of the effects arising from the plan and the value and vulnerability of the receptors, have been adopted for the Warwickshire LTP assessment to assess whether an effect is likely to be significant. Deciding on the significance of the effects has entailed the assessor considering the following questions for each potential impact:

- How valuable and vulnerable is the receptor that is being impacted?
- How probable, frequent, long lasting and reversible are the effects?
- What is the magnitude and spatial scale of the effect?
- Are the effects positive or negative?
- Will the strategy scenario help the plan to reach the targets and objectives defined as part of the SEA framework?

The answers to these questions enable the assessor to assign a significance score to each potential impact identified within the assessment.

Guidance on the application of these questions and the final scoring system has been described below. Please note that due to the strategic nature of SEA and the varying amount and detail of evidence available on which to base assessments, in some cases it may not be possible to fully address each significance question. Where there are uncertainties or judgements made this has been made explicit in the assessment.

3.1 Identification of receptor value and vulnerability

The assessment team have defined value and vulnerability as follows:

- Value: the value of a receptor is based on the scale of geographic reference, rarity, importance for biodiversity, social or economic reasons, and level of legal protection; and
- Vulnerability: how vulnerable that receptor is to change if conditions change and its ability to recover from that effect.

The SEA Guidance² does not provide specific information with relation to the definition of receptor value and vulnerability. .Furthermore, it is not readily possible to develop a 'one

² DfT. WebTag Unit 2.11: *Strategic Environmental Assessment and Transport Plans*. In Draft Guidance, January 2010.

size fits all' definition that applies consistently to all topics and therefore it is necessary to use the evidence available to determine the value and vulnerability of receptors and this is specific to each topic. A guideline framework for these classifications is provided below. In most cases the assessment of value and vulnerability has been based on qualitative rather than quantitative information and has, where necessary, made use of expert judgement.

Sample receptor definitions		
	Value	Vulnerability
High	E.g. receptor is rare, important for social or economic reasons, legally protected, of international or national designation.	E.g. potential pathways for change exist between scenarios (sources) and indicators. Receptor is in declining condition, dependent on a narrow range of conditions.
Low	E.g. receptor is common, of local or regional designation.	E.g. limited or no pathways from between scenarios and indicators. Receptor is in stable or favourable condition and dependent on a wide range of conditions.

3.1.1 The probability, frequency, duration and reversibility of effects

The probability of an effect happening is recorded as high, medium or low, a guideline framework for these classifications is provided below:

Probability of the effect				
Classification	High	Medium	Low	Very Low
Guideline	>90%	50-90%	10-50%	<10%

In the concept of transport assessment, probability of effect is linked closely to the idea of the deliverability of the strategy. High cost, high intervention strategies with a large degree of uncertainty as regards funding and implementation are likely to score relatively poorly.

The duration of the effects has been quantified where possible to ensure consistency with the long-term nature of the LTP process (which will plan to 2026) and the shorter implementation plan process. Guidelines for the duration of effects are given below:

Duration of the effect			
Classification	Long Term	Medium Term	Short Term
Guideline	2019-2026	To the mid-point of the process 2014-2019	From the start of the strategy for a 3 year period 2011-2014

An indication of the frequency of the effect has been given where possible, whether it will be continual or intermittent over the period of time identified.

Finally, if possible, the effect has been described as reversible or irreversible. This judgement will be based on the timescale for a receptor's return to baseline condition without

intervention, in relation to a human lifetime. If the timescale for a receptor's return to baseline condition is greater than 50 years then it will be considered irreversible and if it is less then it will be considered reversible.

3.1.2 The spatial scale of effects

The spatial scale of the effect can be defined as whether it is local, regional, national or international. The area or location of the effect will be identified where relevant.

3.1.3 Positive and negative effects







A positive effect will be one that is favourable or otherwise beneficial to the condition of a receptor or an indicator.

A negative effect will be one that is unfavourable or otherwise adverse to the condition of a receptor or an indicator.

3.2 Achievement of SEA objectives

While not specifically required by the Directive, good practice and published guidance recommends the use of SEA objectives to assess performance and to compare the effects of scenarios. These have been identified in the scoping report and have been written to reflect local issues and targets and objectives that the LTP performance should contribute towards.

The results of the assessment are presented within a matrix which presents the performance of each option against each SEA objective. Consideration is also given as to whether each scenario helps to meet targets and objectives identified as important in Warwickshire, for example helping to reduce the number of people killed and seriously injured in road traffic accidents (KSIs). If relevant targets are not met it is very unlikely that a scenario will gain a significant positive impact under that objective (even if the scenario does show improvement). For example, if a scenario would lead to a reduction in the number of slight accidents but no change in the number of KSIs then it would be scored as slight positive (as Warwickshire is aiming at reducing KSI accidents as reflected in the SEA objectives). The matrix uses the notation as set out within Table 4 to define significance.

Significant negative effect		Significant positive effect	
Minor negative effect		Minor positive effect	
No effect		Uncertain effect	

4 Recommendations

4.1 Introduction

The results of the future baseline assessment are shown in Assessment Table 1. The results of the assessment of the alternative measures are shown in Assessment Table 2. In the section below we have outlined recommendations on how measures might be taken forward.

Please note that for the future baseline we have not made any recommendations. The reason for this is that this is not a strategy that will be taken forward – the purpose of this assessment is to use as a baseline for the assessment of the draft plan.

4.2 Assessment of the alternative measures

Based on the evidence reviewed and the broad assessment undertaken the following recommendations can be made.

4.2.1 Integration of planning and transport planning

It is unclear what is meant by integration of planning and transport. We have presumed this means that adequate infrastructure will be provided to support new development. It would be useful if the draft plan is clearer regarding how planning and transport planning will be integrated.

4.2.2 Parking

Increasing parking charges in town centres and enforcing parking restrictions may have some positive effects on traffic in town centres but only if alternative modes of transport are available. If they are not, this may cause people to choose to travel to other centres. The draft plan should be clear how effects on competition of centres will be avoided.

4.2.3 Travel information

Personalised travel planning would perform well against SEA objectives. However, there are identified risks with relation to its implementation and deliverability due to the cost implications. Therefore there is uncertainty as to whether the positive effects of this measure would be realised.

Research has shown that traditional information services are not appropriate for occasional public transport users. Simpler information which does not require detailed knowledge (e.g. of street names) are needed and the draft plan should set out different ways to reach different audiences.

4.2.4 Work and school travel

School travel – no recommendations

Work travel - Research has shown that workplace travel plans can be successful in urban and rural areas. However, one important aspect was thought to be parking with the most

successful travel plans reducing parking or charging for parking. The draft plan should consider whether it can require changes in parking where workplace travel plans are recommended / required (although the main mechanisms to do this may be through the planning system). However, as with the parking recommendation above it will be important that other options are available to people if raising car parking charges or reducing spaces.

Work travel - Recent research on business attitudes to transport has shown that take up of travel plans is low (apart from in large organisations) and businesses see transport as a fairly low priority. As businesses are unlikely to voluntarily undertake workplace travel plans, it is important that incentives or planning requirements are implemented, for example. The draft plan should refer to these mechanisms (even if they are outside the scope of the plan itself).

4.2.5 Walking and cycling

If a substantial increase in walking and cycling is planned in Warwickshire this needs to be accompanied by a strong programme of measures to improve the safety of active travel, such as 20mph zones, safe cycling infrastructure and other highways safety measures. The draft plan should set out how this will be implemented.

4.2.6 Passenger transport

Research on the sustainable travel demonstration towns has shown that where there was a focus on encouraging a particular mode of travel, promotional measures that were accompanied by improvements in the quality of the 'offer' (e.g. better bus services, or new cycle infrastructure) yielded comparatively greater success. Therefore, it will be important to match up different activities for all modes that are being promoted. This highlights the importance of considering Smarter Choice Programmes in a holistic way, encompassing service improvements as well as marketing. Considering smart measures in isolation, independent from infrastructure or service improvements, would be unhelpful. Instead, infrastructure and service enhancement, marketing, information and publicity should all follow together from an assessment of a target market (such as pupil travel to school, or employee travel to work, or residents' travel to the town centre). The draft plan should approach measures in a holistic way wherever possible.

In terms of rapid transit / light rail this can be positive in the right circumstances and has proved to be well used in large city areas such as Birmingham. However, the systems are costly to build and careful thought is needed as to what areas of Warwickshire they are suitable for.

4.2.7 Road users

High occupancy vehicle lanes can be positive in encouraging car sharing and can be positive in reducing traffic levels. They are likely to be more effective if implemented in association with workplace travel plans and in areas where there is high congestion. The draft plan should consider carefully where such measures are implemented, especially as this is a new measure to Warwickshire.

4.2.8 Maintenance and minor works

No recommendations.

4.2.9 Freight movement


The impacts of freight routing strategies need to be carefully considered as they do intensify the impact on communities and the environment in some areas (i.e. those on the route network). The draft plan should include measures to reduce these unacceptable effects including traffic management measures for other users on the network and signage.

In terms of rail, preliminary studies by the DfT show that the West Coast Main Line in the midlands already has a high proportion of long distance freight moved by rail, therefore, the potential for modal shift may be more restricted in this area. The priority of the draft plan should be how the impact of local road freight can be reduced.

4.2.10 Impact of traffic on centres

No recommendations.

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
Economy			
Help to improve reliability and connectivity of the transport system?	Include schemes that decrease journey times, congestion, improve journey time reliability and help to support Warwickshire's already strong economy?	Warwickshire benefits from a relatively strong and diverse economy and has seen strong employment growth over recent years. However, in the absence of measures promoted through the LTP necessary schemes will not be implemented and journey times and congestion will increase. Congestion may be especially severe in Warwick as although traffic speed data in the main towns (a proxy for congestion) do not show any clear pattern they do show that congestion in Warwick is more severe than in other areas. This is likely to be a long term effect (but reversible if successful schemes are implemented in the future) and will be significantly negative.	●
Support the delivery of the future spatial strategy?	Provide the necessary infrastructure to support the spatial strategy in a sustainable manner?	In the absence of measures promoted through the LTP the necessary infrastructure will not be put in place and journey times and congestion will increase. This is especially the case in the main towns as growth continues but without supporting transport infrastructure. This is likely to be a long term effect (but reversible if infrastructure is provided in the future) and will be significantly negative.	●
Enhance resilience through good management and maintenance of the transport system?	Help to manage routes effectively in order to maintain journey times?	Network management duties under the Traffic Management Act 2004 including civil parking enforcement will continue. However, despite network management duties remaining it would be increasingly difficult to manage routes effectively in the face of increased traffic growth and congestion. Only maintaining transport assets to a statutory minimum level would increase the maintenance backlog. This is likely to be a long term effect (but reversible if enhanced maintenance is provided in the future) and will be significantly negative.	●
Provide wider support to the economy through the movement of people and goods?	Provide / encourage the use of alternatives to road freight and provide routes for freight traffic that reduces impacts	In the absence of the plan there will be no measures to encourage alternatives to road freight and no encouragement to freight users to use advisory routes. Warwickshire experiences a lot of through movement of road based freight haulage and road freight does cause problems in some	●




Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
	<p>on communities and the environment?</p> <p>Increase access to jobs, towns, tourist attractions, rural areas and the countryside by sustainable means?</p>	<p>areas. The majority of freight in the County will always be moved by road. In the absence of measures promoted through the LTP the impact of this freight traffic will worsen. This is likely to be a long term effect (but reversible if action is taken in the future) and will be significantly negative.</p> <p>Almost half the residents of North Warwickshire work elsewhere. High levels of trips are made from North Warwickshire towards Tamworth, Sutton Coldfield, Birmingham, Nuneaton and Coventry. A large proportion of people from outside the County work in Warwickshire. The majority of people in the area commute to work by car and in the absence of measures in the LTP (including promotion of workplace travel plans) travel by sustainable means (to jobs and other attractions/services) will remain low. This may be exacerbated through the future growth strategy of urban renaissance if more jobs are concentrated in the Major Urban Areas to the detriment of the smaller settlements. This is likely to be a long term effect (but reversible if conditions change) and will be significantly negative.</p>	
Carbon emissions			
Reduce carbon emissions	<p>Cause a change in vehicle miles or a change in the nature³ of traffic that would cause changes in fuel use and CO₂. (Link to LAA indicator NI 186: per capita CO₂ emissions in the Local Authority area)</p> <p>Increase the use of energy</p>	<p>Traffic mileage in Warwickshire is increasing but at a slower rate than was targeted. Traffic speed data in the main towns (a proxy for congestion) do not show any clear pattern but do show that congestion in Warwick is more severe than in other areas. In the absence of measures promoted through the LTP, vehicle miles, journey times and congestion will increase in the future baseline especially in the main towns as growth continues. The largest emitter of CO₂, in regards to road transport, in Warwickshire is North Warwickshire, followed by Stratford upon Avon and Warwick, reflecting the road network and traffic density. CO₂ levels are likely to rise in the absence of measures bought forward as part of the LTP as there will be little support</p>	

³ Nature of traffic is meant as a very broad term and refers to the make up of traffic (i.e. % of HGVs), timing of traffic, management of traffic (i.e. installation of speed humps, changes to road surfaces etc) or anything else that might cause increased nuisance and pollution.

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
	from renewable sources in the transport system (to reach a target of 10% of the total energy consumed)	for sustainable modes and vehicle miles and congestion will increase. There is no data available on the amount of renewable energy used in the transport system in Warwickshire. The target is 10% of the total energy use in transport systems to be derived from renewable sources. In the absence of measures brought forward as part of the LTP the target is unlikely to be met. Impacts on carbon emissions are likely to be a long term and irreversible effect (due to the long lag time in the climate) and will be significantly negative.	
Ensure that the transport system can cope with the unavoidable effects of climate change	Reduce the unavoidable effects of climate change (link to LAA indicator NI 188: Adapting to climate change)	The County is likely to experience a number of changes due to climate change such as warmer wetter winters, more stormy weather and hotter summers. This will have numerous effects on the transport system. A certain amount of unavoidable climate change is inevitable and will need to be planned for. As highway and bridge maintenance duties will continue in the absence of the plan it is assumed that some measures will be implemented to ameliorate the effects, thus reducing the effect from significant to minor negative. However, the effect is still negative, long term and irreversible.	●
Equality of access			
Improve accessibility to basic services for all groups in society?	Improve provision of public and community transport that makes key services ⁴ more accessible to all groups of people ⁵ (link to LAA indicator NI 75 Access to services and facilities by public transport,	Access to services in Warwickshire is poor in many areas for people without a car. Without the measures taken forward as part of the LTP accessibility levels will decline as services are withdrawn. Levels are also likely to decline with the withdrawal of the funding for the transport schemes taken forward as part of the WRASP. This is likely to be a long term effect (but reversible if conditions change with regards to accessibility) and will be significantly negative.	●

⁴Key services include schools and learning, open space and recreation, jobs, leisure facilities, areas of cultural heritage and health facilities

⁵ According to the DfT this should include groups defined by race, gender, disability, age, religion and sexual orientation

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
	cycling and walking).	Travel by different age groups and social groups can be very different and provision needs to be tailored more effectively. The information available on travel by different groups is not complete for Warwickshire. However, in the absence of measures taken forward as part of the LTP accessibility levels will decline for all groups. This is likely to be a long term effect (but reversible if successful schemes are implemented in the future) and will be significantly negative.	
Help to improve the quality of urban and rural centres and reduce severance?	Reduce traffic levels, severance, congestion or the nature of traffic in residential areas / town and village centres? Cause changes that reduce the impact of the transport system on townscape or introduce features that enhance the character of towns?	Community severance is caused by large volumes of traffic in many areas of the county. The future impact is dependent on future traffic levels. Without the measures put forward in the LTP traffic levels are likely to increase. Bus use and bus satisfaction have increased. Without the measures put forward in the LTP, congestion is likely to increase causing issues with bus time reliability. This may lead to a decrease in patronage and satisfaction. This is likely to be a long term effect (but reversible if traffic conditions improve) and will be significantly negative.	
Safety, security and health			
Reduce the risk of death or injury on the transport system?	Lead to a decrease in traffic accidents /accident severity and help to meet KSI targets (link to LAA indicator NI 47 on road accidents)?	Numbers of people killed or seriously injured (KSI) and the numbers of children killed or seriously injured are both decreasing. The council is now on track to meet the original KSI 2010/11 target of 393 in 2008/09. Severity of car accidents may decrease in the longer term due to improved vehicle design and increased safety awareness amongst the public. However, in the absence of the measures in the LTP vehicle miles will increase (potentially increasing the number of accidents). Therefore, the number of accidents might increase in the absence of the plan but their severity may decrease due to changes in vehicle design.	 (accident numbers)  (accident severity)

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
Make healthier modes of travel more attractive?	Increase walking and cycling to help increase the numbers of people regularly participating in physical activity (link to LAA local indicator 8 on increasing physical activity and NI156 on childhood obesity)?	<p>The population of Warwickshire is ageing and this needs to be considered in the provision of services and transport. The Warwickshire Blueprint work suggests that over 60's will make up 24% of the population in 2031 (compared to 17% of total population in 2006).</p> <p>Obesity is a particular problem for Warwickshire where the County's population is appearing high on regional league tables for obesity levels. Numbers of children who are obese is lower than the national average but the figures are still a cause for concern. 10.7% of Warwickshire's adult population are physically active, compared to 10.8% in England. In the absence of measures in the LTP to promote walking and cycling and reduce traffic and congestion, levels of walking and cycling are likely to decline. This will have a negative (potentially long term) effect on obesity levels and general health. However, this has not been scored as significantly negative because other factors are just as (if not more) important in encouraging people to take exercise.</p>	●
Reduce the impact of the transport system on air quality?	Cause any changes to traffic levels (particularly a change of over 10%) or the nature ⁶ of traffic past sensitive receptors (including	Air quality across the County is considered to be largely good but traffic is increasing in some of the AQMAs. Forecast improvements in vehicle technology mean that emissions of local pollutants should decrease in the future baseline although increased traffic and congestion might offset this in more urban areas.	○ (rural areas) ● (towns)

⁶ Nature of traffic is meant as a very broad term and refers to the make up of traffic (i.e. % of HGVs), timing of traffic, management of traffic (i.e. installation of speed humps, changes to road surfaces etc) or anything else that might cause increased nuisance and pollution.

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
	AQMAs)?		
Improve the security of the transport system?	Make transport systems / interchanges more secure? ⁷	There is no data on the security of the transport system. However, in the absence of the plan and measures to improve security, it is likely to deteriorate. This is likely to be a long term effect (but reversible if successful schemes are implemented in the future). It has not been scored as significantly negative as other factors (such as actual crime levels, people's fear of crime, and design of new development and bus and train stations etc) are also likely to play their part and these are not influenced by the LTP.	●
Quality of life/environment			
Reduce the impact of the transport system on noise?	<ul style="list-style-type: none"> • Cause any changes to traffic levels (particularly a change of over 10%) or the nature of traffic past sensitive receptors or on sensitive /tranquil routes that would help to achieve WHO noise guidelines? 	People taking short cuts is likely to increase through rural lanes etc as drivers seek alternative routes to avoid congestion hot spots. Adverse noise impacts of increased growth in traffic and congestion are likely to affect towns and this may also lead to peak spreading (meaning that the noise will be present for longer periods of the day). This is likely to be a long term effect (but reversible if traffic conditions change in the future). However, it is only likely to be significantly negative in areas where traffic increases over 10% or the % of HGVs increases. This is likely to be a small proportion of the county so this has been marked as negative (but not significantly negative).	●
Protect and enhance townscape, landscape quality and character	<ul style="list-style-type: none"> • Cause changes in traffic flows in areas that are valued for their landscape character? 	There is a scarcity of tranquil areas within Warwickshire. Only the south-western and south-eastern fringes of Stratford District, the southern part of Rugby Borough and the central area of North Warwickshire Borough have a large proportion of tranquil areas. Least tranquil areas are currently within Warwick District and Nuneaton & Bedworth Borough. The least tranquil areas are associated with built up areas and transport corridors. This is	●●

⁷ It will be important for this objective to consider equality issues (the DfT recommends analysing effects related to race, gender, disability, age, religion and sexual orientation if possible)

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
		<p>likely to worsen as traffic levels increase, there is continued growth in air traffic and the spread of towns and associated infrastructure. This may lead to people taking short cuts through rural lanes etc as people try to escape worsening traffic hotpots.</p> <p>Warwickshire contains some protected landscapes, particularly in the south of the County. Transport can affect landscape in a number of ways and transport is having a detrimental affect on a number of countryside character areas. It is assumed that traffic levels will increase in the future. Without the actions in the LTP3 it is assumed that the negative impact of transport on landscape will increase. This is likely to be a long term effect (but reversible if conditions change in the future) and will be significantly negative if traffic reduces the amount of unspoilt and tranquil countryside in the county.</p>	
Protect and enhance biodiversity and geodiversity at all levels	<ul style="list-style-type: none"> • Cause direct loss of geodiversity or habitat fragmentation / loss especially that would risk achievement of Warwickshire BAP priority targets? • Cause a change in traffic flows or nature of traffic that will affect sensitive habitats or focal species? • Result in habitat creation and contribute to the achievement of the Warwickshire BAP targets? 	<p>Warwickshire is a County rich in biodiversity including international, national and local sites. Many of these sites and habitats occur next to highways, cycle routes, green lanes or other transport corridors. There have been significant declines in certain habitats and species in past years and much of the West Midlands wildlife is still under threat. Without active management it can be assumed that some habitats and species at least will continue to decline. Climate change is likely to result in changes to biodiversity such as in the distribution of species, in species composition of habitats, effects of drier/hotter summers and wetter/warmer winters land use changes and seasonal/phenological changes and some of these changes will promote biodiversity and some will be negative (therefore, the effect is uncertain). Without the plan there will be little opportunity to enhance roadside wildlife. However, this will be offset by a reduced impact from new infrastructure that would have been implemented through the LTP3.</p>	○/?

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
Protect and enhance buildings, sites, areas and features of historic, archaeological and architectural interest	<ul style="list-style-type: none"> • Cause direct impacts on sites or monuments through the provision of new infrastructure? • Cause a change in traffic flows or the nature of traffic that affects townscape, sites and monuments valued for their cultural heritage or changes the number of sites at risk? 	<p>There is a substantial cultural heritage resource within Warwickshire, with a high proportion of Listed Buildings and Conservation Areas, particularly concentrated within Warwick and Stratford. There are 3 Conservation Areas in Warwickshire are at risk, 19 listed buildings, 62 scheduled monuments and 4 registered parks and gardens are also at risk. Without intervention the heritage assets will remain at risk from inappropriate development affecting their settings. However, this may be partly offset by a reduced impact from new infrastructure that would have been implemented through the LTP3.</p> <p>Transport can have negative effects on the townscape and heritage of the settlements it passes through. There is a lack of published information about how the townscapes in Warwickshire are currently affected by traffic although it can be assumed that at least some towns are negatively affected. In the absence of the LTP, traffic levels are likely to increase in coming years with significant housing and economic growth. Also, in the absence of the LTP maintenance schemes are more likely to use standard materials which would not enhance the character of the streets. This is likely to be a long term effect (but reversible if conditions change in the future) and will be significantly negative.</p>	
Minimise the impact of the transport system on water resources, soil and mineral resources	<ul style="list-style-type: none"> • Cause an improvement in water quality that could help to meet the WFD target of achievement of good ecological status of water bodies by 2015? • Cause changes to maintenance regimes that may decrease the need for water or decrease the 	<p>There was a gradual improvement in chemical water quality nationally and in Warwickshire between 2001 and 2006. In 2006 chemical water quality levels in North Warwickshire and Nuneaton & Bedworth were significantly below levels in the rest of the County. Biological water quality levels in Warwickshire were below the average level for England in 2006. All rivers within Warwickshire classified under the Water Framework Directive (WFD) assessment were determined to be “at risk” with regards to the WFD criteria. Without intervention, water quality will continue to remain ‘at risk’ with regard to the Water Framework Directive criteria. As highway and bridge maintenance duties will continue in the absence of the plan it is assumed that some measures will be implemented to ameliorate the effects</p>	

Assessment Table 1: Option - Future Baseline			
SEA Objective	SEA Indicator	Impact of the option (including if appropriate nature and spatial extent of the impact, probability, duration, frequency and reversibility)	Significance of the effect
	<p>potential for flooding?</p> <ul style="list-style-type: none"> • Reduce the demand for aggregate? • Help to protect loss or pollution of soils which support valued habitats or are already experiencing erosion? 	<p>on water and soil. However, the effect is still negative, long term and irreversible.</p> <p>Transport of minerals and waste by road can cause problems to local communities. Transport of minerals is likely to remain mainly by HGV. The future growth strategy will mean that more sand and gravel quarries are needed. Warwickshire County Council considers that coal could be transported from Daw Mill Colliery in Warwickshire to power stations outside of the County, such as Rugeley. In the absence of freight management measures freight traffic in unsuitable routes will increase. This is likely to be a long term effect (but reversible if action is taken in the future) and will be significantly negative.</p>	

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
Integration of planning and transport planning						
Better integration of transport and land use planning to reduce the need to travel	X	X	X	X	X	Better integration of transport and land use planning helps to ensure that development has adequate transport infrastructure to support development in a way that is sustainable and does not increase congestion, traffic in inappropriate areas and total vehicle miles. This reduces the risk of impacts on the economy, air quality, CO ₂ emissions and community effects such as severance.
Parking						
Better enforcement of parking restrictions Increasing car parking charges in town centres	X				X	Increasing parking charges in town centres and enforcing parking restrictions may have some positive effects on traffic in town centres but only if alternative modes of transport are available. If they are not, this may cause people to choose to travel to other centres.
Travel information						

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
<p>Tailored travel information for local journeys (Personalised Travel Planning) (new to Warwickshire)</p> <p>Education & promotional campaigns</p> <p>Improved passenger information before and during travel</p>	X	X	X	X	X	<p>Tailored travel information is likely to be the most effective out of these measures in helping people to make more sustainable travel choices. However, it is costly, so may not be a practical approach if resources are uncertain. Educational and promotional programmes are also likely to be effective at providing people with information on travel choices and potentially improving accessibility and potentially causing a small amount of modal shift, thus having secondary effects on the environment.</p> <p>Measures new to Warwickshire – Personalised travel planning can be effective in inducing modal shift by making people aware of travel options. However, it can be costly to operate and careful thought would need to be given to its targeting. The council have given it a low priority.</p> <p><u>Useful evidence/information</u></p> <p>Personalised travel planning is costly to operate. Research on the DfT sustainable travel towns indicate that the cost per individual receiving intervention materials (including contractor costs, materials costs and staff costs but not monitoring) was roughly £25-£29 (1).</p> <p>Research has shown that traditional information services are not appropriate for occasional public transport users. Simpler information which does not require detailed knowledge (e.g. of street names) and more flexible tickets and ticket purchase options are needed (2)</p> <p>(1) DfT (2010): <i>The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Full Report</i>. (2) Scottish Executive Development Department Research Programme (2003): <i>Barriers to Modal Shift. Research Findings No.171/2003</i>. Derek Halden Consultancy.</p>
Work and school travel						

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
Safer Routes to School School Travel Plans to reduce car use for school journeys	X	X	X	X	X	<p>This will be positive in terms of accessibility by increasing choice. If they cause some level of modal shift from car use they will be positive for climate, the environment and the economy (from reducing car miles and congestion).</p> <p><u>Useful evidence/information</u></p> <p>The DfT sustainable travel demonstration towns showed that interventions targeted at school and workplace travel are likely to have been particularly important in the towns, because of their effect on peak hour trips. Car use for the journey to school fell by between 9% and 17% in the three towns (as measured by school travel surveys) (1).</p> <p>In Warwickshire, the 2008/2009 census indicated that 65% of all school children travel to school using sustainable miles up from 63% in 2007/2008 (2)</p> <p>(1) DfT (2010): <i>The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Full Report.</i></p> <p>(2) <i>Warwickshire LTP Delivery Report 2008/2009.</i></p>

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
Workplace Travel Plans to reduce car use for commuting Charging for car parking at work places	X	X	X	X	X	<p>This will be positive in terms of accessibility by increasing choice. If they cause some level of modal shift from car use they will be positive for climate, the environment and the economy (from reducing car miles and congestion).</p> <p><u>Useful evidence/information</u></p> <p>The 2004 research (1) showed that workplace travel plans can be successful in urban and rural areas. However, one important aspect was thought to be parking with the most successful travel plans reducing parking or charging for parking.</p> <p>The DfT sustainable travel demonstration towns showed that interventions targeted at school and workplace travel are likely to have been particularly important in the towns, because of their effect on peak hour trips. Car driver distance for commuting fell amongst residents of two of the towns (as measured by the household survey) (2).</p> <p>Recent research on business attitudes to transport has shown that take up of travel plans is low (apart from in large organisations) and businesses see transport as a fairly low priority (3). As businesses are unlikely to voluntarily undertake WTPs, it is important that incentives or planning requirements are implemented, for example (3)</p> <p>The number of the workforce covered by a workplace travel plan in Warwickshire has increased from 8.6% in 2005/06 to 14.8% in 2008/2009 but it is unclear whether these are voluntary or through planning conditions (4).</p> <p>(1) Cairns S, Sloman L, Newson C, Anable J, Kirkbride A & Goodwin P (2004) 'Smarter Choices – Changing the Way We Travel'.</p> <p>(2) DfT (2010): <i>The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Full Report. Chapter on walking and cycling.</i></p> <p>(3) DfT (2009): <i>Business attitudes to transport: knowledge review of the existing evidence</i></p> <p>(4) <i>Warwickshire LTP Delivery Report 2008/2009.</i></p>

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
Walking and cycling						
Develop cycle routes in and around our main towns Promotional events & activities (including publishing town centre cycle guides) Cycle parking at key destinations Cycle training for children & adults Pedestrian crossing facilities Reduce crime and fear of crime on key pedestrian routes Introduce pool bicycles (Bike Hubs) for individual use within main towns (new to Warwickshire)	X	X	X	X	X	<p>Improving walking and cycling provision can be positive in many ways – it can help directly improve health and accessibility. A secondary effect is potential reductions in car mileage (which has effects on the economy and the environment). However, walking and cycling schemes should not be implemented to reduce car mileage alone as they are likely to have a relatively small effect on this (especially in rural areas).</p> <p>Measures new to Warwickshire – pool bicycles have been used in some of the DfT sustainable travel towns and were found to be useful to help encourage people who cannot afford a cycle to use this mode. The effect on car mileage is unlikely to be significant but the measure is very positive for accessibility.</p> <p><u>Useful evidence/information</u></p> <p>Cycling in Warwickshire has been on the increase in Warwickshire and the number of cycling trips has increased 20% since 2004 (1). The corresponding decrease in road traffic mileage is not known.</p> <p>A lot of work on the success of cycling and walking measures has been undertaken for the DfT sustainable travel demonstration towns (2). It is difficult to compare the results from these with Warwickshire but some general comments can be made. Please note that the sustainable travel demonstration towns included more measures than just walking and cycling and the results look at the success of the measures as a whole. Car driver mileage by residents of the Sustainable Travel Towns fell by about 5%~7% (on trips <50km) during the course of the programme. Effects of walking and cycling alone, however, are likely to be much lower than this. Climate emissions also dropped by about 50kg per person per annum.</p> <p>The towns experienced different levels of increase in cycling (from 0% increase but against a background of decline) to a 100% increase. Not all towns sustained their increase. This highlighted the importance of ongoing initiatives and/or locking in with new infrastructure, in order to generate a new trajectory of cycle use.</p>

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
						<p>Although the risk of an accident per kilometre walked or cycled did not necessarily increase, two of the towns did see increases in absolute numbers for some types of casualty. Authorities setting out to encourage walking and cycling should support their promotional efforts with a strong programme of measures to improve the safety of active travel, such as 20mph zones, safe cycling infrastructure and other highways safety measures. In addition, the number of people who never do any physical activity has decreased in all the towns.</p> <p>(1) <i>Warwickshire LTP Delivery Report 2008/2009.</i></p> <p>(2) DfT (2010): <i>The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Full Report.</i></p>
Passenger transport						
<p>Improvements to buses (including new buses and increased service frequency / QBCs)</p> <p>Bus priority</p> <p>Improved public transport interchange</p> <p>Concessionary fares schemes</p> <p>Flexible buses offering door to door transport for eligible groups</p>	X	X	X	X	X	<p>Improving public transport services will improve accessibility and social inclusion, especially the use of flexible buses. A secondary effect is potential reductions in car mileage (which has effects on the economy and the environment) if the improved services and infrastructure cause people to move from car travel to public transport.</p> <p><u>Useful evidence/information</u></p> <p>Research (1) on quality bus partnerships shows that patronage increases of between 5 and 50% can be expected with route upgrades.</p> <p>Newer research on the sustainable travel demonstration towns has shown that where there was a focus on encouraging a particular mode of travel, promotional measures that were accompanied by improvements in the quality of the 'offer' (e.g. better bus services, or new cycle infrastructure) this yielded comparatively greater success (2).</p> <p>In Warwickshire the ridership of buses on the Quality Bus Partnership routes has increased by over 40% since 2003/2004) (3).</p> <p>(1) Cairns S, Sloman L, Newson C, Anable J, Kirkbride A & Goodwin P (2004) <i>Smarter</i></p>

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
						<p><i>Choices – Changing the Way We Travel.</i></p> <p>(2) DfT (2010): <i>The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Full Report.</i></p> <p>(3) <i>Warwickshire LTP Delivery Report 2008/2009.</i></p>
<p>Rapid transit / light rail (<i>new to Warwickshire</i>)</p> <p>Rail development / new rail stations</p>	X	X	X	X	X	<p>Improving public transport services will improve accessibility and social inclusion. A secondary effect is potential reductions in car mileage (which has effects on the economy and the environment) if the improved services and infrastructure cause people to move from car travel to public transport.</p> <p>Measures new to Warwickshire – rapid transit / light rail can be positive in the right circumstances and has proved to be well used in large city areas such as Birmingham. They are costly to build and careful thought is needed as to what areas of Warwickshire they are suitable for. The council have given it a low priority.</p> <p><u>Useful evidence/information</u></p> <p>In the UK as a whole, Rail travel has increased by nearly 70 per cent since 1980 despite the effects of the Hatfield crash in October 2000. Investment in national rail infrastructure has increased significantly since privatisation. The reliability of train services has been improving gradually since 2000, as has passenger satisfaction with journeys undertaken (1).</p> <p>In Warwickshire Coleshill Parkway has attracted around 70% of passengers that are new to rail and this is indicative that people are choosing to travel by train in favour of other modes. Rail patronage in Warwickshire in general is also up from 3.81 million passenger journeys in 2003/04 to 5.54 in 2008/09 (for rail services to and from Warwickshire) (2).</p> <p>Light rail can be popular in the right circumstances. The eight light rail systems in England (including Centro West Midlands) between them account for around 4 per cent (188 million passenger journeys) of local public transport journeys in 2008/09. This is nearly three times as many journeys as were made in 1985/86. Usage has increased as new lines are developed</p>

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
						<p>and existing lines extended (3).</p> <p>Research has shown that the main barriers to travelling by train are hard factors such as the competitiveness of travel time and cost and rail capacity and reliability (2). Other research has suggested that rail travel may be of growing importance to businesses, reflecting perceived advantages such as ability to work on trains, easier access to city centres and being less stressful than driving. However, dissatisfaction with rail fare prices, punctuality and parking at stations was also highlighted (4).</p> <p>(1) <i>DfT Transport Trends, February 2009</i></p> <p>(2) <i>Warwickshire LTP Delivery Report 2008/2009.</i></p> <p>(3) <i>Scottish Executive Development Department Research Programme (2003): Barriers to Modal Shift. Research Findings No.171/2003. Derek Halden Consultancy.</i></p> <p>(4) <i>DfT (2009): Business attitudes to transport: knowledge review of the existing evidence</i></p>
Road users						
Improved signage and information for road users	X	X	X	X	X	Improved signage and information for road users can help reduce congestion and the economy by routing drivers more effectively around town centres in particular. This can have secondary effects on safety, climate and the environment (by reducing unnecessary car mileage and congestion).
Speed reduction measures, including enforcement, education and engineering measures				X		<p>Speed reduction measures can be positive in reducing CO₂ emissions and improving safety. There is a strong link between vehicle speed in built up areas, the risk of collisions with pedestrians and to the level of injury sustained. By reducing vehicle speeds through the use of packages of urban safety measures, including traffic calming and traffic management, injuries to pedestrians can be reduced. A secondary effect of this is increasing walking and cycling rates if the fear of traffic is decreased.</p> <p><u>Useful evidence/information</u></p>

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						<p>Studies have shown that higher speeds increase both the likelihood of injuries and their severity (1)</p> <p>In the research below, the introduction of 20 miles/h zones led to a 61 per cent reduction in all casualties and a 70 per cent reduction in child pedestrian casualties in the affected areas (3)</p> <p>Studies have also shown that the main barrier to cycling is fear of traffic (2).</p> <p>(1) TRL (2007): <i>The manual for streets – evidence and research</i>.</p> <p>(2) TRL Report 481. <i>A quantitative study of the attitudes of individuals to cycling</i>, 2001</p> <p>(3) Webster, D., and Mackie, A. (1996) <i>Review of traffic calming schemes in 20 mph zones</i>. TRL Report 215. Transport Research Laboratory, Crowthorne)</p>
<p>Car sharing (including promotion of Carsharing database to companies)</p> <p>Pool cars for individual use in local communities (carclubs)</p> <p>Dedicated lanes for vehicles with two or more passengers (HoV lanes) (new to Warwickshire)</p>	X	X			X	<p>This is positive for accessibility as it can provide access to a car / lift for people who may not be able to afford a car and encourage its use through HoV lanes. If people who already own a car are switching to car sharing or getting rid of their car to use a community car club this might have some effect on car mileage. However, in isolation this is likely to be relatively insignificant.</p> <p>Measures new to Warwickshire – HoV lanes can be positive in encouraging car sharing and can be positive in reducing traffic levels. They are likely to be more effective if implemented in association with workplace travel plans and in areas where there is high congestion.</p>
Charging for road use at the point of travel	X	X			X	<p>Road user charging can reduce car mileage and congestion depending on how it is implemented. If car mileage and congestion are reduced there will be positive secondary effects on CO₂, air quality and other environmental and quality of life factors. If people have no option but to travel by car for reasons of disability etc, blanket road user charging can be negative for equality and accessibility.</p> <p><u>Useful evidence/information</u></p>

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
						<p>Vehicle miles in Warwickshire have increased by 5% since 2004 (1)</p> <p>According to SACTRA (2), there is scope to achieve some reduction in traffic volumes through restraint measures which will at the same time improve economic efficiency. However, these should be focused on congested parts of the network.</p> <p>(1) <i>Warwickshire LTP Delivery Report 2008/2009.</i></p> <p>(2) SACTRA (2000): <i>Transport investment, transport intensity and economic growth.</i></p>
Maintenance and minor works						
Maintain footways and cycleways to a high standard				X		This will contribute to improved pedestrian safety (by investment in the longer term condition) and may persuade some people to walk or cycle where they otherwise may not have.
Maintaining the highway to a good standard	X			X		Maintenance of highway structures to approved standards contributes to safety, availability of the road network and maximizes value for money investment. There are likely to be limited effects in relation to traffic flow/congestion.
Co-ordinate works and manage incidents on the highway to minimise disruption	X					This will have positive economic effects as traffic disruption and delay is minimised.
Minor junction / signal improvements at congestion hotspots	X			X	X	This will have positive economic effects as traffic flow (and journey time and reliability) should improve at congestion hotspots. This might also have positive effects on CO ₂ if the flows of traffic are improved and stop-start motoring is reduced.
Engineering measures at collision hotspots	X			X		This will have positive safety effects as collision hotspots are made safer. This will also have positive economic effects if disruption (and journey time and reliability) is minimised.
Freight movement						
Improving the movement of freight in the County e.g. transfer	X	X		X	X	The traffic effects of implementing freight networks and restrictions are to reduce the unacceptable effects of lorries on some areas and at unacceptable times of day (in town)

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
of freight from road to rail, routing of heavy goods vehicles via suitable roads						<p>centres). However, there will still be impacts on areas unsuitable for freight. Although a strategy could reduce the overall negative traffic effects of freight it will in effect intensify the impact in some areas (i.e. those on the route network). The strategy should include measures to reduce these unacceptable effects including traffic management, measures for other users on the network and signage. If the strategy is successful in reducing overall miles travelled this will be positive for CO₂ in particular as HGVs are responsible for around 20% of UK domestic transport GHG emissions and vans for around 11% (2). Preliminary studies by the DfT show that the West Coast Main Line in the midlands already has a high proportion of long distance freight moved by rail, therefore, the potential for modal shift may be more restricted in this area (3). The priority should be how the impact of local freight can be reduced.</p> <p><u>Useful evidence/information</u></p> <p>The amount of domestic freight moved in the UK has increased overall by 40% between 1980 and 2008. The majority of the increase is due to goods moved by road, which has increased by 76 per cent since 1980. The average length of haul for road freight has increased since 1980. At 88 kilometres, it is now 31 per cent higher than at the start of the period (1).</p> <p>(1) DfT <i>Transport Trends, February 2009</i></p> <p>(2) DfT (April 2010): <i>Freight Modal Choice Study</i></p> <p>(3) DfT (December 2008): <i>Delivering a sustainable transport system: the logistics perspective</i></p>
Impact of traffic on centres						
Village Traffic Calming	X			X	X	<p>These measures are likely to be positive in reducing some of the effects of traffic in town and village centres. This will also have positive effects in terms of the environment including air quality, noise, landscape and townscape.</p> <p>Measures new to Warwickshire – low emission zones could be useful in areas of poor air quality by requiring vehicles to meet Euro III standards for particulate emissions. There are a number of areas with declared AQMAs. Delivery and stopping restrictions could reduce</p>
Introduce low emission zones in areas of poor air quality (new to Warwickshire)						
Delivery and stopping restrictions						

Assessment Table 2: Assessment of strategy measures						
Measure	Economy	Climate	Equality	Safety	Env	Reasoning behind the assessment Useful evidence to assist the assessment of draft plan
<p>in town centres and along key routes (inc. Red Routes) (new to Warwickshire)</p> <p>Pedestrianisation/pedestrian priority in town centres</p> <p>Traffic restrictions / re-routing at times when air quality is poor</p>						<p>congestion by stopping inappropriate stopping and parking.</p>