Telford and Wrekin Council

Third Local Transport Plan (LTP3)

Strategic Environmental Assessment, Health Impact Assessment and Habitat Regulations Assessment

Final Environmental Report

April 2011

Plan Design Enable

ATKINS

Telford and Wrekin Council – Third Local Transport Plan (LTP3)

Strategic Environmental Assessment, Health Impact Assessment and Habitat Regulations Assessment

Final Environmental Report

April 2011

Document History

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Glossary of Terms

Term	Meaning / Definition
Baseline	A description of the present and future state of an area, in the absence of any plan, taking into account changes resulting from natural events and from other human activities.
Consultation Body	An authority which because of its environmental responsibilities is likely to be concerned by the effects of implementing plans and programmes and must be consulted under the Strategic Environmental Assessment (SEA) Directive. The Consultation Bodies, designated in the SEA Regulations are English Heritage, Natural England and the Environment Agency.
Central Telford Area Action Plan	Central Telford Area Action Plan, which provides a long term development strategy to guide the development of Central Telford and sets a framework within which to bring forward proposals for major development.
Environmental appraisal	A form of environmental assessment used in the UK (primarily for development plans) since the early 1990s, supported by 'Environmental Appraisal of Development Plans: A Good Practice Guide' (DoE, 1993); more recently superseded by sustainability appraisal. Some aspects of environmental appraisal foreshadow the requirements of the SEA Directive.
Environmental assessment	Generically, a method or procedure for predicting the effects on the environment of a proposal, either for an individual project or a higher-level "strategy" (a policy, plan or programme), with the aim of taking account of these effects in decision-making. The term "Environmental Impact Assessment" (EIA) is used, as in European Directive 337/85/EEC, for assessments of projects. In the SEA Directive, an environmental assessment means "the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision", in accordance with the Directive's requirements.
Environmental Report	Document required by the SEA Directive as part of an environmental assessment, which identifies, describes and appraises the likely significant effects on the environment of implementing a plan or programme.
Equalities Impact Assessment	An equality impact assessment is a process designed to ensure that a policy, project or scheme does not discriminate against any disadvantaged or vulnerable people. There are eight protected characteristics identified in the Equality Act 2010 that are relevant to the transport agenda: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.
European Sites	Include Special Areas of Conservation and Special Protection Areas. Habitats Regulations Assessment is also required, as a matter of UK Government policy for potential SPAs, candidate SACs and listed Wetlands of International Importance (Ramsar sites) for the purposes of considering plans and projects, which may affect them[1].
Habitats Regulations Assessment	An assessment of proposed plans or projects which are likely to have a significant effect on one or more European sites, either individually or in

[1] Planning Policy Statement 9: Biodiversity and Geological Conservation, ODPM (August 2005)

Term	Meaning / Definition
	combination with other plans and projects. The effects of a plan are assessed against the conservation objectives of a European site to determine whether it would adversely affect the site's integrity[2]. The requirement arises from the Conservation of Habitats and Species Regulations 2010[3] implementing the Habitats Directive (92/43/EEC).
Health Impact Assessment	'A combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population'[4].
Home Zone	Home Zones aim to improve the quality of life in residential roads by making them places for people, instead of just being thoroughfares for vehicles. The key elements to a Home Zone are: community involvement to encourage a change in user behaviour; and for the road to be designed in such a way as to allow it to be used for a range of activities and to encourage very slow vehicle speeds (usually involving sensitively designed traffic calming).
Indicator	A measure of variables over time, often used to measure achievement of objectives.
Mitigation	Measures to avoid, reduce or offset significant adverse effects.
Ramsar Site	Sites designated under the Convention on Wetlands of International Importance, called the Ramsar Convention.
Responsible Authority	In the SEA Regulations, means an organisation which prepares a plan or programme subject to the SEA Directive and is responsible for the SEA.
Sustainability Appraisal Report	Sustainable development is a core principle underpinning planning. Sustainable development means balancing social, environmental and economic needs both now and in the future within the production of a Local Development Framework. To help ensure that the LDF documents are sustainable, a Sustainability Appraisal (SA) is undertaken and incorporates the legal requirements of the "Environmental Assessment of Plans and Programmes Regulations 2004".
Scoping	The process of deciding the scope and level of detail of an SEA, including the environmental effects and options which need to be considered, the assessment methods to be used, and the structure and contents of the Environmental Report.
Strategic Flood Risk Assessment	Strategic Flood Risk Assessment maps all forms of flood risk and are used as an evidence base to locate new development towards lower flood risk areas in accordance with Planning Policy Statement 25
Significant effect	Effects which are significant in the context of the plan. (Appendix II of the SEA Directive gives criteria for determining the likely environmental significance of effects).

[2] Integrity is describe as the sites' coherence, ecological structure and function across the whole area that enables it to sustain the habitat, complex of habitats and/or levels of populations of species for which it was classified

[3] From the 6th April 2010 the Conservation (Natural Habitats &c) Regulations 1994 and its many amendments have been consolidated into (and replaced by) the Conservation of Habitats and Species Regulations 2010.

[4] World Health Organization. Gothenburg consensus paper. Health Impact Assessment: Main concepts and suggested approach (http://www.who.dk/document/PAE/Gothenburgpaper.pdf, accessed 15/08/06). Brussels: WHO European Centre for Health Policy, 1999.

Acronyms

Acronym	Meaning / Definition
AQMA	Air Quality Management Area
AMR	Annual Monitoring Report
BAP	Biodiversity Action Plan
BVPI	Best Value Performance Indicator
CLG	Communities and Local Government
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CTAAP	Central Telford Area Action Plan
DaSTS	Delivering a Sustainable Transport Strategy
dB(A) Leq	Leq is a symbol that represents “Equivalent Continuous Noise Level”. The result is expressed in dB(A), which gives a reasonable approximation of the human perception of loudness.
DCMS	Department for Culture, Media and Sport
DDA	Disability Discrimination Acts
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DH	Department of Health
DPD	Development Plan Document
EEC	European Economic Community
EHO	Environmental Health Officer
EIA	Environmental Impact Assessment
EqIA	Equality Impact Assessment
ER	Environmental Report
ETP	Education, Training and Publicity
EU	European Union
GHG	Greenhouse Gases
GIS	Geographic Information System
GLA	Greater London Authority
HA	Highways Agency
HIA	Health Impact Assessment
HRA	Habitat Regulations Assessment
IMD	Indices of Multiple Deprivation
KSI	Killed or Seriously Injured (road safety)
LBAP	Local Biodiversity Action Plan
LDF	Local Development Framework
LNR	Local Nature Reserve

LSOA	Lower Layer Super Output Area
LTP	Local Transport Plan
MRC	Medical Research Council
MTS	Mayor's Transport Strategy
NATA	New Approach to Appraisal
NI	National Indicator
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides. Nitric oxide (NO) and nitrogen dioxide (NO_2) are together commonly referred to as NO_x
NNR	National Nature Reserve
ODPM	Office of the Deputy Prime Minister (now CLG)
ONS	Office for National Statistics
PCT	Primary Care Trust
PDL	Previously Developed Land
PM	Particulate Matter
PM_{10}	Particulate Matter < 10µm
PPPs	Policies, Plans and Programmes
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PSA	Public Service Agreement
RIGGS	Regionally Important Geological and Geomorphological Sites
RoWIP	Rights of Way Improvement Plan
RQO	River Quality Objective
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SCOOT	Split Cycle Offset Optimisation Technique
SEA	Strategic Environmental Assessment
SPA	Special Protection Area
SPZ	Source Protection Zones
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Drainage Systems
TAG	Transport Analysis Guidance
TAMP	Transport Assessment Management Plan
TaSTS	Towards a Sustainable Transport System
TfL	Transport for London
TWC	Telford and Wrekin Council
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UTC	Urban Traffic Control
WHO	World Health Organisation

Non-Technical Summary

Background

This document is the Final Environmental Report (ER) for the Strategic Environmental Assessment (SEA) incorporating Health Impact Assessment (HIA) and Habitat regulations assessment (HRA) of the Telford and Wrekin Third Local Transport Plan (LTP3). It has been produced by Atkins Ltd for Telford and Wrekin Council (TWC).

Telford and Wrekin LTP3

TWC has commenced the development of its LTP3 to cover the period 2011-26, which will replace the existing LTP2 (2006-2011). LTP3 will set out a long term transport strategy for the Borough. The strategy will be accompanied by a 3-year implementation plan, to be reviewed on an annual basis.

The Transport Act 2000 introduced a statutory requirement for local transport authorities to produce an LTP every five years and to keep it under review. This statutory requirement was retained in the Local Transport Act 2008 although other aspects of the statutory framework have changed. The Act now requires that LTPs contain policies (referred to as the strategy) and implementation plans (the proposals for delivery of the policies contained in the strategy). There is no longer the requirement for LTPs to be reviewed every five years. The new legislation gives local authorities powers to decide when to renew the Plan to ensure best fit with other local policies and plans.

The key dates in the preparation of LTP3 are as follows:

- September to mid October 2010 – Preparation of draft LTP3;
- Mid November to mid December 2010 – Consultation on draft LTP3; and
- January to March 2011 – Revisions to draft and finalisation of LTP3 and Implementation Plan.

DfT expects authorities to consider their contribution to national transport goals as over-arching priorities for the LTPs. The four shared priorities of LTP2 guidance (i.e. safer roads, tackle congestion, deliver accessibility and better air quality) have been replaced by the five goals set out in the DfT 'Delivering a Sustainable Transport System' (DaSTS) Strategy agenda. These goals are:

1. To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
2. To reduce transport's emissions of carbon dioxide (CO_2) and other GHGs, with the desired outcome of tackling climate change;
3. To contribute to better safety 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;
4. To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; and
5. To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

DfT guidance on LTPs says that local authorities can refine these goals to reflect local circumstances or add local objectives in their LTPs. It also stresses that local authorities preparing LTPs should determine their priorities for dealing with the different challenges they face.

TWC's LTP3 will be guided by its council-wide vision for the future. This is set out in the document Vision 2026, produced in 2008, and currently under review. The vision has been developed by the Telford and Wrekin Strategic Partnership, which consists of key organisations within the local public, private and voluntary sectors. The vision for 2026 is of:

"A successful, prosperous and healthy community which offers a good quality of life for all the people of Telford and Wrekin."

The Strategic Transport Challenges facing Telford and Wrekin are:

- Challenge 1: Ensuring timely delivery of new transport facilities to allow good accessibility to be provided to major new housing and employment developments
- Challenge 2: Encouraging travel by transport with low carbon impacts.
- Challenge 3: Enhancing social inclusion by enabling access for all to employment opportunities and services such as shops, healthcare and education.
- Challenge 4: Providing safer transport networks and minimising the impact of transport on people's health.
- Challenge 5: Improving the quality of life and places by improving the built environment and conserving and providing access to the natural environment.
- Challenge 6: The need to cope with reduced levels of transport funding.

Linked to this, the suggested draft LTP3 goals have been developed with reference to the long term ambitions and desired outcomes of the Vision 2026 document, the DfT's national transport goals and the results of the LTP3 consultation, which asked about priorities and challenges based on the DfT goals.

The LTP3 goals are:

- Making travel more reliable and efficient, to attract jobs and support growth and regeneration
- Allow everyone to access jobs, education, healthcare, shops, and leisure
- Improve safety and security on the transport network and promote active travel choices which encourage people to be healthier
- Improve the Quality of Life by reducing the visual, noise, air quality and other impacts of transport on people and the local environment
- Maintain highways effectively and efficiently

The goals above were assessed as part of this SEA. An additional goal has been introduced since the assessment took place and could not be formally assessed as part of this process due to the timescales of its disclosure:

- Reduce carbon emissions to help tackle climate change

Sustainability Baseline and Key Issues

Telford and Wrekin is located within the north western part of the West Midlands region and covers an area of 29,000 hectares. The Borough consists of the Telford urban area, Newport market town and an extensive rural area. In the south of the Borough lies the Ironbridge Gorge World Heritage Site which is a major tourist attraction in the Borough. The population of Telford and Wrekin has grown by 16.3% since 1991, and now stands at 164,600.

The key sustainability issues identified for Telford and Wrekin are briefly summarised below:

- Predicted population increase resulting;
- Inequitable access to town and district centres;

- Rural deprivation and poor accessibility to services and facilities;
- Threat of decline in bus services;
- Increase in access to sustainable modes for Travel to Work;
- Inequalities in health;
- Fear of crime;
- Reduction in road traffic accidents and casualties
- Poor Public Rights of Way Network in rural areas leading to low levels of accessibility by walking and cycling and low levels of physical activity;
- Poor legibility in the cycle network;
- Decrease in tranquillity levels and landscape quality;
- Loss of Green Network to development;
- Contributions to greenhouse gas emissions from transport;
- Threat to water quality from development;
- Air pollution potential at WHS;
- Noise Pollution;
- Threat to protected and unprotected heritage assets;
- Threat to biodiversity assets from development;
- Need for climate change adaptation;
- Inequitable access to natural and semi-natural greenspace; amenity greenspace and open space for children and young people; and
- Making efficient use of land, including reusing brownfield sites and protecting agricultural land.

SEA Framework

The assessment framework is a key component in completing the SEA by synthesising the baseline information and environmental issues into a systematic and easily understood tool that allows the prediction and assessment of effects arising from the implementation of the Plan. Although the SEA Directive does not specifically require the use of objectives or indicators in the SEA process, they are a recognised and useful way in which environmental effects can be described, analysed and compared at key stages of the Plan development.

The SEA framework developed for LTP2 was used as a starting point for the LTP3 SEA framework. The SEA framework consists of 15 objectives as shown below:

1. To improve equitable access to services, amenities, the countryside and improve opportunities for all and encourage a sense of community
2. To improve air quality across the Borough
3. To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2
4. To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions
5. To reduce noise, vibration and light pollution

6. To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure
7. To identify, manage and protect habitats and species which are important on an international scale (HRA specific objective)
8. Conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings
9. To protect and enhance the landscape and quality of the countryside , including all designated landscape sites
10. To reduce land contamination associated with transport and seek to conserve soil quality and quantity
11. To maximise the efficient use of natural resources and minimise the amount of waste produced
12. To protect water resources, avoid pollution and achieve sustainable water resource management
13. To reduce crime, disorder and fear of crime and promote safe and inclusive communities (Health Specific Objective)
14. To improve physical and mental health for all and reduce health inequalities (Health specific objective)
15. To promote a range of sustainable modes of transport and reduce reliance on the private car

LTP3 Objectives

In order to ensure that the objectives of LTP3 are in accordance with environmental as well as wider sustainability principles, these were tested for compatibility against the SEA objectives. This process is called the compatibility assessment and was undertaken on the original 18 objectives proposed by TWC. It helped to identify potential synergies and inconsistencies.

Overall the original LTP3 objectives were found to be broadly compatible with the SEA objectives indicating a potential range of positive effects, such as increased accessibility, reduced health inequalities and more inclusive communities. There were only a couple of potential conflicts identified against LTP3 objectives 4 (address the needs of the rural area) and 6 (ensure access to markets).

Following recommendations from the compatibility assessment, the LTP3 objectives were refined and the objectives included in the LTP3 Preferred Strategy Consultation Draft are as follows:

1. To ensure access to regional, national and international markets to support the economy through more efficient use of existing infrastructure
2. To encourage inward investment and regeneration
3. To improve interchange facilities between bus and rail, and promote Intelligent Transport solutions to increase driver and passenger information and reduce unnecessary traffic delays
4. To ensure that highway assets are efficiently maintained
5. Help tackle climate change by reducing transport CO_2 emissions to tackle the cause of climate change and not solely ensure resilience to it
6. Ensure that the transport network is resilient to the adverse impact of climate change
7. To ensure all members of the community, particularly those without access to a car and people with disabilities can access local job and training opportunities, education, healthcare, shopping, leisure, cultural and community facilities

8. To promote a range of sustainable transport modes (such as public transport, walking and cycling) in both urban and rural areas that support the needs of the community by providing access to key services including employment and education
9. To work with transport operators to develop ways of making transport more affordable and convenient
10. To implement safety measures to reduce traffic related casualties, improve personal security and reduce fear of crime
11. To reduce the impact of transport on the local environment (noise, visual, water and soil pollution) in residential areas and designated and non-designated sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres
12. To promote a vibrant, high quality urban environment by enhancing the pedestrian environment in Telford town and district centres

LTP3 Strategic Alternatives

TWC developed three strategic alternatives as follows:

- **Strategic alternative 1 – Do Minimum.** The minimal (Base) level of investment to meet all statutory requirements and maintain the transport benefits implemented under LPT1 and LTP2, but with spending on road safety and maintenance continuing at a similar level to that under LTP2
- **Strategic alternative 2 – Supporting Economic Growth.** Measures introduced to: improve connectivity to key markets; link people to jobs; reduce lost productive time; and support regeneration initiatives.
- **Strategic alternative 3 – Improving Accessibility.** Measures introduced to: improve access to key services and facilities for all; integrating land use and transport through the LDF to allow access by sustainable modes of travel; maintain and improve public transport and integration between and with public transport modes; promote cycling and walking modes; and provide alternatives to employees such as car sharing and facilities for cyclists to reduce carbon emissions.

These strategic options were assessed against the SEA objectives. In summary, all three alternatives emphasised the need for increased use of public transport, together with improvements to town centres; however it was difficult to conclusively identify the alternative that could be considered the most sustainable overall; there was insufficient differentiation between the combinations of strategies to be able to identify any clear advantage of a particular combination based on the level of detail provided for the alternatives and without any clear details of future expenditure between the do-minimum and enhanced scenarios.

Assessment of Effects of LTP3

There have been two iterations of the assessment of LTP3. Firstly, the draft LTP3 Preferred Strategy was assessed. To enable the SEA process, the draft Strategy measures were grouped by themes, based on similar aims and objectives, and subsequently divided into seven components for assessment, shown below.

1. Support economic growth and reduce congestion
2. Improve accessibility
3. Area based measures
4. Climate Change Measures
5. Road safety

6. Asset management
7. Quality of life measures

These components were assessed against the SEA Objectives. The results of the first assessment iteration were reported in the draft Environmental Report.. It was found that the strategy would have potentially significant effects against the majority of the SEA Objectives as shown below:

- SEA objective 1 - To improve equitable access to services, amenities and opportunities for all and encourage a sense of community
- SEA objective 2 - To improve air quality across the Borough
- SEA objective 3 - To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2
- SEA objective 4 - To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions
- SEA objective 5 - To reduce noise, vibration and light pollution
- SEA objective 6 - To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure
- SEA objective 9 - To protect and enhance the landscape and quality of the countryside , including all designated landscape sites
- SEA objective 11 - To maximise the efficient use of natural resources and minimise the amount of waste produced
- SEA objective 12 - To protect water resources, avoid pollution and achieve sustainable water resource management
- SEA objective 13 - To reduce crime, disorder and fear of crime and promote safe and inclusive communities (Health Specific Objective)
- SEA objective 14 - To improve physical and mental health for all and reduce health inequalities (Health specific objective)
- SEA objective 15 - To promote a range of sustainable modes of transport and reduce reliance on the private car

Potentially significant adverse effects were also identified against the following SEA Objectives:

- SEA Objective 10 – To reduce land contamination associated with transport and seek to conserve soil quality and quantity
- SEA objective 12 - To protect water resources, avoid pollution and achieve sustainable water resource management

These adverse effects were assessed on the precautionary basis, as the Asset Management policies did not clearly state whether potential effects on soil and water quality would be appropriately considered during repair and construction works.

Recommendations to improve the overall sustainability performance of the draft LTP3 Strategy were provided in the draft Environmental Report.

Following the public consultation, the changes made to the Final LTP3 have been assessed and the findings of this exercise presented in this final Environmental Report. It has been found that most of the recommendations set out in the draft Environmental Report were addressed in the preparation of the Final LTP3 and consequently its performance has improved. Specifically, potential significant negative effects against the two SEA objectives (10 and 12) identified as a result of the first assessment iteration have been eliminated due to the inclusion of the environmental safeguards in the Final LTP3.

Mitigation Measures

As a result of the first iteration of the assessment, the Draft Environmental Report made a series of SEA/HIA recommendations that aimed to improve the overall sustainability performance of the LTP3. TWC has given careful consideration to these recommendations and addressed most of them (please refer to the SEA Statement for details). In relation to other, more specific, recommendations it has been confirmed that TWC will consider them during the preparation or review of other relevant documents or lower tier specific transport policy documents and schemes as they come forward.

Monitoring

SEA monitoring will cover significant social and environmental effects and involves measuring indicators that will enable the establishment of a causal link between the implementation of the plan and the likely significant effects (both positive and negative) being monitored. In line with the SEA Directive, these significant effects should be monitored with the implementation of LTP3.

The SEA of the LTP3 has identified significant beneficial effects with regards to the majority of the SEA and HIA objectives that will require monitoring:

- SEA objective 1 - To improve equitable access to services, amenities and opportunities for all and encourage a sense of community;
- SEA objective 2 - To improve air quality across the Borough;
- SEA objective 3 - To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2;
- SEA objective 4 - To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions;
- SEA objective 5 - To reduce noise, vibration and light pollution;
- SEA objective 6 - To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure;
- SEA objective 8 - To conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings;
- SEA objective 9 - To protect and enhance the landscape and quality of the countryside , including all designated landscape sites;
- SEA objective 11 - To maximise the efficient use of natural resources and minimise the amount of waste produced;
- SEA objective 12 - To protect water resources, avoid pollution and achieve sustainable water resource management;
- SEA objective 13 - To reduce crime, disorder and fear of crime and promote safe and inclusive communities (Health Specific Objective);
- SEA objective 14 - To improve physical and mental health for all and reduce health inequalities (Health specific objective);
- SEA objective 15 - To promote a range of sustainable modes of transport and reduce reliance on the private car.

The SEA Framework contains indicators that have been used as the basis for preparing the monitoring programme. Monitoring must occur on a regular basis and must be constantly being updated, for the life of LTP3, to determine whether LTP3 targets and objectives are being met.

Conclusions

This Environmental Report sets out the SEA process and its key findings in relation to Telford and Wrekin's LTP3.

As a result of the first iteration of the assessment, the Draft Environmental Report made a series of SEA/HIA recommendations that aimed to improve the overall sustainability performance of the LTP3. TWC has given careful consideration to these recommendations and addressed most of them (please refer to the SEA Statement for details). In relation to other, more specific, recommendations it has been confirmed that TWC will consider them during the preparation or review of other relevant documents or lower tier specific transport policy documents and schemes as they come forward. TWC also took on board the comments arising from public consultation in the preparation of the Final LTP3.

The changes made to the Final LTP3 improved its performance in such areas as ensuring equitable access to services and opportunities, promoting sustainable transport modes, tackling climate change and maximising resource efficiency as well as ensuring that appropriate environmental safeguards are in place. The incorporation of the SEA recommendations also led to the elimination of significant negative effects predicted as a result of the first assessment iteration.

Overall, it is considered that the Final LTP3 meets the range of SEA objectives identified in the SEA Framework to a large extent. It offers potentially significant beneficial effects on the majority of SEA objectives as specified above.

The Implementation plan of the LTP was not produced at the time of the SEA and therefore has not been included within this assessment.

1. Introduction

Purpose of this Document

1.1 This is the Final Environmental Report for the Strategic Environmental Assessment (SEA), incorporating Health Impact Assessment (HIA) and Habitat regulations assessment (HRA) of the Telford and Wrekin Third Local Transport Plan (LTP3). It has been produced by Atkins Ltd for Telford and Wrekin Council (TWC).

1.2 An SEA of LTP3 is required under the European Directive 2001/42/EC 'on the assessment of certain plans and programmes on the environment' (the 'SEA Directive'). An HIA is required by a number of UK White Papers on public health strategy. Further emphasis has been given by the introduction of the Local Government and Public Involvement in Health Act 2007 and a specific requirement for HIA in the Department for Transport (DfT) LTP3 guidance published in 2009[5]. HRA is required by of the Conservation of Habitats and Species Regulations 2010[6], implementing the European Council Directive 92/43/EEC on the Conservation of natural habitats and wild fauna and flora (the Habitats Directive).

1.3 This document accompanies the final LTP3 on adoption.

Telford and Wrekin LTP3 in Context

1.4 TWC has commenced the development of its LTP3 to cover the period 2011-26, which will replace the existing LTP2 (2006-2011). LTP3 will set out a long term transport strategy for the Borough. The strategy will be accompanied by a 3-year implementation plan, to be reviewed on an annual basis.

1.5 The Transport Act 2000 introduced a statutory requirement for local transport authorities to produce an LTP every five years and to keep it under review. This statutory requirement was retained in the Local Transport Act 2008 although other aspects of the statutory framework have changed. The Act now requires that LTPs contain policies (referred to as the strategy) and implementation plans (the proposals for delivery of the policies contained in the strategy). There is no longer the requirement for LTPs to be reviewed every five years. The new legislation gives local authorities powers to decide when to renew the Plan to ensure best fit with other local policies and plans.

Strategic Environmental Assessment

1.6 The EU Directive 2001/42/EC[7] (the "SEA Directive") on assessment of effects of certain plans and programmes on the environment came into force in the UK through the Environmental Assessment of Plans and Programmes Regulations 2004[8] (the "SEA Regulations"). The SEA Regulations apply to a wide range of plans and programmes, including LTPs, and modifications to them.

1.7 The overarching objective of the SEA Directive is:

"To provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans… with a view to

[5] DfT 2009, Guidance on Local Transport Plans, http://www.dft.gov.uk/adobepdf/165237/ltp-guidance.pdf
[6] From the 6th April 2010 the Conservation (Natural Habitats &c) Regulations 1994 and its many amendments have been consolidated into (and replaced by) the Conservation of Habitats and Species Regulations 2010.
[7] European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment
[8] Statutory Instrument 2004 No. 1663, The Environmental Assessment of Plans and Programmes Regulations 2004

promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans… which are likely to have significant effects on the environment." (Article 1)

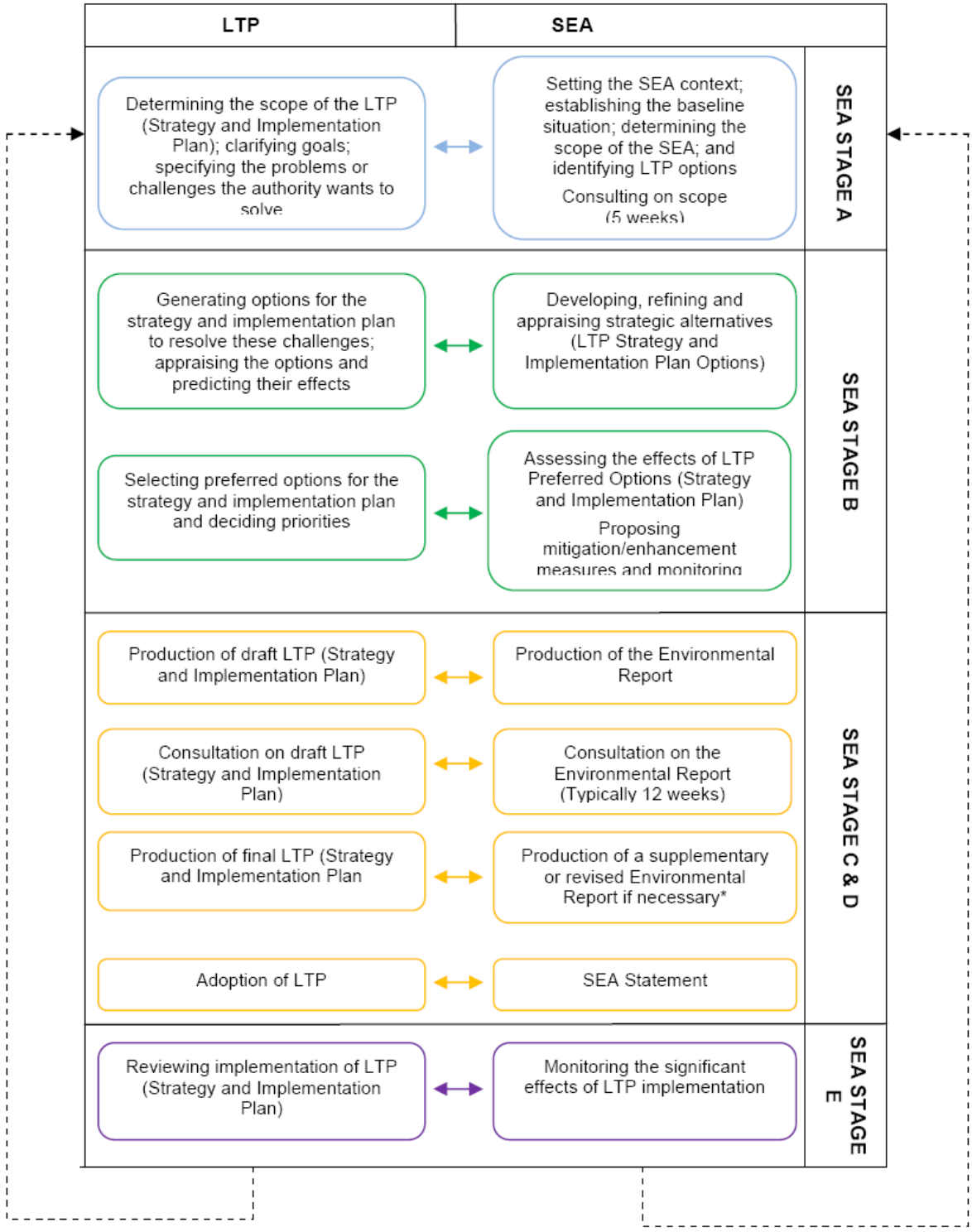
1.8 The main requirements introduced by the SEA Regulations are that:

- the findings of the SEA are published in a Draft Environmental Report (ER), which sets out the significant effects of the draft plan, in this case LTP3;
- consultation is undertaken on the plan and the Draft ER;
- the results of consultation are taken into account in decision-making relating to the adoption of the plan; and
- information on how the results of the SEA have been taken into account is made available to the public.

1.9 SEA extends the evaluation of environmental effects from individual projects to the broader perspective of regional, county and district level plans. It is a systematic process that identifies and predicts the potential significant environmental effects of plans/programmes, informing the decision making process by testing different alternatives or options against environmental sustainability objectives.

1.10 The main work component stages for the preparation of the Telford and Wrekin LTP3, both from a transport planning and SEA perspective, are shown in Figure 1.1.

Figure 1.1 – LTP and SEA Process Stages and Links



* An updated Environmental Report may only be required if significant changes are made to the LTP between draft and final versions.

Source: Transport Analysis Guidance 2.11 Strategic Environmental Assessment for Transport Plans and Programmes, Department for Transport, 'In Draft' Guidance (2009)

SEA / LTP3 Programme Key Milestones

1.11 The key dates in the preparation of LTP3 are as follows:

- May to late August – Commencement of LTP3 and development of SEA Scoping Report;
- Late August to early October 2010 – Consultation of SEA Scoping Report ;
- September to mid October 2010 – Preparation of draft LTP3;
- Mid November to mid December 2010 – Consultation on draft LTP3 and Environmental Report;
- January to March 2011 – Revisions to draft and finalisation of LTP3 and Environmental Report; and
- Publication of final LTP3, Environmental Report and SEA Statement – April 2011.

SEA and New Approach to Appraisal

1.12 The New Approach to Appraisal (NATA) is an appraisal framework which aims to improve the consistency and transparency with which transport decisions are made. NATA sets out the Government's five over-arching transport objectives, namely; environment, safety, accessibility, economy and integration. The DfT requires that all forms of transport proposals, including LTPs, are appraised against these objectives. DfT guidance on NATA, as set out in TAG, notes that NATA appraisal methodologies should be used in undertaking SEA of LTPs.

1.13 TAG Unit 2.11 (2009) provides guidance on integrating the requirements of the SEA Regulations with NATA; it is reproduced below in Table 1.1. Further information on the technical scope of the SEA, based on this guidance, is provided in Section 3 of the TAG Unit 2.11.

Table 1.1 - Topics to be addressed as part of SEA

NATA Objective	NATA sub-objective	SEA Topic (SEA Directive, Annex If)
Environment	Noise	Human health, Population[9], Inter-relationships
	Local air quality[10]	Air, Human health, Population
	Greenhouse gases	Climatic factors
	Landscape	Landscape
	Townscape	
	Heritage	Cultural heritage including architectural and archaeological heritage
	Biodiversity[11]	Biodiversity, Fauna, Flora, Soil[12]
	Water environment	Water

[9] Population is interpreted broadly, referring to effects on people and quality of life. Many NATA indicators incorporate population.

[10] The NATA local air quality indicator does not cover regional air quality, though guidance is given on its assessment. Where regional air quality is likely to be an issue, a local objective may be formulated.

[11] Biodiversity also covers geological interests.

[12] Soil is not explicitly covered by NATA sub-objectives, but is an underlying factor affecting landscape, heritage, biodiversity and the water environment. Where effects on soil are likely to be important a local objective should be formulated.

	Physical fitness	Human health, Population
Safety	Accidents	Human health, Population
	Security	
Accessibility	Community severance	Population
	Access to the transport system	
Economy	Public accounts	Material assets[13]
	Business users and providers	
	Consumer users	

Source: Transport Analysis Guidance 2.11 Strategic Environmental Assessment for Transport Plans and Programmes, Department for Transport, 'In Draft' Guidance (2009)

Health Impact Assessment

1.14 The DfT LTP3 guidance indicates that consideration of 'Human Health' is a legal requirement in an SEA and that an HIA is an integral part of an SEA to identify and inform health issues in Plans.

1.15 Undertaking an HIA as part of the SEA should provide an evidence base to help the decision making process in developing an effective LTP, and to mitigate the negative effects on health and well-being (whether physical and/or mental health). In addition, it should help:

- Secure consistency between the LTP3 and work associated with Sustainable Community Strategies and Local Area Agreements;
- Coordinate the public health concerns in respect of air quality, noise and climate change; and
- Contribute to the wider agenda relating to quality of life and reducing health inequalities.

Habitat regulations assessment

1.16 HRA is required by the Conservation of Habitats and Species Regulations 2010 (the Habitat Regulations) for all plans and projects which may have adverse effects on European sites. European sites include Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

1.17 HRA is also required, as a matter of UK Government policy for potential SPAs (pSPA), candidate SACs (cSAC) and listed Wetlands of International Importance (Ramsar sites) for the purposes of considering plans and projects, which may affect them. Hereafter all of the above designated nature conservation sites are referred to as 'international sites'

1.18 DfT guidance (2009) states that:

'Local transport authorities need to consider if their LTP is likely to have a significant effect on a European site. If a significant effect is likely, the Plan must be subject to an appropriate assessment. Statutory environmental bodies should be consulted."

1.19 The HRA process of the Telford and Wrekin LTP3, starting with Stage 1 – Screening, is being undertaken as a parallel exercise to the SEA process and will be reported separately in due course.

1.20 The main summary of the HRA concluded;

[13] Material assets are not explicitly covered by NATA sub-objectives, but are reflected in the money costs incurred when they are consumed. Where effects on material assets such as infrastructure and property are expected to be of particular importance, a local objective should be formulated.

There are no international sites within the borough of Telford and Wrekin and five international sites within 20 km of the borough boundary. The international sites considered in this HRA Review are:

- Midland Meres and Mosses Phase 2 Ramsar Site;
- Mottey Meadows SAC;
- Midland Meres and Mosses Phase 1 Ramsar Site
- Brown Moss SAC and
- Fenn□s Whixall, Bettisfield, Wem and Cadney Mosses SAC and Ramsar site.

1.21 This list of international sites has been obtained from information provided by Natural England (via email with Eric Steer,

1.22 A small number of recommendations were made to strengthen the Plan. These included the addition of a new HRA sub-section, policy and/or statement be added to the Plan that includes text that will ensure HRA is undertaken for any schemes and projects that will be supported by (though not delivered under) the Plan and developed by external developers. The only schemes named specifically within the Plan are those that would be carried out by others.

1.23 The HRA Review helped satisfy Natural England (and other statutory bodies) that the HRA process was followed and that due consideration was paid to the Habitat Regulations throughout the development of the LTP3.

Equalities Impact assessment

1.24 Local Transport Authorities have a duty under race, disability and gender legislation to carry out an Equalities Impact Assessment (EqIA) of their LTP3. This should identify whether or not (and to what extent) an LTP3 has an impact (positive or negative) on a particular equality target group, or whether any adverse impacts identified have been appropriately mitigated. An EqIA has been undertaken separately from the SEA by Telford and Wrekin in order to support the LTP3.

Consultation in the SEA Process

1.25 The SEA Regulations identify three organisations to act as statutory consultation authorities: the Environment Agency, Natural England (formerly English Nature, Rural Development Service and the Countryside Agency) and English Heritage.

1.26 Natural England is also a statutory consultee for HRA process and will be closely consulted throughout the HRA work. Specifically, they are being consulted on the international sites to be included in the HRA Screening, the screening assessment methodology and the screening matrices to be used for the HRA Screening report prior to the start of the assessment work. They will also be consulted on the results of the assessments as the work progresses.

1.27 A Screening Report will be submitted to Natural England for comments.

1.28 The draft 2007 DH guidance recommends that the relevant health organisations are also involved in the HIA consultation process. This includes the following bodies:

- The relevant primary care trust (PCT) with the PCT Director of Public Health being the first point of contact;
- Environmental Health Officers (EHOs);
- Health Protection Units;

- Public Health Observatories; and
- Environment Agency area office.

1.29 Two consultation periods involving the statutory consultation authorities and, in the latter period, the public are set in the SEA Regulations. The consultation periods relate to:

- **Scoping.** The responsible authority is required to send details of the plan or programme to each consultation authority so that they may form a view on the scope, level of detail and appropriate consultation period of the Environmental Report. The consultation authorities are required to give their views within five weeks.
- **The Draft Environmental Report.** The responsible authority is required to invite the consultation authorities and the public to express their opinions on the Draft Environmental Report and the plan or programme to which it relates.

Scoping Report Consultation

1.30 As indicated above, a Scoping Report consultation to establish the scope and methodology for the SEA and to provide the basis for consultation related to the range and level of detail of the Environmental Report was undertaken.

1.31 Appendix E summarises the main consultees' comments received on the Scoping Report and indicates how these comments have been addressed in the preparation of the Draft Environmental Report. Comments were received from Shropshire Council, Telford Friends of the Earth, Environmental Agency, English Heritage and Natural England.

Environmental Report Consultation

1.32 The SEA Directive states that:

'An Environmental Report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.'

1.33 The ER is the key written document produced for the SEA. It is an important consultation document and is therefore likely to be of interest to a wide variety of readers including decision makers, other plan/programme practitioners, statutory consultees, NGOs and members of the public.

1.34 The Draft ER was published in support of the public consultation for the draft LTP3 in November 2010. Appendix H summarises the main consultees' comments received and indicates how these comments have been addressed in the preparation of this Final Environmental Report.

2. Scope of the SEA

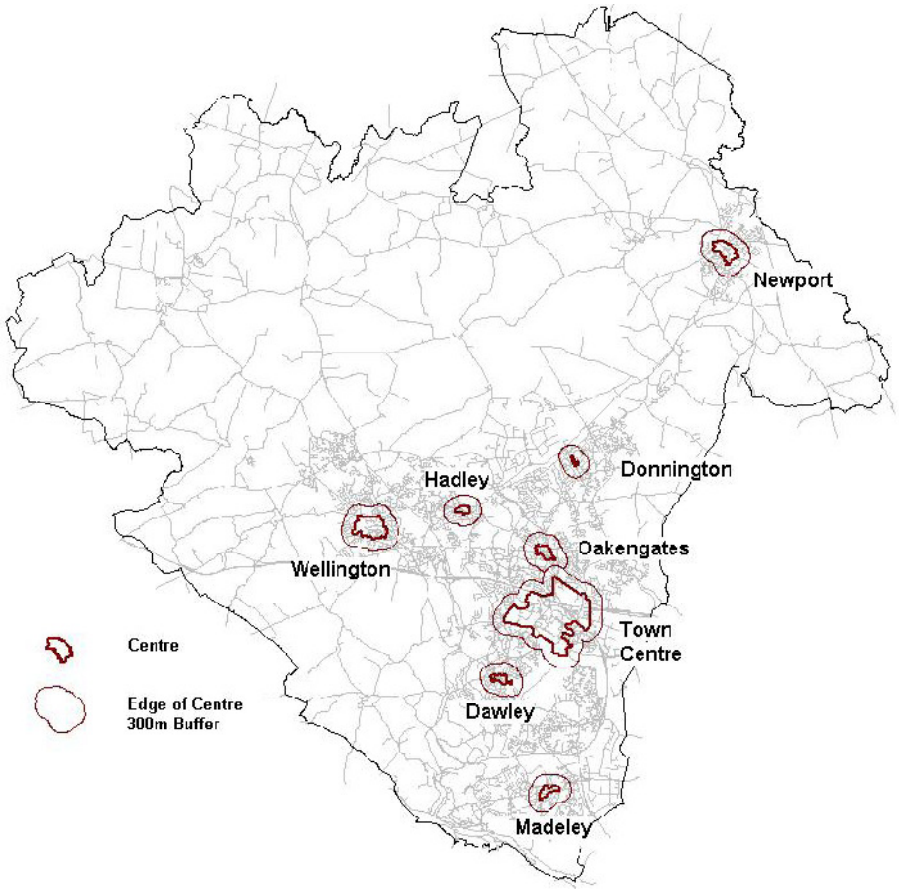
Introduction

2.1 The following section describes the proposed spatial, temporal and technical scope of the environmental studies to be undertaken as part of the SEA.

Spatial scope

2.2 The proposed study area for the SEA of LTP3 covers Telford and Wrekin Borough (see Figure 2.1).

Figure 2.1 – Telford and Wrekin study area



Temporal scope

2.3 The temporal scope of the SEA will be aligned with that for LTP3. Guidance for local authorities on the preparation of LTP3 allows increased flexibility over timescales of the implementation plan, which details expected funding distribution.

2.4 It is proposed that the LTP3's strategy will apply to the period 2011-2026 with a rolling three year implementation plan. The implementation plan will be subject to an annual review to ensure it is up to date and relevant to the political and economic situation.

Technical scope

SEA

2.5 The SEA Directive and the SEA Regulations require that the likely significant effects on the environment are assessed, considering the following factors and interrelationship between them:

- Biodiversity;
- Population;
- Human health (covering noise issues among other effects on local communities and public health);
- Fauna and flora;
- Soil;
- Water;
- Air;
- Climatic factors;
- Material assets (covering infrastructure, waste and other assets);
- Cultural heritage including architectural and archaeological heritage; and
- Landscape.

2.6 This effectively forms the technical scope of the SEA, namely those topics that are to be addressed.

HIA

2.7 The coverage of the public health issues in relation to LTP3 will be informed by the identified links[14] between transport and health, including both health outcomes and determinants. These links are shown in Table 2.1 and Figure 2.2

Table 2.1 - Links between Transport and Health Outcomes and Determinants

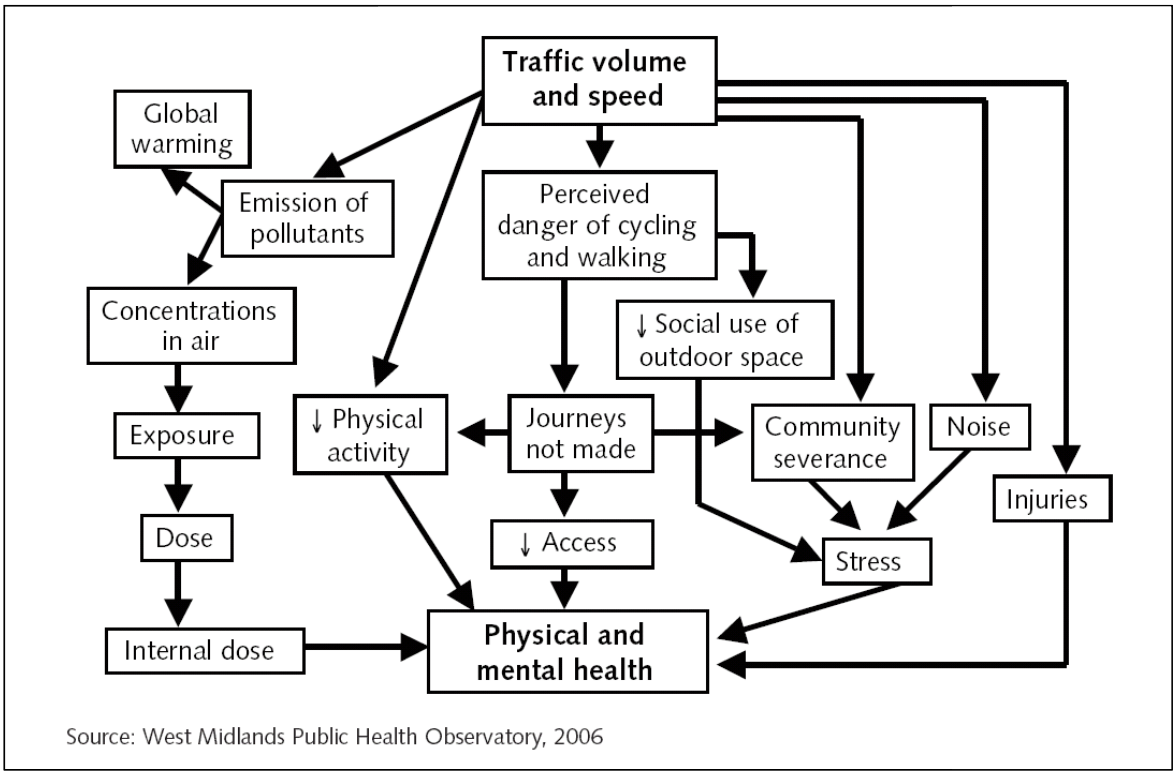
Health Outcomes and Determinants	Explanation

[14] Mainly based on Health Impact Assessment of Transport Initiatives A Guide, Health Scotland, MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine 2007

General physical health	• Accessible and affordable transport, enabling good access to education, employment, fresh food, friends and family, leisure and health services, enhances health. • Access to a car is linked to improved physical health through such factors as improved access to essential services and health promoting amenities, reflection of socio-economic status and raised self-esteem. A proportion of those who are at most risk of social exclusion have no access to cars.
Physical activity	• Walking and cycling are physically active forms of transport. • Physically active transport may lead to increases in overall levels of physical activity. • Dependence on car may be linked with a sedentary lifestyle and lack of physical activity which can contribute to or be a risk factor for many preventable health conditions, including cardiovascular disease, obesity, osteoporosis and depression.
Injuries and deaths	• Road trauma is a leading cause of mortality across all age groups. Reducing the impact of road trauma has been a great public health success in the past 20 years, however vehicle crashes and collisions still produce a great deal of avoidable death and disability. • Travel by rail and aeroplane has the lowest rate of fatality or serious injury. • Road users at highest risk of being killed or seriously injured are cyclists and pedestrians. • The most commonly cited cause of a road crash is speed.
Air pollution	• The pollutants most associated with traffic are small particles (PM), nitrogen dioxide (NO_2) carbon monoxide (CO) and toxicants such as benzene. • Increased outdoor air pollution is associated with increased cardio-respiratory mortality and morbidity. Some effects are more or less immediate and affect vulnerable groups (e.g. children, people whose health is already impaired) in particular, whereas the effects of long-term exposure are more widespread. • PM is the constituent most closely associated with adverse health outcomes. Some evidence shows that PM from traffic is more toxic (per unit mass) than PM from other sources.
Noise pollution	• Motorised forms of transport are a common source of noise pollution, with road traffic being the most common. • Noise pollution at the levels generated by traffic can lead to serious annoyance, interference with speech and sleep disturbance. • Stress has been suggested as a possible mechanism through which noise may affect mental and physical health. • Evidence suggests noise pollution may limit children's learning.
Land blight	• Land blight caused by roads and other transport infrastructure reduces enjoyment and discourages active recreation.

Stress/mental health and quality of life	• Noise pollution generated by transport can lead to stress. • Where public transport passengers feel 'overcrowded' this may lead to stress but the perceptions of overcrowding and related stress may be mediated by feelings of safety and control. • Traffic jams can be a source of stress for transport users • For low income families dependency on walking as a primary form of transport can impact on their time for other recreational activity and may add to psycho-social stress within the family. • Access to a car has been linked to improved mental health. • Increased levels of physical activity may have a protective effect on mental health.
Personal safety and perceptions of safety	• Streets dominated by motorised vehicles with reduced numbers of people on the streets may create a social environment that is conducive to increased crime, which then discourages more people from walking, in particular women and children. • Fear of crime is an important factor influencing travel choices. Women's fear is greater than men's, and women are more likely to avoid using public transport as a result. • Personal safety may also affect decisions to walk or cycle.
Social capital and inclusion and community severance	• There is an observed relationship between positive social capital and health. Good transport planning, promoting less-car dominated environment, can enhance social capital by increasing the number of people walking or cycling on the streets and making the streets a place of social interaction. • Community severance results from the divisive effects of the provision and use of transport infrastructure: major roads and railways running through an existing community.
Climate change	• Greenhouse gases (GHG) from transport contribute to climate change. Climate change consequences are likely to affect the health of the population, particularly with an increase in flooding, summer temperature, levels of solar radiation and frequency of extreme weather events leading to increased levels of fatalities, injury, infectious diseases, heat related deaths, skin cancer cases and cataracts.

Figure 2.2 – Potential Effects of Traffic Volume and Speed on Physical and Mental Health



2.8 From an HIA perspective there are vulnerable social groups that need special consideration in transport planning with regards to their health. These groups are likely to experience transport-related exclusion and/or be subject to negative externalities of transport and are as follows:

- Children - who, as non-drivers, are reliant on others for motorised transport and who suffer the greatest impacts of transport policy on their health, particularly children in low-income families;
- Women – who are more likely not to own a car and find it harder to travel to shops, employment, healthcare and other services;
- Older people - who may feel vulnerable using public transport, who often need to seek health services and who are particularly vulnerable to road crash related injuries. Their continuing independence at home is often dependent on reliable transport options;
- Disabled and people with other health problems - who may not be able to access many forms of transport or need special arrangements to access those. They are likely to find it difficult to walk and may also be disadvantaged by the cost of transport;
- Those in low-income groups – who are likely to walk further because they cannot afford public transport or to own a car, and whose lack of transport options may limit life opportunities. They suffer the most from injuries, noise pollution and air pollution.

2.9 The identification of the vulnerable groups and linkages between health and transport helped inform the baseline data collection (Section 6 and Appendices B and C) in terms of specifying requirements for data on the demographic make-up of the local population (including vulnerable groups), health status of the local population (including vulnerable groups) and features of the local area, such as levels of noise and air pollution.

HRA

2.10 An initial review of sites has been undertaken alongside consultation with Natural England. A separate HRA Screening Report has published in conjunction with this SEA.

2.11 HRA is required by the Conservation of Habitats and Species Regulations 2010 (the Habitat Regulations) for all plans and projects which may have likely significant effects on international sites. This HRA Review has assessed whether the 46 transport policies in the LTP3 are likely to lead to significant effects on the international sites within and adjacent to the Telford and Wrekin Borough Region and what these likely effects are

2.12 There are no international sites within the borough of Telford and Wrekin and five international sites within 20 km of the borough boundary. The international sites considered in this HRA Review are:

- Midland Meres and Mosses Phase 2 Ramsar Site;
- Mottey Meadows SAC;
- Midland Meres and Mosses Phase 1 Ramsar Site
- Brown Moss SAC and
- Fenn□s Whixall, Bettisfield, Wem and Cadney Mosses SAC and Ramsar site.

2.13 This list of international sites has been obtained from information provided by Natural England (See HRA for details)

2.14 A small number of recommendations were made to strengthen the Plan. These include the addition of a new HRA sub-section, policy and/or statement be added to the Plan that includes text that will ensure HRA is undertaken for any schemes and projects that will be supported by (though not delivered under) the Plan and developed by external developers. The only schemes named specifically within the Plan are those that would be carried out by others.

2.15 With the recommendations taken into account (and incorporated into the final version of the LTP3) there will be no likely significant effects on the international sites from the Plan alone. As such it may not be necessary to complete a Stage 1 Screening for the Plan, which has been confirmed by Natural England.

3. The Local Transport Plan 3

The Proposed Objectives of LTP3

3.1 DfT expects authorities to consider their contribution to national transport goals as over-arching priorities for the LTPs. The four shared priorities of LTP2 guidance (i.e. safer roads, tackle congestion, deliver accessibility and better air quality) have been replaced by the five goals set out in the DfT 'Delivering a Sustainable Transport System' (DaSTS) Strategy agenda. These goals are:

1. To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
2. To reduce transport's emissions of carbon dioxide (CO_2) and other GHGs, with the desired outcome of tackling climate change;
3. To contribute to better safety 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;
4. To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society; and
5. To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

3.2 DfT guidance on LTPs says that local authorities can refine these goals to reflect local circumstances or add local objectives in their LTPs. It also stresses that local authorities preparing LTPs should determine their priorities for dealing with the different challenges they face.

3.3 TWC's LTP3 will be guided by its council-wide vision for the future. This is set out in the document Vision 2026, produced in 2008. The overarching vision has been developed by the Telford and Wrekin Strategic Partnership, which consists of key organisations within the local public, private and voluntary sectors. The vision for 2026 is of:

"A successful, prosperous and healthy community, which offers a good quality of life for all the people of Telford and Wrekin."

3.4 The Strategic Transport Challenges facing Telford and Wrekin are as follows:

- Challenge 1: Ensuring timely delivery of new transport facilities to allow good accessibility to be provided to major new housing and employment developments
- Challenge 2: Encouraging travel by transport with low carbon impacts.
- Challenge 3: Enhancing social inclusion by enabling access for all to employment opportunities and services such as shops, healthcare and education.
- Challenge 4: Providing safer transport networks and minimising the impact of transport on people's health.
- Challenge 5: Improving the quality of life and places by improving the built environment and conserving and providing access to the natural environment.
- Challenge 6: The need to cope with reduced levels of transport funding.

3.5 Linked to these challenges, the suggested LTP3 goals, shown in Table 3.1 have been developed with reference to the long term ambitions and desired outcomes of the Vision 2026 document, the DfT's national transport goals and the results of the LTP3 consultation, which asked about priorities and challenges based on the DfT goals. There was found to be good correspondence

between the aims of Vision 2026 and the DfT's goals so they have been used to guide the development of the plan with one addition. A sixth goal to "Maintain the highway effectively and efficiently" has been added under "Supporting economic growth"; this has been added to reflect the fact that this goal scored third highest, out of 7, in the LTP3 public consultation undertaken by TWC during the development stages of the LTP3.

3.6 Against each of the goals shown in Table 3.1 a set of specific objectives have been formulated detailing the intentions of the goal. These have been assessed for compatibility with the SEA Objectives in Section 9.

Table 3.1 - LTP3 Goals and Objectives

LTP 3 Goals	LTP 3 Objectives
Allow everyone to access jobs, education, healthcare, shops, and leisure	To ensure all members of the community, particularly those without access to a car, and people with disabilities can access employment, education, healthcare, shopping, leisure, cultural and community facilities
	To promote a range of transport modes that support access to jobs, education and services
	To work with transport operators to develop ways of making transport more affordable and convenient
	To address the needs of the rural area by improving access to key services, including employment opportunities
Making travel more reliable and efficient, to attract jobs and support growth and regeneration	To ensure that new development is accessible by a range of transport modes reflecting the needs of the community
	To ensure access to regional, national and international markets to support the economy.
	To ensure employees have access to local job opportunities and improve access to higher education and training opportunities
	To encourage inward investment and regeneration
	To promote Intelligent Transport solutions to provide driver and passenger information and reduce traffic delays
	To improve interchange facilities between bus and rail, and to improve access to information
Maintain highways effectively and efficiently	To ensure that highway assets are efficiently maintained and convenient for the travelling public to use
	Ensure that the transport network is resilient to the adverse impact of climate change
Improve safety and security on the transport network and promote active travel choices which encourage people to be healthier	To improve independent mobility for children and young people by improving safety (personal and traffic) and providing appropriate infrastructure
	To implement measures to improve personal security and reduce the fear of crime
	To reduce all traffic related casualties

Improve the Quality of Life by reducing the visual, noise, air quality and other impacts of transport on people and the local environment	To reduce the impact of transport on the local environment (noise, visual and pollutions) in residential areas and sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres
	To promote a vibrant, high quality urban environment to encourage people to live in Telford
	To enhance the pedestrian environment in Telford town centre and district centres to create spaces for people

3.7 The goals above were assessed as part of this SEA. An additional goal has been introduced since the assessment took place and could not be formally assessed as part of this process due to the timescales of its disclosure:

- Reduce carbon emissions to help tackle climate change

4. Methodology

Introduction

4.1 The SEA started as the preparation of LTP3 began and it has progressed concurrently in an iterative fashion in order to feedback environmental sustainability objectives and policies into the plan making process. The SEA has been used as a tool for improving LTP3 allowing environmental and wider sustainability objectives to be met throughout the LTP3 formulation process from inception through production to adoption of the proposals, measures and schemes included in the LTP3.

4.2 A Scoping Report for the SEA of the draft was published for consultation from late August to early October 2010 setting out the results of SEA Stage A.

4.3 A Draft Environmental Report was published alongside the draft LTP3 from mid November to mid December 2010 setting out the results of SEA Stages A, B and C. The Draft Environmental Report reported on the scoping work undertaken during the initial stages of the SEA process and took the process further by reporting on the significant environmental effects of the strategic alternatives and preferred strategy and implementation plan, the proposed mitigation measures, and proposals for monitoring significant environmental effects.

4.4 This Final Environmental Report takes on board the results of the public consultation and reports on the significant environmental effects of the final LTP3, confirming mitigation measures and monitoring of significant environmental effects.

Assessment Methodology

4.5 The SEA methodology adopted was broadly based on two published guidance documents:

- Transport Analysis Guidance (TAG) 2.11 Strategic Environmental Assessment for Transport Plans and Programmes, Department for Transport, 'In Draft' Guidance, April 2009; and
- A Practical Guide to the Strategic Environmental Assessment Directive, by the ODPM, the Scottish Executive, the Welsh Assembly Government and the Northern Ireland Department of the Environment, September 2005.

4.6 The work undertaken involved the completion of the SEA stages A, B, C and D and associated tasks as follows:

Stage A - Setting the Context and Establishing the Baseline

Other Relevant Plans and Programmes and Environmental Protection Objectives

4.7 The Telford and Wrekin LTP3 will both influence and be influenced by other plans produced by TWC, by statutory agencies and other bodies with plan making responsibilities. Legislation is a further driver that sets the framework for LTP3, both directly and indirectly. Such relevant plans and programmes have thus been identified.

4.8 The constraints or challenges that relevant plans and programmes pose for LTP3 were considered and broad environmental sustainability objectives were identified. This is presented in Section 5 of this report.

Baseline Information

4.9 To predict accurately how potential plan proposals will affect the environment, it is first important to understand the current state of the environment and then examine the likely evolution of the environment without the implementation of the plan.

4.10 Baseline information provides the basis for understanding existing environmental issues in Telford and Wrekin; formulating objectives to address these issues; predicting and monitoring environmental effects and helps to identify environmental problems and alternative ways of dealing with them.

4.11 Baseline data tables (Appendix B) have been prepared. These tables record:

- General indicators;
- Quantified data within the plan area;
- Comparators and targets (if applicable);
- Limits of data;
- Issue/Opportunity for LTP3 ; and
- Source of the information.

4.12 Baseline data maps have also been produced to illustrate spatial distributions of baseline information and are presented in Appendix C.

4.13 Data were collated from a wide range of existing TWC and external sources. For each indicator, quantified baseline data were collated from readily accessible sources and in a format applicable to the issues to be assessed by the SEA. The main sources used were official websites, TWC reports and data, the Census 2001 and Area Profiles (Audit Commission). Relevant indicators not readily accessible from reports or web sources have been identified.

4.14 The initial baseline data were reviewed and updated following consultee comments from the Scoping Report consultation. This is presented in Section 6 of this report.

4.15 Where significant gaps exist, these have been identified and recommendations for filling the gaps will be included in the proposals for monitoring the implementation of LTP3.

Environmental Issues

4.16 The key environmental and wider sustainability issues that are relevant to LTP3 have been identified through discussion with Council officers, together with reviews of published documents and analysis of existing data. The identification of these issues helped focus the SEA on the key aspects that the plan can influence. Opportunities for how LTP3 could assist in addressing these issues were also identified. These are presented in Section 7 of this report.

Developing SEA Framework

4.17 A set of SEA objectives was drawn up, against which the policies and proposals in LTP3 can be assessed. They were identified by reviewing relevant policy documents at the international, national, regional, county and district/city level (see Other Relevant Plans and Programmes above), reviewing the baseline data and identifying key sustainability issues. The SEA objectives were refined through the consultation on the original Scoping Report and are presented in this report.

4.18 For each objective, one or more indicators have been set that provide for the status of the objective to be tested against targets (where these are set), now or in the future, and that are appropriate to the plan area.

4.19 A table has been prepared setting out the SEA Framework of objectives and indicators and identifying how relevant SEA Directive topic(s) have been covered.

4.20 An analysis of the likely evolution of the state of the environment without the implementation of LTP3 was also undertaken at this stage.

4.21 This is presented in Section 8 of this report.

Consulting on the Scope of SEA

4.22 TWC sought the views from the statutory consultees and other Consultation bodies on the Scoping Report. This was to consult on whether the scope and level of detail of the ensuing Environmental Report were appropriate. The Scoping Report consultation results have influenced and helped shape the Environmental Report – see Appendix E.

Stage B - Developing alternatives

Testing the Plan Objectives against the SEA Objectives

4.23 A compatibility assessment of LTP3 objectives in its initial stages of preparation against the SEA Objectives has been undertaken as part of the iterative process to assess the sustainability of LTP3 objectives. This has been undertaken to ensure that the overall objectives of LTP3 were in accordance with the SEA objectives and to provide a suitable framework for developing alternatives. The results are presented in Section 9 of this report.

Developing, Refining and Appraising Strategic Alternatives

4.24 Consideration of alternative strategies and options for LTP3 are an integral part of the plan development. Strategic alternatives have been identified by TWC in close liaison with the team conducting the SEA.

4.25 This task comprises the prediction of changes to the predicted future trends (identified in Section 8) arising from LTP3 strategic alternatives. These were compared both with each other and with the 'Do Minimum' scenario. The effects of the evolving LTP3 were predicted and assessed during the plan-making process to ensure that the final LTP3 is as sustainable as possible.

4.26 While carrying out this evaluation, the following was considered for each LTP3 alternative:

- What exactly is proposed?
- Will the alternative have a likely significant effect in relation to each of the SEA objectives?
- If so, can the effect be avoided or can the severity be reduced (or can the effect be enhanced if it is positive)?
- If the effect cannot be avoided, can the alternative be changed or eliminated?
- If its effect is uncertain, or depends on how the plan is implemented, how can the uncertainty be reduced?

4.27 The results are presented in Section 10 of this report

Assessing the Effects of LTP3 Preferred Options (Strategy and Implementation Plan)

4.28 Assessing the significance of predicted effects is essentially a matter of judgement. There are a number of factors that will determine the significance of an effect, e.g. its scale and permanence and the nature and sensitivity of the receptor. It is very important that judgements of significance are systematically documented, in terms of the particular characteristics of the effect which are deemed to make it significant and whether and what uncertainty and assumptions are associated with the judgement. The assessment of significance also includes information on how the effect may be avoided or its severity reduced.

4.29 DfT requires that all forms of transport proposals, including LTPs, are appraised against the Government's five overarching transport objectives, namely; environment, safety, accessibility, economy and integration. DfT guidance on NATA, as set out in TAG Unit 2.11 notes that NATA appraisal methodologies should be used in undertaking SEA of LTPs. Table 1.1 shows how NATA objectives have been integrated with SEA topics.

4.30 In the current practice of SEA and NATA, the broad-brush qualitative prediction and evaluation of effects can be often based on a qualitative seven point scale in easily understood terms. This assessment has adopted the scale shown in Table 4.1 to assess the significance of effects of the proposals in the LTP3.

Table 4.1 - Criteria for Assessing Significance of Effects

Assessment Scale	Significance of Effect
+++	Large beneficial
++	Moderate beneficial
+	Slight beneficial
0	Neutral or no effects
-	Slight adverse
--	Moderate adverse
---	Large adverse

4.31 Large or moderate beneficial and adverse effects have been considered significant whereas neutral, no effects and slight beneficial and adverse effects have been considered non-significant. The assessment of the Preferred Option also considered cumulative, indirect (secondary) and synergistic effects of LTP3.

4.32 The results of the first iteration of the assessment of the Draft LTP3 Preferred Option against the SEA objectives are shown in Section 11 and Appendix G. The results of the review of the Final LTP3 are presented in Section 12.

Secondary and Cumulative Effects Assessments

4.33 Annex I of the SEA Directive requires that the assessment of effects include secondary, cumulative and synergistic effects as follows:

Secondary or indirect effects are effects that are not a direct result of the plan, but occur away from the original effect or as a result of the complex pathway e.g. a development that changes a water table and thus affects the ecology of a nearby wetland. These effects are not cumulative and have been identified and assessed primarily through the examination of the relationship between various objectives during the Assessment of Environmental Effects.

Cumulative effects arise where several proposals individually may or may not have a significant effect, but in-combination have a significant effect due to spatial crowding or temporal overlap between plans, proposals and actions and repeated removal or addition of resources due to proposals and actions. Cumulative effects can be:

- **Additive**- the simple sum of all the effects;
- **Neutralising**- where effects counteract each other to reduce the overall effect;
- **Synergistic**– is the effect of two or more effects acting together which is greater than the simple sum of the effects when acting alone. For instance, a wildlife habitat can become progressively fragmented with limited effects on a particular species until the last fragmentation makes the areas too small to support the species at all.

4.34 Many environmental problems result from cumulative effects. These effects are very hard to deal with on a project by project basis through Environmental Impact Assessment, therefore it is at the

SEA level that they are most effectively identified and addressed. Cumulative effects assessment is a systematic procedure for identifying and evaluating the significance of effects from multiple activities. The analysis of the causes, pathways and consequences of these effects is an essential part of the process. Cumulative (including additive, neutralising and synergistic) effects have been considered throughout the entire SEA process, as described below:

- Identification of key environmental issues as part of the review of relevant strategies, plans and programmes and baseline data analysis (Table 7.1);
- Establishing the nature of likely cumulative effects, causes and receptors (Table 7.2);
- Identifying key receptors (for example, specific wildlife habitats) in the process of collecting baseline information and information on how these have changed with time, and how they are likely to change without the implementation of the LTP3. Targets have been identified (where possible), that indicate how close to capacity the key receptor is, which is a key determining factor in assessing the likelihood of cumulative and synergistic effects occurring, and their degree of significance.
- Particularly sensitive, in decline or near to their threshold (where such information is available) or with slow recovery receptors have been identified through the analysis of environmental issues and problems.
- The development of SEA objectives and indicators has been influenced by cumulative effects identified through the process above and SEA objectives that consider cumulative effects have been identified (Table 12.3).

4.35 The results are presented in Section 11 of this report.

Mitigating Adverse Effects and Maximising Beneficial Effects

4.36 Mitigation measures have been identified to reduce the scale/importance of significant negative effects. Enhancement measures are also identified to improve the scale/importance of beneficial effects. The results are presented in Section 12 of this report.

Monitoring the Environmental Effects of Plan Implementation

4.37 SEA monitoring involves measuring indicators which will enable the establishment of a causal link between the implementation of the plan and the likely significant effect (positive or negative) being monitored. It thus helps to ensure that any adverse effects which arise during implementation, whether or not they were foreseen, can be identified and that action can be taken by TWC to deal with them.

4.38 A monitoring programme was prepared showing, for each significant effect, what data should be monitored, the source of the data, the frequency of monitoring, as well as when and what actions should be considered if problems are identified from the monitoring – this is presented in Section 13 of this report

Stage C – Preparing the Draft Environmental Report

4.39 The Draft Environmental Report was prepared to accompany the Draft LTP3 on consultation. It summarises the steps described above.

Stage D – Consulting on Draft Plan and Draft Environmental Report

Assessing Significant Changes

4.40 The SEA Directive requires that information on the changes to the Draft ER resulting from the formal consultation is recorded in the statement of how the SEA findings have been taken into account in the final LTP3, which should be made available to stakeholders.

4.41 TWC sought the views of the Consultation bodies and others on the Draft LTP3 and Environmental Report. Comments were received from the Environment Agency, Natural England, English Heritage, Friends of the Earth, and Telford Wrekin Council. These comments have been taken on board in the preparation of both final LTP3 and Environmental Report documents. This is documented in Appendix H.

Final Environmental Report

4.42 This is the Final Environmental Report of the Telford and Wrekin LTP3.

SEA Statement

4.43 Following completion of the public consultation and preparation of the Final Environmental Report and the Final LTP3 document, an SEA Statement (separate document) has been prepared setting out the following:

- How environmental considerations have been integrated into the plan, for example any changes to or deletions from the plan 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 plan was changed to take account of issues raised, or why no changes were made;
- The reasons for choosing the plan 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 plan or programme.

HIA

Introduction

4.44 In order to ensure that potential impacts of LTP3 on health and health inequalities have been considered and to fulfil the requirements of health legislation, a Health Impact Assessment (HIA) has been undertaken in an integrated fashion with the SEA process. The need for the HIA arises from the recognition that LTP3 policies and proposals may impact on the factors influencing the health of communities and individuals, including such factors as housing, employment, education, transport, services, the physical environment and poverty. The HIA was integrated with the SEA process to maximise synergies between the two processes, as the SEA provides an important opportunity to address the wider determinants of health (such as transport, housing, built environment and employment) and to promote health, prevent ill-health and tackle health inequalities by ensuring that they are effectively covered in the plan assessment process.

4.45 The key elements of the HIA as part of the SEA include:

- PPP review and legislative context;
- Setting the baseline and scope of the assessment;
- Identification of health and health inequalities issues;
- Development of HIA specific objective(s);
- Assessment of impact; and
- Reporting

Methodology

4.46 Draft guidance by the Department of Health (2007)[15] aims to help authorities assess the health effects of their plans and programmes more effectively and is based on current good practice. The guidance recommends that the assessment of the impact of local development documents should consider the following topics:

- Community safety
- Housing Provision
- People with Low Incomes
- Access to Open Space and Recreational Activities
- Affordable Food Outlets, Allotments
- Local Education and Employment
- Walking and cycling
- Development of Communities
- Flooding
- Air quality in Urban Areas
- Traffic
- Accessibility
- Inequalities and inequities in health and care.

4.47 The adopted approach to the HIA ensures that all the topics listed above are considered throughout the assessment process from establishing the baseline and building up the area's population profile in terms of health, identifying the key issues, developing the SEA Framework and assessing LTP3 options. Specifically, it ensures that all the guidance topics receive an appropriate coverage in the SEA objectives and indicators.

4.48 Two health-specific objectives were included in the set of SEA objectives with a view of distilling the main effects of LTP3 on health and health inequalities. The multi-faceted nature and complex linkages of health determinants are recognised in the assessment against the other relevant SEA objectives, e.g. objectives on air quality, equalities, transport and facilities.

4.49 The results of the HIA indicated by the outcome of the health-specific SEA objectives, identifies actions that can enhance positive effects and reduce or eliminate negative effects of LTP3 with respect to health and health inequalities. The results of the HIA have been reported alongside the SEA results in this Environmental Report.

[15] Draft Guidance on Health in Strategic Environmental Assessment, Consultation Document, Department of Health 2007

5. Other Relevant Plans and Programmes

Introduction

5.1 The first task of the SEA is the identification of other relevant plans, policies, programmes (PPPs). This helps to identify environmental objectives, baseline information and key issues. The LTP3 must be prepared to take these PPPs into account as it may influence and be influenced by them. LTP3 enables potential synergies to be exploited and, conversely, conflicting initiatives to be identified.

5.2 The SEA Directive specifically states that information should be provided on:

"The relationship [of the plan or programme] with other relevant plans and programmes"

"The environmental protection objectives, established at international, [European] Community or [national] 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"

5.3 In addition to this, the PPPs related to HIA have also been considered and are reported alongside environmental considerations in this section.

Methodology

5.4 Both the LTP3 and the SEA should be set in the context of international, national, regional and local objectives along with environmental, strategic planning, transport, health and social policies. Relevant plans and programmes may include land use or spatial plans, plans dealing with aspects of the physical environment, and plans and programmes for specific sectors or types of activity. Environmental and health protection objectives may be set by policies or legislation. Such policies and legislation may include European Directives, international undertakings, UK initiatives and national planning guidance.

5.5 A large number of other plans and programmes were reviewed as part of the Telford and Wrekin LTP2 SEA and informed the development of the SEA objectives contained in LTP2 SEA framework that was used as the basis for the development of the LTP3 SEA framework. For the preparation of the SEA of LTP3 the review of the plans and programmes concentrated on plans and programmes and other relevant policy documents which were published more recently as well as earlier documents not reviewed as part of the Telford and Wrekin LTP2 SEA but deemed relevant to LTP3 SEA. This ensures that the SEA objectives developed for LTP3 generally adhere to, and are not in conflict with, objectives found in other more recent plans and programmes and policy documents.

Results of the Review

5.6 Appendix A lists the documents reviewed as part of the PPP review process to identify environmental objectives. This cannot be considered an exhaustive list as other PPPs might arise as the SEA process progresses. A series of key themes which was used alongside baseline information and key issues to help develop an SEA framework for the assessment of LTP3 is outlined below.

Environmental Themes

5.7 The review of PPPs revealed a large amount of common themes in terms of their objectives relating to the environment within the context of transport planning. These environmental objectives and issues of relevance to the SEA and the preparation of LTP3 have been used to

formulate a set of environmental and social themes relevant to the SEA of the Telford and Wrekin LTP3.

5.8 The result of this assessment has been integrated into the SEA Framework for appraisal of LTP3, provided in Section 8 of this report.

Climate Change and Energy

- Reduce energy consumption and energy wastage;
- Reduce GHG emissions, particularly CO_2 emissions;
- Maximise the use of renewable energy and increase energy efficiency;
- Minimise the use of fossil fuels; and
- Prepare for impacts of climate change, including sea level rise and coastal erosion.

Built environment

- Improve the quality of the built environment including streets.

Transport

- Promote mixed-use development policies to reduce the need to travel;
- Improve local air quality through minimising traffic related emissions;
- Encourage the use of more sustainable modes of travel, such as walking, cycling and public transport;
- Reduce traffic congestion and improve safety for all road users;
- Promote sustainable alternatives to car travel;
- Promote viable alternatives to road haulage, such as rail;
- Promote clean vehicle technology;
- Connect key regeneration sites; and
- Connect the area to the wider regional, national and international networks.

Natural Resources and Waste

- Ensure efficient resource use and minimise footprint;
- Use secondary and recycled materials and consider opportunities to maximise on-site re-use of materials;
- Employ waste reduction methods to minimise construction and maintenance waste; and
- Reduce the amount of waste disposed off at landfill.

Land

- Adhere to the Brownfield/Greenfield hierarchy of land use;
- Minimise and seek to reclaim derelict and contaminated land; and
- Protect farmland and soils.

Water

- Improve the quality of ground and surface water;
- Improve the biological and chemical quality of rivers;

- Make use of vegetated drainage systems and 'Sustainable Urban Drainage Systems';
- Minimise the risk and impact of flooding by controlling surface water management and floodplain management; and
- Prevent inappropriate development in floodplains and prepare for impacts of climate change.

Biodiversity

- Contribute to the delivery of local and national Biodiversity Action Plans;
- Protect and enhance biodiversity and geodiversity, including sites of geological importance; and
- Minimise the fragmentation of nature corridors and networks and green infrastructure overall.

Landscape

- Protect and enhance existing landscape and townscape character in both urban and rural areas;
- Conserve distinctive historic landscape; and
- Promote access and protection of the countryside.

Heritage

- Protect and enhance designated and non-designated heritage assets and their setting;
- Help to conserve historic buildings through sympathetic design including World Heritage Sites;
- Preserve archaeological remains and listed buildings, and their setting;
- Improve access to buildings and landscapes of historic/cultural value; and
- Protect local distinctiveness.

Safety

- Improve security and minimise crime and fear of crime; and
- Address anti social behaviour.

Access to employment, education and key services and facilities

- Improve physical accessibility of jobs through the location of sites and transport links close to areas of high unemployment;
- Support the creation of a life-long learning culture through improved access to educational facilities and opportunities; and
- Provide or improve access to key services and facilities, including local health and social care services and leisure facilities.

Community Services and Amenities

- Provide information and advice to the community on the transport services and initiative available;
- Reduce light and noise pollution;
- Minimise dust, odours, litter;
- Ensure the protection and access to green spaces and open spaces; and

- Improved public spaces.

Health Themes

5.9 The derived key health-related themes are:

- Improve health, taking account of the diverse factors influencing health, such as climate change, pollution, conflict, environmental degradation and poverty;
- Reduce health inequalities among different groups in the community (e.g. young children, pregnant women, black and minority ethnic people; older people, people with disabilities; low income households);
- Support the public to make healthier and more informed choices with regard to their health and adopt physically active lifestyles;
- Address pockets of deprivation;
- To make all parts of the Rights of Way network as accessible to disabled people as possible with particular emphasis on providing access to key services and facilities;
- Provide or improve access to local health and social care services;
- Provide opportunities for increased exercise, thus reducing obesity and illnesses such as coronary heart disease;
- Provide for an ageing population; and
- Promote healthy lifestyles through exercise, physically active travel and access to good quality, affordable food.

6. Baseline Information

Introduction

6.1 The next task in the SEA addresses the collection of an evidence base for the SEA. The SEA Directive states that the Environmental Report should provide information on:

"relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan" and the *"environmental characteristics of the areas likely to be significantly affected"* (Annex I (b) (c))

and

"any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC (Birds Directive) and 92/43/EEC (Habitats Directive)" (Annex I (c)).

6.2 To accurately predict how potential LTP3 strategies and measures will affect the environment, it is important to understand the current state of the environment and then examine the likely evolution of the environment without the implementation of the plan.

Methodology

6.3 Baseline information provides the basis for the prediction and monitoring of the effects of the implementation of LTP3 and helps to identify environmental problems and alternative ways of dealing with them.

6.4 Due to the fact that SEA is an iterative process, subsequent stages in its preparation and assessment might identify other issues and priorities that require the sourcing of additional data and/or information and identification of monitoring strategies. This makes the SEA process flexible, adaptable and responsive to change in the baseline conditions and enables trends to be analysed over time.

6.5 The most efficient way to collate relevant baseline data is through the use of indicators. This ensures that the data collation is both focused and effective. The identification of relevant indicators has taken place alongside the assessment of other relevant plans, policies and programmes (Task A1), the identification of sustainability issues (Task A3) and developing the SEA framework (Task A4).

6.6 It should be noted that the SEA process does not require the collection of primary data, but relies on the analysis of existing information. As such, where data gaps exist, this is highlighted in the report.

6.7 Indicators have been selected for their ability to provide objective data that will, over time, offer an insight into general trends taking place. Throughout the assessment process, the following issues were addressed:

- What is the current situation, including trends over time?
- How far is the current situation from known thresholds, objectives or targets?
- Are particularly sensitive or important elements of the environment, economy or society affected?
- Are the problems of a large or small scale, reversible or irreversible, permanent or temporary, direct or indirect?

- How difficult would it be to prevent, reduce or compensate for any negative effect?
- Have there been, or will there be, any significant cumulative or synergistic effects over time?

General Characteristics of Telford and Wrekin

6.8 Telford and Wrekin is located within the north western part of the West Midlands region and covers an area of 29,000 hectares. The Borough consists of the Telford urban area, Newport market town and an extensive rural area. The urban area is formed by a number of new settlements, including Woodside, Sutton Hill, Hollinswood and former mining settlements including Oakengates, Madeley and Dawley. In the south of the Borough lies the Ironbridge Gorge World Heritage Site which is a major tourist attraction in the Borough. A ward map is shown Figure 6.1.

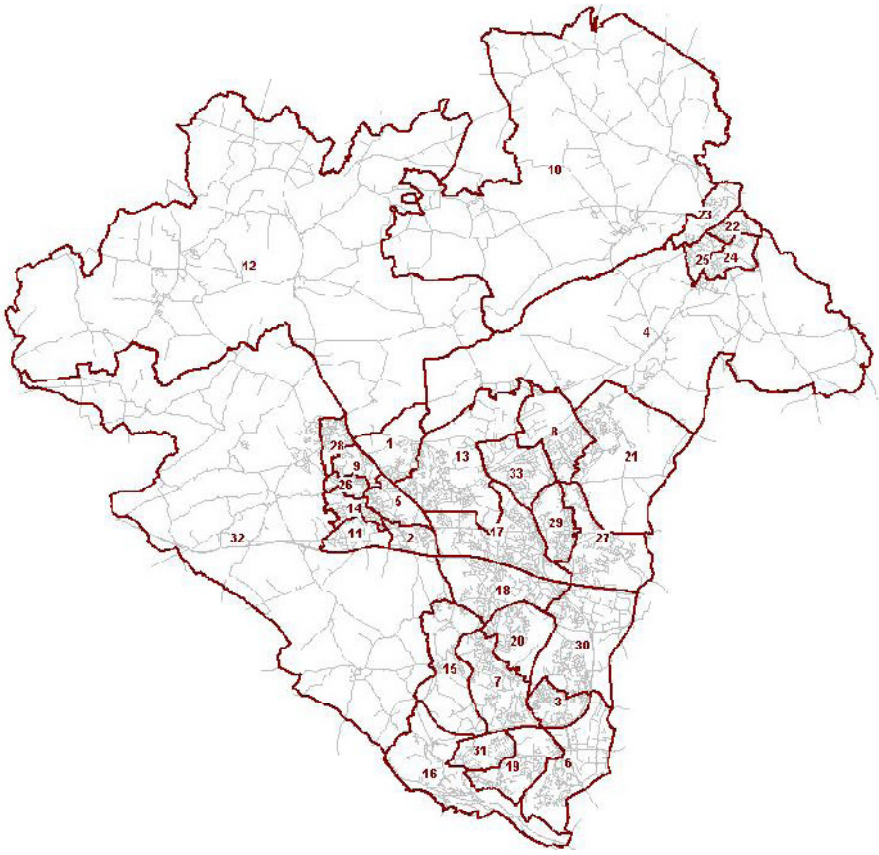
6.9 The population of Telford and Wrekin has grown by 16.3% since 1991, and now stands at 164,600. This figure is projected to grow to 198,400 by 2026. Since the designation of New Town status in the 1960s, Telford has been a regional and national population growth point, and during the 1990's the Borough was the fastest growing Borough in the region. The population of the Borough is comparatively young: 21.6% of the population in 2004 were aged 15 or younger. This compares to the national average of 19.5%. The total black and ethnic minority population proportion is 5.3%, which is low compared to the percentage for England of 9.1%.

6.10 The initial development of Telford as a New Town took place during the 1960s when the new town incorporated five original settlements and a number of other communities in the area. This multi-centre pattern of growth, together with the separation of housing from industrial areas gives the town a unique character and associated transport problems. The town was designed at a time when motorised transport was perceived to be the future and this is reflected in the fact that in the 1990s bus patronage declined by 3% per annum. The overall density of the town is low and it occupies a land area similar to that of a traditional town or city three times its population.[16]

6.11 Telford was designed and built around the use of the private car with an extensive road network. Facilities and services are provided in locations where access is predominantly made by car. Associated with this, the Borough has a high level of car ownership, in many cases multiple car ownership. For example, 82.8% of people commute to work by car and only 3% by bus. This presents issues of high car dependency and reduces accessibility for those without a car, an effect which primarily tends to affect rural inhabitants, the young and the elderly. Evidence shows that 16.4% of people have difficulty accessing health facilities and 9.4% have difficulty accessing public transport[17]. Five SOAs in Telford and Wrekin ranked amongst the 10% most deprived in England.

[16] Improvement and Development Agency, Borough of Telford and Wrekin: overview of authority http://www.idea.gov.uk/idk/tio/199892
[17] The 2005 West Midlands Regional Lifestyle Survey *in* Central Telford AAP SAR 2010 and LDF SA Scoping Report 2008

Figure 6.1– Telford and Wrekin Wards



1	Apley Castle	12	Ercall Magna	23	Newport North
2	Arleston	13	Hadley and Leegomery	24	Newport South
3	Brookside	14	Haygate	25	Newport West
4	Church Aston and Lilleshall	15	Horsehay and Lightmoor	26	Park
5	College	16	Ironbridge Gorge	27	Priorslee
6	Cuckoo Oak	17	Ketley and Oakengates	28	Shawbirch
7	Dawley Magna	18	Lawley and Overdale	29	St. Georges
8	Donnington	19	Madeley	30	The Nedge
9	Dothill	20	Malinslee	31	Woodside
10	Edgmond	21	Muxton	32	Wrockwardine
11	Ercall	22	Newport East	33	Wrockwardine Wood and Trench

Data Analysis

6.12 The baseline data provide an overview of the environmental and social characteristics of the LTP3 area and how these compare to the region and the UK. This overview is presented in Appendix B. The analysis of the baseline data has highlighted a number of key issues in Telford and Wrekin. These, together with implications and opportunities arising for the LTP3, have been summarised in Table 7.1.

6.13 Data have been collated and analysed for the following indicators (as detailed in Appendix B):

- Telford: Compliance with National Air Quality Strategy objective – annual mean NO_2 and PM_{10};
- Ironbridge: Compliance with National Air Quality Strategy objective – annual mean NO_2 and PM_{10};
- Newport: Compliance with National Air Quality Strategy objective – annual mean NO_2 and PM_{10};
- Bus stations: Compliance with National Air Quality Strategy objective – annual mean NO_2 and PM_{10};
- Number of Air Quality Management Areas declared;
- Road traffic - Estimated traffic flows for all vehicle types (million vehicle kilometres);
- Percentage of residents who identify the level of traffic congestion as something most in need of improvement;
- Percentage of residents who identify the level of pollution as something most in need of improvement;
- CO_2 emissions for road transport sector;
- % of council fleet running on sustainable fuels (biodiesel, electric);
- Number of transport schemes featuring energy efficient design and/or use of renewable energy;
- Transport infrastructure built in an area of existing or predicted future flood risk;
- Percentage of households within 30 minutes of the primary Borough Towns (Wellington and Newport) by public transport and walking;
- % share of trips by sustainable/non-sustainable modes Telford Town Centre;
- New build housing allocations accessibility to district centres;
- New build employment within 800m of district centres;
- Access to post offices;
- Access to community facilities;
- % of people who say they are satisfied with their local area as a place to live;
- % of residents with difficulty accessing services;
- Access to GP;

- LTP3 initiatives to improve access to essential facilities for residents in the top 10% most deprived areas in the country;
- Concessionary fare bus boarding's;
- Bus punctuality;
- BVPI 102: bus patronage;
- Percentage of people who have difficulty accessing public transport;
- Rail usage;
- Total length of Rights of Way in Telford and Wrekin in kilometres;
- Cycle journeys;
- Length of cycleways;
- Legibility of cycle network;
- BVPI 178: Percentage lengths of footpaths easy to use by the public;
- Use of footpaths and bridleways: reasons for use and accessibility;
- Access to greenspace sites;
- Provision of amenity open space and parks and gardens;
- Application of accessibility standards for parks and gardens;
- Provision of natural and semi-natural greenspace;
- Accessibility to natural and semi- natural greenspace;
- Provision of amenity greenspace and open space for children and young people;
- Provision of outdoor sports facilities;
- Modal share for travel to work;
- Average distance travelled to work;
- Public transport users in households;
- Employment rate;
- NI 176 Working age people with access to employment by public transport (and other specified modes);
- Companies registered on the Council Travelwise scheme;
- Percentage of residents who have used local tips / household waste recycling centres at any time within the last year;
- % of residents able to access appropriate education or training;
- Schools with travel plans;
- School transport;
- Safer routes to school;
- Modal share of journeys to school;
- Proportion of roads within DEFRA Noise Action Plan Important Areas, First Priority Locations;
- Number and scope of transport schemes adversely affecting sites designated for nature conservation;

- Regionally Important Geological/Geomorphological Site (RIGS);
- Area and type of BAP priority habitat lost and created due transport schemes;
- NI 197 Improved local biodiversity - proportion of local sites where positive conservation management has been or is being implemented;
- Number, area and condition of internationally designated sites (HRA specific data);
- Number and % of transport-related schemes that have an adverse effect on sites designated for cultural heritage (incl. WHS, Conservation Areas, SAMs and Listed Buildings);
- Number, area and condition of local non Designated Heritage Assets
- Number of transport schemes adversely affecting agricultural land (grade 2 soils);
- Number of sites affected by contamination remediated as part of new development and put back into use;
- Conservation of local landscape character;
- Number of proposals/policies affecting Shropshire Hills AONB;
- % change in the green network;
- Extent of Green Belts affected by transport schemes;
- % change in level of tranquillity;
- % of watercourses classified as good or fair biological
- Change to Nitrate Vulnerable Zones and Source Protection Zones;
- Total crime per 1000 population;
- Fear of crime;
- NI 2 Percentage of people who feel that they belong to their neighbourhood;
- NI 17 Residents' perceptions of anti-social behaviour for Telford and Wrekin;

Health Specific Data:

- Life expectancy;
- % adults participating in sport and active recreation;
- % of people who describe their health as good;
- Number of ‘healthy walks’ schemes created;
- Mortality rates per 100,000 for cancer and circulatory diseases;
- Casualties as a result of personal injury collisions;
- Number of people killed or seriously injured overall as a result of road traffic collisions;
- Cycling Casualties; and
- Collisions involving 16 – 25 year olds.

Data Limitations

6.14 The purpose and use of indicators is to provide quantified, objective information in order to show how things change over time. However, they do not explain why particular trends are occurring and the secondary, or knock-on, effects of any changes.

6.15 There are several gaps in the data collected as a result of not all the relevant information being available at the local level for recent time periods. However, it is believed that the data sets available provide a comprehensive overview of the sustainability situation in Telford and Wrekin.

6.16 Data gaps include:

- % of people with a long standing illness, health problem or disability satisfied with local transport information;
- Proportion of residents living close to roads with high levels of traffic noise; and
- Number of crimes reported on public transport.

7. Key Environmental Issues and Opportunities

Introduction

7.1 The SEA Directive states that the Environmental Report should provide information on:

"*Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC*" (Annex I(d))

7.2 The analysis of environmental issues influences the development of the SEA framework (see Section 8); in particular in formulating assessment prompt questions and identifying and selecting indicators.

Methodology

7.3 The key environmental issues and opportunities that are relevant to the LTP3 were identified through discussions with TWC, together with reviews of published documents, analysis of existing data and review of the key issues identified in the Environmental Report prepared previously for the LTP2. The analysis of environmental issues is iterative and ongoing.

7.4 This review of relevant issues and opportunities indicates that there are a number of significant environmental issues and opportunities in the Telford and Wrekin area directly related to transport. These include:

- Predicted population increase resulting;
- Inequitable access to town and district centres;
- Rural deprivation and poor accessibility to services and facilities;
- Threat of decline in bus services;
- Increase in access to sustainable modes for Travel to Work;
- Inequalities in health;
- Fear of crime;
- Reduction in road traffic accidents and casualties
- Poor Public Rights of Way Network in rural areas leading to low levels of accessibility by walking and cycling and low levels of physical activity;
- Poor legibility in the cycle network;
- Decrease in tranquillity levels and landscape quality;
- Loss of Green Network to development;
- Contributions to greenhouse gas emissions from transport;
- Threat to water quality from development;
- Air pollution potential at WHS;
- Noise Pollution;
- Threat to protected and unprotected heritage assets;

- Threat to biodiversity assets from development;
- Need for climate change adaptation;
- Inequitable access to natural and semi-natural greenspace; amenity greenspace and open space for children and young people; and
- Making efficient use of land, including reusing brownfield sites and protecting agricultural land.

7.5 These key issues have been summarised in Table 7.1. This table also includes an outline of the potential implications for the LTP3 to address these issues, in some instances contributing to the wider regeneration initiatives in the area. The relevance to the SEA topics outlined in the Directive as well as to the HIA and HRA processes is indicated in the third column of the table.

Table 7.1 - Key Environmental Issues and Opportunities

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
Growth point status Telford is one of the foci for growth within the West Midlands Region. It will have to accommodate at least an extra 26,500 houses by 2026, which would increase the population of Telford by about a quarter. There is therefore a need to provide the necessary employment, facilities and services to serve the planned growth in the most sustainable manner.	• LTP3 should provide transport that enables Telford to fulfil its role as a major growth point within the West Midlands. • LTP3 should therefore be coordinated in conjunction with spatial planning and regeneration • LTP3 should maintain and enhance the street environment within each centre, ensuring the retention of business and employment and attracting inwards investment.	Population, Material Assets	1, 15
Inequitable access to town and district centres and dominance of private car Telford Town Centre principally comprises a privately-owned shopping mall containing, in the region of 160 shops, banks, restaurants and cafes, and nearly 5000 parking spaces for cars. The nature of its ownership, ease of accessibility by car and proximity to Motorway 54 (the M54) mean that the centre serves a wide sub-regional catchment area. The percentage of households within 30 minutes of the primary Borough Towns (Wellington and Newport) by public transport and walking increased to 91% in 2008/9[18]. 20% of shoppers arrive at Telford Town Centre via bus. Only 6% and 4% arrive by bus to Newport and the Forge Retail Park respectively. A positive result of the first LTP has been the introduction of 5 Quality Bus Routes, which run at up to 10-minute frequencies, servicing both Telford town and Newport. Rail patronage is very low with only 0.94% of the population	• LTP3 should seek to increase the proportion of households within 30 minutes of the primary towns by sustainable modes. • LTP3 should provide access in areas of existing and new population growth. • LTP3 should include a range of positive (carrot) measures relating to sustainable transport: • Improving choices (e.g. car clubs to pool together single occupancy car users) • Improving networks (e.g. new or extended cycle routes and strategic walking routes) • Improving facilities (e.g. provision of cycle hire and lockers) • Improving integration (e.g. providing quality interchanges) • Frequency and regularity of services • Capacity	Population, Human Health, Material Assets	1, 2, 3, 6, 13,15

[18] LTP2 Delivery Report 2008

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
use rail to travel to work, compared with the 1.52% West Midlands and 4.23% England averages[19]. Overall since April 2006 98.5% of new build residential completions have been within a 30 minute public transport isochrone from the district centres. Since April 2006 39.0% of new build residential completions have been within an 800 metre buffer around the district centres, a declining trend compared to previous years[20].	• Efficiency (e.g. journey times) • Reliability (e.g. travel planning and intelligent transport systems) • Safety • Costs (e.g. targeted fare concessions, smart ticketing which allows passengers to more efficiently and cheaply use different transport modes) • Publicity and awareness raising campaigns (e.g. cycle training), school and education campaigns. • Green travel plans and school travel plans. • LTP3 should include all measures for promoting non-car modes: • Promoting choice in travel modes • Supporting sustainable travel initiatives • Encouraging joint working between TWC and bus operators		
Rural deprivation and poor accessibility to services and facilities The census revealed the spatial distribution of the population. It was shown that although Telford only covers approximately 27.4% of the area encompassed by the Borough, it accounted for 84.3% of the population. Increasing rural accessibility is a major issue since 73% of the spatial area of the Borough is classified as rural in character, with a sparse population of approximately 24,500 and a population density of 0.7 people per hectare. Seventeen percent of residents in the rural area are self employed and 13.7% work mainly from home. Unemployment levels are 2.3%, below the average for the	• LTP3 should provide access to employment areas and centres of economic activity. • LTP3 should improve environmental quality hence promoting a better quality of life through the creation of sustainable modes of transport to improve accessibility to services and facilities for people in rural areas.	Population, Human Health, Material Assets	1, 6, 9, 13,15

[19] Census 2001 Table KS15 Travel to work - % of all people aged 16-74 in employment who usually travel to work by train
[20] AMR Dec 2009

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
Borough. Access is a key issue for the unemployed as 8.6% of households are without access to a vehicle. The development strategy for the rural area is to concentrate new development, sufficient to meet local needs, in the four key settlements of Newport, High Ercall, Tibberton and Waters Upton. Development outside these settlements will be strictly controlled. Accessibility to post offices has declined since 2008 with just over half of the population above to access a post office within 800m. Since 2006, there have been no community facilities (D2 and SG) developed in the rural service centres. Twenty SOAs in Telford and Wrekin ranked amongst the 20% most deprived SOAs in England (18.7% of the Council area's population). There is particularly poor accessibility to services for wards within rural areas. The main findings for Telford and Wrekin showed 4 wards came within the top 25% of wards nationally with the poorest access to services, with Ercall Magna falling within the top 5% worst wards			
Improvements in provision and uptake of public transport and active travel with opportunities for further gains For some modes of transport, there has been an increase in the provision and uptake of public transport. In 2005, 9.4% of the population had difficulty accessing public transport. In terms of bus travel, Telford has achieved growth of 14% across the Borough and 21% in Telford itself since 1999. Telford has introduced a quality bus network through the development of new routes and the upgrading of the frequency of the entire urban bus network. The quality of the bus services provides residents and commuters with a real alternative to the car. Rural bus services have also been improved with a range of community transport projects	• LTP3 needs to focus on further promoting bus services in Telford but also in other areas too so that they are not disadvantaged or marginalised. • LTP3 should seek to encourage a modal shift to more sustainable modes of transport for all journeys, especially travel to work • LTP3 should seek to provide alternative to private car uses for the school run, working through school travel plans. This includes providing cycling and walking schemes and ride shares.	Population, Human Health, Air, Climatic Factors, Material Assets	1, 2, 3, 6, 12,13,15

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
including community buses, the Wrekin Rider and Wrekin Connect services and voluntary car schemes. The scale of new development in Telford and Wrekin is significant along the main bus route to the north west of Telford town centre (for example the Lawley development) which is used by a number of services. In the longer term the creation of the Greyhound link will remove through traffic from the peak hour congested Hollinswood interchange in Telford town centre and this should allow better time keeping by buses. Use of this link should allow the provision of a limited stop service to be provided between Telford town centre and Oakengates. In terms of cycling, the number of trips has increased 30 per cent in the last five years (2004- 2009). Through the Wheels to Work Scheme 116 people have been provided with access to employment or training during the last year. Access to employment by public transport is improving, although the rate is still in the worst third compared to all other English councils. In 2009, the area has seen an improvement in the numbers of people who are able to get to work using public transport (89 per cent) and an increase in the number of journeys using public transport. In 2009, over a thousand people were registered on the Journey Share database. Telford Company Travelwise is a scheme to encourage local businesses to promote and use sustainable transport for their employees. An extra 32 companies signed up to this in 2008. The number of economically active people is predicted to grow by 700 per year. In terms of sustainable travel to school, car use in 2007/8 accounted for 35% of modal share. Performance has largely remained the same in the past couple of years. This is in part			

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
owing to the fact that the Council has performed well at introducing school travel plans across the Borough, which means that it is now addressing the 'hard to tackle' groups which results in diminishing returns. In 2008, 87% of schools had travel plans. By 2010 100% of schools have travel plans. There are thus opportunities to continue the momentum of previous years.			
Inequalities in health A relatively high proportion of people (16.4% in 2005) have difficulty accessing health services when looking at the national comparator (12.1%). Some parts of the Borough have lower life expectancies compared to national average. The proportion of the population assessing health as 'not good' is in line with the national average. Tackling social exclusion and increasing accessibility through the use of public transport, in a car dominated former new town, are fundamental to the Council's vision. Telford now has a better integrated transport network than previously and has sought to remove barriers to accessing healthcare, education, leisure facilities and employment opportunities for all residents. Innovative transport options include: a Wheels to Work scheme targeting people living in rural areas and offering them support, hire of a moped or taxi vouchers in order to access work or training opportunities and a mobility management centre, which enables members of the public to access public transport information, buy tickets and register for car and taxi sharing schemes. Telford has also aimed to ensure that all	• LTP3 should help identify what forms of intervention best improve health literacy, personalising messages for population subgroups, including those with low health literacy where the prevalence of chronic diseases is often high. • LTP3 should recognise and address the needs of vulnerable groups that need special consideration in transport planning, including low-income families, children (particularly in low-income families), disabled people and older people. • LTP3 should seek to promote active travel modes as a means of improving health and increasing life expectancy as well as to encourage more sustainable modes of transport to reduce environmental effects, which can also have benefits for health.	Population, Human Health	1, 2, 3, 4, 5, 6, 7, 9, 13,14

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
infrastructure improvements in the town centre incorporate bus priority measures.[21]			
Fear of crime Whilst there has been an overall decline in crime, fear of crime is still an issue: a police survey found 82% of respondents in the Borough had been worried about crime at some point in the previous 12 months.	• LTP3 should help reduce crime, fear of crime and promote safe communities through good design and measures such as enhanced street lighting and working with bus operators to extend the CCTV network on public transport and at interchanges. • LTP3 should encourage walking and cycling, which could help to increase natural surveillance and thus reduce the fear of crime. • LTP3 should consider obtaining safety standards accreditation for schemes, following the example of rail stations going through the secure stations initiative.	Population, Human Health	13, 14
Reduction in road traffic accidents and casualties Although road traffic accident and casualties have improved in Telford (for example, the Borough is ranked as the third best performing authority nationally for numbers killed or seriously injured), as they have generally nationally, there is still scope to further contribute to safety objectives.	LTP3 should contribute to an improvement of road safety for users of all modes of transport through measures such as: • Traffic management such as 20mph zones, traffic calming and signing; • Accident investigation including accident databases and road safety audits; • Engineering schemes and enforcement. • Education, training and publicity; • Safe paths for walking and cycling. • The design of traffic calming should be carefully considered to avoid negative effects on the effective operation of public transport, e.g. road humps may adversely affect operation of low floor buses. • A more radical approach to street design with people-	Population, Human Health	14

[21] Improvement and Development Agency, Borough of Telford and Wrekin: overview of authority http://www.idea.gov.uk/idk/tio/199892

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
	oriented understanding of public space, known as 'shared space' or 'Home Zones' should be given consideration where appropriate. Such design of streets and other public spaces would allow tackling not only safety but also congestion, economic vitality and community severance. LTP3 could draw lessons from the best practice schemes of this type within Europe, including the European Shared Space project (2004/08)		
Poor Public Rights of Way Network in rural areas leading to low levels of accessibility by walking and cycling and low levels of physical activity There are only 7.5 km of rights of way in the rural parishes (Eyton, Preston, Kynnersley and Tibberton & Cherrington) that make up the Weald Moors area of Telford and Wrekin, representing the smallest concentration in the Borough. Additionally, there is below average rights of way provision for horse riders and off-road cycling in the rural parishes of: Church Aston, The Gorge, Lilleshall & Donnington, Little Wenlock, Rodington, Waters Upton and Wrockwardine. The 2006 Active People Survey indicated that in Telford, only 20.6% of the adult population undertake the 3 x30 minutes per week moderate intensity sport and active recreation recommended by Government.	• See implications under rural accessibility • LTP3 should protect and enhance sustainable transport assets, ensuring their integrity, connectivity, safety, awareness and usage. • Existing long-distance routes in the area such as: The Shropshire Way, The Hutchison Way and the Silkin Way should be inspected regularly, and particular emphasis should be given to keeping these routes in good condition and free of obstruction. There is a need to ensure that the needs of footpath and rights of way users are given appropriate consideration where development is taking place on land affected by rights of way. There is a need to provide safe routes for horses on the vehicular highway network.	Population, Human Health, Biodiversity, Landscape, Material Assets	1, 6, 9, 13, 14
Poor legibility in the cycle network Although there are over 99km of cycle ways in Telford, cycling comprises less than 1% of all trips. There are a number of reasons why cyclists do not take advantage of the bridleway and restricted byway network in Telford and Wrekin: • Poor sign posting and waymarking • Little publicity and information detailing what is available	• LTP3 should protect and enhance sustainable transport assets, ensuring their integrity, connectivity, safety, awareness and usage. • LTP3 should seek to promote active travel modes as a means of improving health and increasing life expectancy. This could be done through improve sign posting and waymarking; better and targeted publicity;	Population, Human Health, Biodiversity, Landscape, Material Assets	1, 6, 9, 14,15

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
although the Council does produce a walking and cycling map • Surfaces are often unsuitable for all but experienced mountain bike riders • Undergrowth makes cycling difficult. • Additionally cyclists had concerns about the lack of routes around the area of the Wrekin, and in some rural parishes.	improved surfaces for users and clearing undergrowth • LTP3 should encourage healthier lifestyles: sport, exercise and active recreation should be promoted; access to safe, green and open spaces for activity should be ensured.		
Decrease in tranquillity levels and landscape quality The Shropshire Hills AONB covers an area of 802 sq km extending from The Wrekin to the Clun Forest. The eastern tip of the AONB extends into the Borough covering an area of approximately 5 square km 3-5 km to the west of Telford. The area contains several broad landscape areas including two Environmentally Sensitive Areas – Clun and the Shropshire Hills - which together cover three quarters of the AONB. The overall tranquillity score in the Borough is -13.1, and ranked 38 out of 87, with Slough Unitary Authority scoring lowest at -79.5; and Northumberland the highest at 28.6.	• LTP3 should seek to minimise the impacts of transport on tranquillity, for example, through promoting low noise and air polluting vehicles, limiting land take and transport corridors, limiting unnecessary lighting, etc. • LTP3 should reduce the need to travel and promote and prioritise the use of non-motorised transport and schemes. This will in turn minimise noise, vibration and light pollution and improve tranquillity. Conversely, LTP3 should avoid the development of schemes which threaten tranquillity, such as new or widened roads. • LTP3 should include requirements for road designs that minimise pollution where such schemes are necessary. For noise, for example, this includes specifying quieter surfaces and mitigation technologies like barriers and double-glazing. For light, this includes the use of street lamps of a specification that reduces light pollution. • LTP3 should promote the use of silent vehicles although it is acknowledged that the scope for doing this is limited. • LTP3 should consider key characteristics of the landscape character of the area and ensure that negative effects are avoided and opportunities for enhancement are maximised.	Landscape, Biodiversity	4, 5, 6, 7, 9

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
Loss of Green Network to development Between 2006 and 2009, 16.04ha of the green network or open space in Newport was lost to development. Designated under the Wrekin Local Plan, the Green Network offers a recreational, environmental or wildlife resource**.**	• The preservation and enhancement of a green network should be considered throughout all the policies of the LTP3 or cross referencing with policies in the LDF which is championing green networks. • LTP3 should also aim to promote countryside access and enjoyment and encourage regular physical activity for children and adults as part of a healthy lifestyle to reduce obesity levels and associated health problems.	Human Health, Landscape, Soil, Biodiversity, Water, Climatic Factors	2, 3, 4, 6, 7, 9, 14
Contributions to greenhouse gas emissions from transport Climate change is a key sustainability issue that affects all activities and developments in the Borough. Development in the Borough can contribute to climate change through the emission of greenhouse gases. Overall, transport contributes about 25% of the Borough's carbon dioxide emissions (2007). Although CO_2 emissions from road transport decreased overall between 2005 and 2007 (337 to 326 ktCO_2) the proportion of CO_2 emissions from transport from overall emissions increased in this period. In terms of renewable energy generation, the Council has various installations in place including 8 biomass incinerators, a CHP site, a landfill gas collection site at Granville and two wind generators at locations such as schools and leisure centres.	• LTP3 should seek to promote transport modes that reduce the contribution of transport to climate change, aiming towards the national target to reduce CO_2 emissions by 80% by 2050 by prioritising zero or low carbon modes of transport. • LTP3 should assist with limiting the extent of the transport sector's demand for resources such as energy through incorporating energy efficiency measures wherever possible e.g. through consideration of streetlighting. • LTP3 should promote renewable energy opportunities and technologies, e.g. use of sustainable biofuels; electric car parking and charging points. • LTP3 should work with Train Operating Companies to support innovative technologies such as regenerative braking on train lines which help save demands on electricity supply • LTP3 could include the use of new Intelligent Transport Systems technologies (e.g. bus priority controls and traffic signals) to reduce congestion and therefore CO_2 emissions. • LTP3 should take into account carbon assessment as a	Climatic Factors, Population, Human Health, Air	1, 2, 3, 6, 11, 14,15

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
	means of tracking and reducing the impacts transport has to climate change. Without benchmarking any improvement may be difficult to quantify. An example of this could be the energy efficiency of Street lighting and the need to reduce its carbon footprint. • LTP3 should encourage sustainable procurement for wider transport infrastructure. The use of local materials should be encouraged where practicable to help reduce transport costs and emissions. • LTP3 should explore the use of financial incentives, such as road pricing and a congestion charge.		
Threat to water quality from development Although there has been a general improvement in watercourses in the past few decades, nitrate and phosphate levels in the water have remained high. Almost the entire Borough is NVZ designated. There is a need to protect and enhance wider resources including various ponds, lakes, rivers, streams, brooks and canals.	• LTP3 should seek to protect and enhance water resources through appropriate location, pollution prevention and mitigation measures (e.g. by incorporating sustainable drainage systems in road drainage design to convey, store and treat runoff and by promoting porous surfacing for transport infrastructure).	Water, Human Health, Biodiversity, Flora and Fauna	4, 6, 9, 12, 14
Air pollution potential, in particular at Ironbridge Gorge site Although there are no AQMAs in the Borough, there are targeted areas for improvement. These include Ironbridge Gorge which sees an increase in visitor numbers in summer, although diffusion tubes indicate that levels are well below average NO_2 objectives.	• LTP3 should seek to promote transport modes that reduce the contribution of transport to air pollution which could potentially affect heritage assets. This is particularly important for Ironbridge Gorge which is a sensitive site.	Air, Human Health, Biodiversity, Flora and Fauna	1, 2, 3, 6, 8, 14
Noise pollution Some areas within Telford have been identified as Noise Priority Action Areas. These first priority locations, of which there are some identified in Telford, are identified as being the	• LTP3 should seek to implement the relevant noise action plans for Telford. • LTP3 should seek to minimise the effect of noise and vibration from transport on sensitive areas such as	Human Health	1, 5, 6, 7,8, 14

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
most important areas for reducing noise pollution in England. The purpose of Noise Action Plans is to assist in the management of environmental noise and its effects, including noise reduction if necessary, in the context of government policy on sustainable development.	residential areas.		
Threat to protected and unprotected heritage assets The Borough has a range of historic assets which need to be maintained including: 7 conservation areas; a World Heritage Site at Ironbridge Gorge, 2 Historic Parks and Gardens, 792 listed structures/buildings, and 28 Scheduled Ancient Monuments. The 2010 Buildings at Risk Register records 1 building as being 'at risk' in Telford and Wrekin: Charlton Castle, a Scheduled Ancient Monument in 'very bad' condition. There are 58 other transport related monuments, including Mileposts, Street Furniture and Bridges that are of local historical importance within Telford and Wrekin, but are not afforded statutory protection. These features may therefore be at risk from demolition neglect and insensitive development. The potential for as yet unrecorded archaeological interest should be considered.	• LTP3 should seek to protect and, where possible, enhance the historic sites, assets and their settings. • LTP3 should seek to promote sustainable access to historic assets such as the Ironbridge Gorge including providing connections to strategic links from outside of the plan area. • LTP3 should consider the potential for unrecorded archaeological sites of interest when considering LTP3 options. • LTP3 should consider visual intrusion and street clutter and the damaging impact on townscape and landscape character and opportunities for improved streetscape management, including streets audits and public realm investment; • LTP3 should seek opportunities to improve the overall quality of experience of historic places through public realm enhancements, reduced noise pollution and ease of access; • LTP3 should encourage positive management of historic structures and features associated with the highway network; • LTP3 should explore the use of historic structures as part of green infrastructure networks, which help to promote sustainable transport modes such as walking and cycling.	Cultural Heritage, Landscape	2, 3, 4, 5, 6, 7, 8, 14
Threat to biodiversity assets from development The Borough has a range of biodiversity assets. The Shropshire	• LTP3 should aim to protect designated areas and other areas of ecological value, e.g. by ensuring that planning	Biodiversity, Flora and	2, 3, 4, 5, 6, 7, 8, 14

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
Hills AONB is present in the south of the Council area. There are 8 SSSIs, of which 75% meet the PSA (public service agreement) target. There are a number of BAP priority habitats and species, and 753ha is protected through Local Wildlife Site designation. There are 300 RIGS in Shropshire alone and 26 RIGS in Telford and Wrekin. Telford and Wrekin has no internationally protected sites. However, within 10km of the plan area are: • Aqualate Mere (part of Midland Meres and Mosses Phase 2 Ramsar Site) • Bomere, Shomere and Betton Pools (part of Midland Meres and Mosses Phase 1 Ramsar Site) • Berrington Pool (part of Midland Meres and Mosses Phase 1 Ramsar Site) • Hencott Pool (part of Midland Meres and Mosses Phase 2 Ramsar Site) • Cop Mere (part of Midland Meres and Mosses Phase 2 Ramsar Site) Mottey Meadows SAC - Lowland hay meadows The nature of the plan may mean that international sites could be affected by proposals as effects could extend beyond the plan area. This will be explored and determined through the HRA screening process.	/ design of transport schemes avoid sensitive areas and through the adoption of best practice wildlife friendly designs into road schemes. Where this is not possible, there should be mitigation and appropriate compensation for losses. • LTP3 should avoid the fragmentation of green infrastructure, which contributes to protecting natural habitats and biodiversity • In developing proposals, the LTP3 should be aware of of the potential for biodiversity creation in brownfield sites despite the emphasis on redeveloping such sites. • LTP3 should explore opportunities for new habitat creation and enhancement associated with transport developments, e.g. through the use of appropriate locally native species in landscaping plans. • LTP3 should take into account findings and recommendations set out in the HRA Screening report to ensure that there are no likely significant effects on international sites.	Fauna, Landscape, Soil, Climatic Factors	
Need for climate change adaptation A number of properties and sections of transport infrastructure in the Telford and Wrekin Area are in areas at risk of flooding and were affected by flooding during the Summer of 2007.	• LTP3 should seek that all transport schemes are designed to reduce flood risk • LTP3 should seek to adapt transport schemes to climate change, including appropriate consideration of location	Climatic Factors, Water, Material Assets, Human Health	4, 12, 14

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
Some of the properties were affected by flooding from fluvial sources (streams, rivers) but many properties were affected from surface water flooding from sewers and drains. Climate change is likely to increase the frequency and severity of high rainfall events through greater extremes of weather although flood risk is not seen as a significant factor in the strategic planning of the district. The increased effect of flooding as a result of climate changed has been mapped through the SFRA Level 1 and is included in Appendix C.	of transport and development away from highest flood risk areas. • LTP3 should aim to limit the frequency and severity of flooding incidents through, for example, ensuring that road infrastructure design includes improved drainage standards to allow for increases in rainfall intensity of 20% and vegetated drainage systems where appropriate. The use of impermeable hard surfacing, e.g. concrete, should be minimised and SUDS should be used where practicable. • LTP3 should recommend the use materials and techniques (e.g. specialist road surfaces) which have been tested for durability outside the normal range of the UK's climatic/weather conditions. This is in order to adapt to the likelihood of greater extremes of weather both during winter and summer time as a likely result of climate change. LTP3 can inform asset management plans in these terms to help authorities be prepared for such events.		
Inequitable access to natural and semi-natural greenspace; amenity greenspace and open space for children and young people Applying the standard (480 metres- 10 minutes' walk time) against the projected population in 2016 reveals that there are likely to be deficiencies in access to natural and semi-natural greenspace in the wards of Telford North West, Telford North East and Newport. The application of the accessibility catchment for accessibility to amenity greenspace and open space for children and young people highlights particular deficiencies within Muxton, Hadley and Leegomery, and Cuckoo Oak**.**	• LTP3 should maintain and enhance linkages between strategic landscape and open space resources. • LTP3 should aim to improve smaller scale open spaces, for example through greening and tree planting in areas around highways and junctions. • LTP3 should help encourage public accessibility to open space and the movement of people within open areas via an integrated network of green space into and through the study area. LTP3 has the potential to improve accessibility to open space through the Rights of Way Improvement Plan. LTP3 can also help create and link new areas of open space. • LTP3 should encourage healthier lifestyles: sport,	Landscape, Human Health, Biodiversity, Climatic Factors, Material Assets	1, 6, 7, 9, 14

Key Issues and Opportunities	Implications for LTP3	Relevant SEA, HIA and HRA Topic	Relationship to SEA Objectives
	exercise and active recreation should be promoted; access to safe, green and open spaces for activity should be ensured.		
Making efficient use of land, including reusing brownfield sites and protecting agricultural land The Borough includes a mix of greenfield and brownfield sites. Agriculture is an important part of the economy and land quality needs to be maintained and promoted. Currently, around 20% of total completed floorspace for employment and new and converted dwellings is not on brownfield land (i.e. on greenfield land).	• LTP3 should directly protect agricultural land through avoiding landtake and more indirectly through reducing pollution. • LTP3 should seek to develop brownfield sites (having regard to resources such as biodiversity) and avoid greenfield sites.	Landscape, Human Health, Biodiversity, Material Assets	10, 11

Likely Cumulative Effects

7.6 The SEA Directive requires the consideration of cumulative effects. Cumulative effects can occur from the following situations:

- Combined effects of a plan with effects of another plan, affecting the same receptor. For example, proposals from land use and transport plans could affect a nature reserve; and
- Interaction of effects from proposals within a plan affecting the same receptor. For example, proposals to build new roads or upgrade existing ones, implement more lighting schemes, etc in a particular area within a short period of time could result in cumulative noise, dust and light effects on the residents or a sensitive biodiversity habitat nearby.

7.7 Likely cumulative effects of LTP3 have been identified from the analysis of plans and programmes, the baseline data and the key issues. This analysis has identified a set of likely cumulative effects, their receptors and likely causes, as shown in Table 7.2.

Table 7.2 - Likely Cumulative Effects and their Causes

Cumulative Effect	Affected Receptor	Causes
Habitat degradation, loss and fragmentation	Areas of wildlife habitats and sensitive species including the BAP habitats, SSSIs and adjacent international sites. Valuable landscapes such as the Shropshire Hills AONB.	Use of land for new infrastructure, including transport infrastructure, commercial uses and housing. Disturbance of habitats and species as a result of human activities (recreation, noise from transport, etc) and pollution of environmental media (water, soil and air).
Climate change	Population (human health) Transport Infrastructure	Even though local actions to combat an increase in GHG emissions are important, climate change is a global phenomenon and GHG concentrations in the atmosphere are likely to increase during the LTP3 period as a result of human activities worldwide. These activities include transport, energy, industry, buildings sectors and others. Joint efforts of all nations may lead to a subsequent stabilisation and decline of GHG concentrations but such effects may occur in a distant future, beyond the LTP3 period.
Increase in flood risk	Population Material assets, including transport infrastructure and heritage assets Wildlife habitats Species	Use of land for new transport infrastructure, commercial uses, housing and associated increase in impermeable surfaces. Risk of significant flooding events is also likely to increase in the future, as a result of climate change consequences.
Depletion of virgin natural resources and materials	Non-renewable virgin natural resources and materials	Demand and use of virgin natural resources and materials for construction of transport infrastructure, housing, other type of buildings, production of goods, etc. Use of carbon-based material as fuel and to generate heat and electricity.
Development	The countryside and Green	Use of land for new infrastructure,

pressure on the countryside and the Green Network	Network	including transport, commercial uses, housing and other type of development, leading to increasing pressure on green space.
Decrease in tranquillity levels	Population (especially in Noise Priority Action Areas) Species Landscapes and townscapes	Noise generated by different uses, including road traffic and other development. Light pollution, including from transport infrastructure, typical for urban areas.
Heritage and townscape degradation	Heritage assets (especially protected assets such as the Ironbridge Gorge WHS, historic parks and gardens and listed structures/buildings) Townscape	Landtake and development directly as a result of transport and other development. Noise and air pollution indirectly as a result of increased traffic and development.

8. SEA Framework

Introduction

8.1 The assessment framework is a key component in completing the SEA by synthesising the baseline information and environmental issues into a systematic and easily understood tool that allows the prediction and assessment of effects arising from the implementation of the Plan. Although the SEA Directive does not specifically require the use of objectives or indicators in the SEA process, they are a recognised and useful way in which environmental effects can be described, analysed and compared at key stages of the Plan development. Objectives are fundamental to NATA.

8.2 Defining these objectives before the Plan is written gives an early indication of the environmental issues that will require particular attention in the Plan making process. They also ensure that a new or revised Plan is consistent with the strategic aims of the partner authorities, with all related plans, and is consistent with European, UK Government and regional policies.

8.3 The SEA framework consists of a set of objectives and indicators against which the proposals in the LTP3 were assessed.

8.4 This SEA includes specific health and habitats objectives, to ensure the full integration of the assessment processes of HIA and HRA, whilst meeting the requirements of the SEA Directive

8.5 The Telford and Wrekin LTP3 SEA framework has brought together the other activities undertaken during Stage A of the SEA process. The SEA framework developed for LTP2 was used as a starting point for this exercise (see Appendix D). Although it is now five years old, it is specific to transport and thus a key point of reference. Table 8.1 shows how the original SEA objectives from LTP2 (shown in the left hand column) have been adapted for LTP3 (shown in the right hand column). Italicised text indicates proposed amendments to objective text.

8.6 In addition, the SA framework for the LDF and Central Telford Area Action Plan has been used. These documents are more recent but less specific to transport.

Table 8.1 - LTP2 SEA objectives and proposed amendments

Original LTP2 SEA objective	Relationship to LTP3 SEA objectives
Improve air quality across the Borough	Retained – see LTP3 SEA objective 2
Reduce contributions to climate change *through reducing greenhouse gas emissions including CO_2*	Adapted – see LTP3 SEA objective 3. Wording amended to make greenhouse gases and CO_2 reduction more obvious. Includes the objective on promoting the use of renewable energy
Promote use of renewable energy	Merged – see LTP3 SEA objective 3 on reducing contributions to climate change.
Promote and protect access to the Countryside	Merged – see LTP3 SEA objective 1. Countryside is now considered to be a form of amenity
Protect areas of tranquillity	Merged – see LTP3 SEA objective 9 which includes landscape objective.
Improve the quality of life and community well being for all	Excluded – objective is vague and indicators actually relate to access. Objective “to improve equitable access to services, amenities and opportunities for all and encourage a sense of

	community" therefore created in this respect.
Protect and enhance the Borough's statutory and non-statutory designated wildlife sites	Merged – see LTP3 SEA objective 6. Now considered under wider objective on biodiversity, geodiversity and green infrastructure
Protect and enhance the Borough's UK Priority Habitats and legally Protected Species	Merged – see LTP3 SEA objective 6. Now considered under wider objective on biodiversity, geodiversity and green infrastructure
Protect and enhance biodiversity, geodiversity and green infrastructure	Adapted – see LTP3 SEA objective 6. Objective was widely scoped in terms of natural environment and has therefore now been refocused on biodiversity with additional references to geodiversity and green infrastructure. Green infrastructure has been added to reflect growing importance of this concept, which also has other benefits, including open spaces and landscapes. Objective includes consideration of statutory and non-statutory designations, together with BAP habitats and species.
Conserve and enhance the quality of the historic *environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings*	Adapted – see LTP3 SEA objective 8. Wording changed to make it more obvious towards the historic resources in question
To reduce contamination and safeguard soil quality and quantity	Retained - see LTP3 SEA objective 10
Protect landscape *quality, including designated statutory and non-statutory sites and the overall quality of the countryside*	Adapted – brought two landscape objectives into one due to overlap, see draft LTP3 SEA objective 9
Protect the landscape and quality of the countryside	Merged – see LTP3 SEA objective 9
Maximise the efficient use of natural resources and minimise the amount of waste produced	Retained – see LTP3 SEA objective 10
Protect *water resources, avoid* pollution *and achieve sustainable water resource management*	Adapted – see LTP3 SEA objective 11. Changed water environment to resources to make it more obvious what is meant by water environment
To adapt to climate change by minimising the risk of flooding *and adapting to the predicted changes in weather conditions*	Adapted – see LTP3 SEA objective 4. Flooding is just one of the potential consequences of climate change and the wording has been changed to reflect this
To reduce crime, disorder and fear of crime and promote safe and inclusive communities	New – see LTP3 SEA objective 12. Transport can play a role in community safety and therefore an objective has been added
To reduce noise, vibration and light pollution	New – see LTP3 SEA objective 5. transport can have impacts on noise, vibration and light and affect receptors such as people and therefore an objective has been added

To improve physical and mental health for all and reduce health inequalities	New – see LTP3 SEA objective 13. Transport can have both a positive and negative health role and therefore an objective has been added
To improve equitable access to services, amenities and opportunities for all and encourage a sense of community	New – see LTP3 SEA objective 1. Transport can help improve access and sense of community and therefore an objective has been added
To identify, manage and protect habitats and species which are important on an international scale	New – see LTP3 SEA objective 7. Added as a specific HRA objective relating to internationally important designated sites

8.7 The SEA objectives have been worded so that they reflect one single desired direction of change for the theme concerned and do not overlap with other objectives. They include both externally imposed socio-economic and environmental objectives and other objectives have been devised specifically in relation to the context of the LTP3 being prepared. The SEA objectives have also been worded to take account of local circumstances and concerns feeding from the analysis of environmental / sustainability problems and opportunities. The analysis of the likely cumulative effects in section 7 helped identify the SEA objectives that consider cumulative effects.

8.8 The assessment prompt questions provide a clarification of the intended interpretation of each objective to support direction of change sought through the implementation of LTP3. The questions guided the assessment process.

8.9 A set of indicators has been derived to provide a clarification of the intended interpretation of each objective and capture the change likely to arise from the LTP3 implementation. This set of indicators is a combination of indicators for which baseline data is currently available in the Council area and new (significant effect) indicators that are not currently monitored. The new (significant effect) indicators proposed may require monitoring by relevant bodies where significant effects relating to the SEA objectives have been predicted during the assessment of the LTP3 effects and they are presented as part of the proposed monitoring programme (see section 13 of this report). The set of indicators played a role in the assessment of the LTP3 itself by providing an indication of the type of effects to be considered in the assessments.

SEA Framework

8.10 The SEA framework, consisting of objectives, assessment prompt questions and indicators, is set out in Table 8.2.

Table 8.2 – SEA Framework

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
1.	To improve equitable access to services, amenities, the countryside and improve opportunities for all and encourage a sense of community	• Promote accessibility to key services and facilities, employment sites and education, countryside and areas of open space, providing opportunities for employment, health, education, etc? • Improve access for the mobility impaired? • Continue making travel options more convenient, accessible and affordable? • Coordinate with the local LDF documents, in particular Core Strategies and Site Allocations DPD, to ensure good accessibility for new development? • Improve the legibility, connectivity and accessibility of the Borough's public rights of way to improve access to the countryside by walking, cycling and horse riding, in line with the PROW improvement plan? • Maintain and enhance the linkages between landscape of strategic value and open space resources? • Promote social cohesion and inclusion? • Address the differing needs of: the varying age groups of residents (the older population and younger travellers), disabled people, different nationalities and ethnic groups, different religious groups, low income and unemployed people, different sex and sexual orientation groups?	• Total length of walking and cycling routes connecting residential areas with services, facilities and employment • Frequency, affordability, efficiency and reliability of bus services • % change in residents able to easily access amenity open space, parks and gardens; natural and semi-natural greenspace; and/or outdoor sports facilities • Number of street parking spaces available in new developments compared to existing developments of comparable size • % change in households within 30 minutes of the primary Borough Towns (Wellington and Newport) by public transport and walking • % residents able to easily access essential community facilities by public transport, walking and cycling including post offices, GP and district centres • % change in the number of children and young people above to easily access open space designed for their use • Improved access to essential facilities for residents in the 25 SOAs ranked in the top 10-30 % most deprived SOAs in the country • % of people with a long standing illness, health problem or disability satisfied with the provision of	Population and Human Health HIA

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
			local bus services • % improvement in public transport services in rural areas • % of residents able to access appropriate education, training and employment by public transport (and other specified modes)	
2.	To improve air quality across the Borough	• Reduce traffic levels and promote more sustainable transport patterns across the area, particularly focusing on areas with high traffic flows? • Promote walking and cycling and improve infrastructure for these forms of travel? • Promote the operation of least polluting vehicles, including buses and private cars? • Promote the issue of improving air quality in the region through awareness and marketing campaigns? • Reduce congestion in urban areas? • Instigate financial incentives and measures on the basis of the polluter pays principle? (e.g. congestion charge, road pricing)	• Compliance with National Air Quality Strategy objective – annual mean NO_2 and PM_{10} • Number of Air Quality Management Areas declared • Number of residential properties within AQMAs • Road traffic - Estimated traffic flows for all vehicle types (million vehicle kilometres) • Percentage of residents who identify the level of traffic congestion as something most in need of improvement • Percentage of residents who identify the level of pollution as something most in need of improvement • % change in the length, ease of use and legibility of the walking and cycling network (including national trails and PROW)	Air Quality, Human Health HIA
3.	To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2*	• Contribute to the national target to reduce CO_2 emissions by 80% by 2050? • Protect and increase carbon sink capacity through green space retention and provision? • Promote the use of sustainable forms of transport and reduce car use? • Promote better coordination and integration of different	• CO_2 emissions for road transport sector • Number of trees planted as part of transport related schemes • % of council fleet and pool vehicles running on sustainable fuels (biodiesel, electric)Number of transport schemes featuring energy efficient design and/or use of renewable energy	Climatic Factors, Human Health

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
		modes? • Support the use of clean vehicles and energy efficiency improvements of passenger transport? • Support the use of financial incentives to reduce the reliance on a private car?		
4.	To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions*	• Plan for the successful adaptation to the predicted changes in weather conditions and frequency of extreme events? • Minimising the risk of flooding by, for example, promoting improved drainage standards in rainfall intensity and vegetated drainage systems? • Maximise synergies with green infrastructure proposals for flood alleviation purposes? • Ensure that floodplains are used for their natural purpose and are protected from inappropriate development? • Integrate with the recommendations of the Strategic Flood Risk Assessment to not develop in flood risk areas? • Promote the use of materials and techniques that will be durable through extreme weather events?	• Number of road drainage schemes implemented to decrease risk of flooding; incorporation of SUDS into all schemes involving construction to achieve flood reduction where appropriate • Transport infrastructure built in an area of existing or predicted future flood risk •	Climatic Factors, Water, Human Health, Landscape HIA
5.	To reduce noise, vibration and light pollution*	• Minimise light pollution through the use of appropriate types of street lighting? • Minimise noise and vibration through the use of appropriate surfacing materials and noise barriers? • Reduce overall levels of traffic and congestion next to sensitive land uses such as residential? • Seek to locate new transport infrastructure away from sensitive land uses? • Promote the use of silent vehicles?	• Proportion of roads within Defra Noise Action Plan Areas • Proportion of residents living close to roads with high levels of traffic noise • % change in quantity of appropriate surfacing materials and noise barriers implemented to reduce vibration and noise • % change in traffic levels and congestion next to sensitive land uses • Number of new Transport Infrastructure Schemes	Population , Human Health

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
			built near sensitive land uses • Proportion of street lamps which reduce light pollution • Lengths of road and adoptive footway within the rural area with overhead lighting columns	
6.	To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure*	• Protect and enhance area and condition of designated and non-designated but locally important biological and geological sites? • Protect previously developed sites and land of ecological value? • Promote the delivery of Local Biodiversity and Geodiversity Action Plans? • Promote the concept of green infrastructure, a network of linked, multifunctional green spaces in and around the area's towns and cities, avoiding severance of habitats' links? • Provide opportunities for new habitat creation and enhancement? • Promote good design to secure biodiversity benefits?	• Number and scope of transport schemes adversely affecting protected species and sites designated for nature conservation • Number of transport schemes adversely affecting RIGS • NI 197 Improved local biodiversity - proportion of local sites where positive conservation management has been or is being implemented Area and type of BAP priority habitat lost and created due transport schemes • Number of transport schemes incorporating biodiversity enhancements and mitigation including green infrastructure	Biodiversity, Flora, Fauna, Human Health, Population
7.	To identify, manage and protect habitats and species which are important on an international scale * (*HRA specific objective*)	• Affect the designated international sites identified as part of the HRA Screening process (including both positive and negative effects)?	• Number, area and condition status of internationally designated sites • Internationally designated sites whose status is negatively affected by transport development	Biodiversity, Flora, Fauna, Population, HRA

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
8.	Conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings*	• Conserve, protect and enhance the region's historic landscapes and townscapes and the condition of heritage assets and their settings? • Adversely affect archaeological remains? • Improve access to locations of cultural heritage value, by sustainable transport modes and reduce traffic congestion in historic town centres and villages? • Protect and enhance locally important buildings and townscapes, maintaining and strengthening local distinctiveness and sense of place? • Improve the streetscape by removing unnecessary clutter? • Avoid and minimise impacts (direct and indirect) on the historic environment and heritage assets (both designated and non-designated) particularly the Ironbridge World Heritage Site?	• Number and % of transport-related schemes that have an adverse effect on sites designated for their historic or cultural importance • Number and extent of public realm improvement schemes delivering conservation area management plans' • Improvements in the management heritage assets associated with the highway network • % loss of undesignated heritage assets through transport schemes • % modal share of trips made to the WHS • Number of visits to historic sites • Number and % of Conservation Areas at Risk from transport schemes • Number and % of locally listed buildings at risk from transport schemes • Number and % of Scheduled Monuments at Risk from transport schemes • Area of highly sensitive historic landscape characterisation type(s) which have been altered and their character eroded by transport schemes	Cultural Heritage, Landscape, Material Assets
9.	To protect and enhance the landscape and quality of the countryside , including all designated landscape sites*	• Ensure that construction, repair and maintenance of transport infrastructure is sympathetic towards the local environment? • Conserve, protect and enhance the Borough's landscape and recreational assets (e.g. green network, parks and green spaces, etc)?	• Number of areas conserved or improved for local landscape and townscape character as a result of transport schemes' • Number of transport schemes adversely affecting areas within Shropshire Hills AONB • % change in the green network	Soil, Material Assets, Landscape, Human Health

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
		• Protect and enhance 'tranquil' areas (e.g. areas free from visual intrusion, noise, light pollution etc)?	• Extent of Green Belts affected by transport schemes • % change in level of tranquillity • % development built on previously developed land	
10.	To reduce land contamination associated with transport and seek to conserve soil quality and quantity	• Avoid permanent (irreversible) loss of the most highly productive agricultural soils? • Promote the reclamation and use of previously-developed and/or contaminated land to make more productive use of land?	• Area of grade 1, 2 or 3a agricultural land permanently lost as a result of transport schemes • Number of transport schemes adversely affecting agricultural land (grade 2 soils) • Numbers, extent or % of transport schemes on previously developed land • Number of pollution incidents, affecting soil quality, attributable to transport • Number of sites affected by contamination remediated as part of new development and put back into use	Soil
11.	To maximise the efficient use of natural resources and minimise the amount of waste produced*	• Enable new infrastructure /repair to be resource efficient (materials, energy, water, sustainable procurement etc) in construction and operation? • Promote sustainable waste management practices? • Promote the use of recycled materials in construction? • Promote the use of local suppliers and locally-produced materials in construction? • Promote accessibility to household waste recycling centres to encourage the movement of waste up the hierarchy? • Avoid a significant increase in road infrastructure and make the best use of the existing physical infrastructure?	• Proportion of road materials that utilise recycled material • Percentage of residents who have used local tips / household waste recycling centres at any time within the last year	Material Assets, Human Health
12.	To protect water resources, avoid	• Protect the quality of surface and groundwater resources?	• % of watercourses classified as good or fair biological	Water, Soil, Human Health

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
	pollution and achieve sustainable water resource management	• Minimise the use of impermeable hard surfacing? • Minimise construction work within Groundwater Source Protection Zones for public water supply?	• Numbers and % of transport schemes incorporating vegetated drainage systems to protect surface water, where these have been requested by the Environment Agency • Number and % of transport schemes incorporating conditions to protect groundwater, where these have been requested by the Environment Agency • Number of pollution incidents attributable to transport related activities	
13.	To reduce crime, disorder and fear of crime and promote safe and inclusive communities *(Health Specific Objective)*	• Help to reduce crime and the fear of crime through design measures such as enhanced street lighting and CCTV? • Contribute to improvements of the public realm and aim to increase the levels of natural surveillance? • Help to reduce crime and the fear of crime through improvements to public transport vehicles?	• Total crime per 1000 population • NI 2 Percentage of people who feel that they belong to their neighbourhood • NI 17 Residents' perceptions of anti-social behaviour • Numbers and % of transport schemes or LTP3 spend aiming to improve personal security on public transport and at its facilities • Number of reported crimes on public transport and at its facilities • Number/extent of 20 mph zones	Population and Human Health HIA

No	SEA Objective	Assessment prompt questions Will the LTP3 proposals….	Potential indicators	SEA topic and relevance to HIA and HRA workstreams
14.	To improve physical and mental health for all and reduce health inequalities (*Health specific objective*)	• Promote and enable measures to help all residents to adopt healthy lifestyles? • Promote accessibility (particularly on foot or by cycling or public transport) to recreational activities (e.g. playing fields, sports facilities, footpaths etc), particularly for vulnerable groups? • Promote initiatives to improve the safety of all transport users including pedestrians? • Encourage increased physical activity, both informal and formal? • Promote training for drivers to promote safe driving? • Ensure the continuation and further development of LTP2 initiatives aiming to calm traffic in residential areas? • Encourage promotional activities that seek to raise awareness of road safety?	• % of people in good and not good health • % of people using non-motorised modes of transport • Number of bus stops adapted for easy access buses • Pedestrian crossings with facilities for disabled people • Public transport accessibility for disabled people • % adults participating in sport and active recreation • Number of 'healthy walks' schemes created • Casualties as a result of personal injury collisions • Number of people killed or seriously injured overall as a result of road traffic collisions • Cycling casualties • Collisions involving 16 – 25 year olds	Population, Human Health HIA
15.	To promote a range of sustainable modes of transport and reduce reliance on the private car	• Promote a modal shift to more sustainable forms of transport such as walking and cycling? • Improve the quality of cycling and walking infrastructure? • Maximise synergies with green infrastructure proposals for enhancing green walking and cycling routes? • Increase public transport provision and efficiency?	• % change in modal share for travel to work • % change in modal share of journeys to school • % change in integration of public transport facilities • % share of trips by sustainable/non-sustainable modes in Telford Town Centre	Air Quality, Climatic Factors, Human Health

* Indicate SEA objectives that consider cumulative effects

Predicted Future Trends

8.11 The starting points for the prediction of future trends are current conditions and trends. The existing environmental and social baseline and associated current trends for Telford and Wrekin is presented in Appendix B.

8.12 The SEA Directive requires the consideration of the likely evolution of the state of the environment without the implementation of the Plan being assessed. There will be a number of external influences that will affect the state of Telford and Wrekin's social, natural, built and economic environment during the lifetime of the LTP3. Key local and regional planning documents that will influence the area's future trends without the implementation of the LTP3 are:

- The DfT DaSTS Strategy agenda;
- Rights of Way Improvement Plan (ROWIP);
- Sustainable Community Strategy;
- Telford and Wrekin LDF: Core Strategy DPD, Allocations DPD, Central Telford AAP, Design for Community Safety Supplementary Planning Document (SPD), Surface Water Drainage: Managing and Improving Water Quality SPD Document; and
- Local Biodiversity and Geodiversity Action Plans.

8.13 The SEA Framework (Table 8.2) is the key tool used in the assessment of effects. The prediction of effects, in terms of their magnitude, frequency, duration, and spatial extent, is conducted via detailed analysis of the baseline data. It is thus important to ensure that critical aspects of the baseline can be directly related to the objectives and indicators of the SEA framework. Determining the significance of predicted effects is perhaps the most critical task in the SEA. The picture that the baseline presents in terms of the SEA framework is the starting point for this.

8.14 Table 8.3 presents a preliminary analysis of the fundamental characteristics of the baseline (current conditions and predicted trends without the LTP3) against the draft SEA objectives using a simple three-point normative scale as follows:

- Current Conditions - good/moderate/poor;
- Future Trends (without plan implementation) - improving/stable/declining.

8.15 Table 8.3 indicates that without the implementation of the LTP3 the predicted future trends show a decline in performance against a number of SEA objectives. In particular, without the future transport policy and schemes in Telford and Wrekin, the state of the environment and socio-economic conditions, in terms of accessibility to employment, district centres and essential services and facilities; air quality, transport related CO_2, levels of noise, vibration and light pollution, conservation of heritage assets, and landscape, soil quality and access to the countryside are likely to experience a declining trend.

Key:	Current Conditions - good/moderate/poor	Future Trends – improving/stable/declining
	Good	Improving
	Mod	Stable
	Poor	Declining

Table 8.3 – SEA Baseline Condition and Future Trends Summary

No	SEA Objective	Baseline	Future Trend without LTP3	Limitations of Data	Commentary
1.	To improve equitable access to services, amenities and opportunities for all and encourage a sense of community	Good	Declining	No data limitations	A key aim of LTP2 was to increase the percentage of households within 30 minutes of the primary Borough Towns (Wellington and Newport) by public transport and walking. This proportion therefore increased to 91% by 2007/8. Without LTP3 this figure is unlikely to increase further. Recent housing development has led to a decline in proximity to district centres due to concentration of residential development at the Strategic Sites at Ketley, Lawley and Lightmoor and the large development at Station Road to the north of Donnington. In Newport all the residential development has been close to the district centre. Further, recent closures have meant that accessibility to post offices has declined since 2008 with just over half of the population above to access a post office within 800m. Since 2006, there have been no community facilities (D2 and SG) developed in the rural service centres. A relatively high proportion of people have difficulty accessing health services when looking at the comparator. Four wards are within the top 25% of wards nationally with the poorest access to services, with Ercall Magna falling within the top 5% worst wards. The provision of good public transport is a major problem, given that the rural area is difficult to serve and Telford itself was designed essentially for the car. As most of the components of accessibility are a key remit of the transport plan, without LTP3 further development of residential and employment sites and the closure of rural services may result in a decline in accessibility.
2.	To improve air quality across the Borough	Good	Declining	No data limitations	Air quality has improved since 2001 and no AQMAs are currently declared. Without a transport plan to reduce traffic growth, utilise more sustainable public transport vehicles and encourage sustainable modes of transport in the area, air quality may decrease. This is likely in areas such as the Ironbridge Gorge World Heritage Site, which attracts approximately 600,000 visitors per year. Overall traffic levels are increasing in this fast growing Borough, which may lead to long term air quality problems without the LTP3.
3.	To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2	Moderate	Declining	No data limitations	Although CO_2 emissions from road transport decreased overall between 2005 and 2007 (337 to 326 ktCO_2) the proportion of CO_2 emissions from transport from overall emissions increased in this period. Car ownership is likely to increase and overall traffic levels on the local highway network are likely to grow without targeted interventions. This could further increase the level of CO_2 emissions from transport, counteracting technological improvements in the energy efficiency and emission levels of vehicles.

No	SEA Objective	Baseline	Future Trend without LTP3	Limitations of Data	Commentary
4.	To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions	Moderate	Stable	No data limitations	The effects of climate change will become more apparent in the future, increasing the risk of flooding as shown in Appendix C. Transport infrastructure, in particular roads, is likely to be affected by flooding, sea level rise and summer cracking. The comfort of public transport may also be affected by high summer temperatures. Without LTP3 to implement adaptation to these effects, the effects of climate change may lead to an exacerbation of these effects. However, it is likely that other plans and programmes such as the LDF will enable the plan area to adapt to the effects of climate change with the potential for significant benefits above the remit of LTP3, leading to an overall stable condition without LTP3.
5.	To reduce noise, vibration and light pollution	Moderate	Declining	Baseline data generally not available	Telford contains Noise Priority Action Areas (Defra) on its roads. It is the responsibility of the local authority to implement Action Plans associated with these areas to assist in the management of environmental noise and its effects, including noise reduction if necessary, in the context of government policy on sustainable development. Without LTP3 it is unlikely that the achievement of these action plans will be possible.
6.	To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure	Moderate	Stable	Data not available for transport schemes' affecting local biodiversity	75% of Telford and Wrekin SSSIs met the Public Service Agreement (PSA) target as assessed at October 2009. There has also been the addition of 11.22 hectares of Areas of Biodiversity Importance since April 2006, and there has been an increase in the extent of Wildlife Sites in the Borough. The quantity and quality of local biodiversity is likely to remain stable due to the requirements in the local land use plans.
7.	To identify, manage and protect habitats and species which are important on an international scale (*HRA specific objective*)	Moderate	Stable	Data not available on vulnerabilities of international sites.	Telford and Wrekin has no internationally protected sites. However, there are a number of sites within 10km of the plan area that could potentially be affected by traffic. The identified European sites could also be vulnerable to the effects of recreation and tourism activities, farming and agricultural practices. The condition of the sites should remain stable without LTP3 due to the high level of protection to which they are afforded through international legislation. However, in the longer term some change might be unavoidable, as a result of the changing climate.

No	SEA Objective	Baseline	Future Trend without LTP3	Limitations of Data	Commentary
8.	To protect and enhance the quality of the historic built environment including townscape, buildings, sites and features of archaeological, historical or architectural interest and their settings	Moderate	Declining	No data limitations	The plan area has a high number of heritage designations including, most notably, the World Heritage Site at Ironbridge Gorge. Several other features are of local historical importance within Telford and Wrekin, but are not afforded statutory protection. These features may therefore be at risk from demolition neglect and insensitive development. Increasing traffic levels are likely to reduce the quality of the settings of cultural and heritage assets. In the short term, assets such as the WHS that are afforded statutory protection may see improvements through measures such as management plans. However, it is likely that cumulative effects of increases in traffic, which could arise as a result of no strategic transport plan, will lead to a long term decline. This effect is likely to be more immediate for those assets without statutory protection. Regeneration efforts from other plans and programmes may offset these negative effects to some degree, improving the quality of the built environment, especially in the currently deprived areas.
9.	To protect and enhance landscape and soil quality, including designated statutory and non-statutory sites and promote low impact access to the countryside and areas of open space	Poor	Declining	No data limitations	The data show that development pressures have led to a loss of open space and the green network between 2006/7 and 2008/9. It is likely that development pressure will continue to negatively affect landscape and countryside character. However, it is within the remit of other plans and programmes such as the LDF to protect this resource strategically. The local levels of tranquillity are low in the area, indicating noise and light pollution. Without intervention, increasing traffic levels on the local highway network is likely to increase noise and light pollution and vibration. Agriculture is an important part of the economy and the landscape of the Borough. Agricultural land is likely to continue to be under threat from development pressures. The requirement to deliver new housing and associated infrastructure by 2021 is likely to place pressures on the areas of productive land and greenfield land in the area, as currently around 20% of total completed floorspace for employment and new and converted dwellings is not on brownfield land. Other plans such as the LDF and national policy should ensure the prioritisation of previously developed land for development over greenfield.

No	SEA Objective	Baseline	Future Trend without LTP3	Limitations of Data	Commentary
10.	To reduce land contamination associated with transport and seek to conserve soil quality and quantity	Poor	Improving	Data gap for soil quality and quantity.	There are no sites registered as contaminated land on the Contaminated Land Register under Part 2a of the Environmental Protection Act 1990. However, there are areas of land identified through the Contaminated Land Inspection Strategy (July 2001) that should be investigated if development proposals are identified. A risk-based prioritisation of all sites of potential concern has been undertaken which has identified some 1200 'sites of potential concern. Soil quality and land quality will be safeguarded by the Environment Agency
11.	To maximise the efficient use of natural resources and minimise the amount of waste produced	Data gap	Improving	No data available on the use of recycled aggregates in transport infrastructure	With more far-reaching national and European legislation related to waste, including taxes on landfill, and the impact of local and regional initiatives, waste minimisation, re-use and recycling rates are likely to increase in the area over the longer term.
12.	To protect water resources, avoid pollution and achieve sustainable water resource management	Moderate	Improving	Data gap on the effect of transport on water quality in the Borough.	Chemical and biological water quality has improved between 1990 and 2005. However, nitrate and phosphate levels in the water have remained high over the same period. The implementation of the Water Framework Directive is likely to result in improvements to the water environment. It is likely that the water environment will be safeguarded in the future.
13.	To reduce crime, disorder and fear of crime and promote safe and inclusive communities *(Health Specific Objective)*	Moderate	Stable	Data gap for crime committed on public transport.	Personal safety was high\lighted as an issue reflecting an aversion for using public transport and non-motorised transport in LTP2 although total crime has decreased more significantly compared with national figures. Telford and Wrekin has an above average score for the proportion of people who feel that they 'belong' to their neighbourhood, indicating a sense of community cohesion. Crime levels are likely to remain stable or improve, as a result of factors outside the remit of LTP3 such as local policing and the design of new developments guided by local development plans. However, LTP3 presents an opportunity to reduce the fear of crime through increasing the attractiveness and availability of public transport, walking and cycling.
14.	To improve physical and mental health for all and reduce health inequalities	Moderate	Stable	No data limitations	The 2006 Active People Survey indicated that in Telford only 20.6% of the adult population undertake the 3 x30 minutes per week moderate intensity sport and active recreation recommended by Government. Health levels overall are very similar to national averages. Improvements in medicine and health care and provision of new health facilities will

No	SEA Objective	Baseline	Future Trend without LTP3	Limitations of Data	Commentary
	(*Health specific objective*)				have positive effects on the wellbeing of people which could lead to an improvement over time without LTP3. However, these efforts may be countered by an increase in car-based road transport which could have negative effects on health both through increased air pollution, increased road accidents, decreased accessibility to health facilities and increased obesity. There is also increasing evidence that links access to greenspace (especially in the most deprived areas) to a significant increase in life expectancy and good health[22].
15.	To promote a range of sustainable modes of transport and reduce reliance on the private car	Moderate	Declining	No data limitations	Without LTP3, the LDF may enable some reduction in reliance on the car, through reducing the need to travel through land use allocations and encouraging the allocation of walking and cycling routes throughout the urban area. However, without any firm commitment towards sustainable transport modes and a modal shift towards other transport initiatives it is likely that there will be a long term decline in the promotion of sustainable transport and an increase in the reliance of the private car..

[22] Natural England - http://www.naturalengland.org.uk/Images/bristolgreenspacesummary_tcm6-12134.pdf

9. Compatibility Assessment between LTP3 and SEA Objectives

9.1 In order to ensure that the objectives of LTP3 are in accordance with environmental as well as wider sustainability principles, these have been tested for compatibility against the SEA objectives. This process is called the compatibility assessment. It helps identify potential synergies and inconsistencies and helps to refine LTP3 objectives as well as in identifying strategic alternatives, the next stage of work.

9.2 The compatibility assessment has been undertaken by assessing the compatibility of preliminary LTP3 objectives (numbered 1-18 down a vertical axis) against SEA objectives (numbered 1-14 across a horizontal axis). The outcomes of this process are represented in Table 9.1. A discussion of the findings follows. A series of recommendations have been made that seek to improve the clarity of the LTP3 objectives and ensure greater compatibility with the SEA objectives.

9.3 Overall the preliminary LTP3 objectives were broadly compatible with the SEA objectives indicating a range of positive effects, such as increased accessibility, reduced health inequalities and more inclusive communities. There were only a couple of potential conflicts identified; against LTP3 objectives 4 (address the needs of the rural area) and 6 (ensure access to markets).

9.4 There were a considerable number of LTP3 objectives whose compatibility was dependent on the nature of implementation and could therefore not be ascertained with certainty at this stage. These were mostly in relation to promoting a range of transport modes (SEA objective 2), ensuring accessibility by a range of transport modes (SEA objective 5), ensuring access to regional, national and international markets (SEA objective 6), encouraging inward investment (SEA objective 8), ensuring resilience to climate change impacts (12), and promoting a vibrant high quality urban environment (SEA objective 17). In some cases LTP3 objectives can only really be assessed once more specific LTP3 proposals emerge, however, the compatibility assessment highlighted several improvements that could be made to the clarity of the LTP3 objectives. As such, a number of recommendations were made that may improve the potential for more sustainable implementation of the LTP3 objectives.

9.5 Additionally, a significant amount of overlap was identified between the LTP3 objectives addressing accessibility (LTP3 objectives 1, 2, 4, 5 and 7), safety (LTP3 objectives 13, 14 and 15), network efficiency (LTP3 objective 9 and 10) and Telford's urban environment (LTP3 objectives 17 and 18); therefore a series of recommendations to merge objectives has been made.

9.6 It was identified that SEA objective 3 concerning reduction of greenhouse gas emissions was not appropriately covered by the proposed set of LTP3 objectives, as a result the following additional LTP3 objective was suggested: 'Help tackle climate change by reducing transport's CO_2 emissions'.

Table 9.1 – Compatibility Assessment

	LTP3 Objectives	SEA Objectives														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	To ensure all members of the community, particularly those without access to a car, and people with disabilities can access employment, education, healthcare, shopping, leisure, cultural and community facilities	✓												✓	✓	?
2	To promote a range of transport modes that support access to jobs, education and services	✓	?	?		?								✓	✓	✓
3	To work with transport operators to develop ways of making transport more affordable and convenient	✓				?								✓	✓	✓
4	To address the needs of the rural area by improving access to key services, including employment opportunities	✓				X	?	?		X				✓	✓	✓
5	To ensure that new development is accessible by a range of transport modes reflecting the needs of the community	✓	?	?		?								✓	✓	✓
6	To ensure access to regional, national and international markets to support the economy.	✓	?	?		?	X	X		?				✓	✓	?
7	To ensure employees have access to local job opportunities and improve access to higher education and training opportunities	✓												✓	✓	?
8	To encourage inward investment and regeneration	✓	✓	?		?						?		✓	✓	?
9	To promote Intelligent Transport Solutions to provide driver and passenger information and reduce traffic delays		✓	✓		✓			✓	✓					✓	?
10	To improve interchange facilities between bus and rail, and to improve access to information	✓	✓	✓		?						✓		✓	✓	✓
11	To ensure that highway assets are efficiently maintained and convenient for the travelling public to use	✓	✓	✓	✓	✓			✓	✓		✓		✓	✓	?
12	Ensure that the transport network is resilient to the adverse impact of climate change	✓	?	?	✓	?										?
13	To improve independent mobility for children and young people by improving safety (personal and traffic) and providing appropriate infrastructure	✓	?	?										✓	✓	✓
14	To implement measures to improve personal security and reduce the fear of crime	✓												✓	✓	
15	To reduce all traffic related casualties	✓												✓	✓	
16	To reduce the impact of transport on the local environment (noise, visual and pollutions) in residential areas and sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres		✓	✓		✓	✓	✓	✓	✓	?	✓	?			
17	To promote a vibrant, high quality urban environment to encourage people to live in Telford	✓	?	?		?			?					✓	✓	?
18	To enhance the pedestrian environment in Telford town centre and district centres to create spaces for people	✓	✓	✓		✓			?			✓		✓	✓	✓

✓ Broadly compatible X Potential conflict

Not relevant ? Dependent on nature of implementation

	SEA Objectives
1	To improve equitable access to services, amenities, the countryside and improve opportunities for all and encourage a sense of community
2	To improve air quality across the Borough
3	To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2
4	To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions
5	To reduce noise, vibration and light pollution
6	To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure
7	To identify, manage and protect habitats and species which are important on an international scale
8	Conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings
9	To protect and enhance the landscape and quality of the countryside , including all designated landscape sites
10	To reduce land contamination associated with transport and seek to conserve soil quality and quantity
11	To maximise the efficient use of natural resources and minimise the amount of waste produced
12	To protect water resources, avoid pollution and achieve sustainable water resource management
13	To reduce crime, disorder and fear of crime and promote safe and inclusive communities
14	To improve physical and mental health for all and reduce health inequalities
15	To promote a range of sustainable modes of transport and reduce reliance on the private car

Objective 1: To ensure all members of the community, particularly those without access to a car, and people with disabilities can access employment, education, healthcare, shopping, leisure, cultural and community facilities

9.7 The objective is broadly compatible with the SEA objectives that specifically relate to improved equitable access (1), reduced crime (13) and reduced health inequalities (14). However, the objective does not specifically seek that access should be provided by sustainable modes of transport; therefore compatibility against SEA objective 15 (promoting a range of sustainable modes of transport) will be dependent on its implementation.

Recommendation

See amendment to LTP3 objective 7.

Objective 2: To promote a range of transport modes that support access to jobs, education and services

9.8 The objective is broadly compatible with the SEA objectives that relate to improved equitable access (1), reduced crime (13), reduced health inequalities (14) and reduced reliance on private car use (15). However, it is unclear from the wording of this objective which transport modes will be promoted to support access and therefore the impact against SEA objective 2 (air quality), 3 (contribution to climate change), and 5 (noise, vibration and light pollution) will be dependent on its implementation.

Recommendation

9.9 To improve compatibility with most of the SEA objectives, it is suggested that the word 'sustainable' is added to specify the type of transport modes to be promoted. The objective would then read: 'To promote a range of sustainable transport modes that support access to jobs, education and services'.

9.10 Additionally it is recommended that objectives 2, 4 and 5 are merged to avoid repetition. The revised objective could read: 'To promote a range of sustainable transport modes (such as public transport, walking and cycling) in both urban and rural areas that support the needs of the community by providing access to key services, including employment and education.

Objective 3: To work with transport operators to develop ways of making transport more affordable and convenient

9.11 The SEA objectives in broad compliance with this objective include improved equitable access (1), reduced crime (13), reduced health inequalities (14) and reducing reliance on

private car use (15) as the objective seeks to develop more affordable and convenient transport options. Amendments suggested for LTP3 objective 2 will ensure that sustainable transport modes are focused on for increased affordability and convenience.

Recommendation

9.12 None.

Objective 4: To address the needs of the rural area by improving access to key services, including employment opportunities

9.13 The objective is broadly compatible with four SEA objectives; improved equitable access (1), reduced crime (13), reduced health inequalities (14) and reduced reliance on the private car (15). However, improving access in rural areas and the associated increase in traffic levels could result in potential conflicts against SEA objectives 5 (noise, vibration and light pollution) and 9 (protecting landscape and countryside). Additionally compatibility with SEA objective 6 (enhancing biodiversity and geodiversity) and 7 (protecting habitats and species) is dependent on the type of measures implemented to improve access in rural areas.

Recommendation

9.14 It is suggested that the objective is merged with objective 2 as objective 2 addresses accessibility needs that are applicable both in urban and rural areas. See recommendation for objective 2.

Objective 5: To ensure that new development is accessible by a range of transport modes reflecting the needs of the community

9.15 The objective is broadly compatible with the same SEA objectives as LTP3 Objective 2, which also covers accessibility by a range of transport modes. It is therefore recommended that the two LTP3 objectives are merged.

Recommendation

9.16 See amendment to LTP3 objective 2.

Objective 6: To ensure access to regional, national and international markets to support the economy.

9.17 The compatibility of the objective will be dependent on the type of infrastructure that is used to ensure access and whether existing infrastructure will be improved or whether this will require new construction. As a result there is uncertainty against the impact on SEA objectives relating to air quality (2), climate change (3), noise, vibration and light pollution (5) landscape and countryside quality (9) and promoting a range of sustainable transport modes (15). In addition potential conflicts are identified against SEA objectives 6 and 7 relating to enhancing and protecting biodiversity. However, ensuring access to markets to address the needs of the economy will be compatible with SEA objectives 1 (ensure equitable access to employment and other facilities), 13 (reduce crime) and 14 (reduce health inequalities). If this is achieved through sustainable modes (as suggested by amendments to SEA objective 2) then the LTP3 objective will be compatible with all of the SEA objectives aforementioned.

Recommendation

The objective could be reworded to read 'To ensure access to regional, national and international markets to support the economy *through more efficient use of existing infrastructure'.*

Objective 7: To ensure employees have access to local job opportunities and improve access to higher education and training opportunities

9.18 The objective is broadly compatible with the same SEA objectives as Objective 1, relating to improved equitable access (1), reduced crime (13) and reduced health inequalities (14). It is also unclear as to which transport modes will be promoted to ensure and improve access to employment and therefore compatibility against SEA objective 15 (promote a range of sustainable transport modes) will be dependent on its implementation.

Recommendation

9.19 Given that the objective covers the same scope as LTP3 objective 1, differing only by focusing on a sub-set of the population, it is recommended that the two objectives are merged to read: 'To ensure all members of the community, particularly those without access to a car and people with disabilities, can access local job and training opportunities, education, healthcare, shopping, leisure, cultural and community facilities'.

Objective 8: To encourage inward investment and regeneration

9.20 Encouraging inward investment and regeneration will bring social and economic benefits to the plan area. As a result the objective is broadly compatible with SEA objectives that seek to encourage cohesive communities (1), maximise the efficient use of resources (11), reduce the fear of crime (13), and improve the health of the population (14).

9.21 Recommendation

None.

Objective 9: To promote Intelligent Transport solutions to provide driver and passenger information and reduce traffic delays

9.22 ITS will result in increased efficiency of existing infrastructure and reduced congestion. Consequently the objective is broadly compatible with SEA objectives relating to air quality (2), climate change (3), noise, vibration and light pollution (5), protecting the built and natural environment (8 and 9) and health (13).

9.23 Recommendation

It is suggested that objective 9 and 10 are merged to read: 'Improve interchange facilities between bus and rail, and promote Intelligent Transport solutions to increase driver and passenger information and reduce unnecessary traffic delays'.

Objective 10: To improve interchange facilities between bus and rail, and to improve access to information

9.24 The objective is considered broadly compatible against the majority of the SEA objectives as improving existing facilities for sustainable transport and improving access to it will increase efficiency and reduce the need for additional provision of transport infrastructure.

Recommendation

See amendment to LTP3 objective 9

Objective 11: To ensure that highway assets are efficiently maintained and convenient for the travelling public to use

9.25 The objective is broadly compatible against the majority of SEA objectives, given that efficiently maintained highways will reduce the environmental impact of traffic, and ensuring convenience for the public will ensure accessibility. However, implementation of 'ensuring highway assets are convenient for the travelling public' could be interpreted as meaning that additional road capacity, primarily serving private car use, would be constructed at the convenience of public demand.

Recommendation

It is suggested that 'convenient for the travelling public to use' is deleted from the objective wording to prevent misunderstanding of the objectives' intention and to improve compatibility with the SEA objectives.

Objective 12: Ensure that the transport network is resilient to the adverse impact of climate change

9.26 The LTP3 objective is directly compatible with SEA objective 4, which specifically seeks adaptation to climate change by minimising flood risk and other predicted changes in weather conditions. It is also broadly compatible with objective 1 (accessibility) as the objective could help to minimise short term adverse effects on accessibility. However, it has been identified that a complementary objective, seeking to reduce contributions to impacts of climate change (SEA objective 3), is missing from the list of LTP3 objectives.

Recommendation

9.27 The following additional LTP3 objective is suggested: 'Help tackle climate change by reducing transport's CO_2 emissions' to tackle the cause of climate change and not solely ensure resilience to it.

Objective 13: To improve independent mobility for children and young people by improving safety (personal and traffic) and providing appropriate infrastructure

9.28 The LTP3 objective covers the same scope as objectives 14 and 15 but identifies children and young people in particular. It is broadly compatible with the social SEA objectives 1 (accessibility), 13 (reducing crime) and 14 (health).

Recommendation

9.29 Unless there is good reason to highlight this demographic group it is suggested that the LTP3 objectives relating to safety (13, 14 and 15) are merged to read: 'To implement safety measures to reduce traffic related casualties, improve personal security and reduce the fear of crime'.

Objective 14: To implement measures to improve personal security and reduce the fear of crime

9.30 The LTP3 objective is directly compatible with SEA objective 13, which specifically seeks to reduce crime and fear of crime. It is also broadly compatible with the other two SEA objectives to which it relates, objective 1 (encourage a sense of community) and 14 (improve physical and mental health for all).

Recommendation

9.31 See amendment to LTP3 objective 13.

Objective 15: To reduce all traffic related casualties

9.32 Similarly to objective 14 the objective is particularly compatible with improving accessibility (1), promoting safer communities (13) and reducing health inequalities (14).

Recommendation

9.33 See amendment to LTP3 objective 13.

Objective 16: To reduce the impact of transport on the local environment (noise, visual and pollutions) in residential areas and sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres

9.34 The way the objective is worded precludes important environmental assets including water and soil resources. Compatibility with objectives 10 (soil) and 12 (water) is therefore

uncertain and dependent on implementation. However, the LTP3 objective is broadly compatible with the rest of the environmental SEA objectives.

Recommendation

9.35 To improve clarity it is suggested that the following revision is made: 'To reduce the impact of transport on the local environment (noise, visual, water and soil pollution) in residential areas and designated and non-designated sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres'.

Objective 17: To promote a vibrant, high quality urban environment to encourage people to live in Telford

9.36 It is unclear how a vibrant, high quality urban environment will be realised and therefore there is uncertainty regarding compatibility with the environmental SEA objectives. However, improving the urban environment is likely to benefit social objectives such as encouraging a sense of community (1), reducing crime and fear of it (13) and improving physical and mental health (14).

Recommendation

9.37 It is suggested that objective 17 is merged with objective 18 to clarify how a vibrant, high quality urban environment will be realised. This could read: 'To promote a vibrant, high quality urban environment by enhancing the pedestrian environment in Telford town and district centres'.

Objective 18: To enhance the pedestrian environment in Telford town centre and district centres to create spaces for people

9.38 The objectives' intention is to promote non-motorised transport in Telford town and district centres; therefore it has broad compatibility against several environmental and social SEA objectives.

Recommendation

9.39 See amendment to Objective 17.

Recommended LTP3 objectives

9.40 After consideration of the results from the compatibility assessment, it was recommended that the LTP3 objectives were updated as follows:

1. To ensure all members of the community, particularly those without access to a car and people with disabilities, can access local job and training opportunities, education, healthcare, shopping, leisure, cultural and community facilities;
2. To promote a range of sustainable transport modes (such as public transport, walking and cycling) in both urban and rural areas that support the needs of the community by providing access to key services, including employment and education;
3. Work with transport operators to develop ways of making transport more affordable;
4. To promote a vibrant, high quality urban environment by enhancing the pedestrian environment in Telford town and district centres;
5. To ensure access to regional, national and international markets to support the economy through more efficient use of existing infrastructure;
6. Encourage inward investment and regeneration;
7. Improve interchange facilities between bus and rail, and promote Intelligent Transport solutions to increase driver and passenger information and reduce unnecessary traffic delays;

8. Ensure that highway assets are efficiently maintained;
9. Ensure that the transport network is resilient to the adverse impact of climate change;
10. To implement safety measures to reduce traffic related casualties, improve personal security and reduce the fear of crime;
11. Help tackle climate change by reducing transport's CO_2 emissions;
12. To reduce the impact of transport on the local environment (noise, visual, water and soil pollution) in residential areas and designated and non-designated sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres.

Final LTP3 Objectives

9.1 Following consideration of the SEA recommendations the final list of the objectives to be included in the preferred option LTP3 to be out for consultation in November 2010 is as follows:

1. To ensure access to regional, national and international markets to support the economy through more efficient use of existing infrastructure
2. To encourage inward investment and regeneration
3. To improve interchange facilities between bus and rail, and promote Intelligent Transport solutions to increase driver and passenger information and reduce unnecessary traffic delays
4. To ensure that highway assets are efficiently maintained
5. Help tackle climate change by reducing transport CO_2 emissions to tackle the cause of climate change and not solely ensure resilience to it
6. Ensure that the transport network is resilient to the adverse impact of climate change
7. To ensure all members of the community, particularly those without access to a car and people with disabilities can access local job and training opportunities, education, healthcare, shopping, leisure, cultural and community facilities
8. To promote a range of sustainable transport modes (such as public transport, walking and cycling) in both urban and rural areas that support the needs of the community by providing access to key services including employment and education
9. To work with transport operators to develop ways of making transport more affordable and convenient
10. To implement safety measures to reduce traffic related casualties, improve personal security and reduce fear of crime
11. To reduce the impact of transport on the local environment (noise, visual, water and soil pollution) in residential areas and designated and non-designated sensitive areas, in particular the Ironbridge Gorge World Heritage Site and local town centres
12. To promote a vibrant, high quality urban environment by enhancing the pedestrian environment in Telford town and district centres.

10. Developing, Refining and Appraising Strategic Alternatives

Introduction

10.1 Stage B of the SEA process seeks to develop and refine alternatives following the initial compatibility assessment between the LTP3 objectives and the SEA objectives in Table 8.2.

10.2 The SEA Directive requires that the Environmental Report should consider:

'reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme' and give *'an outline of the reasons for selecting the alternatives dealt with' (Article 5.1 and Annex Ih)*

Developing and Refining Strategic Alternatives

10.3 TWC developed its strategic alternatives in response to the local transport objectives identified in Section 9 of this report. Three strategic alternatives were developed as follows:

- Strategic alternative 1 – Do Minimum
- Strategic alternative 2 – Supporting Economic Growth
- Strategic alternative 3 – Improving Accessibility

10.4 "Do Nothing" is assessed in Section 8 on future trends without the LTP3. The SEA Directive requires the consideration of the likely evolution of the state of the environment without the implementation of the LTP3. "Do Nothing" is not considered to be a viable option for LTP3.

10.5 A full description of each of the three strategic alternatives under consideration is provided below

Strategic alternative 1: Do Minimum – The minimal (Base) level of investment to meet all statutory requirements and maintain the transport benefits implemented under LPT1 and LTP2, but with spending on road safety and maintenance continuing at a similar level to that under LPT2

- Area Based Measures
  - Borough Town Initiatives
    - Dawley – changes to traffic management
    - Ironbridge – Park & Ride developments for tourists
    - Oakengates – plans likely to lead to changes in traffic management; and
    - Wellington – better pedestrian access from bus to railway stations; likely pedestrianisation of town centre
  - Public realm environmental improvements in all of the above and in both Telford and Newport town centres.
- Measures to Reduce Congestion

- Making best use of existing infrastructure through traffic management and junction improvements

- Measures to promote accessibility
  - Maintain the existing quality bus route network in Telford and the Borough Towns and use developer funding
  - Maintain public transport accessibility in urban and rural areas for the majority;
  - Maintain existing community transport through part funding of transport services especially where service bus services don't exist or are unsuitable for the user;
  - Implement Rights of Way Improvement Strategy which includes improvements to disabled access, better signing and maintenance and promotion of the network throughout the Borough but mainly in the rural area;
  - Implement externally funded site based travel planning initiatives; and
  - Ongoing implementation of the Council's own employees travel plan.

- Road Safety
  - Local safety schemes;
  - Safety education, training and publicity;
  - Safer routes to schools including walking buses and cycling infrastructure; and
  - Speed management by engineering measures supported by mobile cameras and community speed watch initiatives.

- Asset management
  - Routine Maintenance - we will carry out routine maintenance of highways, cycle tracks, rights of way, bus stops etc using revenue support from DfT; and
  - Ongoing implementation of statutory Network Management Duties.
  - Structural highway maintenance and bridge strengthening.

- Air Quality
  - Currently no Air Quality management Areas (AQMAS) are designated in the Borough but if any are designated for reasons of traffic emissions during the implementation of the LTP3, appropriate action plans will be developed and implemented in accordance with statutory requirements. The Council will continue to monitor air quality in the Borough and will continue to proactively manage traffic to help avoid the designation of AQMA's as a result of traffic emissions.

Strategic alternative 2: Supporting Economic Growth

10.6 Strategic alternative 2 will incorporate all the Do Minimum measures plus:

- Measures will be introduced to:
  - Improve connectivity to key markets;
  - Link people to jobs;
  - Reduce lost productive time; and
  - Support regeneration initiatives.

- Reducing congestion, improving journey time reliability, improving access to the strategic road and rail networks and existing and new employment areas will be important in implementing this alternative.
- Area based measures
  - Telford Town centre – implementation of the Central Telford Area Action Plan (CTAAP) transport strategy including:
    - Modifying the Box road to encourage walking, bus and cycle modes and to facilitate the development of a more traditional town centre.
    - Diversion of traffic way from the town centre by construction of the Greyhound Link road and improvements to the Outer Circular road.
    - Further enhancements of the environment of the public realm to complement the development of non–retail uses in the town centre
  - Improving sustainable access to existing and new major employment sites arising out of the LDF Core Strategy Review and
  - Implementing the South Telford Area Action Plan which is likely to include improves access to housing and regenerated community facilities in the area.
- Typical measures to reduce congestion will include:
  - Development and implementation of a parking strategy for the Borough to include civil parking enforcement;
  - Partnership development and implementation of Intelligent Transport Systems (ITS) to manage congestion and improve incident management on the strategic and local road network. This will necessitate liaison with the Highways Agency and will incorporate provision of real time information for drivers, bus passengers, bus priority etc;
  - ICT network developed to encourage home working and so reduce the need to travel;
  - Working with the Highways Agency, Toll Road operators, adjoining authority's operators to improve access to the strategic road network.
  - Working with the DfT, Network Rail to improve access to the rail network
- By helping to reduce congestion, the above measures will also play a key role in reducing carbon emissions.

Strategic alternative 3: Improving Accessibility

10.7 Strategic alternative 3 will incorporate all the Do Minimum measures plus:

- Measures will be introduced to:
  - Improve access to key services and facilities for all;
  - Integrating land use and transport through the LDF to allow access by sustainable modes of travel.
  - Maintain and improve public transport and integration between and with public transport modes;
  - Promote cycling and walking modes;
  - Provide alternatives to employees such as car sharing and facilities for cyclists to reduce carbon emissions.
- Maintaining the attractiveness of the public transport network, and further improvements for cyclists and pedestrians will be important in implementing this alternative.
- Typical initiatives will include measures to improve accessibility:

- Working with transport providers to improve public transport through smart ticketing.
- Travel planning and promotion;
- Actively promoting Smarter Choices campaign and promotion and personalised travel planning;
- Improving public transport interchanges in Telford and the Borough Towns;
- Providing better information to drivers and bus passengers; and.
- Promoting walking and cycling by providing new infrastructure, signing, cycle maps etc including enhanced maintenance etc

Assessment Rationale

10.8 In order to assist the appraisal, the SEA Framework assessment prompt questions presented in Table 8.2 have been used as an assessment rationale to determine the effects of the LTP3 Strategic Alternatives. This links the SEA objectives with the full series of considerations to be made in the assessment process.

Appraising Strategic Alternatives

10.9 The strategic alternatives presented above were assessed using the assessment rationale. The outcomes of this process are shown in full in Appendix F and they are also summarised in Table 10.1 and the subsequent discussion.

10.10 Each strategic alternative has been assessed against the various SEA objectives. This has been done using a nine point scale of effect as follows:

+++	Large beneficial
++	Moderate beneficial
+	Slight beneficial
0	Neutral or no effects
-	Slight adverse
--	Moderate adverse
---	Large adverse
+/-	Combination of beneficial and adverse
?	Requires further clarification at this stage

10.11 Where the level of detail provided in the strategic alternative is incommensurate with the level of detail at which the SEA objective is expressed, no assessment will be attempted and the issue will be noted as being not applicable (n/a).

10.12 Those effects that are either moderate or major are deemed to be significant. In addition, commentary on each assessment is provided.

10.13 The subsequent discussion includes recommendations and refinements to be considered in developing the preferred option for the long-term strategy..

Assessment Summary for the Strategic Alternatives and Recommendations

10.14 Table 10.1 shows a summary of the assessment of alternatives. This is then followed by a discussion including recommendations regarding the most sustainable alternatives.

10.15 From an HRA perspective, this strategic alternative comparison has not been undertaken as the level of information available about the strategic alternatives was not sufficiently detailed to enable the identification and differentiation of effects. For this reason, SEA objective 7 is marked as not applicable.

Table 10.1 - Assessment Summary for the Strategic Alternatives

SEA Objectives	Strategic Alternatives		
	Alternative 1	Alternative 2	Alternative 3
1	+	++	++
2	0	0	0
3	-	+	+
4	--	--	--
5	0	0	0
6	-	-	-
7	n/a	n/a	n/a
8	-	-	-
9	-	-	-
10	-	-	-
11	-	-	-
12	-	-	-
13	+	+	++
14	+	+	++
15	+	+	++

Scale of Effect (SE):

+++ Large beneficial ++ Moderate beneficial + Slight beneficial
+/- Combination of beneficial and adverse 0 Neutral or no effects
--- Large adverse -- Moderate adverse - Slight adverse

Those effects which are either moderate or large are deemed to be significant

SEA Objectives

1. To improve equitable access to services, amenities and opportunities for all and enc of community
2. To improve air quality across the Borough
3. To reduce contributions to climate change through reducing greenhouse gas emissi CO_2
4. To adapt to climate change by minimising the risk of flooding and adapting to the pr in weather conditions
5. To reduce noise, vibration and light pollution
6. To protect and where possible enhance biodiversity and geodiversity and explore o green infrastructure
7. To identify, manage and protect habitats and species which are important on an inte (*HRA specific objective*)
8. Conserve and enhance the quality of the historic environment and heritage assets c archaeological, architectural or artistic interest and their settings
9. To protect and enhance the landscape and quality of the countryside , including all landscape sites
10. To reduce land contamination associated with transport and seek to conserve soil quantity
11. To maximise the efficient use of natural resources and minimise the amount of wast
12. To protect water resources, avoid pollution and achieve sustainable water resource
13. To reduce crime, disorder and fear of crime and promote safe and inclusive commu *Specific Objective)*
14. To improve physical and mental health for all and reduce health inequalities (*Health Objective)*
15. To promote a range of sustainable modes of transport and reduce reliance on the private car.

Strategic Alternative 1: Do Minimum

10.16 This alternative represents less total spending than under LTP2 but includes the performance of all statutory duties and with levels of spend similar to that under LTP2 for road maintenance and safety. TWC has stated that this alternative is not considered to be a viable option for LTP3 but can be used as a baseline for assessment purposes.

10.17 The environmental performance of this alternative is marginal given the lack of initiatives that specifically refer to the integration of transport and environmental issues so as to enhance the quality of the environment and landscape. In addition, initiatives within Borough Towns do not consider the integration of measures with heritage issues, especially in the context of market towns.

10.18 Initiatives to improve accessibility to community services and amenities comprise existing maintenance and the implementation of the Rights of Way Improvement Strategy and no specific consideration has been given to reducing the risk to transport systems as a result of flooding or weather changes arising from climate change. Road safety schemes are designed to increase cycling and walking, and promote safe and inclusive communities.

10.19 In many instances, this alternative represents the minimum intervention, concentrating on the maintenance of existing public transport networks and town schemes. As such, it is unlikely that the interventions associated with this alternative will have substantial incremental beneficial or adverse effects on the environment.

Strategic Alternative 2: Supporting Economic Growth

10.20 This alternative is specifically focused on supporting economic growth and the proposed initiatives therefore relate to improving access to markets, reducing congestion and improving access to strategic road and rail networks. The proposed initiatives would be implemented in addition to those proposed in Strategic Alternative 1. However, as they stand, there would not be a substantial additional incremental improvement over Strategic Alternative 1 except in the provision of access to strategic rail and road networks and measures to reduce congestion so as to reduce travel time.

10.21 Strategic Alternative 2 interventions will have some effect in reducing greenhouse gas emissions through the provision of alternatives to private vehicle use.

Strategic Alternative 3: Improving Accessibility

10.22 This alternative is specifically focused on improving accessibility and the proposed initiatives mostly relate to the integration of public transport systems to facilitate a model shift to bus use and increased levels of walking and cycling. Again, these initiatives would be implemented in addition to those proposed in Strategic Alternative 1. This alternative would also have some effect in reducing greenhouse gas emissions through a shift to public transport use; and the relative advantage of Alternative 3 lies in the apparent increased shift to use of public transport resulting from improved access to the public transport network, increased facilities for cycling and improved pedestrian access and infrastructure.

Strategic Options Assessment Conclusions

10.23 In summary, all three alternatives emphasise the need for increased use of public transport, together with improvements to town centres; however it is difficult to conclusively identify the alternative that can be considered the most sustainable overall. Although the 'Do Something' strategic alternatives are in addition to the 'Do Minimum' strategic alternatives, there is insufficient differentiation between the combinations of strategies to be able to identify any clear advantage of a particular combination based on the level of detail

provided for the alternatives and an idea of the relative increase in expenditure between the base and enhanced scenarios.

10.24 The interventions described for the three alternatives are unlikely to have a substantially beneficial or adverse effect on the surrounding landscape or environmental media. However, this assumes that maintenance programmes and the initiatives that will be implemented will be done using best environmental practice.

10.25 All strategic alternatives seek to bring about health-related benefits through facilitation of walking and cycling initiatives and improvements to town centres; additional benefits could be obtained if the initiatives were linked to initiatives that seek to bring about improvements to the heritage assets and urban environment of the relevant town centres.

10.26 It is likely that the Preferred Option would be a combination of the three strategic alternatives, but with enhanced consideration of the integration of the transport network with land use planning and the local context, especially the heritage assets of the market towns.

11. Predicting and Evaluating the Effects of the Draft LTP3

The Preferred Option

11.1 This section describes the draft LTP3 Preferred Strategy and predicts and evaluates its environmental effects. Following the appraisal of the strategic options (Section 10), the draft LTP3 Preferred Strategy has been developed by amalgamating its two strategic alternatives: 'Supporting economic growth' and 'Improving accessibility'. The Preferred Strategy also includes all the measures in the Do Minimum Strategic Option.

Assessment of LTP3 Strategy

11.2 The assessment undertaken relies heavily on professional judgement, which necessarily infers an element of subjectivity. It also relies on certain assumptions about the changes to people's behaviour, as a result of the measures being assessed and the way development will be implemented. The SEA Framework assessment prompt questions presented in Table 8.2 were used as an assessment rationale to determine the effects of the draft LTP3 Preferred Strategy. The Strategy was assessed in its draft form as of the 1st of November 2010.

11.3 To enable the SEA process, the Strategy measures were grouped by themes, based on similar aims and objectives, and subsequently divided into seven components for assessment. The components used for the assessment are shown in Table 11.1.

Table 11.1 – LTP3 Strategy Components for Assessment

No	Component	Description of Measures and Initiatives within Component
1	Support economic growth and reduce congestion	*Economic Growth Measures* • Improve connectivity to key markets; • Link people to jobs; • Reduce lost productive time; and • Support regeneration initiatives. *Congestion Measures* • Making best use of existing infrastructure through traffic management and junction improvements. • Development and implementation of a parking strategy for the Borough to include civil parking enforcement; • Partnership development and implementation of Intelligent Transport Systems (ITS) to manage congestion and improve incident management on the strategic and local road network. This will necessitate liaison with the Highways Agency and will incorporate provision of real time information for drivers, bus passengers, bus priority etc; • ICT network developed to encourage home working and so reduce the need to travel; • Working with the Highways Agency, Toll Road operators, adjoining authorities' operators to improve access to the strategic road network. • Working with the DfT, Network Rail to improve access to the rail network • Travel planning and promotion; • Actively promoting Smarter Choices campaign and promotion and personalised travel planning;

		• Implement junction improvements to support new development.
2	Improve accessibility	*Measures:* • Maintain the existing quality bus route network in Telford and the Borough Towns and use developer funding to extend services to new development areas where appropriate; • Maintain public transport accessibility in urban and rural areas for the majority; • Maintain existing community transport through part funding of transport services especially where service bus services don't exist or are unsuitable for the user; • Implement Rights of Way Improvement Strategy which includes improvements to disabled access, better signing and maintenance and promotion of the network throughout the Borough but mainly in the rural area; • Implement externally funded site based travel planning initiatives; and • Ongoing implementation of the Council's own employees travel plan. • Improve access to key services and facilities for all; • Integrating land use and transport through the LDF to allow access by sustainable modes of travel. • Maintain and improve public transport and integration between and with public transport modes; • Promote cycling and walking modes; • Provide alternatives to employees such as car sharing and facilities for cyclists to reduce carbon emissions. *Initiatives*: • Working with transport providers to improve public transport through smart ticketing. • Improving public transport interchanges in Telford and the Borough Towns; • Providing better information to drivers and bus passengers; and. • Promoting walking and cycling by providing new infrastructure, signing, cycle maps etc including enhanced maintenance etc

3	Area based measures	• Borough Town Initiatives:
		  • Dawley - changes to traffic management;
		  • Ironbridge - Park and Ride development for tourists;
		  • Oakengates - plans likely to lead to changes to traffic management; and
		  • Wellington – better pedestrian access from bus to railway stations; likely pedestrianisation of the town centre.
		• Public realm environmental improvements in all of the above and in both Telford and Newport town centres.
		
		• Telford Town centre – implementation of the Central Telford Area Action Plan (CTAAP) transport strategy including:
		  • Modifying the Box road to encourage walking, bus and cycle modes and to facilitate the development of a more traditional town centre.
		  • Diversion of traffic way from the town centre by construction of the Greyhound Link road and improvements to the Outer Circular road.

		• Further enhancements of the environment of the public realm to complement the development of non–retail uses in the town centre • Improving sustainable access to existing and new major employment sites arising out of the LDF Core Strategy Review and • Implementing the South Telford Area Action Plan which is likely to include improves access to housing and regenerated community facilities in the area. • Access to the Borough Towns will be improved in a way that conserves the cultural and historic assets of these areas as laid out in the policy CS14 "Cultural, Historic and Built Environment" of the adopted LDF Core Strategy. This will involve removing unnecessary highway signage.
4	Climate Change Measures	• The Council will prepare a climate change action plan using National Indicator 188 methodology, which will help to ensure that the implications of climate change for transport provision and infrastructure are properly assessed. This work will influence the implementation of the LTP and the Highway Asset Management Plan by helping to ensure that transport infrastructure is not located in places of flood risk and that public transport vehicles used by the Council are suitable, for example, by providing air conditioning in vehicles used to transport people around in hot weather. • The Council will support the use of low carbon private vehicles and energy efficient buses. • Switch off street lights where appropriate.
5	Road safety	• Local safety schemes; • Safety education, training and publicity; • Safer routes to schools, including walking, buses and cycling infrastructure; and • Speed management by engineering measures supported by mobile cameras and community speed watch initiatives.
6	Asset management	• Routine Maintenance – the Council carry out routine maintenance of highways, cycle tracks, rights of way, bus stops etc using revenue support from DfT; and • Ongoing implementation of statutory Network Management Duties. • Structural highway maintenance and bridge strengthening. • The Transport Asset Management Plan (TAMP) is currently being prepared as a daughter document to the LTP. This will include a policy to ensure that highway repair and construction is carried out in a resource efficient way and that recycled materials are used wherever practical.
7	Quality of life measures *Air quality*	Currently no AQMAs are designated in the Borough but if any are designated for reasons of traffic emissions during the implementation of the LTP3, appropriate action plans will be developed and implemented in accordance with statutory requirements. The Council will continue to monitor air quality in the Borough and will continue to proactively manage traffic to help avoid the designation of AQMA's as a result of traffic emissions.

	Noise and Light Pollution	The Council will work with DEFRA to prepare noise action plans at the 12 sections of strategic highway identified by them as first priority locations. All transport schemes proposed by the Council will of course be subject to a full scheme assessment to ensure the noise, vibration and light pollution aspects are considered early in the design process and ensure that any adverse impacts are minimised. The Council will continue its policy included in LTP2 (page 153) of replacing existing road lamps with more energy-efficient lamps which cause less light pollution problems.
	Green infrastructure	Opportunities to develop green infrastructure will be developed through the Green Infrastructure strategy which is currently being developed. The aims of this strategy include: Providing linkages through which footpaths, cycleways and ecological corridors can join different parts of urban areas. This strategy will complement and support the measures included in the LTP.
	Landscape and access to the countryside	The construction of transport infrastructure and the operation of transport services in the countryside will be carried out in a way that protects and enhances the landscape and character of the countryside in line with policy CS12 “Natural Environment” of the LDF Core Strategy. This LDF Core Strategy policy also protects biodiversity and geodiversity from development. The Rights of Way Improvement Plan (ROWIP) for Telford and Wrekin was recently published and will be a daughter document to the LTP. This will improve the legibility, connectivity and accessibility of the rights of way network including access by people with disabilities.

11.4 The assessment was undertaken considering each component as a whole against all the SEA objectives presented in Table 8.2 (SEA Framework). The assessment scale used is presented in Section 3. A description of the effect on resources and receptors of the Preferred Option was made on the basis of the effects’ magnitude, geographical scale, time period over which they would occur, whether they would be permanent or temporary, beneficial or adverse, probable or improbable and reversible or irreversible. Cumulative effects were also taken into account as part of the assessment. The assessment tables in Appendix G include a column ‘Summary for the Appraisal Summary Table’ to ensure integration of NATA process with the SEA process.

11.5 The assessment was undertaken as a ’Whole Plan’ Assessment. This means that although the measures were appraised individually or in groups (as components), the combined effect of all of the measures within the draft Preferred Strategy together was recognised in assigning a score for the predicted sustainability performance against each SEA Objective. This approach is considered to be more holistic and it reflects the reality of the measures of the draft LTP3 Preferred Strategy being adopted and implemented together.

11.6 An HRA review was undertaken of the draft Preferred Strategy in parallel with the SEA process and its results were presented in a separate report.

Assessment Results

11.7 The detailed assessment of the seven components against the SEA objectives is shown in Appendix G and Table 11.2 shows a summary of the significance of effects of each component against the SEA objectives.

Table 11.2 - Assessment Summary for Draft LTP3 Preferred Strategy

No	SEA/ HRA/ HIA Objective	LTP3 Strategy Components						
		1	2	3	4	5	6	7
		Support economic growth and reduce congestion	Improve accessibility	Area based measures	Climate Change Measures	Road safety	Asset management	Quality of life measures
1	To improve equitable access to services, amenities and opportunities for all and encourage a sense of community	++	+++	++	+	+	++	++
2	To improve air quality across the Borough	++	++	++	+	+	+	+++
3	To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2	++	++	+	+	+	-	+
4	To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions	0	0	0	++	0	-	++
5	To reduce noise, vibration and light pollution	0	0	+	+	+	-	+++
6	To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure	+	+	0	+	+	-	+++
7	To identify, manage and protect habitats and species which are important on an international scale (*HRA specific objective*)	An HRA review is being undertaken of the Consultation Preferred Strategy and the results will be presented in a separate report at a later stage.						
8	Conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings	+	0	+	+	0	-	+
9	To protect and enhance the landscape and quality of the countryside , including all designated landscape sites	+	0	+	0	+	-	+++
10	To reduce land contamination associated with transport and seek to conserve soil quality and quantity	+	+	-	+	0	--	+
11	To maximise the efficient use of natural resources and minimise the amount of waste produced	++	+	0	0	0	+++	+

No	SEA/ HRA/ HIA Objective	LTP3 Strategy Components						
		1	2	3	4	5	6	7
		Support economic growth and reduce congestion	Improve accessibility	Area based measures	Climate Change Measures	Road safety	Asset management	Quality of life measures
12	To protect water resources, avoid pollution and achieve sustainable water resource management	+	+	-	++	0	--	+
13	To reduce crime, disorder and fear of crime and promote safe and inclusive communities *(Health Specific Objective)*	+	+	+	0	++	++	+
14	To improve physical and mental health for all and reduce health inequalities (*Health specific objective*)	+	+	+	++	++	+	+
15	To promote a range of sustainable modes of transport and reduce reliance on the private car	++	+++	++	+	+	+	++

11.8 The sub-section below presents a summary of the each component's assessment results and sets out recommendations for further improvement of the Preferred Strategy and suggestions for mitigation of adverse effects or enhancement of positive effects.

Component 1: Support economic growth and reduce congestion

11.9 This component focuses on supporting economic growth, recognising that reducing congestion, improving journey time reliability, improving access to the strategic road and rail networks and existing and new employment areas will be important in achieving this goal. Overall, the component delivers good performance against the majority of the SEA objectives with no adverse effects identified.

11.10 More specifically, the component performs well in social terms, delivering moderate and slight beneficial effects against the SEA objectives 1 (*Equitable access and a sense of community*) and 13-14 (*Crime and safe communities and Physical and mental health*). This is due to the aim of linking people to jobs, improving connectivity to key market towns, supporting regeneration initiatives, improving access to the strategic road and rail networks and developing ICT network. Active promotion of Smarter Choices campaign and personalised travel planning is likely to help promote cycling, walking and the use of public transport, contributing to improved equitable access to various services and facilities for all. This will also lead to more active and healthier lifestyles, benefitting public health. It is likely that an increasing number of people choosing to walk or cycle will, in the medium to longer run, improve the perception of the local environments as being safe for pedestrians and cyclists.

11.11 The component is also predicted to deliver moderate positive effects against the following environmental SEA objectives:

- 2 (*Air quality*) and 3 (*Climate change mitigation*) – by reducing congestion and the need to travel as well as promoting sustainable modes through Smarter Choices campaign, this component is likely to help decrease traffic levels and, hence, transport related air pollutants and GHG emissions. Predicted effects are likely to be delivered in the medium to longer term when proposed measures are implemented and behavioural change takes place with more people favouring sustainable ways of travelling.
- 11 (*Resource efficiency*) – as the measures within the component aim to make best use of existing infrastructure, this should help avoid a significant increase in road infrastructure.
- 15 (*Sustainable modes*) - the component is likely to benefit this objective through active promotion of the Smarter Choices campaign, personalised travel planning and improved access to rail network.

11.12 A number of slight positive effects have been predicted against SEA objectives 6 (*Biodiversity and geodiversity*), 8 (*Heritage*), 9 (*Landscape*), 10 (*Soil quality*), 11 (*Resource efficiency*) and 12 (*Water*). This is due to the aim of the component to make best use of the existing infrastructure, which should help minimise additional land take for transport infrastructure projects, benefitting wildlife and preserving soil resources, geodiversity, countryside, heritage assets and their settings. Those receptors will also benefit from expected reduced levels of congestion, resulting in decreased transport emissions, vibration and noise levels. Reduced levels of congestion and a shift to more sustainable transport modes in the longer term should also help reduce runoff from roads, minimising land contamination and benefitting soil and water quality. Resource efficiency is supported, as significant increase in road infrastructure is likely to be avoided by aiming to make the best use of the existing infrastructure.

Component 2: Improve accessibility

11.13 This component mainly focuses on improving and increasing opportunities for public transport (bus, community transport) and other sustainable ways of travelling (cycling, walking) both in urban and rural areas.

11.14 The component scores particularly well against the following environmental SEA objectives, delivering large and moderate positive effects:

- SEA objective 1 (*Equitable access and a sense of community*) – the measures under this component aim to improve access to key services and facilities for all. The Rights of Way Improvement Plan (RoWIP) implemented under this component covers improvements to disabled access, better signage and maintenance of the network throughout the Borough, especially in rural areas. The implementation of the RoWIP together with the maintenance of existing service levels and part-funding of services that currently do not meet user requirements should improve the level of equitable access to services. This will be of particular importance for more vulnerable social groups. Introduction of smart ticketing may make public transport services more affordable and/or of better value to the users. Additionally, new infrastructure for walking and cycling and its enhanced maintenance should motivate more people taking up these ways of travelling, which may induce community mixing and cohesion.
- SEA objectives 2 and 3 (*Air quality; Climate change mitigation*) - the measures within this component are strongly focused on promoting sustainable modes of transport through new infrastructure for cycling and walking, improvements to public transport and integration with and between various public transport modes as well as integration of transport planning with land use planning. All this is likely to stimulate a shift towards more sustainable travelling and help reduce the levels of road transport and related air pollutants and GHG emissions.
- SEA objective 15 (*Sustainable modes*) – benefits will arise through the following:
  - maintaining the existing quality bus route network in Telford and the Borough Towns and using developer funding to extend services to new development areas where appropriate;
  - maintaining public transport accessibility in urban and rural areas for the majority;
  - maintaining and improving public transport and integration between and with public transport modes;
  - maintaining existing community transport through part funding of transport services, especially where service bus services don't exist or are unsuitable for the user;
  - integrating land use and transport through the LDF to allow access by sustainable modes of travel;
  - promoting cycling and walking modes. This includes the provision of new infrastructure, cycle maps, better signage, etc.

11.15 Minor positive effects have also been predicted against a number of SEA objectives: 6 (*Biodiversity*), 10 (*Soil quality*), 11 (*Resource efficiency*), 12 (*Water quality and management*), 13 (*Crime and safety*), 14 (*Physical and mental health*). This prediction has been based on:

- the linkage between the provision of footpaths and cycleways with the Green Infrastructure Strategy implementation, benefitting wildlife;
- expected reduced rates of road traffic and, thus, a decrease in runoff from roads in the longer term, benefitting soil and water quality;
- expected reduction in the volume of resource use and waste generation through reduced reliance on the private car, by and large powered by fuels derived from finite fossil-fuel resources.
- delivery of new infrastructure for walking and cycling and its enhanced maintenance. This, together with an expected increase in the use of sustainable transport modes, should further enhance safety of the local environment for pedestrians and cyclists and stimulate mixing and cohesion of local communities. Further, this is likely to motivate public to adopt more active and healthy ways of travelling.

11.16 Overall, it is deemed that that the component's beneficial effects will become more prominent in the medium to longer term when the proposed measures are fully implemented and a significant percentage of residents breaks through their habitats and take up sustainable ways of travelling. No adverse effects have been identified as a result of the assessment of this component.

Component 3: Area based measures

11.17 This component includes a number of area specific measures, such as traffic management initiatives, promotion of walking, cycling and the use of buses, pedestrianisation, park and ride schemes and public realm environmental improvements in Dawley, Ironbridge, Oakengates, Wellington and Telford and Newport town centres. In general terms, the components performs favourably across the SEA objectives with the majority of effects being positive and only two effects identified as minor negative.

11.18 Moderate positive effects are observed for the following SEA objectives:

- SEA objective 1 (*Equitable access and a sense of community*) –
  - by improving sustainable access to existing and new major employment sites arising out of the LDF Core Strategy Review, the measures within this component will help make job opportunities more accessible for local residents.
  - implementing the South Telford Area Action Plan, which is likely to include improves access to housing and regenerated community facilities in the area, should also generate benefits against this objective for people in the area.
  - measures within this component aim to deliver public realm environmental improvements in Dawley, Ironbridge, Oakengates, Wellington, and Telford Town centre, which should help encourage a sense of community and stimulate community cohesion.
- SEA objective 2 (*Air quality)* - implementation of the initiatives in Borough towns, including changes to traffic management, developing park and ride schemes, pedestrianisation and implementation of the Telford Town centre Area Action Plan transport strategy (measures include, amongst others, encouraging travelling by foot, bicycle or bus) are likely to reduce the levels of traffic in the town centres, benefitting local air quality.
- SEA objective 15 (S*ustainable modes of transport)* - a number of measures within the component are concerned with the promotion of sustainable forms of transport, including the following:
  - Wellington – better pedestrian access from bus to railway stations and likely pedestrianisation of the town centre;
  - Telford – modifying the Box road to encourage walking, bus and cycle modes;
  - Improving sustainable access to existing and new major employment sites.

11.19 Minor positive effects are expected in terms of reducing the growth of transport related GHG emissions (SEA objective 3); expected noise levels reduction due to lower traffic levels (SEA objective 5); giving due consideration to the cultural and historic assets, whilst improving access to the Borough Towns (SEA objective 8); public realm improvements contributing the area's safety (SEA objective 13); and benefits to public health due the promotion of cycling and walking and reduction of air and noise pollution in town centres (SEA objective 14).

11.20 Minor negative effects may arise, adopting a precautionary approach to the assessment, against SEA objectives 10 and 12 (*Soil and water quality*), as underground water and soil pollution may occur through surface water runoff during construction activities envisaged under this component (e.g. the Greyhound Link road and improvements to the Outer Circular Road).

Component 4: Climate Change Measures

11.21 This component focuses on the development of a Climate Change Action Plan to cover adaptation to climate change; supporting the use of low carbon private vehicles and energy efficient buses

and switching off street lights where appropriate. Overall, the component scores well against the SEA Objectives with no negative effects identified.

11.22 In terms of social objectives, the component performed well. It had a significant effect (moderately beneficial) against SEA Objective 14 (*Health*); a slight beneficial effect against SEA Objective 1 (*Equitable access to services*) and neutral effects against SEA Objective 14 (*Crime*). This is related to reducing the effect on transport of climate related events providing benefits to health such as reduced fatalities; effective adaptation providing resilience to the network and therefore access to services, and the reduction of crime (e.g. looting) related to freak climate events.

11.23 The component is also predicted to deliver moderate positive (and thus significant) effects against the following environmental SEA objectives:

- SEA Objective 4 (*Climate Change adaptation*): Related to the development of a Climate Change Action Plan related to adaptation.
- SEA Objective 12 (*Water resources and quality*): Related to the reduction of flood risk through the Climate Change Adaption Plan measures.

11.24 Furthermore, slight beneficial effects were identified against SEA Objectives 2 (*Air quality*), 3 (*GHG emissions*), 5 (*Noise, vibration and light pollution*); 6 (*Biodiversity and geodiversity*), 8 (*Historic environment*), 10 (*Land contamination and soil quality*), and 15 (*Sustainable modes of transport*). These are mainly related to the beneficial effects of the Climate Change Action Plan for adaptation considering flood risk and the safe routes to schools promoting sustainable modes of travel.

Component 5: Road Safety

11.25 This component seeks to promote Road Safety with measures including Local Safety Schemes; Safety education, training and publicity; Safer routes to schools and speed management. It generally has a beneficial effect against the SEA Objectives with no adverse effects identified.

11.26 It scores well against the social objectives with significant moderate beneficial effects identified against social objectives:

- SEA Objective 13 (*Crime*) – due to promoting safe and inclusive communities
- SEA Objective 12 (*Health*) – due to improving road safety and reducing the number of people killed or seriously injured.

11.27 Furthermore, there was a slight beneficial effect identified against SEA Objective 1 (*Equitable access to services*), due to safer routes to school improving access.

11.28 There are no significant effects identified against the environmental objectives. However, there were slight beneficial effects identified against SEA Objectives 2 (*Air quality*), 3 (*GHG emissions*), 5 (*Noise, vibration and light pollution*), 6 (*Biodiversity and geodiversity*), 9 (*Landscape*), 15 (*Sustainable modes of transport*). These are mainly related to the safe routes to school promoting sustainable modes of transport and speed management initiatives.

Component 6: Asset Management

11.29 This component is focused on the delivery of the routine maintenance of transport assets, ensuring the implementation of statutory Network Management Duties. LTP3 will be supported by the Transport Asset Management Plan (TAMP), which will aim to ensure that highway repair and construction is carried out in a resource efficient way and that recycled materials are used wherever practical. Overall, it is predicted to deliver a range of positive and negative effects against the SEA objectives. Some of these effects are identified as significant.

11.30 Significant beneficial effects are predicted against:

- SEA objective 1 (*Equitable access and a sense of community*) – by ensuring that routine maintenance of highways, cycle tracks, rights of way and bus stops and network management duty are carried out appropriately with the minimum disruption from works,

the component will help ensure good access to services and amenities by different transport modes.

- SEA objective 11 (*Resource efficiency*) – as the components outlines that repair and construction works will be carried out in a resource efficient way and that recycled materials will be used where practical.
- SEA objective 13 (*Crime and safety*) – it is expected that the component is likely to contribute to the safer environment through routine maintenance which is likely to include such activities as maintenance of bus stops, road lighting, repair of CCTV devices, etc.

11.31 Significant adverse effects are predicted against:

- SEA objectives 10 and 12 (*Soil and water quality*) – on the precautionary basis, as the component does not clearly state whether potential effects on soil and water quality will be appropriately considered during repair and construction works.

11.32 Minor positive effects are likely to arise in terms of air quality improvement (SEA objective 2), public health (SEA objective 14) and promotion of sustainable transport modes (SEA objective 15). Benefits against SEA objectives 2 and 3 are expected due to steadier traffic flows on roads, and, hence, slightly reduced emissions. SEA objectives 14 and 15 will benefit as a result of the maintenance of that rights of ways and roads.

11.33 Minor negative effects may occur against SEA objective 3 (Reduction of GHG emissions), 4 (Climate change adaptation), 5 (Noise), 6 (Biodiversity), 8 (Heritage) and 9 (Landscape). This is because of the lack of clarity in the Preferred Strategy on whether these effects will be considered during repair works and the lack of a link between the TAMP and the climate change action plan.

Component 7: Quality of life measures

11.34 This component does not set out potential transport measures or initiatives; it is concerned with the identification of the necessary safeguards for the protection of the environment, which, in turn, influences the quality of life. Therefore, not surprisingly, this component delivers the best overall performance in sustainability terms.

11.35 Assessment of the component suggests that it has the potential to deliver significant benefits against the following SEA objectives:

- SEA objective 1 (*Equitable access and a sense of community*) - integration of Green Infrastructure Strategy with LTP3 through this set of measures is likely to improve accessibility and provide opportunities for social mixing and interaction, encouraging a sense of community. This component also includes a reference to the ROWIP, which will improve the legibility, connectivity and accessibility of the rights of way network, including access by people with disabilities.
- SEA objective 2 (*Air quality*) - by ensuring a continued monitoring of air quality in the Borough and proactive management of traffic to avoid the designation of AQMA in the area, measures this component should deliver benefits for the local air quality.
- SEA objective 4 (*Climate change adaptation*) - by integrating the development of Green Infrastructure with LTP3, the component will help alleviate the risk of flooding, as green infrastructure network can be used to reduce surface water run-off and store flood water.
- SEA objective 5 (Noise, vibration and light pollution) - the Council will work with DEFRA to prepare noise action plans at the 12 sections of strategic highway identified by them as first priority locations. All transport schemes proposed by the Council will be subject to a full scheme assessment to ensure the noise, vibration and light pollution aspects are considered early in the design process and ensure that any adverse impacts are minimised.
- SEA objective 6 (Biodiversity and geodiversity) – integration with the Green Infrastructure Strategy will provide benefits to the local wildlife in terms of provision of habitats space and allowing migration of species across the area. Measures within the component also

include reference to the CS Policy 12, aiming to preserve natural environment providing safeguard for the protection of biodiversity and geodiversity. These effects will become more pronounced in the longer term, when the need to freely move and migrate, especially in response to changing climate conditions, becomes more important.

- SEA objective 9 (*Landscape*) - The measures within this component include safeguards for the protection of the quality of local landscape and the character of the countryside. This is strengthened by the reference to the CS Policy 22 'Natural Environment', aiming to protect and enhance the natural environment of the Borough, in particular designated landscape sites.
- SEA objective 15 (*Sustainable modes of transport)* - through integrating LTP3 with the Green Infrastructure Strategy, elements of which include footpaths and cycleways, and by including reference to the ROWIP, this component promotes sustainable transport modes and helps reduce reliance on the private car.

11.36 Minor positive effects are associated with the following:

- Replacing existing road lamps with more energy-efficient lamps and development of the green infrastructure acting as carbon sink (SEA objective 3);
- Inclusion of safeguards for the protection of the landscape, elements of which may be of historic and cultural value (SEA objective 8);
- Likely management of stormwater runoff from roads through the integration with the Green Infrastructure Strategy, benefitting soil and water quality (SEA objectives 10 and 12);
- An expected reduced need for hardsurfacing due to the integration with the Green Infrastructure Strategy, contributing to more prudent use of natural resources (SEA objective 11).

11.37 In social terms, the integration of LTP3 with the Green Infrastructure, which has important potential in 'place-making', should help create opportunities for social mixing and interaction (SEA objective 13). It will also help local residents adopt healthy lifestyles (SEA objective 14).

Recommendations for Improvements to the Draft LTP3 Strategy

11.38 The following recommendations, grouped by component's topic, were made to improve the overall sustainability performance of the draft LTP3 Preferred Strategy measures.

Component 1: Support economic growth and reduce congestion

11.39 Greater emphasis could be placed on improving personal security on public transport and at its facilities. This would enhance the Strategy performance against SEA objective 13 (*Crime*).

11.40 No further mitigation was proposed as part of the assessment of this component. A number of other components were deemed to offer complementary measures to deliver benefits against many SEA objectives.

Component 2: Improve accessibility

11.41 The wording of the measure aiming to *improve access to key services and facilities for all* could be amplified by spelling out which social groups and/or transport users are covered by this measure. This, in particular, should include from an HIA perspective (e.g. disabled and people with other health problems, older people, etc) and relevant EqIA protected characteristics (e.g. gender, maternity, disability, etc). This would enhance the Strategy performance against SEA objectives 1 (*Equitable access*) and 14 (*Health and health inequalities*).

Component 3: Area based measures

11.42 The wording of the measure, which aims to improve 'sustainable access to existing and new major employment sites' could be strengthened by broadening its scope to ensure that 'inclusive accessibility' is improved at the same time. This would improve equitable access benefitting more vulnerable social groups, which would enhance the Strategy performance against SEA objective 1 (*Equitable access*).

11.43 The draft Preferred Strategy could be strengthened by including reference to the requirement for Construction Environmental Management Plans (CEMP) to be produced for the works that will be delivered during the LTP3 period. This should help alleviate potential effects on the local wildlife, soil quality, water, improving the Strategy's performance against SEA objective 6 (*Biodiversity*), 10 (*Soil quality*), 12 (*Water resources*).

11.44 Reference could be made to the CS policy 13 'Environmental Resources', aiming to preserve environmental media. This could be added to the set of 'Quality of life measures' under a separate header covering the quality of land, air and water. This would deliver benefits against the related SEA objectives (2, 10 and 12).

Component 4: Climate Change Measures

11.45 The Climate Change Action Plan covering adaption is the key mechanism that is included to cover climate change adaptation. There is limited information included on what would be covered in the plan. The policy text should be updated to cover what the Action Plan would include. This should include (amongst other things):

- The integration of adaptation considerations into routine maintenance;
- Reference to prioritising schemes based on flood risk;
- Working with other organisations e.g. rail and other public transport providers to ensure and integrated approach;
- Potential for enhancing biodiversity (e.g. through SUDS) and opportunities for Green Infrastructure;
- Protection of the historic environment when undertaking adaption schemes;
- Minimising the use of natural resources in any adaptation scheme;
- The use materials and techniques which have been tested for durability under future predicted climatic/weather conditions for the area;
- The use materials and techniques which have low embodied carbon;
- Potential for social benefits through transport infrastructure adaptation to climate change should be properly considered.

11.46 This component includes a measure for the Council to support low carbon private vehicles and energy efficient buses. The strategy should be updated to provide further clarification on what is meant by this measure and how it will be implemented in practice. This should include clarification of "energy efficient buses" e.g. fuel efficient or electric or hybrid etc.

11.47 This component includes a measure to "Switch off street lighting where appropriate". The wording of this measure should be updated to include further information on how this would be implemented in practice e.g. not in areas of high crime risk / accident hot spots. It may also be more appropriate to consider the use of energy efficient lighting rather than just switching some lighting off. This was covered in the draft LTP3 when referring to light pollution but should also be cross referenced in the climate change section.

Component 5: Road Safety

11.48 The draft LTP3 preferred option did not cover how the LTP3 would be delivered. This was planned to be covered in the implementation plan to follow. This component could be improved to include a commitment to work in partnership with other organisations e.g. local police and community

groups through the formation of a Road Safety Partnership or equivalent. This coordinated approach will have benefits on road safety as well as promoting community cohesion. The LTP3 should be updated to reflect this commitment, if appropriate.

11.49 This component includes a measure to provide safer routes to school through sustainable modes of transport. However, this should be expanded to provide a commitment to provide safe routes such as walking and cycling routes across Telford and Wrekin for all users, not just school pupils.

11.50 The introduction of 20mph "Home Zones" in residential areas has a beneficial effect on road safety through the reduction of traffic speeds. This measure was not included in the draft LTP3 preferred option. The inclusion of Home Zones should be considered.

11.51 The component includes provision to provide cycling infrastructure; further clarification should be included in the LTP3 as to how this will be implemented and what is included e.g. cycle storage, new cycle routes etc. If there are to be new cycle routes, this should be cross-referenced to policies on green infrastructure and synergies sought.

11.52 Travelling by public transport, walking or cycling, can often have a perceived risk of crime, which is not recognised in the information included in this component at present. The LTP3 wording should be updated to acknowledge this and ensure that is covered in any safety education and training. Any new infrastructure (e.g. cycle parking) should also have adequate lighting to reduce crime.

11.53 Apart from the Safe routes to school, the measures in this component did not provide enough information on whether they are promoting sustainable modes of transport or just providing education on car driving for example. The text should be updated to provide clarification and ensure that sustainable modes of travel are covered in the safety education, training and publicity.

Component 6: Asset Management

11.54 The component could be amplified by elaborating on which aspects will be looked at to achieve sustainable repair and construction works. This, for example, should include considerations of embodied energy in the used materials (SEA objective 3). Reference to good practice guidance on transport asset management where resource efficiency measures and sustainable materials (SEA objective 11) are properly detailed would further strengthen the component.

11.55 It was also recommended that the Preferred Strategy refers to the Highway Agency good practice guidance 'Building Better Roads: Towards Sustainable Construction', covering such topics as GHG emissions, noise generation, effects on biodiversity, heritage and built environment, landscape, soil and water quality and water saving measures. This would ensure the delivery of benefits against the SEA objectives associated with those topics.

11.56 It was proposed that the TAMP is clearly linked with the climate change action plan so climate change adaptation challenges (SEA objective 4) are properly addressed during repair and construction works.

11.57 It was suggested that repair and maintenance works are mentioned under the Noise and Light Pollution section of the Strategy, so it is clear that noise, light and vibration effects (SEA objective 5) are assessed and addressed not only for new proposals but also for repair works.

11.58 Similarly, it was proposed that repair and maintenance works' effects are acknowledged in the section referencing CS Policy 14 'Cultural, Historic and Built Environment' to ensure that effects on heritage (SEA objective 8) are assessed and addressed not only for new proposals but also for repair works.

11.59 Further, the acknowledgement of the relevance of repair and maintenance works' effects in the section on Landscape referencing CS Policy 12 'Natural Environment' would ensure that effects on biodiversity and landscape (SEA objectives 6 and 9) are assessed and addressed not only for new proposals but also for repair works.

11.60 It was proposed that the text under Asset management measures section is amplified by specifying that repair and construction works will aim to minimise the use of impermeable hard surfacing to reduce the polluted runoff and will use vegetated drainage systems, where appropriate, to protect the quality of underground water and soil (SEA objectives 10 and 12).

11.61 Greater emphasis could be placed on contribution to safety (SEA objective 13) within this set of measures to make this role of the component more explicit rather than implicit.

Component 7: Quality of life measures

11.62 The component could be strengthened by identifying other areas of synergy between Green Infrastructure and LTP3, for example, the use of vegetated drainage systems (i.e. SUDS) in road infrastructure design, where appropriate. This measure specifically would provide benefits for water and soil quality (SEA objectives 10 and 12).

12. Effects of Final LTP3

Introduction

12.1 The Draft LTP3 was subject to public consultation from mid November to mid December 2010. Following the consultation, further revisions were made to the LTP3 to reflect comments arising from the consultation, the SEA recommendations set out in section 11 as well as further changes arising from the Council's internal work. These changes are included in the Final LTP3 document and discussed below.

Final LTP3 Strategy

12.2 The long-term LTP3 Strategy sets out a framework for how the Telford & Wrekin's transport network will be managed, maintained and developed over the period 2011 to 2026. Following the public consultation on the draft LTP3 Strategy, a number of changes have been made to the Strategy set out in the final LTP3 document. The separate Implementation Plan, initially for the period 2011 – 2014, will set out how the LTP3 Strategy will be financed.

12.3 The Final LTP3 Strategy significantly evolved compared to its draft form assessed before the consultation. The changes introduced to the Strategy since the assessment presented in Section 11 have been examined to establish how they affect the earlier SEA findings. For this purpose, the content of the assessment components has been reviewed. As demonstrated in Table 12.1 the components have become more robust compared to their earlier version assessed previously. The development of the detailed policies on the support of new development and the reduction of congestion stipulated the split of the previous component 1 into two assessment components: 1) support development and 2) reduce congestion. The addition of measures focused on the improvement of connectivity resulted in the amendment of the title of the component 3, which now reads as 'improve connectivity and accessibility'. The reviewed assessment of the Final LTP3 Strategy is presented below in this section.

Table 12.1 – Final LTP3: Assessment Components

No	Component	Draft LTP3 - Description of Measures and Initiatives	Final LTP3 - Description of Measures and Initiatives
1	Support ~~economic growth~~ ***development*** ~~and reduce congestion~~	*Economic Growth Measures* Improve connectivity to key markets; Link people to jobs; Reduce lost productive time; and Support regeneration initiatives.	**LTP POLICY 4** To adopt a plan led approach to mitigate the impact of new developments on the existing transport network in a 'fair and reasonable' manner taking account of the likely level of available public funds. **LTP POLICY 5** To require developers to adopt and fund an Area Travel Planning approach in support of the LDF and associated Area Action Planning processes. **LTP POLICY 6** To require developers to prepare site based travel plans in support of the overarching Area Travel Planning process. **LTP POLICY 7** To require developers to fund the development, implementation, monitoring and enforcement costs of Area and Site based Travel Plans.
2	***Reduce congestion***	*Congestion Measures* Making best use of existing infrastructure through traffic management and junction improvements. Development and implementation of a parking strategy for the Borough to include civil parking enforcement; Partnership development and implementation of Intelligent Transport Systems (ITS) to manage congestion and improve incident management on the strategic and local road network. This will necessitate liaison with the Highways Agency and will incorporate provision of real time information for drivers, bus passengers, bus priority etc; ICT network developed to encourage home working and so reduce the need to travel; Working with the Highways Agency, Toll Road operators, adjoining authorities' operators to improve access to the strategic road network. Working with the DfT, Network Rail to improve access to the rail network Travel planning and promotion; Actively promoting Smarter Choices campaign and promotion and personalised travel planning;	**LTP POLICY 2** To work in partnership with the Highways Agency to improve the reliability, safety and efficiency of the Strategic Road Network. *Selective Policy supportive text:* The Council will support the Highways Agency in its work to improve the reliability and efficiency of these networks. This will be achieved by introducing measures such as Active Traffic Management, Joint Area Travel Planning, provision of new capacity where appropriate and improving facilities for overnight lorry parking. **LTP POLICY 11** To reduce lost production time for local business by better management of congestion on the network *Selective Policy supportive text:* The road network will need to be proactively managed as traffic flows increase, otherwise journey time reliability will deteriorate and the amount of lost production time for local businesses will increase accordingly. Traffic calming can contribute towards improved road safety and reduce the impact of traffic on a community. However traffic calming can also have adverse impacts, for instance on emergency service response times and bus services. Part of the role of managing the road network will therefore include reviewing, as appropriate, the use of traffic calming measures such a road humps, speed cushions and road narrowings. **LTP POLICY 13** To reduce congestion by making better use of existing infrastructure, better

		Implement junction improvements to support new development.	management of travel demand and increased use of new technology. *Selective Policy supportive text:* Traffic congestion can also be addressed by better management of the demand for travel as well as by making best use of existing infrastructure. Typical initiatives will include: • Integrating land use and transport through the LDF to reduce the need for travel, particularly longer distance trips • Measures to address future congestion hot spots • Investigate the role that Civil Parking Enforcement (CPE) can play in reducing congestion, managing parking provision and reducing hazards caused by pavement parking as part of the development of a parking strategy for the Borough • ICT network developed to encourage home working and so reduce the need to travel • Making best use of existing infrastructure through traffic management and junction improvements • Review the use of traffic signal control and seek to remove traffic signals or introduce part-time operation where such action would not be detrimental to road safety or traffic flows • Where appropriate review the use of traffic calming measures • Working with the Highways Agency, Toll Road operators, adjoining authorities and rail operators to improve access to the strategic road and rail network • Smarter Travel Choices - introducing measures to promote and improve facilities for public and active travel to improve accessibility to major existing and new employment sites • Travel Planning • Traffic Management • Use of new technology.
3	Improve ***connectivity and*** accessibility	*Measures:* Maintain the existing quality bus route network in Telford and the Borough Towns and use developer funding to extend services to new development areas where appropriate; Maintain public transport accessibility in urban and rural areas for the majority; Maintain existing community transport through part funding of transport services especially where service bus services don't exist or are unsuitable for the user; Implement Rights of Way Improvement Strategy which	**LTP POLICY 1** To work with partners to improve surface access to international gateways and key economic hubs both by road and rail *Selective Policy supportive text:* Good connectivity to domestic and international markets both by road and rail is essential for continued business and logistics growth within the Borough. Easy and rapid access to airports make existing business activity more productive but also facilitates new opportunities for future business development. In particular improved surface access to the following airports is deemed vital: • Birmingham International

		includes improvements to disabled access, better signing and maintenance and promotion of the network throughout the Borough but mainly in the rural area; Implement externally funded site based travel planning initiatives; and Ongoing implementation of the Council's own employees travel plan. Improve access to key services and facilities for all; Integrating land use and transport through the LDF to allow access by sustainable modes of travel. Maintain and improve public transport and integration between and with public transport modes; Promote cycling and walking modes; Provide alternatives to employees such as car sharing and facilities for cyclists to reduce carbon emissions. *Initiatives*: Working with transport providers to improve public transport through smart ticketing. Improving public transport interchanges in Telford and the Borough Towns; Providing better information to drivers and bus passengers; and. Promoting walking and cycling by providing new infrastructure, signing, cycle maps etc including enhanced maintenance etc	• East Midlands, particularly for freight • Manchester • London Heathrow The Council also supports the provision of a sub regional Business Airport to open up international linkages and create employment. The proposed location would be at Cosford between Telford and the West Midlands conurbation. The Council supports improvements to the rail services, and associated infrastructure, such as electrification of the Wolverhampton to Shrewsbury Line, improvements to Birmingham New Street station and will continue to lobby the DfT, Network Rail and the train operating companies to this end. This will include calling for extra carriages in the peaks to reduce overcrowding on services to Birmingham New Street and a re-instatement of a direct service to London, following the ending of the Wrexham, Shropshire and Marylebone Railway services in January 2011. Initial investigations are also being undertaken to establish the longer term viability of re-opening the former Wellington to Stafford railway line to provide enhanced services to the West Coast Main Line. Safeguarding of the route from future developments will be brought forward through the ongoing review of the Local Development Core Strategy. It will be necessary to work in conjunction with key partners, including Network Rail, train operators London Midland and Arriva Train Wales and neighbouring authorities, to bring forward specific proposals including: • Electrification and upgrade of the Shrewsbury to Birmingham line as proposed by Network Rail; • Improved access to Telford and Wellington rail stations and their facilities; • Assessment of the potential for re-opening of the former Wellington-Stafford and Madeley Junction to Coalbrookdale rail lines; • Improved station parking facilities. **LTP POLICY 3** To support the provision of a new motorway standard link between the M54, M6 North and M6 Toll *Selective Policy supportive text:* Telford & Wrekin Council see improved access to the M6 Toll, which forms part of the Trans European Network, and the M6 North as key. Currently there is no direct connection between the M54 and either the M6 Toll Road or the M6 Northbound, which is unacceptable for a Growth Point and Impact Investment Location. The Highways Agency has investigated a number of alternative options for a new road link and the Council will continue to work in partnership with the HA, the Toll Road operator and neighbouring authorities to secure delivery of the Preferred Scheme during the life of the LTP Strategy. The Highways Agency is also working to make better use of its existing

			infrastructure through the use of new technology and Active Traffic Management (ATM) in particular. They have also expressed an interest to develop a Joint Area Travel Plan (JATP) for Telford Town Centre with the Council. The Council support the 'Managed Motorway' programme and look forward to ongoing discussions regarding the JATP, particularly in terms of funding arrangements. The Council also support the proposed improvement of Junctions 4, 5 and 6 on the M54 and discussions with the Highways Agency will continue in this regard through the review of the LDF Core Strategy as well as the ongoing implementation of the Central Telford Area Action Plan (CTAAP). Developer contributions will be sought towards these improvements on a 'fair and reasonable' basis. **LTP POLICY 12** To work in partnership with developers and the Highways Agency to introduce a direct connection between the M54 and the A442 in Telford town centre. *Selective Policy supportive text:* Modelling work has demonstrated the importance of constructing a connection between the M54 Junction 5 and the A442 Queensway in order to facilitate the development aims set out in the Central Telford Area Action Plan (CTAAP). Such a direct connection between these major strategic routes in Telford town centre will release capacity on the outer town centre road network, in particular along Rampart Way, to accommodate the traffic displaced as a result of the improvements to the 'Box Road'. This will enable significant environmental improvements to be secured in Telford town centre to help provide improved pedestrian and cycle linkages and create a high quality sustainable integration between the Town Centre and surrounding areas, as well as ensuring efficient and safe operation of the local road network. **LTP POLICY 14** To work in partnership to improve access to employment and training opportunities, particularly for those without access to a car. **LTP POLICY 20** To work in partnership with the Local Strategic Partnership to seek and deliver non-transport solutions to issues of accessibility. **LTP POLICY 21** To work in partnership with local transport providers to deliver improvements to transport services, infrastructure and information to meet the needs of the public. **LTP POLICY 22** Work alongside the Rights of Way Officer to increase access to all services and to leisure and recreation through the Council's Rights of Way Improvement Plan. **LTP POLICY 27** Continue, and develop partnerships with local transport operators in order to improve the punctuality, convenience and affordability of public transport.

			LTP POLICY 28 To continue to review transport services operated by the Council to ensure value for money and to seek potential improvements to affordability, convenience and access for the community. **LTP POLICY 29** To continue to review the bus subsidy policy to ensure value for money and maximum accessibility for the community. **LTP POLICY 40** Development planning: Strengthened development planning policies in favour of improvements to the environment for walking, cycling and rights of way networks will help provide appropriate network enhancements centred on encouraging local trips and improvements to strategic networks **LTP POLICY 41** Rebalance the road network: When developing transport, regeneration and development schemes, reference should be made to local communities on how they would like to use their road space alongside wider strategic considerations for the Borough including economic growth. **LTP POLICY 47** The Council will continue to work with Network Rail and other partners to improve access to the Borough's rail stations. **LTP POLICY 9** To provide improved transport links to key visitor attractions. **LTP POLICY 10** To develop and implement sustainable access and rail access strategies for the Ironbridge World Heritage Site. **LTP POLICY 23** To develop and implement the Ironbridge Gorge Accessibility and Rail Strategies.
4	Area based measures	Borough Town Initiatives: Dawley - changes to traffic management; Ironbridge - Park and Ride development for tourists; Oakengates - plans likely to lead to changes to traffic management; and Wellington – better pedestrian access from bus to railway stations; likely pedestrianisation of the town centre. Public realm environmental improvements in all of the above and in both Telford and Newport town centres.	• Telford Town Centre – Investment will include implementation of the full adopted CTAAP transport mitigation strategy including developer funded measures. • Improving sustainable access to existing and new major employment sites arising out of the LDF Core Strategy Review and associated supporting documents. Also please refer to the initiatives described in component 2 above.

		Telford Town centre – implementation of the Central Telford Area Action Plan (CTAAP) transport strategy including: Modifying the Box road to encourage walking, bus and cycle modes and to facilitate the development of a more traditional town centre. Diversion of traffic way from the town centre by construction of the Greyhound Link road and improvements to the Outer Circular road. Further enhancements of the environment of the public realm to complement the development of non–retail uses in the town centre Improving sustainable access to existing and new major employment sites arising out of the LDF Core Strategy Review and Implementing the South Telford Area Action Plan which is likely to include improves access to housing and regenerated community facilities in the area. Access to the Borough Towns will be improved in a way that conserves the cultural and historic assets of these areas as laid out in the policy CS14 "Cultural, Historic and Built Environment" of the adopted LDF Core Strategy. This will involve removing unnecessary highway signage.	
5	Climate Change Measures (***both mitigation and adaptation***)	The Council will prepare a climate change action plan using National Indicator 188 methodology, which will help to ensure that the implications of climate change for transport provision and infrastructure are properly assessed. This work will influence the implementation of the LTP and the Highway Asset Management Plan by helping to ensure that transport infrastructure is not located in places of flood risk and that public transport vehicles used by the Council are suitable, for example, by providing air conditioning in vehicles used to transport people around in hot weather. The Council will support the use of low carbon private vehicles and energy efficient buses. Switch off street lights where appropriate.	**LTP POLICY 15** The Council will work with users, businesses and developers to implement successful sustainable travel packages such as those identified in Table 3.1. *Selective supportive text:* Examples of sustainable travel packages in Table 3.1: - Travel Plans – workplace travel plans, personalised travel planning, station travel plans; - Promoting public transport – fare incentives and smart ticketing, better access/interchange and integration; Active travel choices – walking support and infrastructure, pedestrian and cycling training; - Influencing demand – tele-working, teleconferencing, parking management strategies; - Marketing and branding - information on travel choices including better public transport information, travel awareness campaigns, cycle, walking and bridleway signing and route maps, branding; - More efficient use of vehicles - car clubs and car sharing, efficient driving techniques (Ecodriving), change to low emissions vehicles, reducing

			congestion and disruption to traffic). **LTP POLICY 24** To work with local businesses to promote and encourage the use of sustainable transport to reach work, including car sharing and taxi sharing. **LTP POLICY 43** Positively encourage active travel: We will give focus to schemes which positively encourage increased levels of active travel, provide increased network safety and better personal security. These schemes should also make a significant contribution to improving the public realm and increasing levels of accessibility for vulnerable road users **LTP POLICY 25** In conjunction with partners develop strategies for promoting and raising awareness of sustainable transport modes via a range of mediums to encourage increased use to access local services. **LTP POLICY 39** Promotion: Promotion and publicity are key methods of encouraging increased levels of active travel. Use of a wide range of media outlets can help promote the benefits of active travel and provide better travel information to the general public. **LTP POLICY 16** The Council will initiate trials of new vehicle technology for its own vehicle fleet where there is likely to be a cost saving. It will also monitor progress on the roll-out of low carbon vehicles to decide when to facilitate the provision of the necessary infrastructure such as charging points for electric vehicles. **LTP POLICY 17** The Council will continue to examine ways to increase efficiencies when constructing new infrastructure or maintaining the highway network, including increased use of recycled materials and materials with a low stone content. **LTP POLICY 18** Where appropriate the Council will dim or switch off street lights, or install modern low energy bulbs and replace illuminated traffic signs with retroreflective signs. **LTP POLICY 19** Improved information should be provided to travellers to make them aware of any disruption to transport as a result of severe weather events *Selective supporting text*: The Council has utilised the latest climate projections to complete a risk assessment (level 2 of NI 188) of the likely impacts that climate change could have on the services that the Authority and its local partners provide. This assessment found that there were several moderate and low level risks associated with the transport sector. These vary in magnitude from major impacts such as subsidence resulting in

			damage to physical infrastructure to relatively minor impacts such as an increased demand for cooling on public transport.
6	Road safety	Local safety schemes; Safety education, training and publicity; Safer routes to schools, including walking, buses and cycling infrastructure; and Speed management by engineering measures supported by mobile cameras and community speed watch initiatives.	**LTP POLICY 26** Develop and widen the implementation of Safer Routes to School schemes across the Borough to promote and encourage travel to school by sustainable means. **LTP POLICY 30** Partnership Working: A key focus for the Council will be working in partnership with local police, the road safety partnership and with community groups. Complementary resources (capital, revenue, in kind) will be pooled to help tackle issues and opportunities which involve safety, security and health on the transport network. **LTP POLICY 31** Community Involvement and Engagement: We will work with communities to design and implement appropriate programmes and initiatives. Communities will be encouraged to assume more responsibility for resolving issues and realising opportunities with the Council taking the role of a 'facilitator' **LTP POLICY 34** Income Generation: As part of delivering an efficient service, opportunities to generate income and make effective use of Council assets needs to be undertaken. This will be carried out on a project by project basis and a review of all current projects and programmes which encompass safety, security and health. **LTP POLICY 35** The Council will continue to review speed limits and consider the introduction of 20mph and Home Zones in accordance with national guidance. *Selective supportive text*: The Council will continue to use speed management measures and seek effective enforcement by the Police to reduce casualties and improve quality of life where there is evidence of vehicles travelling at inappropriate speeds. The following measures will be used: • Speed limits. The Council seeks to ensure speed limits are appropriate for the road conditions and contribute towards road safety. We have completed a review of all A and B roads and will continue to review speed limits on all urban and rural roads across the Borough to further improve road safety and quality of life for local residents, in particular in response to new development, new speed limit guidance or other factors that give rise to a change in local circumstances. Speed limits are determined in accordance with national guidance, currently published in Circular 1/06 by the DfT in 2006. The national guidance recommends that 20mph zones are applicable on streets in town centres or those that are primarily residential in nature which are not part of a major through route and are self-enforcing in nature. Quiet Lanes can be used in appropriate situations in rural areas to provide priority to non-motorised road users. The Council will review opportunities to introduce 20mph

			zones and Home Zones in urban areas and Quiet Lanes in rural areas throughout the life of LTP3 in accordance with national guidance. • Speed limit enforcement. Compliance with speed limits is an integral part of a road safety strategy. Ultimately speed enforcement is the responsibility of West Mercia Police and during the LTP2 period speed enforcement was concentrated through the West Mercia Safer Roads Partnership, funded in part by ring-fenced Road Safety Grant funding. In light of national changes, alternative funding streams for speed enforcement are being investigated by the West Mercia Police Authority. The Council will continue to support the activities of the West Mercia Safer Roads Partnership (SRP) and West Mercia Police to ensure speed enforcement remains effective and supports the overall aim of road traffic casualty reduction and is keen to liaise with the SRP to develop their role in road safety education. The Council supports the adoption of new technology, for instance in-car vehicle speed limiters, where such technology is found to be effective in reducing road casualties and is introduced across the country. • Speed Indicator Devices (SIDS). If used appropriately, vehicle activated speed limit and warning signs are an effective means of raising driver's awareness of their speed and targeting road casualties. The Council will continue to support the use of such Speed Indicator Devices, in partnership with Town and Parish Councils, as a means of addressing concerns raised by residents over the speed of vehicles travelling through the area where they live. **LTP POLICY 36** Network safety: Improving network safety for the travelling public will help increase confidence of all road users and help mitigate the potential for increased conflict between vehicles and other road users. Targeted road safety engineering, education, training and enforcement measures will be applied on a route or geographical basis in relation to campaigns to encourage greater levels of active travel. **LTP POLICY 38** Personal safety: As a mixed urban/rural area Telford & Wrekin has several key issues regarding the safety of the travelling public including segregated Rights of Way including footways and cycleways, segregated land uses and a large rural area which can contribute towards perceptions of low personal safety for the travelling public. There are also personal safety issues for bus passengers waiting for buses as well as travelling on the bus. To address these, full consideration of personal safety issues will be made during project development. Allowing some routes to be designated as multi-user routes available to be used by all non-motorised users could help address these safety issues.
7	Asset management	Routine Maintenance – the Council carry out routine maintenance of highways, cycle tracks, rights of way, bus stops etc using revenue support from DfT; and Ongoing implementation of statutory Network	**LTP POLICY 42** Improve existing assets and reduce severance: Maintaining existing infrastructure should be given priority over the provision of new infrastructure. This is especially the case when considering the on-going maintenance of routes for vulnerable users

		Management Duties. Structural highway maintenance and bridge strengthening. The Transport Asset Management Plan (TAMP) is currently being prepared as a daughter document to the LTP. This will include a policy to ensure that highway repair and construction is carried out in a resource efficient way and that recycled materials are used wherever practical.	across the Borough. In addition to this targeted improvements which reduce community severance should assume a high priority. **LTP POLICY 45** The Council will use the Transport Asset Management Plan and Borough Towns Initiative to declutter highways of unnecessary signs and road markings *Selective supportive text*: The construction and maintenance of transport infrastructure such as roads, footways and bridges can sometimes have unwanted effects on the natural and the built environment, for example by affecting the quality of the landscape or water quality. The following bullet points summarise the main adverse impacts and how the LTP intends to avoid or minimise them: • Land, air and water can be affected by transport infrastructure construction and maintenance. Contaminated surface water run-off, for instance, can lead to a worsening of the quality of nearby land or water. Part of policy 13 from the Telford & Wrekin LDF Core Strategy, adopted in 2007, is relevant here and states: *"Development that reduces the risks of contaminated land to the environment and human health will be supported. That which has detrimental impacts on the environment, including the quality of land, air or water, will be resisted if satisfactory mitigation cannot be achieved."* • Noise, light and vibration effects should also be assessed and minimised in all maintenance and new construction. • Adverse impacts on the cultural, historic and built environment will be avoided or minimised partly through the development of design guidance which aims to improve the quality of the public realm, see policy 46 in this LTP. In addition, part of the LDF Core Strategy Policy 14 'Cultural, Historic and Built Environment' is also relevant here, which is aimed at: *"Protecting and enhancing the historic environment, cultural and built heritage within the Borough to maintain and improve quality of life*". • Highway construction and maintenance can also adversely affect landscape quality and to minimise any adverse effects LDF Core Strategy Policy 12 'Natural Environment' is relevant. This states that: Biodiversity, including habitats, and geodiversity will be protected from development. Where appropriate, development that delivers enhancement will be consistent with local biodiversity targets and objectives." This will help to ensure that biodiversity and landscape are assessed and addressed for all new proposals and maintenance works. • Impermeable hard surfacing can also cause polluted runoff and consideration will be given to minimising the use of such surfacing; but where this cannot be avoided the use of vegetated drainage systems that can protect the quality of underground water and soil will be considered. • The safety of the travelling public and the personnel who carry out maintenance and new construction will be of the utmost importance. To bring all these issues together the Council will in addition consider the relevance and usefulness of using a good practice guide such as the Highways Agency guide "Building Better Roads: towards Sustainable Construction". This document covers topics such as greenhouse gas emissions, noise generation, effects on biodiversity, heritage and

			the built environment, landscape, soil and water quality and provides guidance on how best to minimise and avoid any adverse effects.
8	Quality of life measures *Air quality*	Currently no AQMAs are designated in the Borough but if any are designated for reasons of traffic emissions during the implementation of the LTP3, appropriate action plans will be developed and implemented in accordance with statutory requirements. The Council will continue to monitor air quality in the Borough and will continue to proactively manage traffic to help avoid the designation of AQMA's as a result of traffic emissions.	**LTP POLICY 44** A joint approach to mitigating the impacts of development with the Highways Agency will be supported. *Selective supportive text*: The LTP will consider the issue of deteriorating air quality as road traffic flows increase, especially in areas like Ironbridge which attracts 600,000 visitors a year, Telford town centre and motorway junctions where traffic is concentrated.
	Noise and Light Pollution	The Council will work with DEFRA to prepare noise action plans at the 12 sections of strategic highway identified by them as first priority locations. All transport schemes proposed by the Council will of course be subject to a full scheme assessment to ensure the noise, vibration and light pollution aspects are considered early in the design process and ensure that any adverse impacts are minimised. The Council will continue its policy included in LTP2 (page 153) of replacing existing road lamps with more energy-efficient lamps which cause less light pollution problems.	See the relevant considerations in Component 6 above.
	Green infrastructure	Opportunities to develop green infrastructure will be developed through the Green Infrastructure strategy which is currently being developed. The aims of this strategy include: Providing linkages through which footpaths, cycleways and ecological corridors can join different parts of urban areas. This strategy will complement and support the measures included in the LTP.	Seeking opportunities for safe access and recreation by creating multi-user routes, using green spaces to provide continuous routes where appropriate, in partnership with the Green Infrastructure and Delivery Plan.
	Landscape and access to the countryside	The construction of transport infrastructure and the operation of transport services in the countryside will be carried out in a way that protects and enhances the landscape and character of the countryside in line with policy CS12 "Natural Environment" of the LDF Core Strategy. This LDF Core Strategy policy also protects biodiversity and geodiversity from development. The Rights of Way Improvement Plan (ROWIP) for Telford and Wrekin was recently published and will be	See the relevant considerations in Component 6 above.

		a daughter document to the LTP. This will improve the legibility, connectivity and accessibility of the rights of way network including access by people with disabilities.	
	Public realm		**LTP POLICY 8** To ensure that transport investment supports high quality public places and vibrant urban environments. *Selective Policy supportive text:* To encourage more inward investment and job creation, the Council must continue to revitalise urban centres, including all the Borough Towns, to enhance their attractiveness and invest in their vibrancy. As part of the Strategy, the Council will ensure all our interventions improve the urban environment and its quality. This will include reviewing the provision and condition of street furniture and decluttering where appropriate. **LTP POLICY 37** Public realm and transport networks: Regeneration and development projects will have a key role to play in encouraging greater levels of active travel through better urban design and planning. Projects should focus on improving strategic links to walking, cycling and bridleway networks and encouraging short distance trips to, for example, Borough Towns. **LTP POLICY 46** The Council will develop local design principles based upon the guidance in 'Manual for Streets', as a basis for discussions with developers on the provision of parking and design of residential streets. Similarly 'Manual for Streets 2' will be used as a basis for design principles in respect of urban and rural streets outside of residential areas. Specific design guides are being developed for use in areas where the conservation of historic buildings is particularly important.

12.4

Assessment of Changes to LTP3

12.5 The review of the changes made to the final LTP3 Strategy has established that the overall performance of the final LTP3 against the SEA objectives has improved due to the following:

- A wider coverage of the sustainability aspects, in particular, in components 4 on climate change and 7 on asset management. More specifically, the LTP3 now sets out the measures to prevent or minimise potential negative effects arising from transport infrastructure construction and maintenance, following the recommendations of the previous assessment;
- The inclusion of more specific and elaborate interventions on accessibility and affordability of public transport and non-motorised forms of transport for everyone, including more vulnerable social groups;
- The provision of more details on the sustainable travel packages supported by the LTP3, which include amongst others pedestrian and cycling training, fare incentives and smart ticketing and travel awareness campaign;
- A higher emphasis on the network safety and personal security throughout a number of LTP3 policies, and a higher level of collaboration with local communities and groups, the road safety partnership and local police;
- A commitment to develop and implement sustainable access to key visitor attractions, including the Ironbridge World Heritage Site;
- The addition of a number of policies focused on the integration of transport schemes with regeneration and development projects to bring about more improvements in public realm.

12.6 Table 12.2 below indicates the assessment score of the final LTP3's performance in relation to the SEA objectives. The most significant change from the SEA perspective is the elimination of the previously predicted significant negative effects against the SEA objectives 10 (soil quality) and water quality (12) due to the incorporation of the mitigation measures to avoid or minimise such effects as per the previous SEA recommendation. The details of how the rest of the SEA recommendations were taken on board can be found in the SEA Statement.

12.7 The assessment of cumulative effects of the Final LTP3 with other Plans has been undertaken as demonstrated in

12.8 Table 12.3. The assessment of cumulative effects uses the relevant SEA objectives as identified in Table 8.2Table 8.1 and draws on the approach for the prediction of future trends in the absence of LTP3 (Table 8.3). This analysis identifies the cumulative effects of LTP3 together with other plans reviewed to predict the future trends in Table 8.3. .

Table 12.2 - Assessment Summary of the Final LTP3 Preferred Strategy

No	SEA/ HRA/ HIA Objective	LTP3 Strategy Components							
		1	2	3	4	5	6	7	8
		Support development	Reduce congestion	Improve connectivity and accessibility	Area based measures	Climate Change Measures	Road safety	Asset management	Quality of life measures
1	To improve equitable access to services, amenities and opportunities for all and encourage a sense of community	++	++	+++	++	++	++	++	++
2	To improve air quality across the Borough	+	++	++	++	++	+	+	+++
3	To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2	++	++	++	+	++	+	-/+	+
4	To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions	0	0	0	0	++	0	0	++
5	To reduce noise, vibration and light pollution	0	0	0	+	+	+	0	+++
6	To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure	+	+	+	0	+	+	0	+++
7	To identify, manage and protect habitats and species which are important on an international scale (*HRA specific objective*)		An HRA review is being undertaken of the Consultation Preferred Strategy and the results have been published as a separate HRA.						
8	Conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings	+	+	+	+	+	0	0	++
9	To protect and enhance the landscape and quality of the countryside , including all designated landscape sites	+	+	0	+	0	+	0	+++
10	To reduce land contamination associated with transport and seek to conserve soil quality and quantity	+	+	-	-	+	0	-	+
11	To maximise the efficient use of natural resources and minimise the amount of waste produced	++	++	+	0	0	0	+++	+
12	To protect water resources, avoid pollution and achieve sustainable water resource management	+	+	-	-	++	0	-	+

No	SEA/ HRA/ HIA Objective		LTP3 Strategy Components						
		1	2	3	4	5	6	7	8
		Support development	Reduce congestion	Improve connectivity and accessibility	Area based measures	Climate Change Measures	Road safety	Asset management	Quality of life measures
13	To reduce crime, disorder and fear of crime and promote safe and inclusive communities *(Health Specific Objective)*	+	+	+	+	+	++	++	++
14	To improve physical and mental health for all and reduce health inequalities (*Health specific objective*)	+	++	++	+	++	++	+	+
15	To promote a range of sustainable modes of transport and reduce reliance on the private car	++	++	+++	++	++	+	+	++

Table 12.3 – Assessment of Cumulative Effects

Key: **Current Conditions - good/moderate/poor** **Future Trends – improving/stable/declining**

Current Conditions	Future Trends
Good	Improve
Moderate	Stable
Poor	Decline

SEA Objective (cumulative effects)	Baseline Condition	Future Trends without LTP3 – Cumulative effects of other Plans only	Future Trends with LTP3 - Cumulative effects of LTP3 with other Plans	Commentary
To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2	Moderate	Declining	Stable	Without LTP3 in place transport CO_2 emissions were predicted to increase as a result of increased car ownership and growing overall traffic levels on the local highway network. This was predicted to counteract technological improvements in the energy efficiency of vehicles. LTP3 includes a number of different types of measures to reduce GHG emissions from transport, which are likely to deliver positive effects against this objective. Therefore, positive cumulative effects of the Final LTP3 with other plans are considered to lead to stabilising trends in the longer term future.
To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions	Moderate	Stable	Stable	Without LTP3 adaptation to climate change was predicted to show stabilising trends. Cumulative effects of the other plans with LTP3 contributes to these stabilising trends, as both climate change adaptation and mitigation measures receive appropriate coverage by LTP3.
To reduce noise, vibration and light pollution	Moderate	Declining	Improving	Without Final LTP3 interventions, increasing traffic levels on the local highway network is likely to increase noise and light pollution and vibration. Final LTP3 addresses the issue of noise levels through a number of direct and indirect interventions, including the promotion of sustainable modes and network management measures. Therefore, cumulative effects of Final LTP3 with other plans are deemed to show improving trends.
To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure	Moderate	Stable	Stable	The quantity and quality of local biodiversity was deemed to remain stable due to the requirements in the local land use plans without LTP3 in place. LTP3 is predicted to have positive effects on the biodiversity overall due to the integrated approach with the Green Infrastructure Strategy, the inclusion of mitigation measures and the promotion of a modal shift, thus minimising negative effects from road traffic. Therefore, cumulative effects of LTP3 with other plans maintain stabilising trends.

SEA Objective (cumulative effects)	Baseline Condition	Future Trends without LTP3 – Cumulative effects of other Plans only	Future Trends with LTP3 - Cumulative effects of LTP3 with other Plans	Commentary
To identify, manage and protect habitats and species which are important on an international scale (*HRA specific objective*)	Moderate	Stable		Telford and Wrekin has no internationally protected sites. However, there are a number of sites within 10km of the plan area that could potentially be affected by traffic. The identified European sites could also be vulnerable to the effects of recreation and tourism activities, farming and agricultural practices. The condition of the sites should remain stable without LTP3 due to the high level of protection to which they are afforded through international legislation. However, in the longer term some change might be unavoidable, as a result of the changing climate.
To protect and enhance the quality of the historic built environment including townscape, buildings, sites and features of archaeological, historical or architectural interest and their settings	Moderate	Declining	Stable	Declining trends were predicted without strategic transport plan in place due to effects of increases in traffic and its associated negative effects on the built environment, valuable historic assets and their settings. LTP3 incorporates the safeguards for the protection of historic assets and aims to develop sustainable access and rail access strategies for the Ironbridge Gorge World Heritage Site. Therefore, cumulative effects of LTP3 with other plans are deemed to show stabilising trends. The Highways Agency promoting a new motorway standard link between the M54, M6 North and M6 Toll is responsible for detailed environmental assessment of their proposal and ensuring that any adverse effects are avoided or appropriately mitigated..
To protect and enhance the landscape and quality of the countryside , including all designated landscape sites	Poor	Declining	Stable	Declining trends were predicted without strategic transport plan in place due to effects of increases in traffic and its associated negative effects on landscape and countryside character. LTP3 incorporates the safeguards for the protection of landscape quality. Therefore, cumulative effects of LTP3 with other plans are deemed to show stabilising trends. The Highways Agency promoting a new motorway standard link between the M54, M6 North and M6 Toll is responsible for detailed environmental assessment of their proposal and ensuring that any adverse effects are avoided or appropriately mitigated.
To maximise the efficient use of natural resources and minimise the amount of waste produced	Data gap	Improving	Improving	Without LTP3 in place the efficiency of the use of natural resources was predicted to improve. As LTP3 includes the commitment to examine ways to increase efficiencies when constructing new infrastructure or maintaining the highway network, including increased use of recycled materials and materials with a low stone content, cumulative effects of LTP3 with other plans are likely to support these improving trends.

13. Mitigation

13.1 The term mitigation encompasses any approach that is aimed at preventing, reducing or offsetting significant adverse environmental effects that have been identified. In practice, a range of measures applying one or more of these approaches is likely to be considered in mitigating any significant adverse effects predicted as a result of implementing the LTP3. In addition, it is also important to consider measures aimed at enhancing positive effects. All such measures are generally referred to as mitigation measures.

13.2 However, the emphasis should be in the first instance on proactive avoidance of adverse effects. Only once alternative options or approaches to avoiding an effect have been examined should mitigation then examine ways of reducing the scale/importance of the effect.

13.3 Mitigation can take a wide range of forms, including:

- Suggested re-wording of some policies in order to improve the likelihood of positive effects and to minimise adverse effects (see section 11);
- Technical measures (such as setting guidelines) to be applied during the implementation stage;
- The effective implementation of other relevant policies within the LTP3;
- Identifying issues to be addressed in project environmental impact assessments for certain projects or types of projects;
- Contingency arrangements for dealing with possible adverse effects.

13.4 As part of the earlier assessment of the draft LTP3 Preferred Strategy a number of mitigation measures were set out in the draft Environmental Report. They are shown in Section 11 and Appendix G. TWC has given careful consideration to these recommendations and addressed most of them as described in the SEA Statement. In relation to the outstanding recommendations TWC has confirmed that they will consider these mitigation measures during the preparation or review of other relevant documents or lower tier specific transport policy documents and schemes as they come forward.

14. Monitoring

14.1 The SEA Directive states that:

'member states shall monitor the significant environmental effects of the implementation of plans and programmes…..in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action' (Article 10.1). In addition, the Environmental Report should provide information on a 'description of the measures envisaged concerning monitoring' (Annex I (i)) (Stage E).

14.2 SEA monitoring will cover significant social and environmental effects and involves measuring indicators that will enable the establishment of a causal link between the implementation of the plan and the likely significant effects (both positive and negative) being monitored. In line with the SEA Directive, these significant positive and negative effects should be monitored with the implementation of LTP3.

14.3 The SEA of the LTP3 has identified significant beneficial effects with regards to certain SEA and HIA objectives that will require monitoring. The SEA framework (Table 8.2) contains indicators that could be used to monitor significant effects post implementation.

14.4 The following significant effects (direct as well as cumulative effects) have been identified by the assessment and form the basis of the monitoring programme:

- SEA objective 1 - To improve equitable access to services, amenities and opportunities for all and encourage a sense of community;
- SEA objective 2 - To improve air quality across the Borough;
- SEA objective 3 - To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2;
- SEA objective 4 - To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions;
- SEA objective 5 - To reduce noise, vibration and light pollution;
- SEA objective 6 - To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure;
- SEA objective 8 – To conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings;
- SEA objective 9 - To protect and enhance the landscape and quality of the countryside , including all designated landscape sites;
- SEA objective 11 - To maximise the efficient use of natural resources and minimise the amount of waste produced;
- SEA objective 12 - To protect water resources, avoid pollution and achieve sustainable water resource management;
- SEA objective 13 - To reduce crime, disorder and fear of crime and promote safe and inclusive communities (Health Specific Objective);
- SEA objective 14 - To improve physical and mental health for all and reduce health inequalities (Health specific objective);
- SEA objective 15 - To promote a range of sustainable modes of transport and reduce reliance on the private car.

14.5 The proposed monitoring programme is outlined in Table 14.1.

Table 14.1- Proposed Monitoring Programme

No.	SEA Objective against which a significant effect has been predicted)	Indicator(s) to be Used	Suggested frequency of analysis of monitoring data/mitigation	Responsibility for undertaking monitoring
1	To improve equitable access to services, amenities and opportunities for all and encourage a sense of community	Total length of walking and cycling routes connecting residential areas with services, facilities and employment	Annually	TWC
		Frequency, affordability, efficiency and reliability of bus services	Monthly, report annually	TWC/Local Transport Providers
		% change in residents able to easily access amenity open space, parks and gardens; natural and semi-natural greenspace; and/or outdoor sports facilities	Annually	TWC
		Number of street parking spaces available in new developments compared to developments of comparable size	Annually	TWC
		% change in households within 30 minutes of the primary Borough Towns (Wellington and Newport) by public transport and walking	Annually	TWC
		% residents able to easily access essential community facilities by public transport, walking and cycling including post offices, GP and district centres	Annually	TWC
		% change in the number of children and young people above to easily access open space designed for their use	Annually	TWC
		Improved access to essential facilities for residents in the 25 SOAs ranked in the top 10-30 % most deprived SOAs in the country	Annually	TWC
		% of people with a long standing illness, health problem or disability satisfied with the provision of local bus services	Annually	TWC
		% improvement in public transport services in rural areas	Annually	TWC
		% of residents able to access appropriate education, training and employment by public transport (and other specified modes)	Annually	TWC
2	To improve air quality across the Borough	Compliance with National Air Quality Strategy objective – annual mean NO_2 and PM_{10}	Monthly, reported annually	TWC
		Number of Air Quality Management Areas declared	Annually	TWC
		Number of residential properties within AQMAs	Annually	TWC
		Road traffic - Estimated traffic flows for all vehicle types (million vehicle kilometres)	Monthly, reported annually	TWC/DfT

		Percentage of residents who identify the level of traffic congestion as something most in need of improvement	Annually	TWC
		Percentage of residents who identify the level of pollution as something most in need of improvement	Annually	TWC
		% change in the length, ease of use and legibility of the walking and cycling network (including national trails and PROW)	Annually	TWC
3	To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2	CO_2 emissions for road transport sector	Annually	TWC/DECC
		Number of trees planted as part of transport related schemes	Annually	TWC
		% of council fleet running on sustainable fuels (biodiesel, electric)	Annually	TWC
		Number of transport schemes featuring energy efficient design and/or use of renewable energy	Annually	TWC
4	To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions	Number of road drainage schemes implemented to decrease risk of flooding; incorporation of SUDS into all schemes involving construction to achieve flood reduction where appropriate	Annually	TWC
		Transport infrastructure built in an area of existing or predicted future flood risk	Annually	TWC
		Number of transport schemes that reduce flood risk where it is a relevant factor	Annually	TWC
5	To reduce noise, vibration and light pollution	Proportion of roads within DEFRA Noise Action Plan Areas	Annually	TWC
		Proportion of residents living close to roads with high levels of traffic noise	Monthly monitoring, reported annually	TWC
		% change in quantity of appropriate surfacing materials and noise barriers implemented to reduce vibration and noise	Annually	TWC
		% change in traffic levels and congestion next to sensitive land uses	Monthly monitoring, reported annually	TWC
		Number of new Transport Infrastructure Schemes built near sensitive land uses	Annually	TWC
		Proportion of street lamps which reduce light pollution	Annually	TWC
		Lengths of road and adoptive footway within the rural area with overhead lighting columns	Annually	TWC
6	To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure	Number and scope of transport schemes adversely affecting protected species and sites designated for nature conservation	Annually	TWC/Natural England
		Number of transport schemes adversely affecting RIGS	Annually	TWC/English Heritage/County Archaeologist
		NI 197 Improved local biodiversity - proportion of local sites where positive conservation management has been or is being implemented Area and type of BAP	Annually	TWC

		priority habitat lost and created due transport schemes		
		Number of transport schemes incorporating biodiversity enhancements and mitigation including green infrastructure	Annually	TWC
9	To protect and enhance the landscape and quality of the countryside , including all designated landscape sites	Number of areas conserved or improved for local landscape and townscape character as a result of transport schemes'	Annually	TWC
		Number of transport schemes adversely affecting areas within Shropshire Hills AONB	Annually	TWC
		% change in the green network	Annually	TWC
		Extent of Green Belts affected by transport schemes	Annually	TWC
		% change in level of tranquillity	Annually	TWC
		% development built on previously developed land	Annually	TWC
10	To reduce land contamination associated with transport and seek to conserve soil quality and quantity	Area of grade 1, 2 or 3a agricultural land permanently lost as a result of transport schemes	Annually	TWC
		Number of transport schemes adversely affecting agricultural land (grade 2 soils)	Annually	TWC
		Numbers, extent or % of transport schemes on previously developed land	Annually	TWC
		Number of pollution incidents, affecting soil quality, attributable to transport	Full record – constant update	TWC/Environment Agency
		Number of sites affected by contamination remediated as part of new development and put back into use	Annually	TWC
11	To maximise the efficient use of natural resources and minimise the amount of waste produced	Proportion of road materials that utilise recycled material	Annually	TWC
		Percentage of residents who have used local tips / household waste recycling centres at any time within the last year	Annually	TWC
12	To protect water resources, avoid pollution and achieve sustainable water resource management	% of watercourses classified as good or fair biological	Annually	TWC/Environment Agency
		Numbers and % of transport schemes incorporating vegetated drainage systems to protect surface water, where these have been requested by the Environment Agency	Full record – constant update	TWC/Environment Agency
		Number and % of transport schemes incorporating conditions to protect groundwater, where these have been requested by the Environment Agency	Full record – constant update	TWC/Environment Agency
		Number of pollution incidents attributable to transport related activities	Full record – constant update	TWC/Environment Agency
13	To reduce crime, disorder	Total crime per 1000 population	Annually	TWC/Police

	and fear of crime and promote safe and inclusive communities *(Health Specific Objective)*	NI 2 Percentage of people who feel that they belong to their neighbourhood	Annually	TWC
		NI 17 Residents' perceptions of anti-social behaviour	Annually	TWC
		Numbers and % of transport schemes or LTP3 spend aiming to improve personal security on public transport and at its facilities	Annually	TWC
		Number of reported crimes on public transport and at its facilities	Annually	TWC/British Transport Police
		Number/extent of 20 mph zones	Annually	TWC
14	To improve physical and mental health for all and reduce health inequalities (*Health specific objective*)	% of people in good and not good health	Annually	TWC/PCT
		% of people using non-motorised modes of transport	Annually	TWC
		Number of bus stops adapted for easy access buses	Annually	TWC
		Pedestrian crossings with facilities for disabled people	Annually	TWC
		Public transport accessibility for disabled people	Annually	TWC
		% adults participating in sport and active recreation	Annually	TWC
		Number of 'healthy walks' schemes created	Annually	TWC
		Casualties as a result of personal injury collisions	Full record – constant update	TWC/PCT
		Number of people killed or seriously injured overall as a result of road traffic collisions	Full record – constant update	TWC/PCT
		Cycling casualties	Full record – constant update	TWC/PCT
		Collisions involving 16 – 25 year olds	Full record – constant update	TWC/Police
15	To promote a range of sustainable modes of transport and reduce reliance on the private car	% change in modal share for travel to work	Annually	TWC
		% change in modal share of journeys to school	Annually	TWC
		% change in integration of public transport facilities	Annually	TWC
		% share of trips by sustainable/non-sustainable modes in Telford Town Centre	Annually	TWC

15. Conclusions

15.1 This Environmental Report sets out the SEA process and its key findings in relation to Telford and Wrekin's LTP3.

As a result of the first iteration of the assessment, the Draft Environmental Report made a series of SEA/HIA recommendations that aimed to improve the overall sustainability performance of the LTP3. TWC has given careful consideration to these recommendations and addressed most of them (please refer to the SEA Statement for details). In relation to other, more specific, recommendations it has been confirmed that TWC will consider them during the preparation or review of other relevant documents or lower tier specific transport policy documents and schemes as they come forward. TWC also took on board the comments arising from public consultation in the preparation of the Final LTP3.

The changes made to the Final LTP3 improved its performance in such areas as ensuring equitable access to services and opportunities, promoting sustainable transport modes, tackling climate change and maximising resource efficiency as well as ensuring that appropriate environmental safeguards are in place. The incorporation of the SEA recommendations also led to the elimination of significant negative effects predicted as a result of the first assessment iteration.

15.2 Overall, it is considered that the Final LTP3 meets the range of SEA objectives identified in the SEA Framework to a large extent. It offers potentially significant beneficial effects on the majority of SEA objectives. These include:

- SEA objective 1 - To improve equitable access to services, amenities and opportunities for all and encourage a sense of community;
- SEA objective 2 - To improve air quality across the Borough;
- SEA objective 3 - To reduce contributions to climate change through reducing greenhouse gas emissions including CO_2;
- SEA objective 4 - To adapt to climate change by minimising the risk of flooding and adapting to the predicted changes in weather conditions;
- SEA objective 5 - To reduce noise, vibration and light pollution;
- SEA objective 6 - To protect and where possible enhance biodiversity and geodiversity and explore opportunities for green infrastructure;
- SEA objective 8 - To conserve and enhance the quality of the historic environment and heritage assets of historic, archaeological, architectural or artistic interest and their settings;
- SEA objective 9 - To protect and enhance the landscape and quality of the countryside , including all designated landscape sites;
- SEA objective 11 - To maximise the efficient use of natural resources and minimise the amount of waste produced;
- SEA objective 12 - To protect water resources, avoid pollution and achieve sustainable water resource management;
- SEA objective 13 - To reduce crime, disorder and fear of crime and promote safe and inclusive communities (Health Specific Objective);
- SEA objective 14 - To improve physical and mental health for all and reduce health inequalities (Health specific objective);
- SEA objective 15 - To promote a range of sustainable modes of transport and reduce reliance on the private car.

15.3 With the recommendations taken into account (and incorporated into the final version of the LTP3) there will be no likely significant effects on the international sites from the Plan alone. As such it may not be necessary to complete a Stage 1 Screening for the Plan, which has been confirmed by Natural England.

15.4 The Implementation plan of the LTP was not produced at the time of the SEA and therefore has not been included within this assessment.

16. References

16.1 In addition to the plans, policies and programmes that have been reviewed, the following is a list of additional references utilised in the compilation of this Environmental Report:

Guidance

- A Practical Guide to the Strategic Environmental Assessment Directive, produced by the Office of the Deputy Prime Minister (2005);
- European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment
- Statutory Instrument 2004 No. 1663, The Environmental Assessment of Plans and Programmes Regulations 2004
- The Habitats Directive 92/43/EEC
- World Health Organization. Gothenburg consensus paper. Health Impact Assessment: Main concepts and suggested approach http://www.who.dk/document/PAE/Gothenburgpaper.pdf . Brussels: WHO European Centre for Health Policy, 1999.
- Health Impact Assessment of Transport Initiatives A Guide, Health Scotland
- MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine 2007

Department for Transport

- Guidance on Local Transport Plans, July 2009 http://www.dft.gov.uk/adobepdf/165237/ltp-guidance.pdf
- Transport Analysis Guidance 2.11 Strategic Environmental Assessment for Transport Plans and Programmes, 'In Draft' Guidance, April 2009
- Delivering a Sustainable Transport System' (2008) (DaSTS)
- 2008 Core National Local Authority Accessibility Indicators, Nov 2009 http://www.dft.gov.uk/adobepdf/162469/221412/221692/474257/accessibilityreport2008.pdf

Department for Health

- Draft Guidance on Health in Strategic Environmental Assessment Consultation Document
- Transport and the Historic Environment, English Heritage 2004.
- Telford and Wrekin Strategic Flood Risk Assessment (SFRA) Level 1 and Level 2 (2007)

HRA

- HRA Screening report for Telford and Wrekin LTP3 2011.

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Atkins Limited
Woodcote Grove, Ashley Road,
Epsom, Surrey KT18 5BW, England

Contact: **Cristina West**
Telephone number: +44 (0) 1372 756931
Fax number: +44 (0) 1372 746608

Email: cristina.west@atkinsglobal.com
Web address: www.atkinsglobal.com/environment