



Warwickshire Local
Transport Plan 3
Strategic Environmental
Assessment

Environmental Report

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Non Technical Summary

This report

This report is the Non Technical Summary of the Environmental Report for Warwickshire's Third Local Transport Plan. The Environmental Report sets out the results of the Strategic Environmental Assessment (SEA) of the Warwickshire Local Transport Plan 3 (LTP3). The purpose of the Environmental Report is to give consultees information on the potential environmental and sustainability effects of the Draft LTP3 and to assist Warwickshire County Council in improving the Final LTP3.

The SEA process

The Warwickshire LTP3 is being subject to a full SEA in line with the requirements of *Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004* (otherwise known as the SEA Regulations).

The SEA has been carried out by independent consultants ENVIRON, using the following guidance: Department for Transport (April 2009): *Strategic Environmental Assessment for Transport Plans and Programmes. TAG Unit 2.11. "In draft" Guidance.*

Warwickshire's LTP3

The Local Transport Act 2008 requires most local transport authorities (including County Councils) in England to produce and maintain a Local Transport Plan (LTP). This is the third Local Transport Plan produced for Warwickshire. LTP1 covered the period 2001/02 to 2005/06 and LTP2 covered the period 2006/7 to 2010/11.

The LTP3 consists of a strategy and an implementation plan. The Strategy sets out the overall policy framework within which transport needs to be considered within Warwickshire. The timeframe for the strategy element is 2011-2026 and has been chosen to align the document with the Regional Spatial Strategy (RSS) and the Sustainable Community Strategy (SCS) for Warwickshire. The Strategy is split into modal / topic strategies and also into the following geographical areas:

- Northern Warwickshire;
- Eastern Warwickshire;
- Nuneaton and Bedworth;
- Leamington Spa, Warwick, Kenilworth and Whitnash;
- Southern Warwickshire; and
- The North-South corridor.

The Implementation Plan sets out the priorities for investment in the short (0-5 years), medium (5-10 years) and long (10-15 years) term. The implementation plan also sets out the performance and programme management framework for the LTP.

The objectives of the LTP are as follows:

- To promote greater equality of opportunity for all citizens in order to promote a fairer, more inclusive society;
- To seek reliable and efficient transport networks which will help promote full employment and a strong, sustainable local and sub-regional economy;
- To reduce the impact of transport on people and the [built and natural] environment and improve the journey experience of transport users;
- To improve the safety, security and health of people by reducing the risk of death, injury or illness arising from transport, and by promoting travel modes that are beneficial to health;
- To encourage integration of transport, both in terms of policy planning and the physical interchange of modes; and
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change.

All elements of the LTP3 have been assessed as part of the SEA.

Stages of the SEA

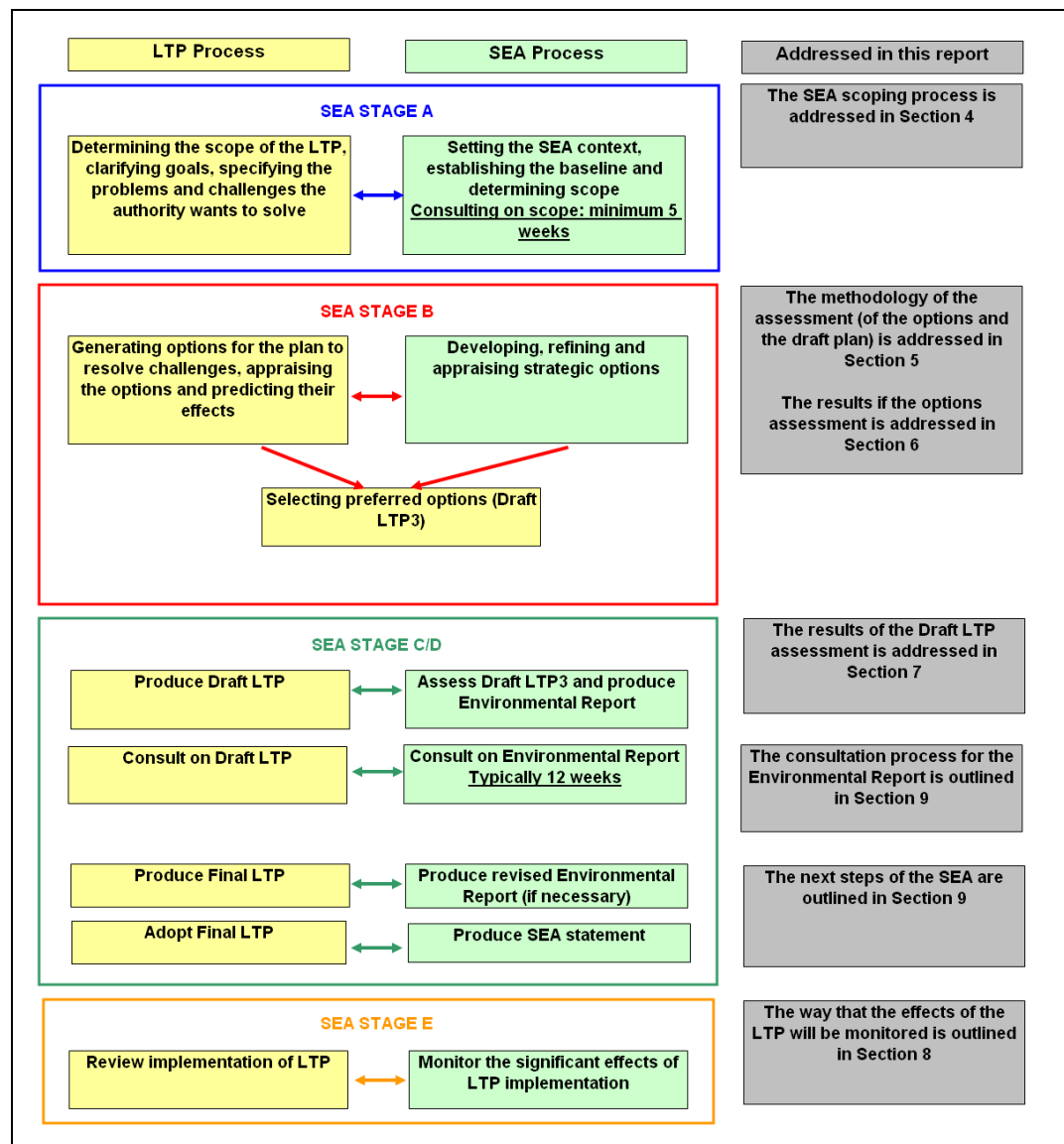
SEA is a tool to ensure the integration of environmental and sustainability considerations into the plan and decision making process. To achieve this aim, SEA is a parallel process which informs each stage of the LTP development. The LTP and SEA processes are shown in Figure NTS1.

In addition, there are two other appraisal processes taking place alongside the SEA. The first is Habitat Regulations Assessment. The *Conservation of Habitats and Species Regulations 2010* (SI 2010/490) require that any plan or programme that is likely to have a significant effect on a Natura 2000 site¹ should be subject to Habitat Regulations Assessment (HRA). Warwickshire County Council is therefore required to assess its LTP3 through the HRA process as policies and transport projects in the plan can potentially affect Natura 2000 sites. Warwickshire County Council will be undertaking a HRA screening assessment to decide whether a full assessment will be required and a HRA screening report has been published alongside the publication of the Draft LTP3. The second appraisal process is Equality Impact Assessment (EQIA). Local authorities have a duty under race, disability and gender legislation² to carry out an Equality Impact Assessment (EQIA) of their LTP³. EQIA can help determine how an LTP affects different groups of people. DfT guidance on LTPs advises that an EQIA encompass race, gender, disability, age, religion/belief and sexual orientation. Warwickshire County Council will be producing an EQIA before the plan is finalised.

¹ Natura 2000 is an ecological network of protected conservation areas, set up to ensure the survival of Europe's most valuable species and habitats.

² Race Relations (Amendment) Act 2000, requirement to produce and publish a Race Equality Scheme. Disability Discrimination Act 2005, requirement to produce a Disability Equality Scheme. Equality Act 2006, requirement to produce a Gender Equality Scheme.

³ The Equality Bill, going through Parliament during July 2009, consolidates equalities legislation, giving local authorities a single duty.

Figure NTS1: The LTP and SEA Processes

Setting the Scope of the SEA

The purpose of scoping is to decide which issues should be covered in the SEA and to what level of detail. To do this the SEA team must collect information on what the environment is like in Warwickshire, how it is likely to change and must decide how transport can help to deliver the targets of other plans and programmes. A comprehensive scoping report and a set of topic papers were produced in February 2009 that detail this process. The five topic papers produced include:

- Economic growth (Topic Paper 1);
- Carbon emissions (Topic Paper 2);
- Equality of opportunity (Topic Paper 3);
- Safety, security and health (Topic Paper 4); and
- Quality of life and natural environment (Topic Paper 5).

Each topic paper set out:

- The other relevant policies, plans, programmes and sustainability objectives that the LTP is influenced by;
- Information on the baseline environment and the key environmental and sustainability issues faced in the county; and
- A SEA framework to assess the plan against. The SEA framework is the list of sustainability criteria that the plan is measured against in order to test its sustainability.

The topic papers are included as Appendix 1 to this Environmental Report. The results of the different scoping stages are summarised below plus the SEA framework that has been used to test the plan against.

Links with related plans, programmes and objectives

A review has been undertaken of other relevant plans, policies, programmes (PPPs) and objectives. Many plans and policies set the context for transport, some directly and some indirectly. These include the National Transport Goals, the Regional Spatial Strategy, the Sustainable Community Strategy and the Local Area Agreement. It is vital that the LTP directly helps to deliver the goals of these other strategies. As well as these key documents international and national legislation and the plans and policies of other organisations (or other departments within the council) can have an influence on how the LTP should develop. A summary of these key documents has been provided below. Please see Appendix 1 for the full policy review.

National Transport Goals

Developing a Sustainable Transport System (DfT, 2008) outlines five National Transport Goals:

- To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change;
- To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society;
- To contribute to better safety, security and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health;
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

The LTP has a direct role in delivering the National Transport Goals locally and the SEA tests how well it will do this.

Regional Spatial Strategy (RSS)

The spatial strategy for the West Midlands as expressed through the RSS is fundamentally one of urban renaissance. For many years the development pattern in the region has been decentralisation from the Major Urban Areas (MUAs). The future spatial strategy can be summarised as follows:

- Development of a strategic scale will be focussed on the four Major Urban Areas of Birmingham/ Solihull, The Black Country, Coventry and the North Staffordshire conurbation;
- In other parts of the region major new development will be focussed in and adjacent to towns which are most capable of balanced and sustainable growth to complement the role of the MUAs. The following nine areas have been designated for this purpose as Settlements of Significant Development (SSD): Burton upon Trent, Hereford, **Nuneaton / Bedworth, Rugby**, Shrewsbury, Stafford, Telford, **Warwick / Leamington** and Worcester;
- Beyond the MUAs and SSDs, development will be of a smaller scale, to meet local housing needs and sustain the local economy and services; and
- In the region's rural areas the strategy supports rural renaissance, with a key role for market towns and larger villages and development on an appropriate local scale to address rural affordable housing needs.

It will be important that adequate transport and other infrastructure are provided to ensure that growth is sustainable and the LTP will be key in ensuring that this infrastructure will be developed.

Sustainable Community Strategy and Local Area Agreement

The Sustainable Community Strategy (*A Sustainable Community Strategy for Warwickshire August 2009 - March 2026*) has three themes, each of which has three outcomes. The themes and outcomes are shown below.

Theme - Places:

Outcome 1: Our environment is clean, green and sustainable;

Outcome 2: Our housing is appropriate and affordable; and

Outcome 3: Our places are connected through transport, technology and services.

Theme – Prosperity:

Outcome 1: Our economy is innovative, competitive and entrepreneurial;

Outcome 2: Our workforce is diverse, trained and highly skilled; and

Outcome 3: Our economic well being is continuously improving

Theme – People:

Outcome 1: We belong to safe and strong communities where people get on together;

Outcome 2: We all live healthy, active and independent lives; and

Outcome 3: We all have the opportunity to enjoy and achieve.

The Local Area Agreement (LAA) is the key delivery plan for the Sustainable Community Strategy. It sets out the Government's and partners' priorities for Warwickshire and what will be tackled first. Success will be gauged by measuring progress against indicators. Relevant indicators include:

- NI 161 Average earnings of employees in the area;
- NI197: Improved local biodiversity – improve active management of local sites;
- N1 175 Access to services and facilities by public transport, walking and cycling (in communities defined as from towns to hamlets). 100% of the population should have basic access to services by 2010;
- NI 47 People killed or seriously injured in road traffic accidents;
- NI 56 Obesity in primary school age children in Year 6; and
- Local Indicator 8: Increase 5 a week physical activity.

The LTP can help deliver a number of these outcomes and targets. Where appropriate the contribution of transport to these outcomes and indicators have been built into the SEA framework.

Baseline data and issues

The SEA Regulations require an examination of the current state of the environment and the likely evolution of the environment without the implementation of the plan (the “without the plan scenario”). This has been done through a desk-based study with the full results reported in the individual Topic Papers. It is important that the SEA is focused on how the LTP can influence environmental and sustainability conditions. For this reason each Topic Paper clearly outlines how transport can affect the particular issue. This has then guided the baseline data that has been collected and has ensured that the most appropriate SEA framework is designed. A summary of the main issues identified is shown in Table NTS1.

Table NTS1: Sustainability baseline issues
<p>Economy</p> <p>Warwickshire benefits from a relatively strong and diverse economy and has seen strong employment growth over recent years. However, unemployment over the last year has doubled.</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.</p> <p>Most people still travel to work by car but the majority of children travel to school using sustainable modes.</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.</p> <p>Warwickshire experiences a lot of through movement of road based freight haulage and road freight does cause problems in some areas.</p>
<p>Climate</p> <p>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</p> <p>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</p> <p>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</p>
<p>Equality</p> <p>Community severance caused by large volumes of traffic in some areas of the county</p> <p>Access to services in Warwickshire is poor in many areas for people without a car</p> <p>Travel by different age groups and social groups can be very different and provision needs to be tailored more effectively</p> <p>Bus use and bus satisfaction have increased. The bus punctuality target is not quite on track.</p>
<p>Safety, security and health</p> <p>The population is ageing and this needs to be considered in the provision of services and transport</p>

Table NTS1: Sustainability baseline issues

Air quality across the County is considered to be largely good. Traffic is increasing in some of the AQMAs.

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.

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.

Quality of life and the environment

There is a scarcity of tranquil areas within Warwickshire. Least tranquil areas are in Warwick District and Nuneaton & Bedworth Borough. 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.

Warwickshire is a County rich in biodiversity from international, national and local sites. Many of these sites and habitats occur next to highways, cycle routes, green lanes or other transport corridors.

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. 3 Conservation Areas in Warwickshire are at risk. The Conservation Area of Southam is at risk due to poor quality tarmac pavements and some 1980s brick paving. The fact that the town is bypassed by the road network means it has limited economic vitality. 19 listed buildings, 62 scheduled monuments and 4 registered parks and gardens are also at risk.

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.

Transport planning can contribute to green infrastructure networks by enhancing biodiversity interest on rights of way and promoting new rights of way that link areas of green infrastructure

Transport can have negative effects on the townscape and heritage of the settlements it passes through.

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.

Transport of minerals and waste by road can cause problems to local communities.

Definition of the SEA framework

The SEA framework for the Warwickshire LTP SEA has been chosen after a review of the important issues and policies and to reflect the influence that transport can have on meeting objectives and resolving issues. The SEA framework is shown in Table NTS2. The SEA objectives represent important sustainability issues that the plan should be helping to achieve and elements of the LTP3 will be measured against the SEA objectives. The SEA appraisal questions act as more detailed reminders to the assessment team of issues that the appraisal needs to cover.

Table NTS2: SEA framework	
LTP SEA objective. Will the LTP...	LTP SEA appraisal questions. Will the LTP...
Economy	
Help to improve reliability and connectivity of the transport system?	<ul style="list-style-type: none"> • Include schemes that decrease journey times, congestion, improve journey time reliability and help to support Warwickshire's already strong economy?
Support the delivery of the future spatial strategy?	<ul style="list-style-type: none"> • Provide the necessary infrastructure to support the spatial strategy in a sustainable manner?
Enhance resilience through good management and maintenance of the transport system?	<ul style="list-style-type: none"> • Help to manage routes effectively in order to maintain journey times?
Provide wider support to the economy through the movement of people and goods?	<ul style="list-style-type: none"> • Provide / encourage the use of alternatives to road freight and provide routes for freight traffic that reduces impacts on communities and the environment? • Increase access to jobs, towns, tourist attractions, rural areas and the countryside by sustainable means?
Carbon emissions	
Reduce carbon emissions	<ul style="list-style-type: none"> • Cause a change in vehicle miles or a change in the nature 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) • Increase the use of energy from renewable sources in the transport system (to reach a target of 10% of the total energy consumed)
Ensure that the transport system can cope with the unavoidable effects of climate change	<ul style="list-style-type: none"> • Reduce the unavoidable effects of climate change (link to LAA indicator NI 188: Adapting to climate change)
Equality	
Improve accessibility to basic services for all groups in society?	<ul style="list-style-type: none"> • Improve provision of public and community transport that makes key services (**) more accessible to all groups of people (***) (link to LAA indicator NI 75 Access to services and facilities by public transport, cycling and walking).
Help to improve the quality of urban and rural centres and reduce severance?	<ul style="list-style-type: none"> • 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

Table NTS2: SEA framework	
LTP SEA objective. Will the LTP...	LTP SEA appraisal questions. Will the LTP...
	towns?
Safety, security and health	
Reduce the risk of death or injury on the transport system?	<ul style="list-style-type: none"> Lead to a decrease in traffic accidents /accident severity and help to meet KSI targets (link to LAA indicator NI 47 on road accidents)?
Make healthier modes of travel more attractive?	<ul style="list-style-type: none"> 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)?
Reduce the impact of the transport system on air quality?	<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 (including AQMAs)?
Improve the security of the transport system?	<ul style="list-style-type: none"> Make transport systems / interchanges more secure? <p>(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)).</p>
Quality of life and the 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?
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 / townscape character?
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?
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?
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 potential for flooding? Reduce the demand for aggregate? Help to protect loss or pollution of soils which support valued

Table NTS2: SEA framework	
LTP SEA objective. Will the LTP...	LTP SEA appraisal questions. Will the LTP...
	habitats or are already experiencing erosion?

Assessing the Effects of the LTP3

As recommended in DfT guidance, assessing the effects of the plan and the plan options has involved examining each strategy/measure in turn, and:

- Identifying the effects of the plan. This involves identifying changes to conditions in the future baseline scenario which are predicted to arise from the strategy/measure; and
- Assessing the significance of these effects. This involves describing these changes in terms of their magnitude, their geographical scale, the time period over which they will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether there are secondary, cumulative and/or synergistic effects. This information is then used to determine whether impacts are significant.

Identifying the effects of the plan

Expert judgement is the main way that the effects of a LTP are identified. Many of the techniques available to provide a quantitative assessment for a transport project, for example the amount of carbon dioxide expected to be generated, are not useful to the team assessing a LTP (although the methodologies behind the techniques do give the team an understanding of the important issues). This is because SEA is used to assess relatively broad strategies rather than site specific proposals.

The SEA Regulations require an assessment of cumulative effects. These have been addressed in two ways as part of the assessment. The effects of the plan as a whole have been considered. The SEA has also considered what the effects of the plan are in combination with the effects of other plans and programmes such as the Regional Spatial Strategy and the relevant Local Development Frameworks.

Assessing the significance of the effects

Once the effects are identified, it is important to discuss which of the effects are likely to be minor and which significant. The SEA Regulations specify 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, are as follows:

- 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?

The assessment of significance should involve the assessor considering the above criteria for each potential impact along with a consideration of how the plan will help to achieve (or not) the SEA objectives.

In the case of the Warwickshire LTP SEA, it has been difficult to assign significance to the effects because of the lack of detail provided in the LTP. The LTP is now split into a long term strategy document and an implementation plan. The long term strategy document for Warwickshire is mainly policy based with little guidance given in most cases to the likely location and timescale of the measures indicated (as may be expected in a long term policy based document). Even in the area strategies where broad locations for measures are sometimes given, the LTP is uncertain about when (or even if) these measures will be taken forward. This uncertainty is as a result of the lack of certainty over funding for the delivery of future transport services and schemes which is outside of the control of Warwickshire County Council.

The implementation plan is also a relatively strategic document and apart from naming the three major schemes, it does not outline any detail regarding the location of measures. In fact it states “Given the unpredictability about resources it is not sensible therefore to establish detailed programmes of work in this implementation plan”.

Because of these uncertainties in the plan itself it is impossible to establish certainty within the SEA. However, the SEA team feel that marking every impact as uncertain is not helpful. Therefore, we have adopted the following approach to significance (please see Table NTS3).






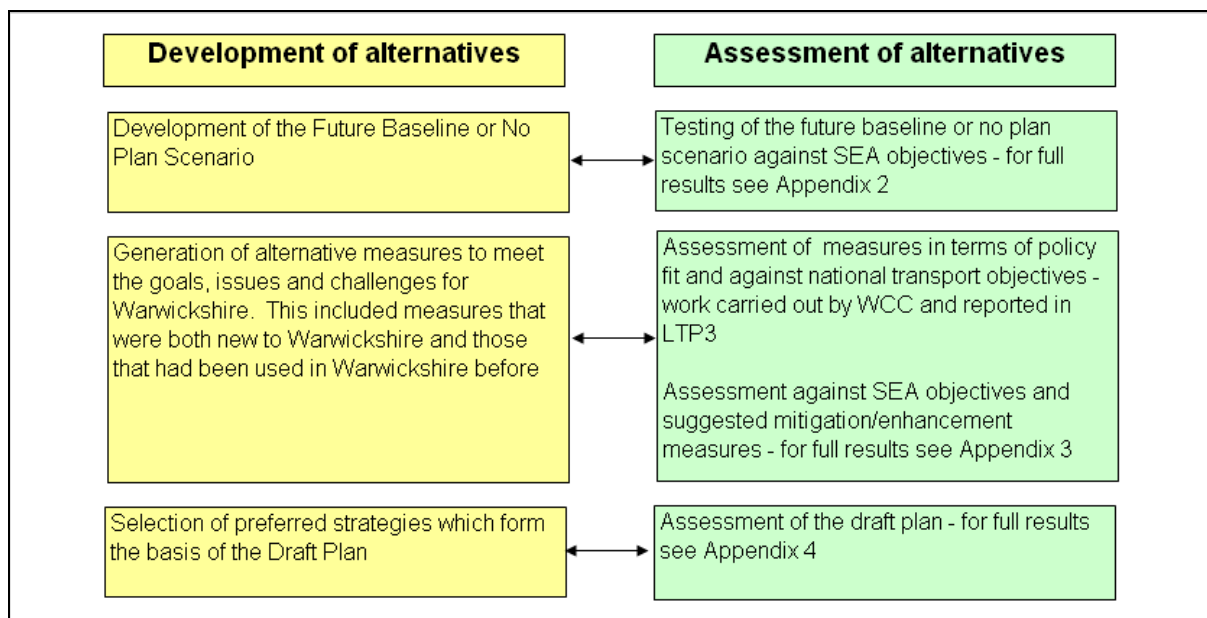
Table NTS3: SEA significance scores		
Score	Description	Symbol
Significant positive impact	The plan addresses all the elements that are required to protect the environment and address the sustainability issues in Warwickshire and would help to achieve all of the applicable SEA objectives (if implemented). The plan also sets out how, where and when these policies will be implemented and these will have a positive impact with relation to characteristics of the effect and the sensitivity of the receptors.	
Minor positive impact	The plan addresses all the elements that are required to protect the environment and address the sustainability issues in Warwickshire and would help to achieve all of the applicable SEA objectives (if implemented).	
Neutral	The plan does not have an effect on the achievement of the SEA objectives	
Minor negative impact	The plan conflicts with some of the SEA objectives	
Significant negative impact	The plan conflicts with some of the SEA objectives. The plan also sets out how, where and when these policies will be implemented and these will have a negative impact with relation to characteristics of the effect and the sensitivity of the receptors.	

Table NTS3: SEA significance scores		
Score	Description	Symbol
Uncertain	It is unclear whether there is the potential for a negative or positive effect on the SEA objective.	?

The Effect of the LTP Options

The SEA Regulations state that the SEA should identify, describe and evaluate the likely significant effects of implementing the plan or programme; and reasonable alternatives⁴. The way that reasonable alternatives are defined in the LTP process is through identification and testing of plan options. The approach Warwickshire County Council has taken to developing options (and ENVIRON's approach to assessing those options) is outlined in Figure NTS2.

Figure NTS2: Development and assessment of options



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 future baseline has been assessed and these results are shown in Appendix 2. The results are summarised below:

- The future baseline will have negative effects on many of the SEA objectives as road traffic and congestion increases and development continues and intensifies in the

⁴ Please note that for the purposes of the assessment the options presented have been considered as options and as alternative options. Therefore this report uses the terms options and alternatives interchangeably.

towns especially (but in the absence of the necessary supporting transport infrastructure provided through the LTP). 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, thus increasing the impact of freight on communities and the environment.

- CO₂ levels and air pollution are likely to rise in the absence of measures brought forward as part of the LTP as there will be little support for sustainable modes and vehicle miles will increase. Climate change itself will bring inevitable changes in the future, such as warmer wetter winters, more stormy weather and hotter summers. This will have numerous effects on the transport system. However, 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.
- Access to services is poor in many areas of Warwickshire and 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 Warwickshire Rural Access to Services Programme (WRASP). Congestion will have effects on bus punctuality and reliability and will further worsen people's experience of the transport system.
- In terms of safety, the council is now on track to meet the original targets and 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 (increasing the risk of accidents) and the assumption needs to be that accident levels remain at a similar level at least in the short term.
- Effects on the environment from the transport system are also likely to worsen in the future baseline. Increasing traffic levels and congestion is likely to impact negatively upon landscape, townscape and biodiversity.

Assessment of the alternative measures

At the options stage of the assessment there was 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 was 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. It was possible to make some recommendations at this stage on how measures might be taken forward to ensure their effectiveness and some of these are highlighted below.

- 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.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

The Effect of the Draft LTP3

This section reports on the significant effects identified as part of the assessment of the Draft LTP3. The assessment of the Draft LTP3 has been carried out on a topic by topic basis and the full assessment is reported in Appendix 4. The effects of the Draft LTP3 are summarised below. Incorporation of mitigation measures to directly prevent or reduce an effect is an iterative part of the SEA process. Where a strategy scenario is likely to have significant

adverse environmental effects, measures should be considered to prevent, reduce or offset these effects. Measures to enhance beneficial effects should also be considered where appropriate. Mitigation effects to both reduce negative and enhance positive effects have been included below.

Effects on economic growth

None of the strategies are likely to have a significantly positive effect on the economy objectives. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the economy SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help support the economy of Warwickshire. The strategies contained within the plan should help to improve sustainable access to employment (both employment sites within the county and to areas such as Birmingham), help to manage the negative effects of HGV traffic, help to manage traffic better in the town centres, support regeneration in the less affluent north of the county and support initiatives such as the World Class Stratford Initiative. However, some uncertainties exist regarding the impact of the area strategies because there is uncertainty regarding the location of development in some areas (as the Local Development Frameworks have not got to the stage where they can be definite about development sites) and the fact that transport modelling has not yet been undertaken to determine the effect of development on congestion and traffic levels. Although the long term strategy is broadly positive, there is some uncertainty over the level of funding available to provide supporting transport infrastructure in the short term.

Mitigation measures identified to address potential negative or uncertain effects are as follows:

- As the locations of development and the available funding become more definitive, Warwickshire County Council should continue its supporting role to the LDF process by clarifying the transport interventions that are needed to make development sustainable; and
- The Implementation Plan states that the council is working closely with District Councils and developers to establish detailed requirements and phasing for infrastructure. This process should actively consider the sustainability impacts (as well as the transport impacts) of the different levels of infrastructure that could be provided with different funding levels.

Enhancement measures identified in order to improve the performance of the Strategies are as follows:

- Policy ASA1 of the Airport Accessibility Strategy could say ...and other stakeholders to improve sustainable surface access provision ...; and
- Policy ASA3 of the Airport Accessibility Strategy could be clearer about the level of passenger flights that will trigger a Surface Access Strategy for Coventry Airport.

Effects on carbon emissions

Some of the modal/topic strategies are likely to have minor negative effects. The Sustainable Freight Distribution Strategy and the Airport Accessibility Strategy will provide

support for the re-introduction of air freight and passenger services at Coventry Airport and continuation of support of the same at Birmingham International Airport. Alone, these measures in the LTP will have a slight negative effect on emissions. However, in association with the expansion of Birmingham International Airport, the LTP will have a cumulative negative impact on carbon emissions. Other significant negative effects include the Highway Maintenance Strategy. The significant effect comes through an omission of a significant issue. Adaptation to the effects of climate change should be addressed in the Highway Maintenance Strategy and because of the importance of the issue this has been scored as significantly negative. The plan as a whole fails to address climate change adaptation and this is a significant omission. Significant negative effects are also identified with regard to the area strategies (apart from the North –South Corridor which has a positive effect). It is not possible to assess quantitatively whether the measures in association with the level of growth expected in the various areas of the plan will lead to a change in climate emissions as transport modelling is not yet available. However, for climate emissions to decrease definable modal shift and reductions in vehicle miles would have to occur. The level of development in Warwickshire makes it unlikely that vehicle miles will decrease.

Mitigation measures identified to address potential negative or uncertain effects are as follows:

- The objectives of the plan should address adaptation to climate change;
- Consider adding an objective to the Area Strategies listed above related to reducing CO₂ emissions and adapting to climate change;
- With regards to the potential significant negative effects identified as a result of the Area Strategies, the fact that the spatial strategy and the transport interventions are likely to increase carbon emissions is a difficult issue to mitigate as development cannot be stopped yet there is reduced funding for transport interventions to enable modal switch. As noted below, work with District Councils should consider the sustainability impacts (as well as the transport impacts) of development if transport infrastructure is not provided;
- The Highway Maintenance Strategy does not discuss how the effects of climate change will require changes to maintenance regimes and this is a significant omission. Some of the changes that need to be addressed are changes in vegetation management, surfacing (with the rise in hot temperatures) and the potential of flooding on the highway drainage network; and
- The Implementation Plan states that the council is working closely with District Councils and developers to establish detailed requirements and phasing for infrastructure. This process should actively consider the sustainability impacts (as well as the transport impacts) of the different levels of infrastructure that could be provided with different funding levels.

One enhancement measure is identified in order to improve the performance of the Taxi and Private Hire Vehicle Strategy as follows: The policies in the Taxi and Private Hire Vehicle Strategy go as far as encouraging the on-going replacement of older taxis and private hire vehicles in order to meet DDA requirements. Perhaps this can be extended to encouraging the replacement to cleaner vehicle fleets.

Effects on equality of opportunity

None of the strategies are likely to have a significantly positive effect on the equality objectives. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the equality SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help improve accessibility and improve the quality of communities. The strategies contained within the plan should help to support access to employment, healthcare and other services, make travel more affordable (through concessionary fare schemes, car sharing schemes etc) and through providing a greater range of travel options. The plan will also help to improve the quality of urban and rural centres through measures to reduce the impact of freight traffic, parking policies and through reducing congestion and the impact of vehicular traffic in certain areas. Although funding has been withdrawn from the Warwickshire Access to Services Partnership Scheme, attempts have been made to mainstream accessibility improvements into the wider LTP strategies in an effort to secure delivery over the plan period. None of the strategies will have a negative effect on the SEA Objectives.

No mitigation measures are identified in order to address potential negative effects because none have been identified within the assessment against the Equality of Opportunity SEA Objectives. However, a mitigation measure is put forward in relation to an uncertain performance recorded with regards to the Implementation Plan (April 2011 – March 2014); as follows: The Implementation Plan states that council will set out an annual work programme. This work programme should be assessed for its sustainability effects. One enhancement measure is put forward in order to improve the Area Strategies, as follows: Consider adding an objective on improving accessibility to the Nuneaton and Bedworth, Eastern Warwickshire and Warwick, Leamington Spa, Kenilworth and Whitnash Area Strategies.

Effects on safety, security and health

None of the strategies are likely to have a significantly positive effect on the safety, security and health objectives but no negative impacts have been recorded either. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the safety, security and health SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help improve the safety and security of travel through tackling speeding, improving lighting, helping to maintain footways and the highways and helping to educate people about road safety. The strategy will also help to make healthier modes more attractive through improving walking and cycling routes and addressing security concerns at public transport interchanges. The strategies should also help to improve the air quality in the county, if modal switch is achieved. As with the other SEA Objectives, there is some uncertainty over the implementation of the schemes in the strategies. The Implementation Plan stresses that maintenance of the highway network is likely to be a priority (which will positive for safety), that a broadly balanced integrated transport programme will be maintained and the plan includes funding for casualty reduction, Safer Routes to Schools Programmes and cycling and walking. However, without certainty on funding and location of schemes, it is not possible to assess what the impact of the Implementation Plan will be on safety and health. However, the council does set out an

annual programme of work and it would be useful if this programme were subject to assessment to determine its effects on all the SEA objectives.

No mitigation measures are identified in order to address potential negative effects because none have been identified within the assessment against the Safety, Security and Health SEA Objectives. However, mitigation measures are put forward in relation to the uncertain performances recorded, as follows:

- The Implementation Plan states that council will set out an annual work programme. This work programme should be assessed for its sustainability effects.

A number of enhancement measures are put forward in order to improve the strategies, as follows:

- The final objectives of the Northern Warwickshire, Eastern Warwickshire, Nuneaton and Bedworth and Warwick, Leamington Spa, Kenilworth and Whitnash Area Strategies could be amended to also cover reducing the impacts of traffic on communities; and
- There are other areas of Northern Warwickshire (apart from Coleshill) that would benefit from improved walking and cycling routes and the strategy should outline what the approach in other areas is likely to be. Even if there are no resources at present, this should be made clear in the strategy.

Effects on quality of life and natural environment

None of the strategies are likely to have a significantly positive effect on the environment and quality of life objectives. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the environment and quality of life SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help reduce the impact of transport on the environment. The strategies contained within the plan should help to provide alternative modes of transport and manage traffic to reduce the impact on communities and townscape and reduce congestion and traffic. All of these measures should help to reduce the impact of traffic on air, noise and biodiversity, improve landscapes and townscapes and reduce pollution from traffic. There are however, a small number of potential negative effects recorded within the assessment and mitigation measures are proposed to address these as appropriate. For example, the objectives of the LTP do not address the built environment, and the Sustainable Distribution Strategy, Highway Maintenance Strategy, Road Safety Strategy, Bridge Maintenance Strategy and Rights of Way and Recreational Highway Strategy would result in construction so could involve the use of natural resources.

The effect of the area strategies has been scored as uncertain. The proposals in the strategy will have effects on the environment in three ways – through changing the amount of traffic in certain sensitive areas (areas sensitive to noise, water and soil pollution, sensitive landscapes, habitats and townscapes), through direct land take impacts (i.e. a direct impact from land use changes on environmental resources such as a habitats, species, designated conservation / landscape areas, water body or listed building / heritage resource) or through building new infrastructure and changing maintenance regimes (which can change / increase the demand for natural resources). There is a high degree of uncertainty in the

strategy regarding when and where transport schemes may be developed and this has made the strategies difficult to assess. Although the area strategies may make alternative modes more attractive and reduce the impact of traffic on townscapes it is not possible to definitely state the locations of any likely traffic reduction due to uncertainty regarding where and how measures are likely to be implemented. This uncertainty also means that direct land take impacts are not possible to predict. An exception to this is Phase 1 of the NUCKLE major scheme which is further advanced than the other parts of the plan. The NUCKLE scheme will be broadly positive in helping to achieve modal shift. However, there is a risk of some impacts on flooding and biodiversity – mitigation measures will need to be developed as part of the environmental assessment for the scheme.

Mitigation measures are identified in order to address potential negative effects and areas of uncertainty identified in the assessment, as follows:

- The plan objective on the environment should be changed to address the impact on the built environment;
- There is a risk that as the strategies and measures are developed negative impacts will occur. This is particularly a risk with the major schemes and it is suggested that major schemes (and all schemes if deemed a risk) should be subject to an assessment of their sustainability;
- As with the other strategies, the objectives of the Southern and Western Warwickshire Area Strategy should address the environmental impact of transport (rather than just air quality);
- The LTP needs to make a commitment to reducing the impact of the resources used to build new transport infrastructure. Policy HM6 of the Highway Maintenance Strategy states that the County Council will aim to undertake all of its highway maintenance work within the context of the principles of sustainability and environmental protection. A similar undertaking needs to be made for the construction of new infrastructure;
- Before highway widening is considered its impact on the environment should be considered;
- The location of the freight consolidation centres needs to be carefully selected so they are not located in (or increase traffic in) areas that are sensitive;
- Policy F6 on the Sustainable Freight Distribution Strategy could be reworded more positively in terms of avoiding environmental effects;
- It should be made clear that the maintenance of historic bridges and/or bridges of cultural value will be undertaken in consultation with English Heritage and local authority conservation officers in order to ensure that decisions made regarding bridge maintenance optimise the protection of the county's historic assets;
- The policy wording should include the minimisation of environment effects of bridge maintenance works;
- Policy RW1 of the Rights of Way and Recreational Highway Strategy could be strengthened by adding text which makes it clear that recycled and low environmental impact surfacing materials will be favoured for the surfacing of foot and cycle paths, where practicable. Policy RW1 of the Rights of Way and Recreational Highway Strategy should also make reference to protecting water resources; and

- In order to offset potential negative effects on archaeological and ecological features, the protection of such features should be given high priority in Policy RW5b of the Rights of Way and Recreational Highway Strategy.
- The Implementation Plan states that the council is working closely with District Councils and developers to establish detailed requirements and phasing for infrastructure. This process should actively consider the sustainability impacts (as well as the transport impacts) of the different levels of infrastructure that could be provided with different funding levels.

Enhancement measures are also put forward, in order to improve the strategies, as follows:

- More information should be provided on how the environmental impact of traffic on environmentally sensitive areas is to be achieved within the Network Management Duty Strategy.

Monitoring Measures

The SEA Regulations require authorities to:

...monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action (Section 17 (1)).

Monitoring measures proposed in this section refer to the significant effects that have been predicted to result from measures included in the Draft LTP3. However the monitoring programme itself will not commence until the Final LTP is adopted in March 2011. By then the monitoring requirements may have changed, either as a result of changes to the plan or due to other external influences on the baseline situation. European Commission guidance⁵ provides advice on monitoring which suggests a phased approach to the design of a monitoring programme. This phased process will be used for LTP3, further details of which will be included in the SEA statement once the impacts of the Final LTP3 are known.

The draft monitoring programme is outlined in Table NTS4.

Significant / uncertain effect identified⁶	Monitoring required
Uncertain effect: The effect of the Implementation Plan on the economy, the environment and climate emissions. The Implementation Plan concludes that it is not likely that significant infrastructure investment to support LDFs will occur during this Implementation Plan. This means that the funding available from the council to 'top up' developer funding (to provide additional infrastructure/provide	Each Local Development Framework will have its own monitoring processes through which the effects of development will be monitored. It is expected that this will be an effective way to monitor this significant effect. It will be important that the LTP team satisfies itself that each LDF has set in place adequate monitoring systems to ensure that there are no unacceptable transport

⁵ European Commission (2003): Implementation of Directive 2001/42 on the assessment of the Effects of Certain Plans and Programmes on the Environment.

⁶ The effects have been grouped into similar effects for the purpose of the monitoring programme.

Table NTS4: LTP3 monitoring programme	
Significant / uncertain effect identified⁶	Monitoring required
higher quality infrastructure where appropriate) is less likely to be available. However, the effects of this are uncertain because of uncertainties regarding the level of funding likely to be available.	impacts from development.
Significant effect: The effect of the area strategies and Implementation Plan on carbon emissions. If development is to take place without adequate transport infrastructure it likely that climate emissions will increase and this will have a negative impact on climate emissions.	
Uncertain effect: Some uncertainties exist regarding the impact of the area strategies because there is uncertainty regarding the location of development in some areas (as the Local Development Frameworks have not got to the stage where they can be definite about development sites) and the fact that transport modelling has not yet been undertaken to determine the effect of development on congestion and traffic levels.	
Significant effect: The cumulative effect of the LTP and the expansion of Birmingham International Airport on carbon emissions.	Birmingham International Airport reports on the carbon emissions from its operations in its quarterly Environment Monitoring Report and annual Community and Environment Report. This data will need to be collated on an annual basis and used to inform the LTP monitoring
Significant effect: The effect of the Highway Maintenance Strategy on the ability of the transport system to adapt to the effects of climate change (the strategy omits to plan for the maintenance issues that climate change might have on the transport system)	The action that is needed to change this effect from a negative into a positive is to include information on climate change adaptation in the LTP. If this is done no monitoring will be needed. If this is not incorporated then necessary monitoring will be set out in the final LTP3.

1 Introduction

1.1 This report

This report sets out the results of the Strategic Environmental Assessment (SEA) of the Warwickshire Local Transport Plan 3 (LTP3). This report – the Environmental Report – will be subject to consultation with local stakeholders at the same time as the Draft LTP3. The purpose of this report is to:

- Give consultees information on the potential environmental and sustainability effects of the Draft LTP3 to aid them in their consideration during consultation; and
- Assist Warwickshire County Council in improving the Final LTP3 by highlighting where there are potential environmental and sustainability effects of implementing the Draft LTP3 as written.

1.2 The SEA process

The Warwickshire LTP3 is being subject to a full SEA in line with the requirements of *Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004* (otherwise known as the SEA Regulations). These Regulations require an environmental assessment to be carried out on certain plans and programmes prepared by public authorities that are likely to have a significant effect upon the environment. Certain plans, including LTPs, have been deemed by the Government to automatically require SEA⁷.

SEA extends the assessment of environmental impacts from individual development projects to regional, county and district level plans. Strategic Environmental Assessment is a systematic way to examine (and suggest ways to reduce) the likely effects of a plan on environmental, social and economic objectives.

The SEA has been carried out by independent consultants, ENVIRON using the following guidance: Department for Transport (April 2009): *Strategic Environmental Assessment for Transport Plans and Programmes. TAG Unit 2.11. "In draft" Guidance.*

1.3 The LTP3 process

The Transport Act 2000 required most local transport authorities (County Councils, Unitary Authorities and partnerships in metropolitan areas) in England to produce and maintain a Local Transport Plan (LTP). LTPs set out the authority's local transport strategies, policies, and an implementation programme. The first five year LTPs (LTP1) covered the period 2001/02 to 2005/06 and LTP2s cover the period 2006/7 to 2010/11.

The Local Transport Act 2008 (which amends the Local Transport Act 2000) sets out the requirements for LTP3s. LTPs are still mandatory documents but the Act has changed their role slightly. The main changes between LTP2 and LTP3 are shown below.

⁷ This is set out as a requirement in LTP guidance and also in Appendix 1 of *A Practical Guide to the Strategic Environmental Assessment Directive* (Office of the Deputy Prime Minister, 2005).

Differences between LTP2 and LTP3

- LTP3 will no longer be formally assessed by DfT
- DfT will no longer impose mandatory targets or require submission of formal transport monitoring reports (although LTPs will be examined as part of the Comprehensive Area Assessment process)
- LTPs must now include separate strategies and implementation plans (although most LTPs already include these)
- LTP3 will not necessarily have a five year timescale. Local transport authorities may replace their Plans as they see fit but LTPs must be kept up to date

The changes to LTP3 place responsibility on individual authorities to consider how to use the LTP process in the way which works best for them.

1.4 The structure of the Environmental Report

The Environmental Report is divided into the following sections:

- Section 2 outlines the content and objectives of the LTP3;
- Section 3 outlines the stages of the SEA and the relationship of the SEA to other assessment processes;
- Section 4 outlines the work that was undertaken to define the scope of the SEA;
- Section 5 outlines the methods used to assess the Draft LTP3 and the LTP3 options;
- Section 6 outlines the results of the assessment of the plan options;
- Section 7 outlines the results of the assessment of the Draft LTP3 (including mitigation measures);
- Section 8 outlines how the effects of the plan will be monitored; and
- Section 9 outlines the next steps of the SEA, including the consultation.

2 Warwickshire LTP3

2.1 Outline of the plan's contents

The Plan is presented into two parts. Part 1: *The Strategy* sets out the overall policy framework within which transport needs to be considered within Warwickshire. The timeframe for the strategy element is 2011-2026 and has been chosen to align the document with the Regional Spatial Strategy (RSS) and the Sustainable Community Strategy (SCS) for Warwickshire. The Strategy is split into three sections:

- Part 1A provides the overall policy context and background to the LTP;
- Part 1B provides details on the overall objectives for the LTP and the key issues and challenges faced by the County over the next 15 years; and
- Part 1C outlines how the strategy has been developed and provides details of how it will be delivered by mode / topic and in each of the following geographical areas:
 - Northern Warwickshire
 - Eastern Warwickshire
 - Nuneaton and Bedworth
 - Leamington Spa, Warwick, Kenilworth and Whitnash
 - Southern Warwickshire
 - The North-South corridor
- The mode / topic strategies that are included in the LTP3 are:
 - Air Quality Strategy;
 - Accessibility Strategy;
 - Freight Strategy;
 - Parking Strategy;
 - Powered Two Wheelers Strategy;
 - Airport Access Strategy;
 - Land Use and Transportation Strategy;
 - Bus Strategy;
 - Passenger Rail Strategy;
 - Network Management Duty Strategy;
 - Taxi and Private Hire Strategy;
 - Intelligent Transport Strategy;
 - Community Transport Strategy;
 - Congestion Strategy;
 - Cycling Strategy;
 - Bus Information Strategy;

- Public Transport Interchange Strategy;
- Public Transport Strategy;
- Road Safety Strategy;
- Highway Maintenance Strategy;
- Walking Strategy;
- Travel Behaviour Strategy;
- Bridge Maintenance Strategy; and
- Public Rights of Way Strategy.

Part 2: *The Implementation Plan* sets out the priorities for investment in the short (0-5 years), medium (5-10 years) and long (10-15 years) term. The implementation plan also sets out the performance and programme management framework for the LTP.

All elements of the LTP3 have been assessed as part of the SEA.

The LTP and its Annexes can be found on the County Council's website:
www.warwickshire.gov.uk/ltp3.

2.2 The objectives of the LTP3

The objectives of the LTP are as follows:

- To promote greater equality of opportunity for all citizens in order to promote a fairer, more inclusive society;
- To seek reliable and efficient transport networks which will help promote full employment and a strong, sustainable local and sub-regional economy;
- To reduce the impact of transport on people and the [built and natural] environment and improve the journey experience of transport users;
- To improve the safety, security and health of people by reducing the risk of death, injury or illness arising from transport, and by promoting travel modes that are beneficial to health;
- To encourage integration of transport, both in terms of policy planning and the physical interchange of modes; and
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change.

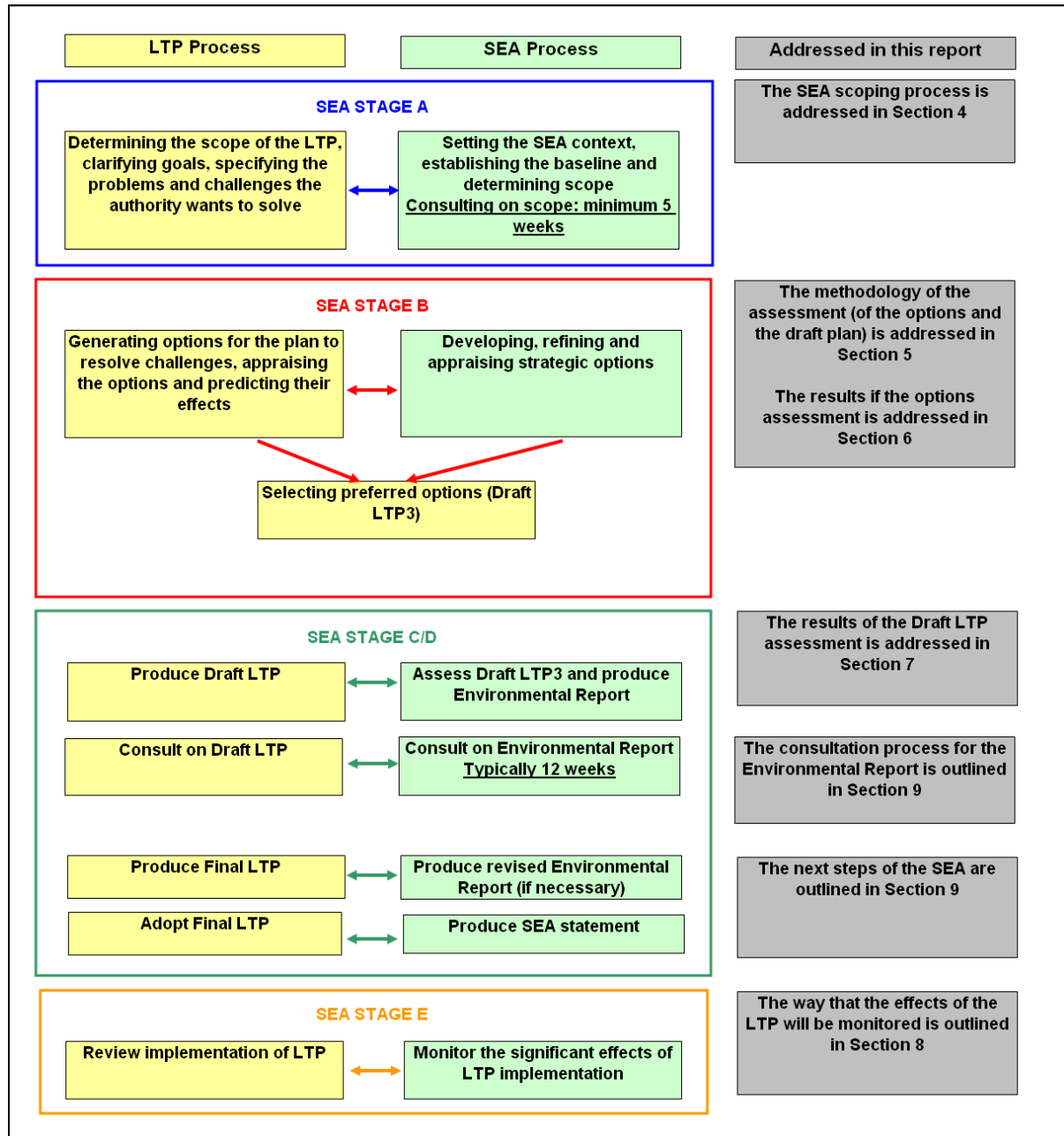
These objectives have been updated since LTP2 to ensure that they still remain relevant to Warwickshire. Objective 6 is an additional objective for this LTP, and supports the Government's commitment to tackling climate change as set out in the Climate Change Act 2008.

3 Stages of the SEA

3.1 Introduction

SEA is a tool to ensure the integration of environmental and sustainability considerations into the plan and decision making process. To achieve this aim, SEA is an iterative process informing each stage of the LTP development. The LTP and SEA processes are shown in Figure 1.

Figure 1: The LTP and SEA Processes



3.2 Related processes to SEA

A number of parallel assessment processes are occurring at the same time as the SEA. Please note that a separate Health Impact Assessment (HIA) is not being carried out on the LTP3. However, health issues of relevance to the LTP have been included within the SEA framework.

3.2.1 Habitat Regulations Assessment

The *Conservation of Habitats and Species Regulations 2010* (SI 2010/490) provides legal protection for habitats and species of European importance (so called Natura 2000 sites). The Regulations require that any plan or programme that is likely to have a significant effect on a European site is subject to Habitat Regulations Assessment (HRA). The Regulations state that “the plan-making authority for that plan shall, before the plan is given effect, make an appropriate assessment for the implications for the site in view of that site’s conservation objectives”.

Warwickshire County Council is therefore required to assess its LTP3 through the HRA process as policies and transport projects in the plan can potentially affect Natura 2000 sites. Warwickshire County Council will be undertaking a HRA screening assessment to decide whether a full assessment will be required and a HRA screening report has been published alongside the publication of the Draft LTP3.

3.2.2 Equalities Impact Assessment

Local authorities have a duty under race, disability and gender legislation⁸ to carry out an Equality Impact Assessment (EQIA) of their LTP⁹. EQIA can help determine how an LTP affects different groups of people. DfT guidance on LTPs advises that an EQIA encompass race, gender, disability, age, religion/belief and sexual orientation. The EQIA and SEA processes are separate but in order to make the EQIA easier equalities issues have been built into the SEA framework. Warwickshire County Council will be producing an EQIA before the plan is finalised.

3.2.3 New Approach to Appraisal (NATA)

The New Approach to Appraisal (NATA) is the process which the government recommends is used by transport authorities to formulate and test transport options (both scheme options and options for plans and programmes). NATA has a set of five objectives (although these are being revised in light of the new national objectives for transport) and the process involves testing options against these objectives. This appraisal is conducted through filling in worksheets for each subject and then presenting the results of each option in an Appraisal Summary Table (AST). Government guidance on SEA for transport plans makes it clear that SEA should use the NATA framework as a basis and utilise its methodologies where possible. Because of the changes to the national objectives for transport (which have not

⁸ Race Relations (Amendment) Act 2000, requirement to produce and publish a Race Equality Scheme. Disability Discrimination Act 2005, requirement to produce a Disability Equality Scheme. Equality Act 2006, requirement to produce a Gender Equality Scheme.

⁹ The Equality Bill, going through Parliament during July 2009, consolidates equalities legislation, giving local authorities a single duty.

yet been fully reflected in NATA guidance), ENVIRON sought guidance from DfT on how to integrate NATA and SEA. DfT indicated that SEA does not require the production of ASTs, nor does it require the use of the National Transport Goals and/or the NATA framework. However, it may be useful to take the NATA framework as a basis when developing the SEA framework. In light of this guidance (and in light of the changes to the national objectives for transport) the following approach to the SEA in terms of its relationship with NATA has been taken:

- Use of the Government's new National Transport Goals as a basis for the SEA but also including local issues where relevant; and
- Review of the NATA worksheets and methodologies to see if any of these methodologies can be used in the assessment. Unfortunately, the level of detail that NATA assumes will be available to the assessment is not generally present for a strategic level SEA. Therefore, it has been necessary to rely on expert judgment as the primary methodology used to assess the plan (see Section 5 of this report for more detail). Therefore the assessment is not presented using the NATA worksheets and Appraisal Summary Tables, however it is fully consistent with SEA good practice adheres to the requirements of the SEA Regulations.

4 Setting the Scope of the SEA

4.1 Introduction

The purpose of scoping is to decide which issues should be covered in the SEA and to what level of detail. To do this the SEA team must collect information on what the environment is like in Warwickshire, how it is likely to change and must decide how transport can help to deliver the targets of other plans and programmes, for example how transport can help achieve carbon targets. A comprehensive scoping report and topic papers were produced in February 2009 that set out this process. The following five a topic papers were produced:

- Economic growth (Topic Paper 1);
- Carbon emissions (Topic Paper 2);
- Equality of opportunity (Topic Paper 3);
- Safety, security and health (Topic Paper 4); and
- Quality of life and natural environment (Topic Paper 5).

Each topic paper set out:

- The other relevant policies, plans, programmes and sustainability objectives that the LTP is influenced by;
- Information on the baseline environment and the key environmental and sustainability issues faced in the county; and
- A SEA framework to assess the plan against. The SEA framework is the list of sustainability criteria that the plan is measured against in order to test its sustainability. This SEA framework is based on the Government's National Transport Goals but also includes local issues where relevant

The scoping report and topic papers were sent to consultees in February 2009 for comment and several of the consultees suggested changes be made. Where the SEA team feel that these changes are relevant and useful to the process, these changes have been made and the topic papers have been updated. The information on how comments have been taken into account is available from the ENVIRON team if consultees want to see a copy. It will also form part of the SEA Adoption Statement at the end of the SEA process. The updated topic papers are included as Appendix 1 to this Environmental Report. The results of the different scoping stages are summarised below concluding with the presentation of the SEA framework that has been used to test the plan against.

4.2 Links with related plans, programmes and objectives

The SEA Regulations (see Schedule 2) state that an Environmental Report should outline:

- The plan's relationship with other relevant plans and programmes; and
- The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.

In order to fulfil this requirement, a review has been undertaken of other relevant plans, policies, programmes (PPPs) and objectives. The full results can be found in each individual Topic Paper in Appendix 1. The results are summarised below.

Many plans and policies set the context for transport, some directly and some indirectly. These include the National Transport Goals, the Regional Spatial Strategy, the Sustainable Community Strategy and the Local Area Agreement. It is vital that the LTP directly helps to deliver the goals of these other strategies. As well as these key documents international and national legislation and the plans and policies of other organisations (or other departments within the council) can have an influence on how the LTP should develop.

In each Topic Paper a summary has been included of the key documents that the LTP should help to deliver – the National Transport Goals, the Regional Spatial Strategy, the Sustainable Community Strategy and the Local Area Agreement. A separate review has also been undertaken on the other important policy documents that will influence the delivery of the LTP. A summary of these key documents has been provided below. Please see Appendix 1 for the full policy review.

4.2.1 National Transport Goals

Developing a Sustainable Transport System (DfT, 2008) outlines five National Transport Goals:

- To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change;
- To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society;
- To contribute to better safety, security and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health;
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

The LTP has a direct role in delivering the National Transport Goals locally and the SEA tests how well it will do this.

4.2.2 Regional Spatial Strategy (RSS)

The latest version of the RSS is the *Draft West Midlands Regional Spatial Strategy Phase Two Revision - Draft Submission* (December 2007). An Examination in Public was held between 28th April – 24th June 2009 and the report of the Examination in Public Panel was published in September 2009 (*West Midlands Regional Spatial Strategy Phase Two Revision. Report of the Panel*, September 2009).

The spatial strategy for the West Midlands as expressed through the RSS is fundamentally one of urban renaissance. For many years the development pattern in the region has been

decentralisation from the Major Urban Areas (MUAs). The future spatial strategy can be summarised as follows:

- Development of a strategic scale will be focussed on the four Major Urban Areas of Birmingham/ Solihull, The Black Country, Coventry and the North Staffordshire conurbation;
- In other parts of the region major new development will be focussed in and adjacent to towns which are most capable of balanced and sustainable growth to complement the role of the MUAs. The following nine areas have been designated for this purpose as Settlements of Significant Development (SSD): Burton upon Trent, Hereford, **Nuneaton / Bedworth, Rugby**, Shrewsbury, Stafford, Telford, **Warwick / Leamington** and Worcester;
- Beyond the MUAs and SSDs, development will be of a smaller scale, to meet local housing needs and sustain the local economy and services; and
- In the region's rural areas the strategy supports rural renaissance, with a key role for market towns and larger villages and development on an appropriate local scale to address rural affordable housing needs.

The spatial strategy for Warwickshire translates into the housing and employment land figures shown in Table 1. It is important that adequate infrastructure is provided to ensure that growth is sustainable. The LTP will be key in ensuring that infrastructure is developed.

Authority	Housing provision	Employment land provision (ha)	Notes
Coventry	33,500	246	Housing: The RSS Panel Report suggests that 3,500 dwellings be located in Nuneaton and Bedworth Borough adjacent to the City boundary near Keresley and 3,500 in Warwick District adjacent to the City Boundary in vicinity of Gibbet Hill/Finham.
Solihull	10,500	45	
North Warwickshire	3,000	93	Employment: Includes 60ha of land for the expansion of Regional Logistic Sites at Birch Coppice and Hams Hall.
Nuneaton and Bedworth	11,000	96	
Rugby	11,000	108	Housing: 9,800 of this allocation is to be found within or adjacent to the urban area of Rugby.
Warwick	11,000	90	Employment: Includes a 50% share of the expansion of Warwick University.
Stratford-on-Avon	7,500	51	Housing: No housing provision is required in the District to meet the needs of Redditch.
Warwickshire	43,500	438	
Total	87,500	729	

4.2.3 Sustainable Community Strategy and Local Area Agreement

The Sustainable Community Strategy (*A Sustainable Community Strategy for Warwickshire August 2009 - March 2026*) has three themes, each of which has three outcomes. The themes and outcomes are shown below.

Theme - Places:

Outcome 1: Our environment is clean, green and sustainable;

Outcome 2: Our housing is appropriate and affordable; and

Outcome 3: Our places are connected through transport, technology and services.

Theme – Prosperity:

Outcome 1: Our economy is innovative, competitive and entrepreneurial;

Outcome 2: Our workforce is diverse, trained and highly skilled; and

Outcome 3: Our economic well being is continuously improving

Theme – People:

Outcome 1: We belong to safe and strong communities where people get on together;

Outcome 2: We all live healthy, active and independent lives; and

Outcome 3: We all have the opportunity to enjoy and achieve.

The Local Area Agreement (LAA) is the key delivery plan for the Sustainable Community Strategy. It sets out the Government's and partners' priorities for Warwickshire and what will be tackled first. Success will be gauged by measuring progress against indicators. Relevant indicators include:

- NI 161 Average earnings of employees in the area;
- NI197: Improved local biodiversity – improve active management of local sites;
- NI 1 % of people who believe people from different backgrounds get on well together in their local area;
- N1 175 Access to services and facilities by public transport, walking and cycling (in communities defined as from towns to hamlets). 100% of the population should have basic access to services by 2010;
- NI15: Most serious violent crime rate;
- NI 47 People killed or seriously injured in road traffic accidents;
- NI 56 Obesity in primary school age children in Year 6; and
- Local Indicator 8: Increase 5 a week physical activity.

The LTP can help deliver a number of these outcomes and targets. Where appropriate the contribution of transport to these outcomes and indicators have been built into the SEA framework.

4.3 Baseline data and issues

The SEA Regulations require an examination of the current state of the environment and the likely evolution of the environment without the implementation of the plan (the “without the plan scenario”)¹⁰. This has been done through a desk-based study with the full results reported in the individual Topic Papers in Appendix 1. It is important that the SEA is focused on how the LTP can influence environmental and sustainability conditions. For this reason each Topic Paper clearly outlines how transport can affect the particular issue. This has then guided the baseline data that has been collected and has ensured that the most appropriate SEA framework is designed. A summary of the main issues identified is shown in Table 2.

4.4 Definition of the SEA framework

The SEA Regulations do not specifically require the use of a framework of objectives in SEA, but they are a recognised way in which environmental effects can be described, analysed and compared. Each part of the SEA framework should be a statement of what is intended for the plan, specifying a desired outcome over a specified duration.

The SEA framework for the Warwickshire LTP SEA has been chosen after a review of the important issues and policies (including the RSS, National Transport Goals and Local Area Agreement) and has been chosen to reflect the influence that transport can have on meeting objectives and resolving issues. DfT Guidance on SEA¹¹ states that the performance of the plan against the SEA framework is normally measured by using indicators (to avoid confusion with monitoring indicators being developed as part of the monitoring strategy – these are being termed appraisal questions. Where measurable indicators and targets have been identified and are useful for the assessment these have also been clearly identified in the SEA framework). A number of appraisal questions have been chosen and these have been phrased in the form of questions which are specific to the potential effects of a LTP. Where targets exist for a particular issue this has been identified.

Links to the Local Area Agreement Indicators are highlighted where applicable to show where transport can help to meet wider Government objectives. The SEA framework is shown in Table 3.

¹⁰ Please note that the without the plan scenario is discussed and reported in Section 5.

¹¹ Strategic Environmental Assessment for Transport Plans and Programmes TAG Unit 2.11 “In draft” Guidance (DfT, April 2009)

Table 2: Sustainability baseline issues**Economy**

Warwickshire benefits from a relatively strong and diverse economy and has seen strong employment growth over recent years. However, unemployment over the last year has doubled.

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.

Most people still travel to work by car but the majority of children travel to school using sustainable modes.

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.

Warwickshire experiences a lot of through movement of road based freight haulage and road freight does cause problems in some areas.

Climate

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

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

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

Equality

Community severance caused by large volumes of traffic in some areas of the county

Access to services in Warwickshire is poor in many areas for people without a car

Travel by different age groups and social groups can be very different and provision needs to be tailored more effectively

Bus use and bus satisfaction have increased. The bus punctuality target is not quite on track.

Safety, security and health

The population is ageing and this needs to be considered in the provision of services and transport

Air quality across the County is considered to be largely good. Traffic is increasing in some of the AQMAs.

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.

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.

Table 2: Sustainability baseline issues

10.7% of Warwickshire's adult population are physically active, compared to 10.8% in England.

Quality of life and the environment

There is a scarcity of tranquil areas within Warwickshire. Least tranquil areas are in Warwick District and Nuneaton & Bedworth Borough. 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.

Warwickshire is a County rich in biodiversity from international, national and local sites. Many of these sites and habitats occur next to highways, cycle routes, green lanes or other transport corridors.

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. 3 Conservation Areas in Warwickshire are at risk. The Conservation Area of Southam is at risk due to poor quality tarmac pavements and some 1980s brick paving. The fact that the town is bypassed by the road network means it has limited economic vitality. 19 listed buildings, 62 scheduled monuments and 4 registered parks and gardens are also at risk.

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.

Transport planning can contribute to green infrastructure networks by enhancing biodiversity interest on rights of way and promoting new rights of way that link areas of green infrastructure

Transport can have negative effects on the townscape and heritage of the settlements it passes through.

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.

Transport of minerals and waste by road can cause problems to local communities.

Table 3: SEA framework	
LTP SEA objective. Will the LTP...	LTP SEA question. Will the LTP...
Economy	
Help to improve reliability and connectivity of the transport system?	<ul style="list-style-type: none"> • Include schemes that decrease journey times, congestion, improve journey time reliability and help to support Warwickshire's already strong economy?
Support the delivery of the future spatial strategy?	<ul style="list-style-type: none"> • Provide the necessary infrastructure to support the spatial strategy in a sustainable manner?
Enhance resilience through good management and maintenance of the transport system?	<ul style="list-style-type: none"> • Help to manage routes effectively in order to maintain journey times?
Provide wider support to the economy through the movement of people and goods?	<ul style="list-style-type: none"> • Provide / encourage the use of alternatives to road freight and provide routes for freight traffic that reduces impacts on communities and the environment? • Increase access to jobs, towns, tourist attractions, rural areas and the countryside by sustainable means?
Carbon emissions	
Reduce carbon emissions	<ul style="list-style-type: none"> • Cause a change in vehicle miles or a change in the nature 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) • Increase the use of energy from renewable sources in the transport system (to reach a target of 10% of the total energy consumed)
Ensure that the transport system can cope with the unavoidable effects of climate change	<ul style="list-style-type: none"> • Reduce the unavoidable effects of climate change (link to LAA indicator NI 188: Adapting to climate change)
Equality	
Improve accessibility to basic services for all groups in society?	<ul style="list-style-type: none"> • Improve provision of public and community transport that makes key services (**) more accessible to all groups of people (***) (link to LAA indicator NI 75 Access to services and facilities by public transport, cycling and walking).
Help to improve the quality of urban and rural centres and reduce severance?	<ul style="list-style-type: none"> • 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?
Safety, security and health	
Reduce the risk of death or injury on the transport system?	<ul style="list-style-type: none"> • Lead to a decrease in traffic accidents /accident severity and help to meet KSI targets (link to LAA indicator NI 47 on road accidents)?
Make healthier modes of travel	<ul style="list-style-type: none"> • Increase walking and cycling to help increase the numbers

Table 3: SEA framework	
LTP SEA objective. Will the LTP...	LTP SEA question. Will the LTP...
more attractive?	of people regularly participating in physical activity (link to LAA local indicator 8 on increasing physical activity and NI156 on childhood obesity)?
Reduce the impact of the transport system on air quality?	<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 (including AQMAs)?
Improve the security of the transport system?	<ul style="list-style-type: none"> • Make transport systems / interchanges more secure? <p>(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)).</p>
Quality of life and the 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?
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 / townscape character?
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?
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?
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 potential for flooding? • Reduce the demand for aggregate? • Help to protect loss or pollution of soils which support valued habitats or are already experiencing erosion?

* 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.

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

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

5 Assessing the Effects of the LTP3

5.1 Introduction

As recommended in DfT guidance, assessing the effects of the plan and the plan options has involved examining each strategy/measure in turn, including:

- Identifying the effects of the plan. This involves identifying changes to conditions in the future baseline scenario which are predicted to arise from the strategy/measure; and
- Assessing the significance of these effects. This involves describing these changes in terms of the nature and the magnitude of the impact and the sensitivity of the receiving environment. This information is then used to determine whether impacts are significant.

5.2 Identifying the effects of the plan

Many of the techniques available to provide a quantitative assessment for a transport project, for example the amount of carbon dioxide expected to be generated, are not useful to the team assessing a LTP. This is because SEA is used to assess relatively broad strategies rather than site specific proposals. Because of this expert judgment is the main way that the effects of a LTP are identified as part of SEA. This has been supported by documented evidence where possible. Uncertainty will be minimised through clearly documenting the assumptions made and the evidence used in undertaking the assessment.

The SEA Regulations require an assessment of cumulative effects. These have been addressed in two ways as part of the assessment. The effects of the plan as a whole are reported through the summaries of the assessment for each SEA topic in Appendix 4. The SEA has also considered what the effects of the plan are in combination with the effects of other developments, plans and programmes. A separate cumulative assessment has not been undertaken but the important cumulative effects have been drawn out as the elements of the plan are assessed. This has considered mainly the effects of likely future development in each area and the effects of transport plans and strategies. This integrated approach to the cumulative assessment has been taken because planning for development and planning for transport services to support development are so integrated.

5.3 Assessing the significance of the effects

Once the effects are identified, it is important to discuss which of the effects are likely to be minor and which significant. The SEA Regulations specify 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, are as follows:

- 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?

The assessment of significance should involve the assessor considering the above criteria for each potential impact along with a consideration of how the plan will help to achieve (or not) the SEA objectives.

In the case of the Warwickshire LTP SEA, it has been difficult to assign significance to the effects because of the lack of detail provided in the LTP. The LTP is now split into a long term strategy document and an implementation plan. The long term strategy document for Warwickshire is mainly policy based with little guidance given in most cases to the likely location and timescale of the measures indicated (as may be expected in a long term policy based document). Even in the area strategies where broad locations for measures are sometimes given, the LTP is uncertain about when (or even if) these measures will be taken forward. This uncertainty is as a result of the lack of certainty over funding for the delivery of future transport services and schemes which is outside of the control of Warwickshire County Council.

The implementation plan is also a relatively strategic document and apart from naming three major schemes does not outline any detail regarding the location of measures. In fact it states “Given the unpredictability about resources it is not sensible therefore to establish detailed programmes of work in this implementation plan”.

Because of these uncertainties in the plan itself it is impossible to establish certainty within the SEA. However, the SEA team feel that marking every impact as uncertain is not helpful. Therefore, we have adopted the following approach to significance (please see Table 4).







Score	Description	Symbol
Significant positive impact	The plan addresses all the elements that are required to protect the environment and address the sustainability issues in Warwickshire and would help to achieve all of the applicable SEA objectives (if implemented). The plan also sets out how, where and when these policies will be implemented and these will have a positive impact with relation to characteristics of the effect and the sensitivity of the receptors.	
Minor positive impact	The plan addresses all the elements that are required to protect the environment and address the sustainability issues in Warwickshire and would help to achieve all of the applicable SEA objectives (if implemented).	
Neutral	The plan does not have an effect on the achievement of the SEA objectives	
Minor negative impact	The plan conflicts with some of the SEA objectives	
Significant negative impact	The plan conflicts with some of the SEA objectives. The plan also sets out how, where and when these policies will be implemented and these will have a negative impact with relation to characteristics of the effect and the sensitivity of the receptors.	
Uncertain	It is unclear whether there is the potential for a negative or	

Table 4: SEA significance scores		
Score	Description	Symbol
	positive effect on the SEA objective.	

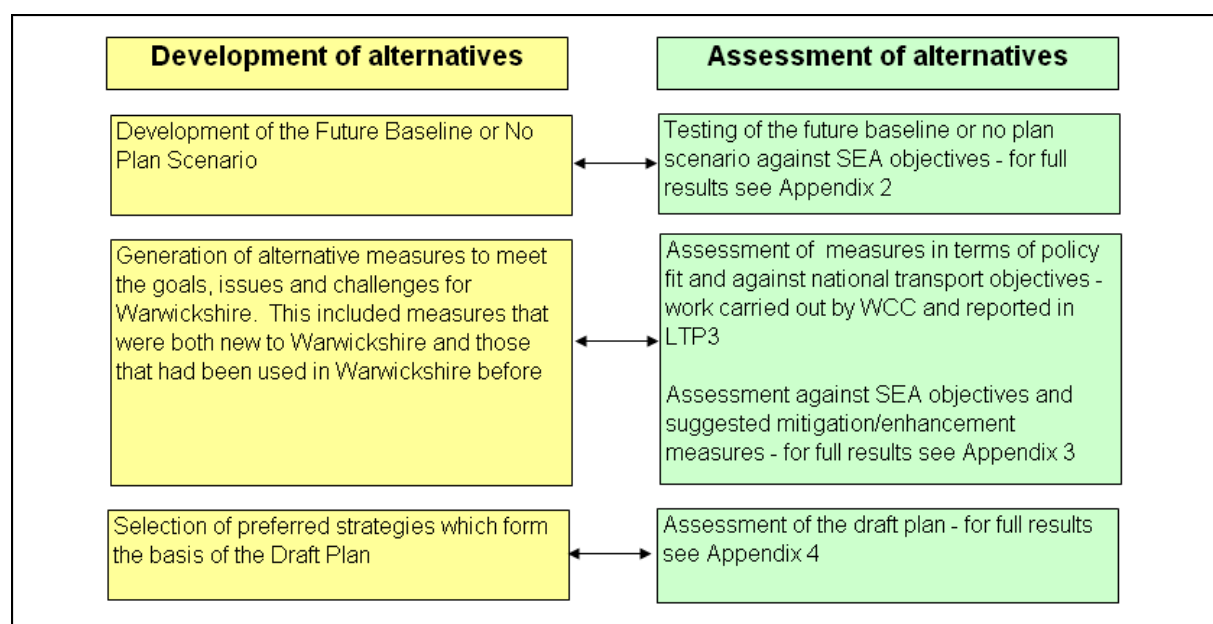
6 The Effect of the LTP Options

6.1 Introduction

The SEA Regulations state that the SEA should identify, describe and evaluate the likely significant effects of implementing the plan or programme; and reasonable alternatives¹². The way that reasonable alternatives are defined in the LTP process is through identification and testing of plan options.

The approach taken for the development and assessment of the Warwickshire LTP3 plan options is outlined in Figure 2 below.

Figure 2: Development and assessment of options



6.2 Testing the future baseline or no plan scenario

6.2.1 Methodology

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 3.

¹² Please note that for the purposes of the assessment the options presented have been considered as options and as alternative options. Therefore this report uses the terms options and alternatives interchangeably.

Figure 3: 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.

6.2.2 Results

The future baseline has been assessed against the SEA objectives and these results against each of the SEA topics are shown in Appendix 2. The results are summarised below:

The future baseline will have negative effects on many of the SEA objectives as road traffic and congestion increases and development continues and intensifies in the towns especially (but in the absence of the necessary supporting transport infrastructure provided through the LTP). 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, thus increasing the impact of freight on communities and the environment.

CO₂ levels and air pollution are likely to rise in the absence of measures brought forward as part of the LTP as there will be little support for sustainable modes and vehicle miles will increase. Climate change itself will bring inevitable changes in the future, such as warmer wetter winters, more stormy weather and hotter summers. This will have numerous effects on the transport system. However, 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.

Access to services is poor in many areas of Warwickshire and 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 Warwickshire Rural Access to Services Programme (WRASP). Congestion will have effects on bus punctuality and reliability and will further worsen people's experience of the transport system.

In terms of safety, the council is now on track to meet the original targets and 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 (increasing the risk of accidents) and the assumption needs to be that accident levels remain at a similar level at least in the short term.

Effects on the environment from the transport system are also likely to worsen in the future baseline. Increasing traffic levels and congestion is likely to impact negatively upon landscape, townscape and biodiversity.

6.3 Assessment of the alternative measures

6.3.1 Methodology

The results of this assessment have been considered in conjunction with an appraisal that Warwickshire County Council has undertaken on the impact of the measures on each of the five National Transport Goals. This assessment also included a consideration of deliverability and public acceptability of each measure. The details of this appraisal are reported in the Warwickshire LTP3. The analyses undertaken by the Council and ENVIRON has then been used to select a package of measures that form the Draft LTP3.

At this stage in the assessment there was no detail available as to the location of the measures and how they will be implemented. Because of this lack of detail a simple checklist approach has been taken to assessing the potential impacts of the alternative measures. The checklist indicates which SEA objectives are likely to be affected by each of the measures. A column has been included which explains the reasoning behind these judgements. Within this column we have also indicated some of the evidence that is available to help assess the effectiveness of such schemes. It has also 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 Appendix 3 and the results are summarised below.

6.3.2 Results

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.

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.

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.

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).

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.

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.

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.

Maintenance and minor works

No recommendations.

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.

Impact of traffic on centres

No recommendations.

7 The Effect of the Draft LTP3

7.1 Introduction

This section reports on the effects identified as part of the assessment of the Draft LTP3. The assessment of the Draft LTP3 has been carried out on a topic by topic basis and the full assessment is reported in Appendix 4. The effects of the Draft LTP3 are summarised below. Incorporation of mitigation measures to directly prevent or reduce an effect is an iterative part of the SEA process. Where a strategy scenario is likely to have significant adverse effects, measures should be considered to prevent, reduce or offset these effects. Measures to enhance beneficial effects should also be considered where appropriate. Mitigation effects to both reduce negative and enhance positive effects have been included below.

7.2 Effects on economic growth

7.2.1 Summary of the effects of the plan

None of the strategies are likely to have a significantly positive effect on the economy objectives. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the economy SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help support the economy of Warwickshire. The strategies contained within the plan should help to improve sustainable access to employment (both employment sites within the county and to areas such as Birmingham), help to manage the negative effects of HGV traffic, help to manage traffic better in the town centres, support regeneration in the less affluent north of the county and support initiatives such as the World Class Stratford Initiative. However, some uncertainties exist regarding the impact of the area strategies because there is uncertainty regarding the location of development in some areas (as the Local Development Frameworks have not got to the stage where they can be definite about development sites) and the fact that transport modelling has not yet been undertaken to determine the effect of development on congestion and traffic levels. Although the long term strategy is broadly positive, there is some uncertainty over the level of funding available to provide supporting transport infrastructure in the short term.

7.2.2 Mitigation and enhancement measures

Mitigation measures identified to address potential negative or uncertain effects are as follows:

- As the locations of development and the available funding become more definitive, Warwickshire County Council should continue its supporting role to the LDF process by clarifying the transport interventions that are needed to make development sustainable; and
- The Implementation Plan states that the council is working closely with District Councils and developers to establish detailed requirements and phasing for infrastructure. This process should actively consider the sustainability impacts (as well

as the transport impacts) of the different levels of infrastructure that could be provided with different funding levels.

Enhancement measures identified in order to improve the performance of the Strategies are as follows:

- Policy ASA1 of the Airport Accessibility Strategy could say ...and other stakeholders to improve sustainable surface access provision ...; and
- Policy ASA3 of the Airport Accessibility Strategy could be clearer about the level of passenger flights that will trigger a Surface Access Strategy for Coventry Airport.

7.3 Effects on carbon emissions

7.3.1 Summary of the effects of the plan

Some of the modal/topic strategies are likely to have minor negative effects. The Sustainable Freight Distribution Strategy and the Airport Accessibility Strategy will provide support for the re-introduction of air freight and passenger services at Coventry Airport and continuation of support of the same at Birmingham International Airport. Alone, these measures in the LTP will have a slight negative effect on emissions. However, in association with the expansion of Birmingham International Airport, the LTP will have a cumulative negative impact on carbon emissions. Other significant negative effects include the Highway Maintenance Strategy. The significant effect comes through an omission of a significant issue. Adaptation to the effects of climate change should be addressed in the Highway Maintenance Strategy and because of the importance of the issue this has been scored as significantly negative. The plan as a whole fails to address climate change adaptation and this is a significant omission. Significant negative effects are also identified with regard to the area strategies (apart from the North –South Corridor which has a positive effect). It is not possible to assess quantitatively whether the measures in association with the level of growth expected in the various areas of the plan will lead to a change in climate emissions as transport modelling is not yet available. However, for climate emissions to decrease definable modal shift and reductions in vehicle miles would have to occur. The level of development in Warwickshire makes it unlikely that vehicle miles will decrease.

7.3.2 Mitigation and enhancement measures

Mitigation measures identified to address potential negative or uncertain effects are as follows:

- The objectives of the plan should address adaptation to climate change;
- Consider adding an objective to the Area Strategies listed above related to reducing CO₂ emissions and adapting to climate change;
- With regards to the potential significant negative effects identified as a result of the Area Strategies, the fact that the spatial strategy and the transport interventions are likely to increase carbon emissions is a difficult issue to mitigate as development cannot be stopped yet there is reduced funding for transport interventions to enable modal switch. As noted below, work with District Councils should consider the sustainability impacts (as well as the transport impacts) of development if transport infrastructure is not provided;

- The Highway Maintenance Strategy does not discuss how the effects of climate change will require changes to maintenance regimes and this is a significant omission. Some of the changes that need to be addressed are changes in vegetation management, surfacing (with the rise in hot temperatures) and the potential of flooding on the highway drainage network; and
- The Implementation Plan states that the council is working closely with District Councils and developers to establish detailed requirements and phasing for infrastructure. This process should actively consider the sustainability impacts (as well as the transport impacts) of the different levels of infrastructure that could be provided with different funding levels.

One enhancement measure is identified in order to improve the performance of the Taxi and Private Hire Vehicle Strategy as follows: The policies in the Taxi and Private Hire Vehicle Strategy go as far as encouraging the on-going replacement of older taxis and private hire vehicles in order to meet DDA requirements. Perhaps this can be extended to encouraging the replacement to cleaner vehicle fleets.

7.4 Effects on equality of opportunity

7.4.1 Summary of the effects of the plan

None of the strategies are likely to have a significantly positive effect on the equality objectives. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the equality SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help improve accessibility and improve the quality of communities. The strategies contained within the plan should help to support access to employment, healthcare and other services, make travel more affordable (through concessionary fare schemes, car sharing schemes etc) and through providing a greater range of travel options. The plan will also help to improve the quality of urban and rural centres through measures to reduce the impact of freight traffic, parking policies and through reducing congestion and the impact of vehicular traffic in certain areas. Although funding has been withdrawn from the Warwickshire Access to Services Partnership Scheme, attempts have been made to mainstream accessibility improvements into the wider LTP strategies in an effort to secure delivery over the plan period. None of the strategies will have a negative effect on the SEA Objectives.

7.4.2 Mitigation and enhancement measures

No mitigation measures are identified in order to address potential negative effects because none have been identified within the assessment against the Equality of Opportunity SEA Objectives. However, a mitigation measure is put forward in relation to an uncertain performance recorded with regards to the Implementation Plan (April 2011 – March 2014); as follows: The Implementation Plan states that council will set out an annual work programme. This work programme should be assessed for its sustainability effects. One enhancement measure is put forward in order to improve the Area Strategies, as follows: Consider adding an objective on improving accessibility to the Nuneaton and Bedworth, Eastern Warwickshire and Warwick, Leamington Spa, Kenilworth and Whitnash Area Strategies.

7.5 Effects on safety, security and health

7.5.1 Summary of the effects of the plan

None of the strategies are likely to have a significantly positive effect on the safety, security and health objectives but no negative impacts have been recorded either. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the safety, security and health SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help improve the safety and security of travel through tackling speeding, improving lighting, helping to maintain footways and the highways and helping to educate people about road safety. The strategy will also help to make healthier modes more attractive through improving walking and cycling routes and addressing security concerns at public transport interchanges. The strategies should also help to improve the air quality in the county, if modal switch is achieved. As with the other SEA Objectives, there is some uncertainty over the implementation of the schemes in the strategies. The Implementation Plan stresses that maintenance of the highway network is likely to be a priority (which will positive for safety), that a broadly balanced integrated transport programme will be maintained and the plan includes funding for casualty reduction, Safer Routes to Schools Programmes and cycling and walking. However, without certainty on funding and location of schemes, it is not possible to assess what the impact of the Implementation Plan will be on safety and health. However, the council does set out an annual programme of work and it would be useful if this programme were subject to assessment to determine its effects on all the SEA objectives.

7.5.2 Mitigation and enhancement measures

No mitigation measures are identified in order to address potential negative effects because none have been identified within the assessment against the Safety, Security and Health SEA Objectives. However, mitigation measures are put forward in relation to the uncertain performances recorded, as follows:

- The Implementation Plan states that council will set out an annual work programme. This work programme should be assessed for its sustainability effects.

A number of enhancement measures are put forward in order to improve the strategies, as follows:

- The final objectives of the Northern Warwickshire, Eastern Warwickshire, Nuneaton and Bedworth and Warwick, Leamington Spa, Kenilworth and Whitnash Area Strategies could be amended to also cover reducing the impacts of traffic on communities; and
- There are other areas of Northern Warwickshire (apart from Coleshill) that would benefit from improved walking and cycling routes and the strategy should outline what the approach in other areas is likely to be. Even if there are no resources at present, this should be made clear in the strategy.

7.6 Effects on quality of life and natural environment

7.6.1 Summary of the effects of the plan

None of the strategies are likely to have a significantly positive effect on the environment and quality of life objectives. This is because of uncertainty regarding when, where and how measures are likely to be implemented. The long term strategies within the LTP3 largely perform well against the environment and quality of life SEA Objectives (mostly scoring minor positive marks) as they include strategies and measures that (if implemented) will help reduce the impact of transport on the environment. The strategies contained within the plan should help to provide alternative modes of transport and manage traffic to reduce the impact on communities and townscape and reduce congestion and traffic. All of these measures should help to reduce the impact of traffic on air, noise and biodiversity, improve landscapes and townscapes and reduce pollution from traffic. There are however, a small number of potential negative effects recorded within the assessment and mitigation measures are proposed to address these as appropriate. For example, the objectives of the LTP do not address the built environment, and the Sustainable Distribution Strategy, Highway Maintenance Strategy, Road Safety Strategy, Bridge Maintenance Strategy and Rights of Way and Recreational Highway Strategy would result in construction so could involve the use of natural resources.

The effect of the area strategies has been scored as uncertain. The proposals in the strategy will have effects on the environment in three ways – through changing the amount of traffic in certain sensitive areas (areas sensitive to noise, water and soil pollution, sensitive landscapes, habitats and townscapes), through direct land take impacts (i.e. a direct impact from land use changes on environmental resources such as a habitats, species, designated conservation / landscape areas, water body or listed building / heritage resource) or through building new infrastructure and changing maintenance regimes (which can change / increase the demand for natural resources). There is a high degree of uncertainty in the strategy regarding when and where transport schemes may be developed and this has made the strategies difficult to assess. Although the area strategies may make alternative modes more attractive and reduce the impact of traffic on townscapes it is not possible to definitely state the locations of any likely traffic reduction due to uncertainty regarding where and how measures are likely to be implemented. This uncertainty also means that direct land take impacts are not possible to predict. An exception to this is Phase 1 of the NUCKLE major scheme which is further advanced than the other parts of the plan. The NUCKLE scheme will be broadly positive in helping to achieve modal shift. However, there is a risk of some impacts on flooding and biodiversity – mitigation measures will need to be developed as part of the environmental assessment for the scheme.

7.6.2 Mitigation and enhancement measures

Mitigation measures are identified in order to address potential negative effects and areas of uncertainty identified in the assessment, as follows:

- The plan objective on the environment should be changed to address the impact on the built environment;
- There is a risk that as the strategies and measures are developed negative impacts will occur. This is particularly a risk with the major schemes and it is suggested that major

schemes (and all schemes if deemed a risk) should be subject to an assessment of their sustainability;

- As with the other strategies, the objectives of the Southern and Western Warwickshire Area Strategy should address the environmental impact of transport (rather than just air quality);
- The LTP needs to make a commitment to reducing the impact of the resources used to build new transport infrastructure. Policy HM6 of the Highway Maintenance Strategy states that the County Council will aim to undertake all of its highway maintenance work within the context of the principles of sustainability and environmental protection. A similar undertaking needs to be made for the construction of new infrastructure;
- Before highway widening is considered its impact on the environment should be considered;
- The location of the freight consolidation centres needs to be carefully selected so they are not located in (or increase traffic in) areas that are sensitive;
- Policy F6 on the Sustainable Freight Distribution Strategy could be reworded more positively in terms of avoiding environmental effects;
- It should be made clear that the maintenance of historic bridges and/or bridges of cultural value will be undertaken in consultation with English Heritage and local authority conservation officers in order to ensure that decisions made regarding bridge maintenance optimise the protection of the county's historic assets;
- The policy wording should include the minimisation of environment effects of bridge maintenance works;
- Policy RW1 of the Rights of Way and Recreational Highway Strategy could be strengthened by adding text which makes it clear that recycled and low environmental impact surfacing materials will be favoured for the surfacing of foot and cycle paths, where practicable. Policy RW1 of the Rights of Way and Recreational Highway Strategy should also make reference to protecting water resources; and
- In order to offset potential negative effects on archaeological and ecological features, the protection of such features should be given high priority in Policy RW5b of the Rights of Way and Recreational Highway Strategy.
- The Implementation Plan states that the council is working closely with District Councils and developers to establish detailed requirements and phasing for infrastructure. This process should actively consider the sustainability impacts (as well as the transport impacts) of the different levels of infrastructure that could be provided with different funding levels.

Enhancement measures are also put forward, in order to improve the strategies, as follows:

- More information should be provided on how the environmental impact of traffic on environmentally sensitive areas is to be achieved within the Network Management Duty Strategy.

8 Monitoring Measures

8.1 Introduction

The SEA Regulations require authorities to:

...monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action (Section 17 (1)).

Monitoring measures proposed in this section refer to the significant and uncertain effects that have been predicted to result from measures included in the Draft LTP3. However the monitoring programme itself will not commence until the Final LTP is adopted in March 2011. By then the monitoring requirements may have changed, either as a result of changes to the plan or due to other external influences on the baseline situation. European Commission guidance¹³ provides advice on monitoring which suggests a phased approach to the design of a monitoring programme. This phased process will be used for LTP3, further details of which will be included in the SEA statement once the impacts of the Final LTP3 are known.

In addition to the very specific actions included below, the LTP already includes a monitoring programme and the latest version of this is outlined in the Implementation Plan.

The monitoring programme is outlined in Table 5.

Significant / uncertain effect identified¹⁴	Monitoring required
Uncertain effect: The effect of the Implementation Plan on the economy, the environment and climate emissions. The Implementation Plan concludes that it is not likely that significant infrastructure investment to support LDFs will occur during this Implementation Plan. This means that the funding available from the council to 'top up' developer funding (to provide additional infrastructure/provide higher quality infrastructure where appropriate) is less likely to be available. However, the effects of this are uncertain because of uncertainties regarding the level of funding likely to be available.	Each Local Development Framework will have its own monitoring processes through which the effects of development will be monitored. It is expected that this will be an effective way to monitor this significant effect. It will be important that the LTP team satisfies itself that each LDF has set in place adequate monitoring systems to ensure that there are no unacceptable transport impacts from development.
Significant effect: The effect of the area strategies and Implementation Plan on carbon emissions. If development is to take place without adequate transport infrastructure it likely that climate emissions will increase and this will have a negative impact on climate emissions.	
Uncertain effect: Some uncertainties exist regarding the impact of the area strategies because there is uncertainty regarding the location	

¹³ European Commission (2003): Implementation of Directive 2001/42 on the assessment of the Effects of Certain Plans and Programmes on the Environment.

¹⁴ The effects have been grouped into similar effects for the purpose of the monitoring programme.

Table NTS4: LTP3 monitoring programme

Significant / uncertain effect identified ¹⁴	Monitoring required
of development in some areas (as the Local Development Frameworks have not got to the stage where they can be definite about development sites) and the fact that transport modelling has not yet been undertaken to determine the effect of development on congestion and traffic levels.	
Significant effect: The cumulative effect of the LTP and the expansion of Birmingham International Airport on carbon emissions.	Birmingham International Airport reports on the carbon emissions from its operations in its quarterly Environment Monitoring Report and annual Community and Environment Report. This data will need to be collated on an annual basis and used to inform the LTP monitoring
Significant effect: The effect of the Highway Maintenance Strategy on the ability of the transport system to adapt to the effects of climate change (the strategy omits to plan for the maintenance issues that climate change might have on the transport system)	The action that is needed to change this effect from a negative into a positive is to include information on climate change adaptation in the LTP. If this is done no monitoring will be needed. If this is not incorporated then necessary monitoring will be set out in the final LTP3.

Table 5: LTP3 monitoring programme

Significant / uncertain effect identified ¹⁵	Monitoring required
Uncertain effect: The effect of the Implementation Plan on the economy, the environment and climate emissions. The Implementation Plan concludes that it is not likely that significant infrastructure investment to support LDFs will occur during this Implementation Plan. This means that the funding available from the council to 'top up' developer funding (to provide additional infrastructure/provide higher quality infrastructure where appropriate) is less likely to be available. However, the effects of this are uncertain because of uncertainties regarding the level of funding likely to be available.	Each Local Development Framework will have its own monitoring processes through which the effects of development will be monitored. It is expected that this will be an effective way to monitor this significant effect. It will be important that the LTP team satisfies itself that each LDF has set in place adequate monitoring systems to ensure that there are no unacceptable transport impacts from development.
Significant effect: The effect of the area strategies and Implementation Plan on carbon emissions. If development is to take place without adequate transport infrastructure it likely that climate emissions will increase and this will have a negative impact on climate emissions.	
Uncertain effect: Some uncertainties exist regarding the impact of the area strategies because there is uncertainty regarding the location of development in some areas (as the Local Development Frameworks have not got to the stage where they can be definite about development sites) and the fact that transport	

¹⁵ The effects have been grouped into similar effects for the purpose of the monitoring programme.

Table NTS4: LTP3 monitoring programme

Significant / uncertain effect identified¹⁴	Monitoring required
modelling has not yet been undertaken to determine the effect of development on congestion and traffic levels.	
Significant effect: The cumulative effect of the LTP and the expansion of Birmingham International Airport on carbon emissions.	Birmingham International Airport reports on the carbon emissions from its operations in its quarterly Environment Monitoring Report and annual Community and Environment Report. This data will need to be collated on an annual basis and used to inform the LTP monitoring
Significant effect: The effect of the Highway Maintenance Strategy on the ability of the transport system to adapt to the effects of climate change (the strategy omits to plan for the maintenance issues that climate change might have on the transport system)	The action that is needed to change this effect from a negative into a positive is to include information on climate change adaptation in the LTP. If this is done no monitoring will be needed. If this is not incorporated then necessary monitoring will be set out in the final LTP3.

9 Next Steps

9.1 Consultation on the Environmental Report

The primary role of the Environmental Report is to facilitate consultation with interested parties, including the public. The Environmental Report is published alongside the Draft LTP3 with the aim of providing stakeholders with sufficient information on the likely significant environmental effects of the plan. This is done at the Draft LTP3 stage to allow time to influence the development of the LTP3 prior to its completion.

Comments received on the content of the Environmental Report will be taken into consideration in the next stages of the SEA (see below).

9.2 Adoption of the LTP3

If significant changes are made between the consultation on the Draft LTP3 and the Final LTP3, these changes will be assessed and information made available to the public.

Once the LTP has been adopted it is necessary to produce a statement which reports how the LTP team have taken the findings of the SEA and consultation results into account (a SEA Statement). This SEA Statement should be made available to stakeholders. It must cover:

- How environmental considerations have been integrated into the LTP, for example any changes to or deletions from the LTP in response to the information in the Environmental Report;
- How the Environmental Report has been taken into account;
- How the opinions and consultation responses have been taken into account. The summary should be sufficiently detailed to show how the LTP was changed to take account of issues raised, or why no changes were made;
- The reasons for choosing the LTP as adopted in the light of other reasonable alternatives dealt with; and
- The measures that are to be taken to monitor the significant environmental effects of implementation of the LTP. The Environmental Report will already have documented proposed measures concerning monitoring; these can now be confirmed or modified in the light of consultation responses.