MOTT MACDONALD

Cambridgeshire and Peterborough Combined Authority Local Transport Plan

Strategic Environmental Assessment - Environmental Report

May 2019

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Abbreviations

AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BAME	Black, Asian and Minority Ethnic
BAP	Biodiversity Action Plan
CIA	Community Impact Assessment
CO_2	Carbon Dioxide
CPCA	Cambridgeshire and Peterborough Combined Authority
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DPD	Development Plan Document
EAP	Environmental Action Programme
EC	European Commission
EIA	Environmental Impact Assessment
EqIA	Equality Impact Assessment
EU	European Union
HIA	Health Impact Assessment
HRA	Habitats Regulations Assessment
LNR	Local Nature Reserve
LTP	Local Transport Plan
MAGIC	Multi-Agency Geographic Information for the Countryside
MWLP	Minerals and Waste Local Plan
NCA	National Character Area
NHS	National Health Service
NH_3	Ammonia
NNR	National Nature Reserve
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NWVOC	Non-methane Volatile Organic Compound
ONS	Office for National Statistics
$PM_{2.5}$	Particulate Matter (2.5 micrometres in size)
PM_{10}	Particulate Matter (10 micrometres in size)
PSED	Public Sector Equality Duty
RDP	Rural Development Programme
RIGS	Regionally Important Geological Site
RoWIP	Rights of Way Improvement Plan
SAC	Special Area of Conservation

SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SO_2	Sulphur Dioxide
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
tCO_2e	Tonnes Carbon Dioxide Equivalent
UK	United Kingdom
UKCP18	United Kingdom Climate Projections 2018
WCS	Water Cycle Study
WHO	World Health Organisation

Glossary

Baseline	A description of the present and future state of an area, in the absence of the Cambridgeshire and Peterborough Local Transport 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 SEA Directive. The Consultation Bodies designated in the SEA Regulations are Natural England, Historic England (formerly English Heritage) and the Environment Agency
Mitigation Measures	Refers to measures to avoid, reduce or offset significant adverse effects
Objective	A statement of what is intended, specifying the desired direction of change in trends
Scoping	The process of deciding the scope and level of detail of a SEA, including the sustainability effects and options which need to be considered, the assessment methods to be used, and the structure and contents of the Environmental Report
SEA Directive	European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'. Transposed into UK law via The Environmental Assessment of Plans and Programmes Regulations 2004
Strategic Environmental Assessment	Generic term used internationally to describe environmental assessment as applied to policies, plans and programmes. In this report, 'SEA' is used to refer to the type of environmental assessment required under the SEA Directive
SEA Framework	This is the objectives and criteria developed for the project
SEA Objective	These are specific objectives that have been developed for this project. They are also part of the SEA Framework, against which the project objectives and design will be tested for the purposes of the SEA

Non-Technical Summary

Introduction

The Cambridgeshire and Peterborough Combined Authority (CPCA) has developed a Local Transport Plan (LTP) for the Cambridgeshire and Peterborough region. The LTP sets out the long-term approach to guide improvements to the transport system to 2050.

Under the European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (also known as the 'Strategic Environmental Assessment (SEA) Directive'), and the resulting Environmental Assessment of Plans and Programmes Regulations 2004, a SEA is required to ensure that the environmental effects of the LTP have been considered.

This report is the Environmental Report which presents the results of the SEA process for the Cambridgeshire and Peterborough LTP. The Environmental Report will be published for consultation, alongside the draft Cambridgeshire and Peterborough LTP. Following consultation, the Environmental Report will be updated to reflect consultation comments and any changes between the draft and final LTP.

As part of the suite of statutory documents required to support the development of the LTP a Habitats Regulations Assessment (HRA) and Community Impact Assessment (CIA) (including Health Impact Assessment (HIA) and Equalities Impact Assessment (EqIA)) have been produced. The HRA and CIA are presented in separate reports, but the results of these assessments have been used to inform the SEA.

Cambridgeshire and Peterborough Local Transport Plan

The Transport Act 2000 (as amended by the Local Transport Act 2008) requires local transport authorities to produce a LTP. Under the Cambridgeshire and Peterborough Combined Authority Order, 2017, the CPCA is now the Local Transport Authority with strategic transport powers for the area previously covered by Cambridgeshire County Council and Peterborough City Council. As such, responsibility for the LTP in Cambridgeshire and Peterborough now rests with the CPCA.

The current LTP for the Cambridgeshire and Peterborough area is an amalgamation of the two LTPs previously prepared by Cambridgeshire County Council and Peterborough City Council. This was necessary to ensure that that the CPCA complied with its statutory duty to produce a LTP following the formation of the CPCA. As a result, the current LTP does not fully reflect the aspirations of the CPCA as set out by the Mayor and in the wider CPCA 2030 Strategy. Therefore, this new LTP has been developed. The LTP covers the geographical areas of Cambridgeshire and Peterborough, including the following Local Authorities:

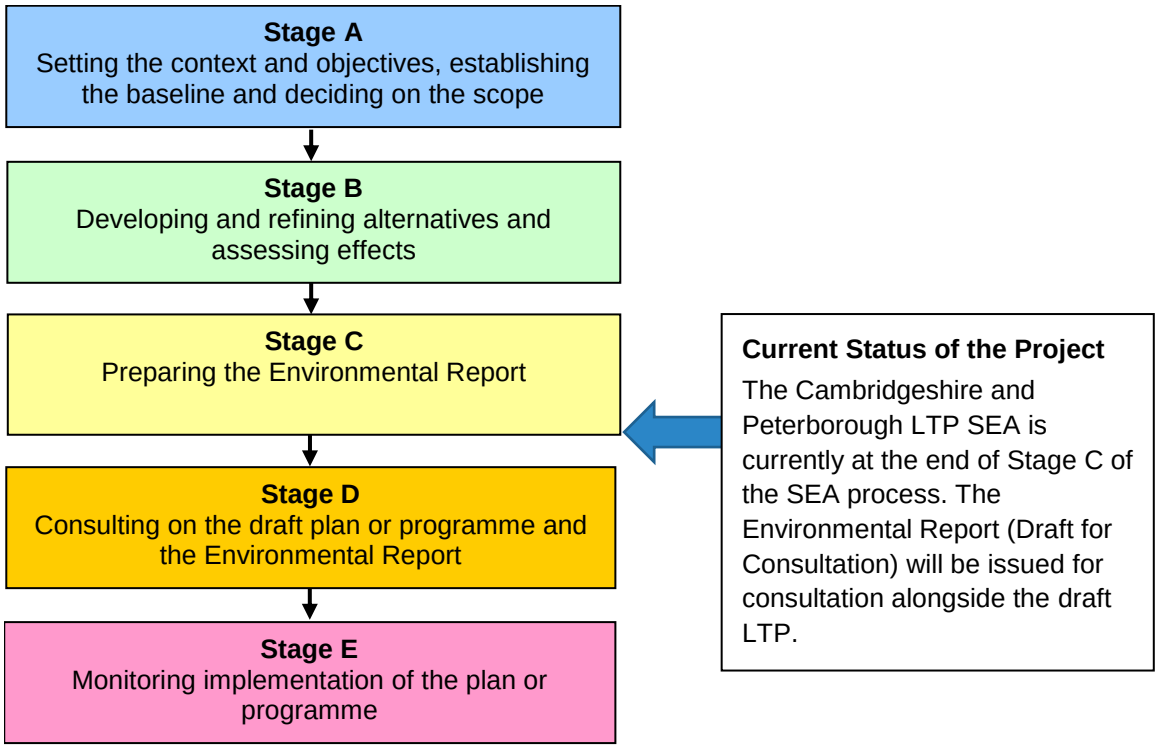
- Cambridge City Council
- Cambridgeshire County Council
- East Cambridgeshire District Council
- Fenland District Council
- Huntingdonshire District Council
- Peterborough City Council
- South Cambridgeshire District Council

The vision developed for the LTP is to '*Deliver a world-class transport network for Cambridgeshire and Peterborough that supports sustainable growth and opportunity for all*'. Three goals and ten objectives sit underneath the vision, and a range of policies have been developed to deliver these.

SEA Methodology

The figure below shows the different stages of the SEA process. The SEA for the Cambridgeshire and Peterborough LTP is currently at the end of Stage C of the SEA process.

SEA Process and Stages



Scoping Stage Summary

The SEA Scoping Report was issued for formal consultation in February 2019 to the three Consultation Bodies (Environment Agency, Natural England, and Historic England) and the Local Authorities. Comments received were taken into consideration in the preparation of this Environmental Report.

A key stage in the scoping process was the development of the SEA Framework which includes SEA objectives, assessment criteria and indicators. The SEA objectives and assessment criteria were used in Stage B (the assessment stage) to appraise the LTP strategic alternatives, and the LTP policies and projects to determine their predicted environmental effects. The SEA objectives were developed based on the SEA topics, baseline information, key issues in the Cambridgeshire and Peterborough area, and the objectives in the SEA for the previous Cambridgeshire and Peterborough LTPs.

The SEA objectives for the Cambridgeshire and Peterborough LTP are:

Cambridgeshire and Peterborough LTP SEA Objectives
Improve the health of the population and reduce health inequalities between areas and groups
Improve the health and safety of the transport network, reducing the number of accidents and other incidents
Improve accessibility to key services, employment and recreational areas for all areas of the community
Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks
Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking
Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels
Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character
Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character
Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land
Protect and enhance the quality of the water environment
Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk
Protect and improve local air quality, particularly in the AQMAs
Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change
Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards
Maximising the use and lifespan of existing transport infrastructure

Assessment Results and Conclusions

The SEA undertaken for the Cambridgeshire and Peterborough LTP has helped to identify the likely effects of the LTP policies and projects. The LTP strategy focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. Overall the LTP is likely to have significant positive social effects from increased accessibility (both affordability and connectivity), increased choice and reliability of sustainable transport modes, economic growth, and health benefits. The LTP promotes sustainable transport modes including low and zero emission vehicles which will help reduce transport-related emissions providing benefits for air quality, GHG reduction and health.

The LTP promotes new road and rail transport infrastructure which has the potential for positive or negative effects depending on the location of the projects and mitigation measures incorporated into the design. Negative effects could include habitat loss and fragmentation, death, injury or disturbance to species, visual impacts, damage to heritage assets and archaeology, effect on setting of heritage assets, landtake including loss of agricultural land, and water pollution. There is also opportunity to provide positive effects through design and co-ordination with partners and other organisations, including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth. The LTP also contains policies that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design. The SEA process has also resulted in mitigation and enhancement measures being identified for the LTP to strengthen environmental outcomes.

Monitoring the implementation of the LTP

Monitoring the negative effects of implementing the LTP is an essential ongoing element of the SEA process. Monitoring helps ensure that the identified SEA objectives are being achieved, allows early identification of unforeseen adverse effects and thus appropriate remedial action can be taken.

Negative effects identified during the SEA process were centred around future infrastructure development and the potential for effects on ecology, historic environment, water quality, landscape, and soils. Monitoring proposals were developed for the LTP to monitor these predicted effects.

1 Introduction

1.1 Introduction

Local authorities are required under The Transport Act 2000 (as amended by the Transport Act 2008) to produce a Local Transport Plan (LTP). The Cambridgeshire and Peterborough Devolution Deal gives the Cambridgeshire and Peterborough area greater local control over transport, skills, business support and other areas. In light of the Devolution Deal, the Cambridgeshire and Peterborough Combined Authority (CPCA) is responsible for developing a statutory Local Transport Plan (LTP) for the region.

A number of statutory documents are required to support development of the LTP as outlined in Annex A of the DfT guidance[1]. These include environmental and social assessments including:

- Strategic Environment Assessment (SEA)
- Habitats Regulations Assessment (HRA)
- Community Impact Assessment (CIA) (including Health Impact Assessment (HIA) and Equalities Impact Assessment (EqIA))

Under the European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (also known as the 'Strategic Environmental Assessment (SEA) Directive'), and the resulting Environmental Assessment of Plans and Programmes Regulations 2004, a SEA is required to ensure that the environmental effects of the LTP are considered. This Environmental Report presents the results of the SEA process for the Cambridgeshire and Peterborough LTP.

The HRA and CIA are presented in separate reports, but the results of these assessments have been used to inform the SEA.

1.2 The SEA Process

The SEA Directive and Regulations require an assessment of the effects of certain plans and programmes on the environment. Article 3 (2b) states that SEA is required for plans and programmes which are prepared for transport, set the framework for development consents, and/or are likely to have a significant environmental effect.

The SEA works to inform the decision-making process through the identification and assessment of significant and cumulative effects a plan or programme may have on the environment. The SEA process is conducted at a strategic level and enables consultation on the potential effects of a plan with a wide range of stakeholders. Figure 1 shows the different stages in the SEA process. Table 1 presents the different tasks involved in each of the SEA stages. The SEA for the Cambridgeshire and Peterborough LTP is currently at the end of the Stage C of the SEA process.

The Cambridgeshire and Peterborough LTP SEA was carried out in accordance with the following guidance:

- Department for Transport (DfT) (2009) Guidance on Local Transport Plans;

[1] Department for Transport (2009) Guidance on Local Transport Plans. Available at: http://webarchive.nationalarchives.gov.uk/20110505104156/http://www.dft.gov.uk/adobepdf/165237/ltp-guidance.pdf

- Office of Deputy Prime Minister (ODPM) (now the Department for Communities and Local Government (DCLG)) (September 2005) A Practical Guide to the Strategic Environmental Assessment Directive;
- Environment Agency (August 2011) Strategic Environmental Assessment and Climate Change: Guidance for Practitioners; and
- Historic England (December 2016) Sustainability Appraisal and Strategic Environmental Assessment – Historic England Advice Note 8.

Figure 1: SEA Process Stages

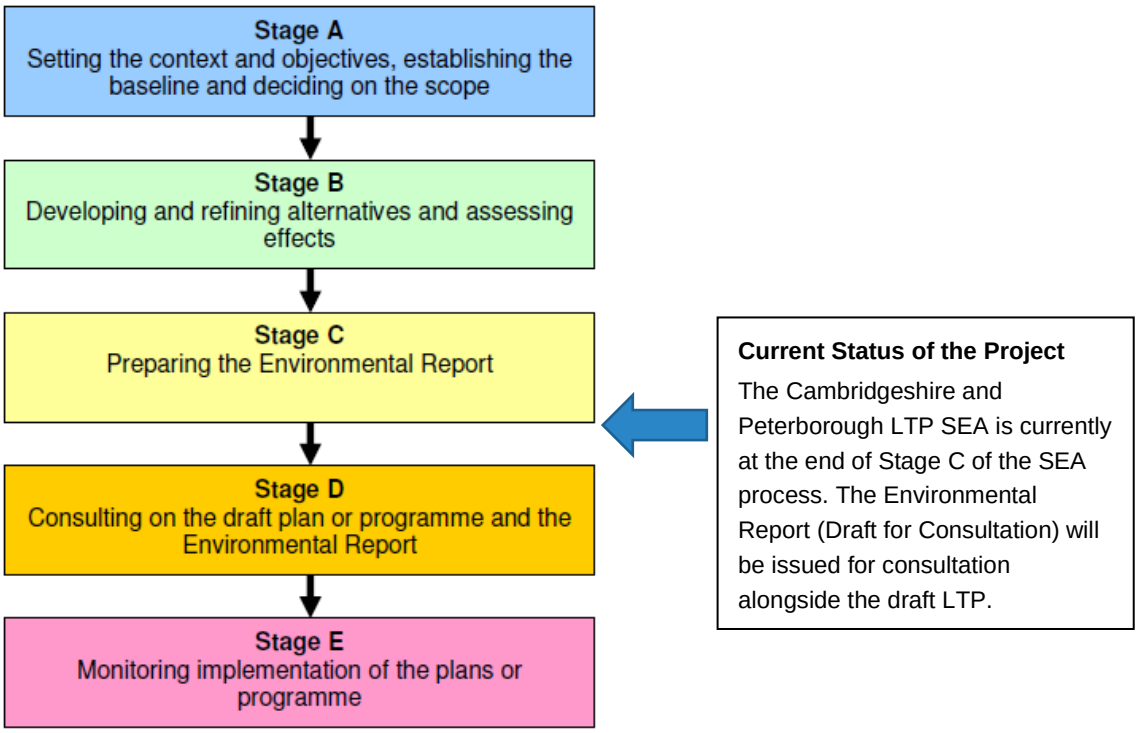


Table 1: SEA Stages and Tasks

SEA Stage	SEA Task	Task Purpose
Stage A Setting the context and objectives, establishing the baseline and deciding on the scope	A1: Identifying other relevant plans, programmes, and environmental protection objectives	To establish how the plan or programme is affected by outside factors, to suggest ideas for how any constraints can be addressed, and to help to identify SEA objectives
	A2: Collecting baseline information	To provide an evidence base for environmental problems, prediction of effects, and monitoring; to help in the development of SEA objectives
	A3: Identifying environmental problems	To help focus the SEA and streamline the subsequent stages, including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring
	A4: Developing SEA objectives	To provide a means by which the environmental performance of the plan or programme and alternatives can be assessed
	A5: Consulting on the scope of SEA	To ensure that the SEA covers the likely significant environmental effects of the plan or programme
Stage B Developing and refining alternatives and assessing effects	B1: Testing the plan or programme objectives against the SEA objectives	To identify potential synergies or inconsistencies between the objectives of the plan or programme and the SEA objectives and help in developing alternatives
	B2: Developing strategic alternatives	To develop and refine strategic alternatives

SEA Stage	SEA Task	Task Purpose
	B3: Predicting the effects of the draft plan or programme, including alternatives	To predict the significant environmental effects of the plan or programme and alternatives
	B4: Evaluating the effects of the draft plan or programme, including alternatives	To evaluate the predicted effects of the plan or programme and its alternatives and assist in the refinement of the plan or programme
	B5: Considering ways of mitigating adverse effects	To ensure that adverse effects are identified, and potential mitigation measures are considered
	B6: Proposing measures to monitor the environmental effects of plan or programme implementation	To detail the means by which the environmental performance for the plan or programme can be assessed
Stage C Preparing the Environmental Report	C1: Preparing the Environmental Report	To present the predicted environmental effects of the plan or programme, including alternatives, in a form suitable for public consultation and use by decision-makers
Stage D Consulting on the draft plan or programme and the Environmental Report	D1: Consulting on the draft plan or programme and Environmental Report	To give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report and to use it as a reference point in commenting on the plan or programme. To gather more information through the opinions and concerns of the public
	D2: Assessing significant changes	To ensure that the environmental implications of any significant changes to the draft plan or programme at this stage are assessed and taken into account
	D3: Decision making and providing information	To provide information on how the Environmental Report and consultees' opinions were taken into account in deciding the final form of the plan or programme to be adopted
Stage E Monitoring implementation of the plans or programme	E1: Developing aims and methods for monitoring	To track the environmental effects of the plan or programme to show whether they are as predicted; to help identify adverse effects
	E2: Responding to adverse effects	To prepare for appropriate responses where adverse effects are identified

Source: Adapted from 'A Practical Guide to the Strategic Environmental Assessment Directive' (DCLG, September 2005)

1.3 The Purpose and Structure of the Environmental Report

The purpose of this Environmental Report is to present the results of the SEA process for the Cambridgeshire and Peterborough LTP including the potential effects (positive and negative) of the LTP policies and projects, mitigation and enhancement measures, and monitoring proposals.

The Environmental Report will be published for consultation, alongside the draft Cambridgeshire and Peterborough LTP. Following consultation, the Environmental Report will be updated to reflect consultation comments and any changes between the draft and final LTP.

The key tasks undertaken, and the structure of the Environmental Report are presented below:

- Chapter 1 – Introduction to the Cambridgeshire and Peterborough LTP and SEA process and requirements
- Chapter 2 – Description and context of the Cambridgeshire and Peterborough LTP
- Chapter 3 – Consultation process
- Chapter 4 – Summary of the Scoping Stage tasks (from the Scoping Report), including the plans and programmes review, baseline, key issues and opportunities, and SEA Framework
- Chapter 5 – LTP Strategic Alternatives Assessment
- Chapter 6 – Description and assessment of the LTP, and assessment of cumulative effects

- Chapter 7 – Proposals for mitigation and monitoring of effects of the LTP
- Appendix A – LTP Policies and Projects
- Appendix B – Policy, Plans and Programmes Review
- Appendix C – Scoping Report Consultation log
- Appendix D – Baseline Review
- Appendix E – Baseline Maps
- Appendix F – Baseline Indicators
- Appendix G – LTP Policy Assessments
- Appendix H – LTP Project Assessments
- Appendix I – Other projects planning search

1.4 Compliance with the SEA Directive

This Environmental Report has been prepared in accordance with the requirements of the SEA Directive. Table 2 indicates where the specific requirements in the SEA Directive relating to the Environmental Report (SEA Directive Annex I) can be found within this report.

Table 2: SEA Directive Requirements Signposting Table

SEA Directive Environmental Report Requirements	Section of Environmental Report where Requirement is found
An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Chapter 2, Section 4.2, Section 6.4, Appendix B
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Section 4.4, Appendix D, Appendix E, Appendix F
The environmental characteristics of areas likely to be significantly affected	Section 4.4, Appendix D, Appendix E, Appendix F
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 and 92/43/EEC	Section 4.4, Appendix D
The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Section 4.2 – 4.3, Appendix B
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, historic environment[2], landscape and the interrelationship between the above factors	Chapter 5, Chapter 6, Appendix G, Appendix H
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Chapter 7
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Chapter 5
A description of the measures envisaged concerning monitoring in accordance with Article 10	Chapter 7
A non-technical summary of the information provided under the above headings	Non-technical summary at start of report

Source: SEA Directive Annex I

[2] Historic environment covers the SEA Directive topic cultural heritage including architectural and archaeological heritage

1.5 Limitations of the Environmental Report

In order to produce this Environmental Report, Mott MacDonald has relied on published data and information provided by CPCA and from third party organisations. The baseline information collected in this Report is the most up-to-date information currently available; however, it is possible that conditions described in this report may change over time. This dataset has been reviewed and updated as appropriate throughout the SEA process, as new information becomes available.

2 Description and Context of the Cambridgeshire and Peterborough LTP

2.1 Background to Cambridgeshire and Peterborough LTP

The Transport Act 2000 (as amended by the Local Transport Act 2008) requires local transport authorities to produce a LTP. Under the Cambridgeshire and Peterborough Combined Authority Order, 2017, the CPCA is now the Local Transport Authority with strategic transport powers for the area previously covered by Cambridgeshire County Council and Peterborough City Council. As such, responsibility for the LTP in Cambridgeshire and Peterborough now rests with the CPCA.

Efficient, low carbon and reliable transport is a vital factor in building sustainable local communities. It contributes to the achievement of stronger, safer and healthier communities, equality and social inclusion, environmental objectives and more successful local economies. The LTP is a vital framework in helping the CPCA work with stakeholders to strengthen its place-shaping role and its delivery of services to the community.

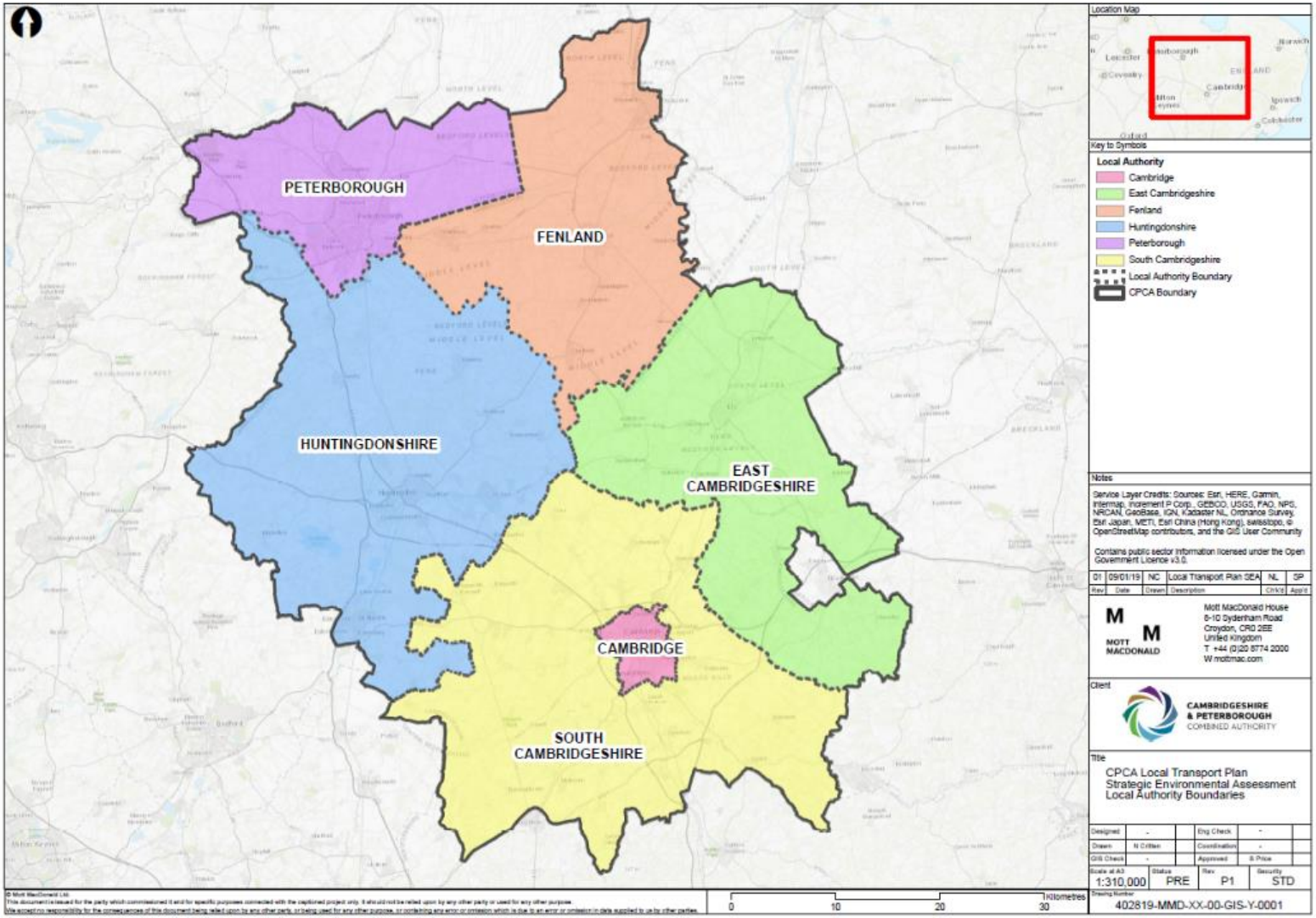
The current LTP for the Cambridgeshire and Peterborough area is an amalgamation of the two LTPs previously prepared by Cambridgeshire County Council and Peterborough City Council. This was necessary to ensure that that the CPCA complied with its statutory duty to produce a LTP following the formation of the CPCA. As a result, the current LTP does not fully reflect the aspirations of the CPCA as set out by the Mayor and in the wider CPCA 2030 Strategy. Therefore, this new LTP has been developed.

2.2 Cambridgeshire and Peterborough LTP Context

The LTP covers the geographical areas of Cambridgeshire and Peterborough (see Figure 2), including the following Local Authorities:

- Cambridge City Council
- Cambridgeshire County Council
- East Cambridgeshire District Council
- Fenland District Council
- Huntingdonshire District Council
- Peterborough City Council
- South Cambridgeshire District Council

Figure 2: Cambrigeshire and Peterborough LTP Area



Source: Mott MacDonald (2018)

2.3 LTP Vision, Goals and Objectives

A vision statement, goals and objectives have been developed for the new Cambridgeshire and Peterborough LTP and are presented in Figure 3.

Figure 3: LTP Vision, Goals and Objectives

Vision Deliver a world-class transport network for Cambridgeshire and Peterborough that supports sustainable growth and opportunity for all		
Goals		
Economy Deliver economic growth and opportunity for all our communities.	**Society** Provide an accessible transport system to ensure everyone can thrive and be healthy	**Environment** Protect and enhance our environment and tackle climate change together.
Objectives		
• Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues. • Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity. • Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports. • Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time reliability.	• Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries. • Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all. • Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles. • Ensure transport initiatives improve air quality across the region to exceed good practice standards.	• Deliver a transport network that protects and enhances our natural, historic and built environments. • Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change.

2.3.1 Policy Development

The key transport policy and strategy documents from the Cambridgeshire and Peterborough Combined Authority, Cambridgeshire County Council, Peterborough City Council and Greater Cambridge Partnership were reviewed by the project team to develop a long list of policies. The reviewed documents were:

- Peterborough Local Transport Plan 4
- Cambridgeshire Local Transport Plan 3
- The Mayor's Interim Transport Strategy

- Cambridgeshire and Peterborough Strategic Spatial Framework
- Cambridgeshire and Peterborough Combined Authority 2030 Ambition
- Cambridgeshire and Peterborough Independent Economic Review
- Greater Cambridge Partnership Transport Aims 4.

Through this review a long list of over 140 policies was identified, along with which of the new LTP objectives they met.

Following development of the long list, a round of consolidation was undertaken to remove repetitions and to ensure that policies covered a broad range of relevant themes. This resulted in lists of policy themes for each objective which were brought together into one master list of policy themes. A second round of consolidation was then carried out by grouping together policy themes to generate an initial shortlist of policy areas. The initial shortlist was cross-tabulated with the objectives to show alignments (some policy areas cross cut all objectives) and to reveal gaps. At this point, a number of additional policy areas were considered for inclusion. The proposed LTP policies were assessed as part of the SEA process and the results are presented in Section 6.

2.3.2 Project Development

The schemes that have been included in the draft Local Transport Plan have been identified and selected from a number of sources: the priority schemes and studies of the Combined Authority, previous Local Transport Plans for Cambridgeshire and Peterborough, the Greater Cambridge Partnership's work, and Local Plans; and have been reviewed with key officer stakeholders at a local, regional and national level.

The schemes have been through relevant due diligence processes. For example, the Combined Authority's priority transport schemes are being developed in line with the Combined Authority's Assurance Framework and the schemes contained within existing Local Plans have been through Examination in Public. In addition, an assessment framework, developed for the Local Transport Plan, has been deployed.

In line with good practice, the assessment framework includes consideration of schemes against their potential contribution towards the strategic objectives for the Local Transport Plan, as well as consideration of their value for money, affordability, environmental impacts (including air quality) and engineering deliverability.

It is a balanced and integrated package of schemes that has been brought forward for inclusion in the plan that addresses key issues and opportunities, across multiple objective priorities, as well as having full spatial coverage of the Combined Authority region.

Notwithstanding the high-level scheme assessment and sifting undertaken to inform this Local Transport Plan, all individual schemes will be subject to further scrutiny as plans for their delivery are progressed. These include further value for money testing (through the business case development process) and environmental assessment (including air quality assessments).

The short-listed projects were assessed as part of the SEA process and the results are presented in Section 6.

3 Consultation

3.1 The Consultation Process

Consultation is an integral part of the SEA process. The SEA Regulations require that consultation is carried out early in the plan development process with the relevant consultation bodies, regarding the '*scope and level of information to be included within the Environmental Report*'. In England the statutory consultation bodies are:

- Natural England
- The Environment Agency
- Historic England

There are two main phases of consultation associated with the SEA process. These are:

- Consulting on the scope of the SEA
- Consultation on the Environmental Report alongside the draft Plan

3.2 Scoping Consultation

The SEA Scoping Report was issued in February 2019 for a five-week statutory consultation period to the three Consultation Bodies and the Local Authorities. The responses received and how these have been addressed are presented in full in Appendix C.

Key themes arising from the Scoping Report consultation included:

- More consideration of biodiversity net gain
- Stronger link and use of data from the Transport and Health Joint Strategic Needs Assessment (JSNA)
- Widening of health baseline including mental health
- Rationalisation of indicators
- Including flood risk as a topic in its own right

3.3 Environmental Report Consultation

The SEA Directive and Regulations do not define a set timeframe for consultation on an Environmental Report. The SEA Directive states that Consultation Bodies and the public '*shall be given an early and effective opportunity within appropriate timeframes to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme or its submission to the legislative procedure'*.

The SEA Environmental Report will be published for consultation alongside the Cambridgeshire and Peterborough LTP. A consultation log of responses will be produced. All responses received will be reviewed and addressed in the final Environmental Report.

3.4 Post-Adoption

A SEA Post-Adoption Statement will be prepared following adoption of the final LTP, in accordance with the requirements of the SEA Regulations. The SEA Adoption Statement describes:

- How environmental considerations have been integrated into the final LTP

- How the Environmental Report has been taken into account
- How the opinions expressed in the consultation on the Environmental Report have been taken into account
- The reasons for choosing the final LTP as adopted, in the light of the other alternatives considered
- The measures that are to be taken to monitor the significant environmental effects of the implementation of the final LTP

The SEA Post-Adoption Statement will be published alongside the final LTP.

4 Stage A Scoping Summary

4.1 Introduction

The scoping stage of the SEA process sets the context and scope of the SEA and Environmental Report. This chapter provides a summary of the scoping results as presented in the SEA Scoping Report (Mott MacDonald, February 2019) and updated following scoping consultation. It covers the tasks under SEA Stage A including:

- Policies, plans and programmes review
- Baseline information including future trends
- Key sustainability issues and opportunities
- SEA Framework
- Compatibility of the SEA objectives
- Compatibility of the LTP objectives and the SEA objectives

4.2 Relationship with other Policies, Plans and Programmes

A review of the relevant policies, plans and programmes was undertaken as part of the previous SEA for the Cambridgeshire (Atkins, 2014) and Peterborough (Royal HaskoningDHV, 2015) LTPs. The policies, plans and programmes review for the new Cambridgeshire and Peterborough LTP draws on these reviews where relevant. The aim of the review was to determine the relationship between the Cambridgeshire and Peterborough LTP and other existing international and European, national and regional, and local policies, plan and programmes. The LTP must aim to support current relevant policies, plans, programmes, and environmental protection legislation at international, national and local levels whilst also supporting, and where possible, strengthening the objectives of these plans and strategies within the Cambridgeshire and Peterborough area.

As part of the scoping process for the SEA of the Cambridgeshire and Peterborough LTP, the policies, plans and programmes identified in the previous LTP SEAs have been reviewed to determine whether they have been updated or superseded by more up to date versions. Figure 4 presents a list of the policies, plans and programmes considered in the review. Those identified with an asterisk (*) are where there have been updates. The updated policies, plans and programmes have been reviewed and are presented in Appendix B.

4.3 Identification of Key Themes and Messages

The main themes, messages and objectives from the review of policies, plans and programmes that are considered relevant to the Cambridgeshire and Peterborough LTP are presented below. These are as follows:

- Conserve flora and fauna and their habitats
- Conservation and wise use of wetlands and their resources
- Protection of wild birds and their habitats
- Promote and achieve biodiversity net gain

- The creation and long-term provision of green infrastructure[3]
- Protection of landscape character and quality
- Improve water quality so all waters achieve 'good status' as set out in the Water Framework Directive
- Prevent or limit inputs of pollutants into groundwater
- Reduce and manage the risks of flooding
- Reduce greenhouse gas emissions and improve air quality
- Adapt to the impacts of climate change
- Increase resource efficiency and reduce natural resource use and waste
- Promote sustainable and active modes of transport, accessible for all
- Improve the health and safety of transport
- Create a green economy and promote sustainable growth
- Promote sustainable and healthy communities[4]
- Promote social inclusion and community participation
- Protect historic environment assets including archaeology and built heritage
- Protect best quality soils and agricultural land
- Improve health and wellbeing of communities and reduce health inequalities

The themes, messages and objectives identified from the review of policies, plans, and programmes will provide an input into the process of reviewing and updating the key issues and opportunities and the SEA Framework.

[3] The European Commission defines green infrastructure as a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities, and enhances biodiversity. The Natura 2000 network constitutes the backbone of the EU green infrastructure. (Source: http://ec.europa.eu/environment/nature/ecosystems/index_en.htm)

[4] The UK Government definition of sustainable communities as outlined in the document 'Sustainable Communities: Homes for All' (ODPM, January 2005, page 74) is: "Sustainable communities are places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all".

Figure 4: Relevant Policies, Plans, Programmes

International and European

- EU 7th Environmental Action Programme (EAP)*
- EU Sustainable Development Strategy (2006)
- EU Rural Development Policy 2014-2020*
- EU Liability Directive (2004/35/EC)
- EU Thematic Strategy on Air Quality (2005)
- National Emissions Ceilings Directive (2016/2284/EU)*
- EU Biodiversity Strategy to 2020: Our life insurance, our natural capital (2011)
- Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
- UK Post-2010 Biodiversity Framework (2012)
- EU Directive for the Promotion of Bio-fuels for Transport (2003/30/EC)
- Johannesburg Declaration on Sustainable Development (2002)
- EC Strategy on Climate Change: Control Measures Through Until 2020 and Beyond (2007)
- EC Green Paper on Adaptation to Climate Change in Europe (2007)
- EU Climate Adaptation Strategy (2012)*
- UN Framework Convention on Climate Change (2008)
- EC European Landscape Convention (2000)
- EC Groundwater Directive (2006/118/EC)
- Waste Framework Directive (2008/98/EC)*
- The European Convention on the Protection of Archaeological Heritage
- UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)
- Health Effects of Transport-Related Air Pollution (WHO, 2005)
- Transport, Environment and Health (WHO, 2000)
- Collaboration Between the Health and Transport Sectors in Promoting Physical Activity (WHO, 2006)
- EC Directive on Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC)
- EC Noise Directive (2002/49/EC)
- EC Conservation of Wild Birds Directive (2009/147/EC)
- EC Ambient Air Quality Directive (2008/50/EC)*
- EC Directive on the Assessment of the Effects of Certain Public and Private Projects on the Environment (2014/52/EU)*
- Convention on Biological Diversity, Rio de Janeiro (1992)
- EC Water Framework Directive (2000/60/EC)
- Kyoto Protocol to the UN Framework Convention on Climate Change
- European Transport Policy for 2010: A Time to Decide (EC, 2001)
- Keep Europe moving – Sustainable mobility for our continent (EC, 2008)
- Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (EC, 2011)*
- A European Strategy for Low-Emission Mobility (EC, 2016)*
- Freight Logistics - The Key to Sustainable Mobility (EU, 2006)
- The Urban Waste Water Directive (91/271/EC)
- Directives in relation to Road Vehicles (98/70/EC and 2005/55/EC)
- Ramsar Convention (1971)
- Environmental Noise Guidelines for the European Region (WHO, 2018)*
- Floods Directive (2007/60/EC)*
- Urban Green Spaces and Health (WHO, 2016)*
- Health Co-benefits of Climate Change Mitigation – Transport Sector (WHO, 2011)*

National

- Climate Change Act 2008
- Traffic Management Act 2004
- Local Transport Act 2008
- Road Safety Act 2006
- The Environmental Noise (England) (as amended) Regulations 2006
- Water for Life, DEFRA (2008)
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services, DEFRA (2011)
- The Natural Choice: Securing the Value of Nature, DEFRA (2011)
- The Invasive Non-native Species Framework Strategy, DEFRA (2008)
- Towards a Sustainable Transport System Supporting Economic Growth in a Low Carbon World (2007)

- Air Quality (England) Regulations 2000 (as amended) and Air Quality (Standards) Regulations 2010
- The Conservation of Habitats and Species Regulations 2017
- Natural Environment and Rural Communities Act 2006
- The Countryside and Rights of Way (CROW) Act 2000
- The Wildlife and Countryside Act 1981 (as amended)
- Planning (Listed Buildings and Conservation Areas) Act 1990
- The Ancient Monuments and Archaeological Areas Act 1979
- National Heritage Act 1980 (as amended)
- Flood Risk Regulations 2009
- National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2018)*
- National Planning Practice Guidance (2018)*
- The Strategic Road Network and the Delivery of Sustainable Development (Circular 02/2013)
- National Air Quality Strategy (2007)
- Draft Clear Air Strategy (DEFRA, 2018)*
- A Green Future: Our 25 Year Plan to Improve the Environment (2018)*
- The Clean Growth Strategy (2017)*
- Industrial Strategy (2017)*
- The UK Post-2010 Biodiversity Framework (2012)*
- Securing the Future – Delivering the UK Sustainable Development Strategy (2005)
- Guidance on Local Transport Plans, DfT (2009)
- Department for Transport (DfT) Single Departmental Plan (2018)*
- The Road to Zero, DfT (2018)*
- UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations, DfT (2017)*
- Connecting people: a strategic vision for rail, DfT (2017)*
- National Adaptation Programme (NAP) 2018 to 2020 (2018)*
- Waste Management Plan for England, DEFRA (2013)*
- Protection of Badgers Act 1992
- Climate Change Impacts and Adaptation, Environment Agency (2018)*
- Surface Water Management: An Action Plan, DEFRA (2018)*
- Future Water: Water Strategy for England (2008)
- The Heritage Statement (2017)*
- Clean Neighbourhoods and Environment Act 2005
- Working Together to Build a Safer Road System: British Road Safety Statement, DfT (2015)*
- Road Safety Statement: Progress Report, DfT (2018)*
- The Inclusive Transport Strategy: Achieving equal access for disabled people, DfT (2018)*
- Cycling and Walking Strategy, DfT (2017)*
- Building Sustainable Transport into New Developments (DfT, 2008)
- Road Traffic Reduction Act 1997
- Road Traffic Reduction (National Targets) Act 1998
- Noise Action Plans (DEFRA)
- Healthy Lives, Healthy People: Our Strategy for Public Health in England (2010)*
- Automated and Electric Vehicles Act 2018*
- Natural Capital Committee's Sixth Report (2019)*
- Health Impacts of All Pollution, Chief Medical Officer (2017)*
- Green Space Access, Green Space Use, Physical Activity and Overweight, Natural England (2011)*
- Health matters: getting every adult active every day, Public Health England (2016)*
- Health matters: air pollution, Public Health England (2018)*

Regional and Local

- River Nene Catchment Flood Management Plan (CFMP), Environment Agency (2009)
- River Welland CFMP, Environment Agency (2009)
- Great Ouse CFMP, Environment Agency (2011)
- Anglian River Basin Management Plan (RBMP), Environment Agency (2015)
- Cambridgeshire and Peterborough Habitat Action Plans (as updated 2009)
- Investing in the East of England's natural assets, state value and vision (2009)
- Woodland for Life - Regional Woodland Strategy for the East of England (2003)
- Peterborough's Sustainable Community Strategy 2008-21
- Peterborough's Green Grid Strategy (2007)
- Cambridgeshire Rights of Way Improvement Plan Update (2016)*
- Air Quality Action Plan (AQAP) and Air Quality Progress Reports for the Cambridgeshire Growth Areas (Cambridge City Council, South Cambridgeshire, East Cambridgeshire, Huntingdonshire and Fenland)
- Cambridgeshire Landscape Guidelines (1991)
- East Cambridgeshire Local Plan (2015)
- Huntingdonshire Core Strategy (2009)
- Fenland Local Plan (2014)
- Cambridge City Council Local Plan (2018)*

- Peterborough Biodiversity Strategy (2018)*
- Peterborough Tree and Woodland Strategy (2018)*
- Cambridgeshire and Peterborough Minerals and Waste Development Plan Document (DPD) (2011)
- Preliminary Draft Cambridgeshire and Peterborough Minerals and Waste Local Plan (2018)*
- Peterborough Local Transport Plan 2011-2016 (2011)
- Peterborough Local Development Framework
- Peterborough Level 1 Strategy Flood Risk Assessment (SFRA) and Outline Water Cycle Study (WCS) (2018)*
- Peterborough City Council's Conservation Area Appraisals and Management Plans (as amended)
- The Nene Valley Nature Improvement Area (NIA) Project
- The Welland Valley Partnership River Improvement Plan (2013)
- Cambridgeshire County Council Climate Change and Environment Strategy (2008)
- Cambridgeshire's Vision 2007–2021 (2007)*
- Cambridgeshire Local Area Agreement (LAA) 2008-2011 (2008)
- Cambridgeshire Green Infrastructure Strategy (2011)
- South Cambridgeshire Local Plan (2018)*
- South Cambridgeshire DC – Biodiversity Supplementary Planning Guidance (2009)
- Cambridgeshire Local Term Transport Strategy 2011-2031 (2015)*
- Cambridge City Council Natural Conservation Strategy (2006)
- Local Agenda 21 (LA21)
- Cambridgeshire Health & Wellbeing Strategy 2012-2017 (2012)*
- Sustainable Futures: Integrated Sustainability Framework for the East of England, 2009
- Health system prevention strategy for Cambridgeshire and Peterborough (2016)*
- Transport Strategy for Cambridge and South Cambridgeshire (2014)
- Transport Strategy for East Cambridgeshire (2016)
- Cambridgeshire and Peterborough Independent Economic Review (CPIER) (2018)*
- Peterborough Health and Wellbeing Strategy 2016-2019 (2016)*
- Access to Transport, Joint Strategic Needs Assessment (JSNA) (2015)*
- Active Transport, JSNA (2015)*
- Air Pollution, JSNA (2015)*
- Cambridgeshire and Peterborough JSNA Core Dataset (2019)*
- Transport and Health JNSA Dataset – Peterborough, Peterborough City Council (not dated)*

4.4 Baseline Scoping Summary

A review of the current environment and socio-economic baseline information for the Cambridgeshire and Peterborough LTP was undertaken as part of the scoping process. The baseline was collected from published sources, including but not limited to:

- Office for National Statistics (ONS)
- Local Authority Health Profiles (Public Health England, 2018)
- Department for Transport
- Multi-Agency Geographic Information for the Countryside (MAGIC) Interactive Mapping
- Cambridgeshire and Peterborough Biodiversity Group
- CPCA LTP Evidence Base Report (Steer, 2018)
- State of the UK Climate 2017 (Met Office, 2018)
- UKCP18
- Historic England
- Natural England
- DEFRA
- Environment Agency

The baseline information forms an evidence base against which environmental issues or opportunities resulting from the Cambridgeshire and Peterborough LTP can be predicted and assessed. The complete baseline information is presented in Appendix D. Maps showing spatial baseline information is presented in Appendix E and specific baseline indicators[5] in Appendix F under the following SEA topics:

- Population and Human Health
- Biodiversity, flora and fauna
- Historic Environment
- Landscape
- Soils
- Water
- Air
- Climatic Factors
- Material Assets

A summary of the baseline in Appendix D – F for each of the SEA Directive topics is presented below:

- Population and Human Health – The population of Cambridgeshire and Peterborough is estimated to be 850,000[6]. Of the total population, 37% live in urban areas, 43% in market towns and 20% in rural settlements and villages[7]. The population is expected to increase to over 1 million by 2036 due to the planned housing growth, primarily in Cambridgeshire[8]. Ethnicity across the Cambridgeshire and Peterborough area is predominately White. Ten

[5] A range of indicators have been developed as part of the SEA Framework drawing on the indicators used in the previous LTPs to allow comparison of trends

[6] Steer, CPCA LTP Evidence Report (2018)

[7] ONS, Census 2011

[8] Forecast population at 2036 is 1,044,030 - Cambridgeshire County Council Research Group's 2015-based population forecasts

percent of the total population is Black, Asian and Minority Ethnic (BAME)[9]. However, Cambridge and Peterborough have diverse communities with a higher percentage of the population from BAME groups in comparison with the national average. With regard to health, particular areas of concern in Cambridgeshire include self-harm and dementia diagnosis rates, where rate of emergency hospital stays related to self-harm and the dementia diagnosis is statistically significantly worse than in England. There are numerous areas of concern within Peterborough, including child poverty, homelessness, smoking attributed mortality and physical activity.

- Biodiversity, Flora and Fauna – The Cambridgeshire and Peterborough region contains 103 Sites of Special Scientific Interest (SSSI), five Ramsar sites, ten Special Areas of Conservation (SAC) and four Special Protection Areas (SPA)[10]. There are also ten National Nature Reserves (NNR) and 27 Local Nature Reserves (LNR). There are a number of areas which have been identified as priority habitats: West Cambridge Hundreds, Ouse Valleys, Greensand Ridge, Cambridgeshire Fens, and Chalk and Chilterns. There are over 200 Priority Species found in Cambridgeshire and Peterborough, representing 38.2% of all priority species identified in the UK Biodiversity Action Plan (BAP)[11].
- Historic Environment – The numbers of listed buildings, scheduled monuments, registered parks and gardens, and conservation areas have been collected for the Cambridgeshire and Peterborough region. There are 8,261 listed buildings, 335 scheduled monuments, 38 registered parks and gardens and 229 conservation areas within the Cambridgeshire and Peterborough region[12]. In addition to having a sigificant number of designated sites, the area also benefits from numerous non-designated heritage assets and below ground archaeological material, centralised around Cambridge extending north into the corridor between Cambridge and Peterborough.
- Landscape - The landscape is characterised by flat land and small rolling hills in the West and South of Cambridgeshire, falling to flat and open fenland in the North and East. There are no Areas of Outstanding Natural Beauty (AONB) in the area. The East of England is the arable agricultural core of England which dominates the rural landscape. The Cambridgeshire and Peterborough region consists of nine National Character Areas (NCAs) and there are also a number of Landscape Character Areas (LCAs).
- Soils - The geology of the Cambridgeshire and Peterborough area is made up of sedimentary bedrock formed in shallow seas with mainly siliciclastic sediments (comprising fragments or clasts of silicate minerals) deposited as mud, silt, sand and gravel from the Jurassic and Cretaceous period[13]. Superficial deposits of predominately peat, sand and gravel, clay, silt and sand, and glacial till overlay the bedrock. As a result, the soils are rich in nutrients, which explains the rural and agricultural landscape that dominates the region. There are ten geological SSSI situated within Cambridgeshire and one within Peterborough which have been designated due to their geological value. The area includes 50% of the UK's Grade 1 agricultural land, predominantly within the Fens, making it an important area for the agricultural industry.
- Water - Flood risk is a significant concern across the Cambridgeshire and Peterborough region. Without flood defences, 34.5% of the Cambridgeshire and Peterborough area is at high risk of flooding. Over 50% of the land in Cambridgeshire is below mean sea level and

[9] Cambridgeshire Insight (ONS figures)

[10] DEFRA, MAGIC

[11] Cambridgeshire and Peterborough Biodiversity Action Group: http://www.cpbiodiversity.org.uk/biodiversity-action-plans/priority-species

[12] Historic England - Local Authority Indicator Profiles (2018)

[13] British Geological Society, Geology of Britain viewer

therefore reliant on pumped drainage. The northern area of Cambridgeshire, known as 'The Fens', is an artificially drained area and is the lowest lying area of land in Cambridgeshire. Holme Fen is the lowest point in the UK and is approximately 2.75m below sea level. In regard to water quality, there are four groundwater Source Protect Zones (SPZs) within the Cambridgeshire and Peterborough area, all of which fall within South Cambridgeshire[14]. There are also a number of surface water SPZs which cross over into the region, these include the River Nene, River Great Ouse, River Stour and Abberton.

- Air - Air quality in the region is varied and there are certain areas which suffer from poor air quality due to high concentrations of business and transport activities. There are 11 Air Quality Management Areas (AQMAs) within the Cambridgeshire and Peterborough area. Most annual averages of air pollution within Cambridgeshire are not over air quality thresholds. However, there are hot spots in Cambridgeshire caused by traffic-related pollution, especially in busy urban areas and around arterial and trunk roads such as the A14[15]. In 2017, 5.4% of deaths were attributable to particulate air pollution ($PM_{2.5}$) in Cambridgeshire and 5.3% in Peterborough. The highest fraction of deaths occurred in Cambridge at 5.6% and the lowest in Fenland at 5.1%[16].
- Climatic Factors - Observations show that the UK climate is continuing to warm and annual precipitation is increasing. The climate projections for the 2050s, under the RCP8.5 scenario (high emissions scenario), indicate that annual mean temperature will increase by 1.8°C in the East of England. Extreme temperatures are also projected with a 2.5°C increase on the hottest day. Precipitation for the same period is projected to decrease annual by 2%, however season variability is projected with a 9% increase in winter and 19% decrease in summer. For the 2080s, under the same emissions scenario, annual temperatures are projected to increase by 3.5°C with the extremes increasing by 4.5°C on the hottest day. Precipitation is also project to vary seasonally with a 20% increase in winter and 31% decrease in summer. Given that the area is low lying and climate change is projected to lead to more frequent and intense rainfall, it is likely that the risk of flooding will be heightened in the Cambridgeshire and Peterborough region. Carbon dioxide (CO_2) emissions in the Cambridgeshire and Peterborough area were 5,634 kilo-tonnes equivalent ($ktCO_2e$) in 2016. Road transport accounts for the highest proportion of emissions in Cambridge and Peterborough. Transport related emissions per capita across the Cambridgeshire and Peterborough area has decreased between 2005 and 2015. However, this is variable amongst the cities and the rural areas due to higher car ownership and usage in the latter.
- Material Assets - The Cambridgeshire and Peterborough area boasts an extensive transport network which connects people, places and services both within the region and beyond, and supports the regional economy. The region's main transport corridors include the A14, A428, A47 and A10. Private car dominates as the most popular mode of transport across the region with 40.1% and 41.4% of people travelling to work by driving a car or van in Cambridgeshire and Peterborough respectively[17]. However, this is varied across the region with as high as 46% in East Cambridgeshire and as low as 19% in Cambridge. The Cambridgeshire and Peterborough area is relatively well-connected to other parts of the country by rail, particularly Cambridge and Peterborough. The cities of Cambridge and Peterborough also have extensive bus networks and there are also Park and Ride services and the Cambridgeshire Guided Busway. Market towns surrounding Cambridge and Peterborough are connected to Cambridge or Peterborough by hourly or half hourly bus services. Rural villages in the Cambridgeshire and Peterborough area lack high-quality

[14] DEFRA, MAGIC

[15] Cambridgeshire JNSA, Transport and Air Pollution (2015)

[16] Public Health England, Public Health Profiles

[17] ONS, Method of travel to work (Census 2011)

connections to Cambridge and Peterborough, services are in-frequent with peak-time services only or none at all. The key airport for the Cambridgeshire and Peterborough area and the East of England is Stansted Airport. In regard to housing, the Cambridgeshire and Peterborough Devolution Deal has enabled £170m investment to fund extra affordable rented housing and shared ownership, including council housing in Cambridge[18]. These strategic sites will provide over 74,000 new homes, making a significant contribution to the overall housing target. Cambridge and Peterborough are both in the top ten cities nationally for housing growth[19]. However, latest figures indicate planning permissions for 28,507 new homes in Cambridgeshire but only 3,236 (11%) under construction; while for Peterborough there were over 8,188 permitted new homes where construction had not started[20].

4.4.1 Future Baseline

The SEA Directive requires that "*the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the Plan or Programme*" is identified. Prediction of future trends is difficult because they depend on a wide range of global, national and regional factors and decision making.

From an initial review it is likely that the following trends will continue:

- Air quality - new development, economic growth and tourism may lead to increased car journeys and congestion within the area leading to localised air quality effects. Public transport improvements, national air quality targets and European emissions standards for new vehicles should contribute to reducing future air quality impacts from motor vehicles.
- Water - increased economic growth and climate change is likely to cause an increase in run-off and potential contamination and disruption of flows for surface water and groundwater and put pressure on water resources. However, water quality is likely to continue to be maintained and improved through legislation such as the Water Framework Directive. Flooding is likely to continue to present a risk across the region, particularly in Cambridgeshire, therefore transport infrastructure will continue to be at risk. Climate change will likely contribute to an increased risk of flooding.
- Climatic factors - the climate is expected to continue to change with annual average temperatures projected to increase, particularly in summer. Winters are projected to be wetter and summers drier. More severe weather conditions including flash floods can affect transport infrastructure causing disruption and delays.
- Biodiversity – habitats and species are likely to continue to be protected through European and UK legislation. However, biodiversity in the UK is continuing to decline and future development, alongside population growth, may put further pressure on these ecological areas. Future climate change effects may affect ecosystems, habitats and species.
- Population - it is expected that the population will grow in certain areas of the Cambridgeshire and Peterborough area which could place additional pressures on the transport network, affecting access to key services and economic growth. There has been a significant behaviour change in relation to online shopping over the last 20 years. This has and will likely continue to lead to a surge in the use of light goods vehicles to deliver e-commerce parcels to residential locations and pick-up points which has subsequent effects on air quality and congestion.
- Human health – obesity, heart disease and respiratory problems are ongoing issues in the UK and are likely to continue. Active lifestyles, improved air quality and healthy eating

[18] CPCA, Strategic Spatial Framework (Non-Statutory)
[19] CPCA, Strategic Spatial Framework (Non-Statutory)
[20] Annual Monitoring Report 2018, Peterborough City Council

campaigns will help reduce this trend. There are health inequalities, including mental health issues, present across the region and these are likely to continue. Improved transport accessibility will likely help to reduce these inequalities and contribute to improved mental health and wellbeing.

- Material assets - regeneration and future investment and demand are likely to increase the number and quality of material assets such as housing, transport infrastructure, waste facilities, and community facilities.
- Landscape – changing and continued development will affect the quality and character of landscapes.
- Soil – as the population increases it is likely that more brownfield land will be remediated and developed. There is also potential for loss of agricultural land through development pressures.
- Historic environment - Historic England recently reported that heritage assets at risk are decreasing. There are now 94 fewer heritage assets at risks than in 2017 with successes in buildings and structures, places of worship, archaeology and conservation areas. Historic assets will likely continue to be protected through European and UK legislation. Development could put pressure on heritage assets and their setting.

4.4.2 Key Issues and Opportunities

A key stage in the SEA scoping process was to determine which topics were relevant to the Cambridgeshire and Peterborough LTP and which should be scoped out (if any). The SEA topics and the scoping determination for each is presented in Table 3. The table also presents the key issues and opportunities relevant to each topic, which were identified during the scoping process. Topics were scoped in based on the baseline situation and the Cambridgeshire and Peterborough LTP potentially impacting them. This was assessed by reviewing baseline conditions and current environmental issues for the Cambridgeshire and Peterborough area and assessing the likelihood of a potential impact.

Table 3: Key Issues and Opportunities

SEA topic	Scoped in for further assessment	Implications	Opportunities
Population, Communities and Human Health	✓	Congestion can reduce the efficiency and reliability of the transport network, reduce accessibility, contribute to air quality and associated human health effects, and discourage investment and economic growth. Continued growth in online shopping resulting in an increase in light goods vehicles which will likely lead to effects on air quality and congestion.	The LTP has the potential to benefit local communities and the economy by improving access to key services and to also improve health and safety of the network. There is an opportunity to reduce congestion, improve the reliability of public transport and encourage active travel. • Ensure transport links are reliable and accessible for all • Promote active and sustainable modes of travel • Ensure economic growth is supported by the transport network • Deliver sustainable development, recognising social, environment and economic needs
Biodiversity, Flora and Fauna	✓	Development of new transport infrastructure can directly or indirectly affect designated and non-designated sites, habitats and species through loss of land, disturbance and damage. There may also be a fragmentation of habitats as a result of transport infrastructure. Improving access to nature reserves or greenspaces which	The LTP should ensure that there are no impacts on biodiversity and look to enhance biodiversity where possible through green infrastructure and sustainable design. • Protecting, conserving and enhancing biodiversity • Slow/halt biodiversity losses and declines • Promote and achieve biodiversity net gain

SEA topic	Scoped in for further assessment	Implications	Opportunities
		may not have the capacity to withstand the increased influx of visitors.	• Integrate biodiversity considerations into new infrastructure • Increasing biodiversity connectivity of sites • Connecting people with nature and improving sustainable access to greenspace for well-being and health
Historic Environment	✓	Increasing levels of congestion can affect the setting and character of historic assets, towns, cities and the countryside. New transport infrastructure can directly affect heritage assets and disturbance of archaeology in the absence of appropriate mitigation design measures.	Construction of the LTP projects may have impacts on the region's known and unknown heritage assets. The LTP should ensure that impacts on heritage assets are considered and appropriately mitigated through sensitive design. • Protect archaeology • Encourage public awareness through promoting heritage sites and transport links to sites • Careful siting of infrastructure to reduce effects on the setting of historic assets
Landscape	✓	Transport infrastructure can affect the landscape character through visual intrusion and noise.	The construction and the operation of the LTP projects have the potential to affect the landscape character of the area. The LTP options should keep in line with the character of the area. The LTP has the potential to connect people sustainably to landscape scale habitat projects. • Ensure the landscape character is protected and enhanced where possible • Sustainably connect people to landscape scale habitat projects
Soil	✓	Transport can contribute to soil contamination.	The construction of LTP projects could impact soil quality and the geological SSSIs within the Cambridgeshire and Peterborough area. The LTP should ensure that soil quality is protected, and any sources of pollution are prevented. • Ensure soils are protected from contamination • Protect agricultural land from disturbance and loss
Water	✓	Transport can contribute to water pollution through spills and contaminated run-off. Transport infrastructure can also increase the impermeable layer, increasing the speed at which rainwater enters watercourses therefore contributing to flood risk. This could have subsequent effects on downstream nature reserves. Options within the LTP have the potential to be affected by flooding. Mitigation and adaptation, including surface water drainage, should be incorporated into the design of the options in line with future climate change.	LTP projects have the potential to be affected by flooding. Flood risk adaptation and mitigation should be incorporated into the design of the LTP projects in line with future climate change. • Ensure the protection, improvement and sustainable use of all waterbodies • Ensure all sources of flood risk are considered, including residual risk where applicable, to demonstrate no increase in flood risk to the development or third parties as a result of the options • Reduce or control water pollution • Adhere to Environmental Permitting Regulations
Air	✓	Increasing private vehicle use leading to congestion and air pollution.	The LTP has the potential to affect air quality and GHG emissions due a change in transport related emissions. Concentrations of air pollutants and GHG emissions could increase during the construction phase of LTP options. The LTP has the opportunity mitigate any increases in pollutants and GHG emissions by promoting sustainable and active modes of travel. • Encourage sustainable and active modes of transport • Reduce car dependency

SEA topic	Scoped in for further assessment	Implications	Opportunities
			• Contribute to the Government's commitment to end the sale of new conventional petrol and diesel cars and vans by 2040 • Support the Government's plan to tackle roadside NO_2 concentrations
Climatic Factors	✓	Transport infrastructure is vulnerable to flooding. Climate change hazards, such as high temperatures and storms, can result in disruptions, delays and closure of transport modes.	The LTP could be affected by climatic factors and could also contribute to climate change. Climate change mitigation and adaptation measures should be incorporated into the design of the LTP projects. • Design resilient transport networks • Reduce GHG emission from transport
Material Assets	✓	Increased housing and development can place additional pressures on the transport network.	The LTP has the potential to update the existing transport infrastructure and better connect new housing developments. • Utilise existing transport infrastructure • Connect new and existing housing developments to key services

4.5 SEA Framework

4.5.1 Developing the SEA Framework

A key part of the SEA scoping process was the development of the SEA Framework. The SEA Framework forms the basis for predicting and assessing the effects arising from the implementation of the Cambridgeshire and Peterborough LTP.

The Cambridgeshire and Peterborough LTP SEA objectives were developed based upon the SEA topics, baseline information, key issues in the Cambridgeshire and Peterborough area as well as being based upon the objectives in the SEA for the previous Cambridgeshire and Peterborough LTPs. The SEA Framework for the Cambridgeshire and Peterborough LTP is presented in Table 4 and includes SEA objectives, assessment criteria and indicators. The key indicators are shown in more detail in Appendix F and are based on the indicators in the previous LTP SEAs to allow continuation and comparison of trends. The indicators with an asterisk (*) after their titles are ones which are new additions since the previous LTP SEAs. The indicators chosen for monitoring will depend on the outcomes of the assessment stage and will focus where the assessment identifies negative effects or uncertainties.

Table 4: SEA Framework

SEA Topic	Cambridgeshire and Peterborough LTP SEA Objectives	Topic Assessment Questions	Key Indicators
Population, Communities and Human Health	Improve the health of the population and reduce health inequalities between areas and groups	• Will residential areas have easy access to key services via sustainable transport modes? • Will it increase connectivity and accessibility? • Will it reduce health inequality? • Will it encourage active and healthy lifestyles? • Will it contribute to increasing mental wellbeing?	• Mortality rates by cause • Life expectancy rates (at birth) • Journey time to key services by public transport/walking (primary and secondary schools, GPs and hospitals)* • Percentage of people with a limiting long-term health problem or illness • Percentage of physically active adults* • Prevalence of obesity in children (Year 6) • Prevalence of overweight and obese children at Reception* • Percentage of people who feel safe walking alone at night • Public open space per 1,000 population • Percentage of the population who cycle at least three times per week* • Percentage of the population who make journeys by walking at least three times per week* • Community transport – district car schemes reason for travel* • Fraction of mortality attributable to particulate air pollution (PM2.5)*
	Improve the health and safety of the transport network, reducing the number of accidents and other incidents	• Will it affect road traffic accidents and incidents? • Will it affect transport related health and nuisance issues?	• Total road traffic accidents by severity • Total local road traffic accidents • Total reported road accidents involving cyclists of pedestrians* • Total crime rate per 1000 population • Vehicle crime • Vehicle theft • Total number of assaults on public transport per annum* • Survey data – “I feel that Public Transport is safe to use”*
	Improve accessibility to key services, employment and recreational areas for all areas of the community	• Will it promote regeneration of the area? • Will it encourage investment and business into the area? • Will it enhance tourism? • Will it contribute to economic diversity? • Will it open up areas for housing development? • Will it improve access to a diverse housing market?	• Distance travelled to work • Journey time to nearest town centre by public transport/walking* • Percentage of residents within 30-minute walk/public transport of nearest town centre* • Ratio of median house prices to median salary* • Ratio of lower quartile house price to lower quartile salary* • Ratio of new dwellings to population increase* • Ratio of housing targets to housing completions*
	Support and contribute to local economic growth and competitiveness by delivering	• Will it promote regeneration of the area? • Will it encourage investment and business into the area?	• Number of commuters* • Non-frequent bus services running on time • Average excess waiting times for frequent services*

SEA Topic	Cambridgeshire and Peterborough LTP SEA Objectives	Topic Assessment Questions	Key Indicators
	reliable and efficient transport networks	• Will it enhance tourism? • Will it contribute to economic diversity?	• Travel time to employment centre by car* • GVA per head* • Unemployment rates • Rail cancellations and significant lateness* • Average minimum journey times by walking or public transport to nearest of selected rail stations* • Average minimum journey times by car to the nearest of selected rail stations* • Average minimum journey times by car to the nearest of selected airports* • Average minimum journey times by public transport to the nearest of selected airports* • Birth of businesses per 100,000 population* • Number of tourists per annum* • Total Foreign Direct Investment (FDI)* • Survey – "Does your business think that the transport network in the local network is of a high standard"*
	Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking	• Will it reduce road traffic and congestion? • Will it encourage use of sustainable transport modes, walking and cycling? • Will it reduce the need to travel? • Will it promote home working and tele commuting?	• Total passenger services on local bus services • Method of travel to work • Method of travel to school • Traffic Volumes on major roads* • Traffic counts at Cordons* • Proportion of adults that walk or cycle for leisure or travel • Travel time to employment centre by public transport/walking* • Congestion – average journey time per mile during morning peak • Total station entries and exits* • Average number of selected major road junctions within 30 minutes' drive* • Attitudes towards cycling – "I think that cycling on the road is safe"*
Biodiversity, Flora and Fauna	Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels	• Is the option likely to affect the conservation status of any SPA/SACs, Ramsar sites, SSSIs or locally designated sites? • Is the option likely to affect ancient woodland, BAP habitats and/or protected and BAP species? • Will the option affect any habitats that support legally protected species or species of conservation concern?	• Number of designated sites • Area of woodland • BAP habitats and species • Achievement of biodiversity net gain on projects* • Extent of habitat in good/ favourable condition*

SEA Topic	Cambridgeshire and Peterborough LTP SEA Objectives	Topic Assessment Questions	Key Indicators
		• Is there potential for contribution to achieving 'favourable' conservation status or for creation of new BAP habitats? • Is there a possibility for invasive species to be spread/ introduced or for algal blooms to occur? • Would the option protect and enhance aquatic and terrestrial habitats and species? • Are there any opportunities for habitat creation or restoration? • Will the option enhance or create green infrastructure? • Will the option contribute to landscape scale restoration and/or reversing habitat fragmentation? • Will the option provide sustainable access to greenspace/nature reserve without causing impacts on the existing habitats?	
Historic Environment	Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character	• Will it affect the fabric of a historic asset? • Will it affect the setting and/or significance of a historic asset? • Will it affect archaeological (including unknown archaeology)? • Will it affect conservation areas or historic landscape/townscape areas? • Will the measures provide opportunities for improved access, understanding, awareness and enjoyment of the historic environment and heritage assets?	• Number of listed buildings • Number of scheduled monuments • Number of registered parks and gardens • Number of conservation areas
Landscape	Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character	• Will it affect quality of the public realm? • Will it affect urban open spaces? • Will it affect the character of the townscape?	• Number of National Character Areas (NCAs) • Extent of green belt
Soil	Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land	• Will it affect soil contamination? • Will it involve remediation? • Will it involve use of brownfield or greenfield land?	• Total area of grade 1, 2 or 3a agricultural land • Housing built on previously developed land (PDL)

SEA Topic	Cambridgeshire and Peterborough LTP SEA Objectives	Topic Assessment Questions	Key Indicators
Water	Protect and enhance the quality of the water environment	• Will it affect surface water quality? • Will it affect ground water quality? • Will it promote use of SuDS?	• Percentage of river length assessed as good or fair chemical and biological quality • Groundwater source protection zones (SPZ)
	Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk	• Will it affect flood risk? • Is it vulnerable to current flood risk?	• Area at risk from flooding
Air	Protect and improve local air quality, particularly in the AQMAs	• Will it affect local air quality?	• Number of AQMAs • Levels of main air pollutants • Percentage reduction in NO_x and primary PM_{10} emissions through local authority's estate and operations • Trends in NO_2 concentration at a range of monitoring sites* • Trends in PM_{10} concentration at a range of monitoring sites*
Climatic Factors	Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change	• Will it affect carbon or other GHG emissions? • Is there potential to offset energy use or use renewable energy technologies?	• Motor vehicle traffic (miles) • Transport related CO_2 emissions • Total CO_2 emissions
	Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards	• Is it vulnerable to extreme weather events? • Will it include climate resilience measures? • Is it vulnerable to flooding associated with climate change?	• Adapting to climate change • Flood and coastal erosion risk management
Material Assets	Maximising the use and lifespan of existing transport infrastructure	• Will it include use of existing transport infrastructure?	• Number of new infrastructure schemes* • Number of improvements to existing infrastructure schemes*

4.6 Compatibility of Objectives

4.6.1 Compatibility of SEA Objectives

When developing SEA objectives based on environmental, social, and economic issues, it is likely that not all of these objectives will relate or be compatible. For example, objectives which are economic issues may sometimes conflict with environmental objectives, and vice versa. A compatibility assessment of the SEA objectives is presented in Table 5. It demonstrates that the SEA objectives support each other, and no conflicts have been identified.

The following key has been used to illustrate the SEA objectives compatibility:

+	Objectives are compatible
-	Objectives are potentially incompatible
0	Objectives are not related
/	Uncertainty over relationship

Table 5: SEA Compatability Matrix

	1. Improve the health of the population and reduce health inequalities between areas and groups	2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents	3. Improve accessibility to key services, employment and recreational areas for all areas of the community	4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks	5. Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking	6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels	7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character	8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character	9. Protect and conserve the quality of soils, minimising the loss of agricultural/ greenfield land, and seek to remediate contaminated land	10. Protect and enhance the quality of the water environment	11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk	12. Protect and improve local air quality, particularly in the AQMAs	13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change	14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards	15. Maximising the use and lifespan of existing transport infrastructure
2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents	+														
3. Improve accessibility to key services, employment and recreational areas for all areas of the community	+	+													
4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks	+	+	+												
5. Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking	+	+	+	+											
6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels	+	0	0	0	+										
7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character	+	0	0	0	+	+									
8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character	+	0	0	0	+	+	+								
9. Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land	0	+	0	0	+	+	+	+							
10. Protect and enhance the quality of the water environment	+	+	0	0	+	+	+	+	+						
11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk	+	+	0	0	0	0	0	0	0	+					
12. Protect and improve local air quality, particularly in the AQMAs	+	0	0	+	+	+	+	+	0	0	0				
13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change	+	0	0	+	+	+	+	+	0	0	0	+			
14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards	+	+	0	+	0	+	+	+	0	+	+	+	+		
15. Maximising the use and lifespan of existing transport infrastructure	0	+	0	+	0	+	+	+	+	0	+	0	0	+	

4.6.2 Compatibility of SEA and LTP Objectives

It is important that the objectives developed for the LTP are compatible with the SEA objectives. A compatibility assessment of the SEA and LTP objectives is presented in Table 6.

The following key has been used to illustrate the objectives compatibility:

+	Objectives are compatible
-	Objectives are potentially incompatible
0	Objectives are not related
/	Uncertainty over relationship

The compatibility matrix demonstrates that the SEA and LTP objectives are compatible with one another. The LTP objective on supporting housing could conflict with SEA objectives on biodiversity and landscape depending where these developments are located. However, any new development would have to go through a site selection and planning process which would consider these effects. The LTP itself is not proposing housing but transport infrastructure is important in unlocking development sites and ensuring new sites are well connected by sustainable transport modes.

Table 6: LTP and SEA Objectives Compatibility Matrix

SEA Objectives	LTP Objectives: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues.	Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity.	Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports.	Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time reliability.	Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries.	Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all.	Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles.	Ensure transport initiatives improve air quality across the region to exceed good practice standards.	Deliver a transport network that protects and enhances our natural, historic and built environments.	Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change.
1. Improve the health of the population and reduce health inequalities between areas and groups	+	+	+	+	+	+	+	+	+	+
2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents	0	+	+	0	+	+	0	+	0	0
3. Improve accessibility to key services, employment and recreational areas for all areas of the community	+	+	+	+	0	+	0	0	0	0
4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks	+	+	+	+	+	+	+	+	0	+
5. Reduce road traffic and congestion through reducing the need to travel by car and improve and promote sustainable modes of transport including public transport, cycling and walking	0	+	+	+	0	+	+	+	+	+
6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels	0	0	0	0	0	0	+	+	+	+
7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character	0	0	0	0	0	0	0	0	+	0
8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character	0	0	0	0	0	0	+	0	+	0
9. Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land	0	0	0	0	0	0	0	0	+	0
10. Protect and enhance the quality of the water environment	0	0	0	0	0	0	0	0	+	0
11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk	0	0	0	+	0	0	0	0	+	0
12. Protect and improve local air quality, particularly in the AQMAs	0	+	+	0	0	+	+	+	+	+
13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change	0	+	+	0	0	+	+	+	+	+
14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards	0	0	0	+	0	0	0	0	0	0
15. Maximising the use and lifespan of existing transport infrastructure	0	0	0	0	0	0	0	0	0	0

5 LTP Strategic Alternatives

5.1 Developing the LTP Strategic Alternatives

Several potential transport strategies were considered in the development of the Cambridgeshire and Peterborough LTP.

The themes considered for development within the LTP can be summarised into four broad strategy options. Each option places a different level of focus on investment and financial support for the highway network, bus and rail network, and walking and cycling network. Each strategy option has been developed in outline, and are:

- **Strategy 1: 'Highway - max'** – intensive investment in highway infrastructure, limited investment in public transport and walking/cycling.
- **Strategy 2: 'Public Transport - max'** – intensive investment in public transport, limited investment in walking/cycling, Do Minimum investment in highway.
- **Strategy 3: 'Managed demand'** – limited investment in public transport and walking/cycling; Do Minimum investment in highway.
- **Strategy 4: 'Blended'** – intensive investment in walking/cycling, with complementary, intensive investment in public transport and highway infrastructure dependent on local context and objectives, supported by demand management.

5.1.1 Strategy 1: Highway – max

This strategy focuses on providing additional highway capacity in order to meet projected traffic demand, in line with existing (predominately highway-based) trip patterns within Cambridgeshire and Peterborough. It assumes that:

- Existing high levels of mode share for private car (except in Cambridge city) remains broadly constant into the future, including from trips generated by new development.
- There is broadly a 'predict-and-provide' approach to highway investment, based on historic traffic trends.
- Limited demand management, or active initiatives to encourage mode shift.
- Capital investment in public transport and walking and cycling infrastructure only where there is proven demand and/or overcrowding of existing services.
- Continued financial support for existing supported bus services, broadly comparable to today.

Such a strategy could be expected to see the following projects treated as 'high' and 'low' priorities respectively:

'High' priority Scheme prioritised for early delivery	'Low' priority Schemes rejected and/or postponed
A10 Ely to Cambridge dualling	Cambridgeshire Autonomous Metro
A428 Caxton Gibbet to Black Cat dualling	Wisbech Rail Link
Upgrades to the Parkway network in Peterborough, including widening and/or junction enhancements	Rural bus investment
A47 dualling	Cambridge South station
Huntingdon Third River Crossing	Walking/cycling investment outside of Greater Cambridge

5.1.2 Strategy 2: Public Transport - max

This strategy focuses on delivering intensive investment in improved public transport infrastructure, supported by walking and cycling investment. It focuses upon:

- Very high levels of investment to maximise mode shift to public transport across the Combined Authority, within both rural and urban areas.
- Significant investment in walking and cycling infrastructure across the Combined Authority, within both rural and urban areas, integrated into public transport services.
- Significant increases in ongoing financial support for local bus and rail services (funded through the Combined Authority).
- Very limited investment in the highway network, with funding prioritised on highway maintenance and, where new settlements necessitate, improved access to the highway network.

Such a strategy could be expected to see the following projects treated as 'high' and 'low' priorities respectively:

'High' priority Scheme prioritised for early delivery	'Low' priority Schemes rejected and/or postponed
Cambridgeshire Autonomous Metro	Upgrades to the Parkway network in Peterborough, including widening and/or junction enhancements
Wisbech Rail Link	A428 Caxton Gibbet to Black Cat dualling
Rural bus investment	A47 dualling
Cambridge South station	Huntingdon Third River Crossing
Walking/cycling investment across the Combined Authority	

5.1.3 Strategy 3: Managed Demand

This strategy focuses on managing overall transport demand to relieve pressures on the highway and public transport network, prioritising policy measures to reduce the need to travel over those that increase transport capacity. This would include:

- Significant funding and support for behavioural change initiatives, including encouraging car sharing, active travel and public transport usage.
- Limited investment in new public transport and walking/cycling infrastructure, only where required to meet expected demand and reduce overcrowding (as opposed to new links and connections).
- Very limited investment in the highway network, with funding prioritised on highway maintenance and where new settlements necessitate improved access to the highway network.

Such a strategy could be expected to see the following projects and initiatives treated as 'high' and 'low' priorities respectively:

'High' priority Schemes / initiatives prioritised for early delivery	'Low' priority Schemes rejected and/or postponed
Demand management/behavioural change initiatives e.g. encouraging car sharing/walking/cycling	Upgrades to the Parkway network in Peterborough, including widening and/or junction enhancements
Local bus services enhancements where required to increase capacity (particularly in urban areas)	A428 Caxton Gibbet to Black Cat dualling

'High' priority Schemes / initiatives prioritised for early delivery	'Low' priority Schemes rejected and/or postponed
Traffic filtering/highway management (e.g. Cambridge City Access)	A47 dualling
Ely Rail Junction Enhancements (to provide additional train capacity)	Cambridgeshire Autonomous Metro

5.1.4 Strategy 4: Blended

This strategy focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. It includes elements of all the above strategies, and focuses on:

- Delivering significant investment in new, transformational public transport infrastructure (such as the Cambridgeshire Autonomous Metro) where public transport demand is expected to be greatest (in and surrounding large urban areas where highway capacity is most constrained).
- Delivering significant investment in highway capacity where:
  - required to best support new development
  - to improve strategic connectivity (e.g. to the Fens).
- Delivering investment in walking and cycling infrastructure across the Combined Authority, but focused where demand and benefits are likely to be strongest (within urban areas, particularly in and surrounding Greater Cambridge).
- Demand management measures to tackle specific transport and environmental challenges (such as local areas of poor air quality or traffic congestion).

5.2 Assessment of the LTP Strategic Alternatives

The LTP strategic alternatives (strategy options) were assessed against the LTP objectives and the SEA objectives. Each strategy was assessed on its own ability to meet the LTP and SEA objectives using the scale below.

Assessment Scale	Significance of Effect
+++	Major positive effect
++	Moderate positive effect
+	Minor positive effect
0	Neutral or no effect
-	Minor negative effect
- -	Moderate negative effect
- - -	Major negative effect
?	Requires further classification at this stage

Table 7 presents the results of the assessment of the LTP strategic alternatives against the LTP objectives and Table 8 presents the results of the assessments of the LTP strategic alternatives against the SEA objectives.

Table 7: Assessment of LTP Strategic Alternatives against LTP objectives

LTP Strategic Alternatives / LTP Objectives	Strategy 1: Highway - max	Strategy 2: Public Transport - max	Strategy 3: Managed Demand	Strategy 4: Blended
Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues.	++	+	--	+++
Connect all new and existing communities sustainably so all residents can easily access a good job, spreading the region's prosperity.	+	++	-	++
Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports.	++	++	-	++
Build a resilient and adaptive network that is less susceptible to human and environmental disruption, improving journey time reliability.	0	++	+	+++
Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries.	0	++	+++	++
Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all.	-	+++	+	++
Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles.	---	+++	++	++
Ensure transport initiatives improve air quality across the region to exceed good practice standards.	---	++	+++	++
Deliver a transport network that protects and enhances our natural, historic and built environments.	---	++	+++	++
Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change.	---	++	+++	++

Source: Steer

Table 8: Assessment of LTP Strategic Alternatives against SEA objectives

LTP Strategic Alternatives / SEA Objectives	Strategy 1: Highway - max	Strategy 2: Public Transport - max	Strategy 3: Managed Demand	Strategy 4: Blended
1. Improve the health of the population and reduce health inequalities between areas and groups	--	+++	++	++
2. Improve the health and safety of the transport network, reducing the number of accidents and other incidents	0	0	++	++
3. Improve accessibility to key services, employment and recreational areas for all areas of the community	+	++	-	++
4. Support and contribute to local economic growth and competitiveness by delivering reliable and efficient transport networks	++	++	-	++
5. Reduce road traffic and congestion through reducing the need to travel by car and improve	---	+++	+++	++

LTP Strategic Alternatives / SEA Objectives	Strategy 1: Highway - max	Strategy 2: Public Transport - max	Strategy 3: Managed Demand	Strategy 4: Blended
and promote sustainable modes of transport including public transport, cycling and walking				
6. Protect and enhance biodiversity (including both habitat and species) and geodiversity at all levels	-	++	+++	++
7. Maintain, protect and enhance the historic environment, including archaeology, and the historic landscape character	-	++	+++	++
8. Maintain, protect and enhance the diversity and distinctiveness of the landscape and townscape character	-	+	++	++
9. Protect and conserve the quality of soils, minimising the loss of agricultural/greenfield land, and seek to remediate contaminated land	-	+	++	++
10. Protect and enhance the quality of the water environment	-	+	++	++
11. Reduce the risk of flooding to transport infrastructure and minimise its contribution to flood risk	0	0	+	+
12. Protect and improve local air quality, particularly in the AQMAs	--	++	+++	++
13. Minimise GHG emissions and reduce Cambridgeshire and Peterborough's contribution to climate change	--	++	+++	++
14. Reduce vulnerability to climate change by minimising the risk of flooding and effects from other climate hazards	0	+	+	+
15. Maximising the use and lifespan of existing transport infrastructure	0	0	++	+

Strategic Alternative 1 – Highway - max

Strategic Alternative 1: 'Highway-max' performs well against providing the additional transport capacity to support new housing development, connecting new and existing communities to employment areas, and providing connectivity to major transport hubs, reflecting that fact that the significant majority of travel in the Combined Authority currently takes place by car.

However, the strategy does not have a 'large beneficial' effect against these objectives since it fails to provide significant improvements in accessibility for those who do not have access to a car, and particularly within Greater Cambridge, would fail to support agglomeration and better accessibility between major science and business clusters, key to supporting the regions' high-tech, high-value economy. This is reflective of how, even with significant investment, peak highway journeys are unlikely to reduce significantly due to traffic congestion and further induced highway demand.

Furthermore, this strategic alternative fails to support the wider social and environment objectives of the LTP. Greater reliance on the private car compared to other modes is likely to exacerbate car dependency, undermining the viability of public transport and reducing social inclusion, as well as the ability to provide 'healthy streets' and liveable communities. Significant highway investment is also likely to further undermine improvements in air quality, increase greenhouse gas emissions, and risks damaging the natural, built and historic environments.

However, a future change to electric cars could reduce effects but not in the short to medium term.

Strategic Alternative 2 – Public Transport - max

Strategic Alternative 2: 'Public Transport-max' performs strongly against meeting social objectives, providing a step-change in public transport accessibility which helps support social inclusion, promote healthy streets and provide a more resilient transport network (due to providing more travel options and opportunities). It also performs strongly against most environment objectives, although the need for significant new public transport capacity will require significant new physical infrastructure (e.g. new rail and segregated transit corridors) which will be associated with a degree of impact on the natural environment and carbon emissions.

However, whilst still positive, this strategy performs less well against economic objectives, in particular supporting additional housing development and connecting people to jobs. Since much of the Combined Authority – particularly rural districts – rely heavily on the private car, it is considered unrealistic for additional public transport capacity and mode share to entirely support the travel needs of new development and the regions' growth. Even with a high level of mode shift, an absence of highway investment is likely to result in a continued worsening of traffic congestion, which will undermine housing delivery and the region's competitiveness.

Strategic Alternative 3 – Managed Demand

Strategic Alternative 3: 'Managed Demand' performed strongly against environmental objectives, with both a reduction in travel demand and the requirement for less new physical infrastructure resulting in improved air quality, lower carbon emissions and a lower impact on the natural and built environment than other options. Emphasis on support for behavioural change interventions, together with greater support for existing bus and rail services, also means that this option performs positively against social objectives, such as promoting social inclusion and healthy lifestyles.

However, the emphasis away from physical infrastructure interventions – including both highway and public transport – means that this option performs poorly against economic objectives. Considering the ambition to double the Combined Authority's GVA by 2050, and the resultant increase in travel demand, it is not considered realistic that demand management techniques can reduce overall travel demand sufficiently to avoid worsening congestion on the region's highway and public transport networks. This will have a negative impact on the ability to support new housing development, together with improving access to employment and to international transport gateways. Overall impacts on social inclusion are also more limited than Strategic Alternatives 2 and 4 as it does not include the delivery of new, transformatory projects such as the Cambridgeshire Autonomous Metro, which will significantly improve public transport accessibility and create a genuine, attractive alternative to the private car.

Strategic Alternative 4 - Blended

Strategic Alternative 4: 'Blended' includes a combination of policies and projects from the strategic alternatives above, including new highway capacity where most required to support growth, significant public transport, walking and cycling investment (including in CAM and Wisbech Rail Link to support social inclusion, access to employment and sustainable development), together with demand management where transport capacity is most constrained. In doing so, it seeks to combine the benefits of the alternatives above to create a balanced, multi-modal transport strategy for Cambridgeshire and Peterborough.

The strategic alternative therefore performs well against economic objectives, providing both the highway and public transport capacity required to support growth, together with improving access to employment and international gateways by providing better multi-modal transport accessibility. Significant new public transport, walking and cycling infrastructure also mean that this option performs well against social objectives, including ensuring social inclusion for those without access to a car, albeit slightly less than Strategic Alternative 2: 'Public Transport-max'. The requirement for significant new infrastructure, designed to cater for a significant increase in overall travel demand, also means that it performs slightly weaker against environmental objectives than Strategic Alternative 3: 'Managed Demand'.

5.3 Preferred Option

Strategy 4: 'Blended' was adopted for the LTP and is documented within the LTP document itself. This strategy provided the best balance of benefits against all the objectives - economic, social, and environmental.

6 Assessment of the LTP

6.1 Assessment Process

This section presents the results of the assessment of the draft Cambridgeshire and Peterborough LTP policies and projects. The assessment was undertaken using the assessment methodology presented below.

6.1.1 Scope of the Assessment

Spatial scope - The proposed study area for the SEA of the LTP covers the Cambridgeshire County Council boundary and the four Districts (Fenland, Huntingdonshire, East Cambridgeshire and South Cambridgeshire), Cambridge City Council, and Peterborough City Council Boundary (see Figure 2 in Section 2.2).

Temporal scope - The LTP sets out a long-term transport strategy for Cambridgeshire and Peterborough to 2050.

Technical scope - The SEA Directive and the SEA regulations require that the likely significant effects on the environment are assessed based on the topics listed below. All the topics have been scoped into the SEA including:

- Air – air quality
- Biodiversity, Flora, Fauna – designated and non-designated sites, species and habitats
- Climatic factors – climate projections, greenhouse gas emissions, climate resilience
- Historic Environment - architectural and archaeological heritage and historic landscapes
- Human health – health and wellbeing
- Landscape – designated and non-designated national and local landscapes
- Material assets – critical infrastructure, transport, housing
- Population – demographics, economy, deprivation
- Soil – soil quality, agricultural land, contamination
- Water – water quality and water resources, flood risk
- The interrelationship between these factors

6.1.2 Identification and Prediction of Effects

The LTP consists of policies and projects, designed to deliver the Plan's objectives. The SEA has assessed the environmental implications of the proposed LTP policies. The majority of the projects proposed for inclusion in the LTP are taken from the previous Cambridgeshire and Peterborough LTPs and therefore, have already been subject to SEA. These projects were only re-assessed if either the project or baseline had changed. Some of these projects have progressed to design or construction stage, in which case they can be considered part of the baseline. New or amended projects were subject to a full assessment.

6.1.3 Determining Significance of Effects

The assessment was based on a qualitative eight-point scale as presented in Table 9 to describe the significance of effects.

Moderate and major positive and negative effects have been considered of significance whereas no effect and minor positive and negative effects have been considered non-significant.

Table 9: Criteria for Assessing Significance of Effects

Assessment Scale	Significance of Effect
+++	Major positive effect
++	Moderate positive effect
+	Minor positive effect
0	Neutral or no effect
-	Minor negative effect
--	Moderate negative effect
---	Major negative effect
?	Requires further classification at this stage

It should be noted that in some instances more than one score was recorded e.g. + / - or ? / -. This occurred where effects were both positive and negative on the same receptor, or where there was uncertainty over the effect but the potential for either positive or negative effects.

The level of significance was assigned after considering the scale and magnitude of the identified effect against the importance of the receptor. Table 10 shows how the scale/magnitude was considered against the importance of the receptor being considered. The list of receptors given in the table is not exhaustive but provides examples of how the magnitude of predicted effects was considered to determine the significance of impacts. The significance of impacts was not clear cut in each case, and professional judgement was used in some cases to determine overall significance.

Table 10: Defining Magnitude of Effects

Magnitude	Description of Effect
High	Negative effects would result in the complete loss of the receptor and/or severe damage to its integrity/quality/key characteristics/features/elements
	Positive effects would result in a large-scale improvement, enhancement or restoration of a receptor, large scale improvements to integrity/quality, or creation of a new internationally/nationally important resource
Medium	Negative effects would result in some loss of or damage to the receptor, but not sufficient to adversely affect its overall integrity. Partial loss of or damage to quality/key characteristics/ features/elements
	Positive effects would result in some improvement, enhancement or restoration of a receptor, improvements to integrity/quality, or creation of a new regionally important resource
Low	Negative effects would result in some measurable change to the receptor and/or change in quality or alteration of one or more key characteristics/ features/elements
	Positive effects would result in a small improvement to or addition of one or more key characteristics/ features/elements. Creation of a new locally important receptor/resource

6.1.4 Incorporating results of other assessments into the SEA

As discussed in the Section 1.1, a HRA and CIA (incorporating HIA and EqIA) are being undertaken alongside the SEA as part of the LTP development.

HRA

Under the European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora (also known as the 'Habitats Directive'), and the resulting Conservation of Habitats and Species Regulations 2010 (as amended), a HRA is required where a plan may

give rise to significant effects on European designated sites, known as Natura 2000 sites. Natura 2000 sites consist of Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites, and also include potential SPA and candidate SAC. A HRA 'Task 1: Screening' (Test of Likely Significance) has been undertaken for the draft LTP. The results of the HRA screening were used to inform the SEA by feeding into the assessment under objectives on ecology and biodiversity, and water quality.

CIA

The CIA sets out the key potential social and community impacts of the LTP. The process was centred on the delivery of two key documents – the EqIA and the HIA – but draws the findings of those studies together alongside additional evidence and analysis not covered by them and focussed on social impacts as defined within Environmental Impact Assessment (EIA) regulations regarding population and health, and WebTAG appraisal guidance. The primary focus was on the impact of the LTP on areas of deprivation, and on those reliant on the transport network for access to social and economic opportunity. The findings from the CIA were used to help inform the SEA by feeding into the assessment under objectives on population and human health.

6.2 Assessment of LTP Policies

Table 11 to Table 21 provide a summary of the LTP policy assessment results, grouped according to the LTP objective they sit under, and a commentary on the potential effects is presented below each summary table. The full assessment tables are presented in Appendix G.

It should be noted that a summary version of the SEA objectives has been used in the assessment tables below. The full wording of the SEA objectives can be found in Table 4.

6.2.1 Objective 1: Support new housing and development to accommodate a growing population and workforce, and address housing affordability issues

Table 11: Policy Assessment Summary – Objective 1 Policies

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 1.1: Enabling development															
Policy 1.1.1: Deliver strategic transport and complementary connectivity infrastructure	- / +	- / +	++	++	- / ++	? / - -	? / -	? / -	? / - -	? / -	? / -	- / ++	- / +	? / -	+
Policy 1.1.2: Early engagement with developers	+	+	+	++	+	0	0	0	0	0	0	+	+	+	0
Policy 1.1.3: Secure developer contributions for strategic and local infrastructure	+	++	++	++	++	? / -	? / -	? / -	? / -	? / -	? / -	+	+	? / -	+

Summary

All the policies aim to incentivise development and open-up new and existing areas of land through investment in and planning of transport. The policies aim to ensure developments are well-connected through sustainable transport modes which will have positive effects for health, accessibility, reduced congestion, improved air quality and GHG emissions reduction, and benefits for the local economy. All the policies aim to ensure new developments are well-connected, helping connect housing developments with employment centres, improving the efficiency of the transport network for residents in these areas, and opening up development land.

Policy 1.1.1 contains a number of road, rail and light rail related projects which will have the potential to have mixed effects on health of the local population, safety of the transport network, air quality and GHG emissions. The road schemes may lead to a reduction in congestion, however it may also attract additional vehicles. The rail schemes will promote the use of public transport and have the potential to reduce the reliance on private cars. The policy will likely have a benefit to the local economy and accessibility by making the transport network more efficient and reliable. There is potential for the policy to have negative effects on biodiversity, the historic environment, landscape, soils, the water environment, flood risk and climate resilience given the proposal include new transport infrastructure.

Policy 1.1.2 will help ensure developers properly plan transport infrastructure and connections for new developments. It promotes communication with developers throughout the planning process to ensure developers plan for appropriate phasing of development and future growth to potentially avoid congestion and improve accessibility in growth areas. The policy could also have an indirect positive effect on climate resilience, as early engagement

with developers could include consideration of future climate change effects within scheme design, however, this has been scored as neutral as the policy does not specify what early engagement will cover.

Policy 1.1.3 sets out the requirement for developer contributions are sought for strategic and local infrastructure where appropriate. This includes improving or constructing new transport infrastructure which therefore has the potential to negatively affect biodiversity, the historic environment, landscape, soils, the water environment, flood risk and climate resilience. There is potential for the health and safety of the road network to be improved as the policy contains requirements that new developments are accessibility in a safe manner and that impacts on the transport network are mitigated. The policy is also likely to increase accessibility by ensuring new developments are well connected and will also likely have benefits for the local economy.

6.2.2 Objective 2: Connect all new and existing communities sustainable so all residents can easily access a good job, spreading the region's prosperity

Table 12: Policy Assessment Summary – Objective 2 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 2.1: Connecting Developments Sustainability															
Policy 2.1.1 Support the provision of sustainable connectivity to and within developments	++	+	++	+	+++	+	0	+	0	0	0	++	+	0	+
Policy 2.1.2 Ensure developers provide sufficient transport infrastructure capacity to support and meet all the necessary requirements arising from their proposed development	++	++	++	+	++	+	0	+	0	0	0	++	+	0	+
Policy 2.1.3 The design of parking (see also policy theme 19)	++	++	+	+	++	+	0	+	0	0	0	++	+	0	+
Policy Theme 2.2: Expanding Labour Markets															
Policy 2.2.1 Support measures to reduce peak demand on the highway network	++	+	+	+	++	? / -	? / -	? / -	? / -	? / -	? / -	++	++	? / -	+
Policy 2.2.2 Improve the accessibility and connectivity of our public transport links to expand our labour market catchments	++	+	+++	+++	++	? / - -	? / - -	? / - -	? / -	? / -	? / -	+++	+++	? / -	- / +
Policy 2.2.3 Invest in our highway network to improve accessibility	- / +	- / +	++	+++	- / ++	? / - -	? / -	? / - -	? / -	? / -	? / -	- / +	- / +	? / -	- / +

Summary

Policy Theme 2.1 promotes the sustainable connectivity to and within developments. Policy 2.1.1 aims to reduce the need to travel, particularly for long distances, which is likely to have benefits for health, the safety of the transport network, accessibility, reduced congestion, air quality and GHG emissions. It also aims to improve accessibility for those with mobility issues which is likely to have benefits on the health of these transport users. Policies 2.1.2 aims to mitigate residual cumulative impacts on any element of the transportation network including highway safety and Policy 2.1.3 aims to ensure parking design is safe for all road users and ensure proximity of spaces for Blue Badge holders in relation to key services, therefore direct positive effects are anticipated for the health and safety of the road network. Policy 2.1.3 also aims to provide opportunities for safe walking and cycling which will likely benefit health of the local community and well as improve road safety. Electric and low-emission vehicles are also promoted through Policy 2.1.2 and 2.1.3. There is also potential for indirect effects on biodiversity as a result of all three policies given they have the potential to reduce the number of cars on the road. There are unlikely to be any effects on the historic environment, soils, the water environment, flood risk and climate resilience from any of the policies.

Policy Theme 2.2 promotes highway improvements and accessibility, and improved connectivity of public transport to expand labour market areas. Policies 2.2.2 and 2.2.3 have the potential to significantly increase accessibility within the region and also provide additional links to a wider area. This is likely to have benefits for the economy, making the region more attractive for business as well as providing new opportunities for employment and driving growth through improved public transport and road access. Health benefits may also occur from improved accessibility. The policies are also likely to result in air quality improvement and reductions in GHG emissions through reduce congestions and the promotion of public transport. There is potential for the policies to have negative effects on biodiversity, the historic environment, the landscape and townscape, the water environment and flooding given they include proposals to construct new transport infrastructure. Effects will depend on the location, design, and mitigation for projects. The road capacity improvement project as part of Policy 2.2.3 may result in mixed effects as there is potential for congestion to be reduced, however they may attract additional vehicles.

6.2.3 Objective 3: Ensure all of our region's businesses and tourist attractions are connected sustainably to our main transport hubs, ports and airports

Table 13: Policy Assessment Summary – Objective 3 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 3.1: Accessing Ports and Airports															
Policy 3.1.1 Support improvements to our transport infrastructure to enable efficient access for freight travelling to Felixstowe and Harwich, particularly by rail	+	+	0	+++	++	? / - -	? / -	? / -	? / -	? / -	? / -	++	++	? / -	++
Policy 3.1.2 Support improved road and rail connectivity to nearby airports, in particular at Stansted	+	+	++	+++	++	? / - -	? / -	? / -	? / -	? / -	? / -	++	++	? / -	++
Policy 3.1.3 Support the region's visitor economy through efficient passenger connectivity at Harwich	0	0	++	+++	0	0	0	0	0	0	0	0	0	0	++
Policy 3.1.4 Work in partnership with port and airport operators to encourage sustainable commuting patterns to their sites for workers commuting from within the Combined Authority	+	+	++	+	++	0	0	0	0	0	0	+	+	0	++
Policy Theme 3.2: Supporting the Local Visitor Economy															
Policy 3.2.1 Improving connectivity to international gateways and larger centres	+	+	++	+++	+	0	0	0	0	0	0	+	+	0	+
Policy 3.2.2 Delivering an integrated transport network navigable by passenger who are visiting the region for the first time	+	+	+	+	+	0	0	0	0	0	0	+	+	0	+
Policy 3.2.3 Delivering sustainable transport connectivity to tourist destinations in rural areas	+	+	++	+++	+	0	0	?	?	0	0	+	+	0	+
Policy 3.2.4 Providing sufficient space and appropriate infrastructure for coach services to manage the impacts of day visitors on our highway and parking infrastructure	+	+	+	++	+	0	0	0	0	0	0	+	+	0	+
Policy Theme 3.3: Supporting Business Clusters															
Policy 3.3.1 Invest in our rail and highway networks to allow our firms, organisations and workers to trade and travel easily across the country and abroad	- / +	+	+++	+++	- / ++	? / - -	? / -	? / -	? / -	? / -	? / -	- / +	- / +	0	+
Policy 3.3.2 Improve local connectivity to bring firms and organisations in our towns and cities closer together	+	+	+++	+++	++	?	?	?	?	?	?	++	++	0	+

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 3.4: Freight															
Policy 3.4.1 Promoting rail freight	+	+	0	++	++	+	0	0	0	0	0	++	++	0	+
Policy 3.4.2 Promoting and enforcing appropriate Heavy Commercial Vehicle routing	+	+	0	+	+	0	0	0	0	0	0	0	0	0	+
Policy 3.4.3 Promoting sustainable urban freight distribution	+	0	0	+	+	+	0	0	0	0	0	++	+	0	0
Policy 3.4.4 Improving road freight facilities	+	++	0	+	0	+	0	0	0	0	?	+	+	0	0
Policy 3.4.5 Supporting efficient air freight and the aviation sector	0	0	0	+	0	0	0	0	0	0	0	+	+	0	0

Summary

Policy Theme 3.1 supports improvements to road and rail connections to and from the ports at Felixstowe and Harwich and nearby airports such as Stansted to increase accessibility and the efficiency of the transport for freight, business travel, visitors, and port and airport employees. All four policies have the potentially to contribute to economic growth in the area, particularly Policies 3.1.1, 3.1.2 and 3.1.3. Accessibility within the region and also to other areas within the country as well as international destinations will be improved as a result of these policies. This will likely lead to benefits for the local economy with Policies 3.1.1, 3.1.2 and 3.1.3 particularly contributing to this. Policies 3.1.1, 3.1.2 and 3.1.4 also have the potential to improve air quality and reduce GHG emissions which could also result in health benefits. Given that Policy 3.1.1 and 3.1.2 includes measures to upgrade both rail and road infrastructure there is potential for negative effects on biodiversity, the historic environment, landscape, soils, the water environment and flooding. Effects will depend on the location, design, and mitigation for projects.

Policy Theme 3.2 supports the visitor economy by improving accessibility, connectivity and integration of the transport network for visitors to the region. The four policies aim to improve the public transport network, especially for tourists, making it more attractive and easier to use and therefore potentially leading to a reduction in the use of private cars/hire cars. This would have benefits for air quality and health, GHG emissions reduction, congestion, and road health and safety. The policies will increase the connectivity and accessibility of the region's public transport to key entry points and rural tourist destinations. This will make access easier for visitors but will also have benefits for residents when having days out, going on holiday, or travelling for business. This will contribute to economic growth, especially through the tourism industry and may also have benefits for business travel connectivity. The policies have the potential to result in indirect benefits for biodiversity and the historic environment due to a reduction in car use and increased access leading to increased visitor numbers which could have benefits for the maintenance, protection and public awareness of these areas. However, demands of tourism, for example visitors to designated sites, will need to be balanced with ecological/heritage protection to avoid damage to these areas.

Policy Theme 3.3 aims to improve highway and public transport provision for businesses to encourage investment and easy trade and travel between areas and abroad. The policies are likely to increase accessibility through improvements to the road network alongside upgrades to public and active transport infrastructure. Economic benefits are also likely through improved links with the wider network and Policy 3.3.2 aims to connect business cluster areas with active and sustainable modes of transport. There is also likely to be improvements to air quality as a result of the policies reducing congestion and potentially reducing the number of journeys made by vehicles. However, the road projects within Policy 3.3.1 also have the potential to increase vehicle numbers through capacity improvements therefore mixed effects have been identified. The potential for negative effects have been identified for biodiversity, historic environment, water environment, landscape and townscape, soils and flooding due to new infrastructure and upgrade works. Effects will depend on the location, design, and mitigation for projects.

Policy Theme 3.4 promotes sustainable freight movements. There is potential for Policies 3.4.1, 3.4.2, 3.4.3 and 3.4.4 to have benefits on health given that they will potentially improve air quality. Policy 3.4.1 and 3.4.3 in particular will result in improvements in air quality through reduce goods vehicles on the road, making the freight network in the region more sustainable and through the introduction of a Low Emission Zone. There is likely to be positive effects on the economy as the transport network will be more efficient as a result of all the policies due to the importance of freight to the local economy. Policies 3.4.1, 3.4.2 and 3.4.3 also have the potential to reduce congestion on the road network. Indirect positive effects for biodiversity may occur as a result of a reduction in goods vehicles on the road as well as through the promote of electric vehicles as a result of Policies 3.4.1, 3.4.2 and 3.4.3.

6.2.4 Objective 4: Build a transport network that is resilient and adaptive to human and environmental disruption, improving journey time reliability

Table 14: Policy Assessment Summary – Objective 4 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 4.1: Building a resilient and adaptive transport network to climate change															
Policy 4.1.1 Managing the risks to the transport network presented by climate change	+	+	++	++	0	+	0	0	0	0	+++	+	+	+++	++
Policy 4.1.2 Sustainable road network maintenance	+	+	++	++	0	0	0	0	0	+	++	++	++	+++	++
Policy 4.1.3 Utilising proven technologies as they become available to help the transport network adapt to the challenges presented by climate change	+	+	+	++	0	0	0	0	0	0	++	+	+	+++	++
Policy Theme 4.2: Maintaining and Managing the Transport Network															

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
4.2.1 Investigating the feasibility of harmonising highways and transport asset maintenance standards and performance indicators	+	++	0	+	0	0	0	0	0	0	0	+	+	0	+++
4.2.2 Supporting highways authorities in minimising the whole life costs of the highway	+	+	0	+	0	0	0	0	0	0	+	++	+	++	+++
4.2.3 Addressing the challenges of climate change and enhancing our communities and environment	+	+	+	+	0	0	0	0	0	0	0	+	++	++	+++

Summary

Policy Theme 4.1 aims to ensure the transport network is resilient and adaptive to climate change effects. The policies are likely to reduce the vulnerability of the transport network to climate change and increase accessibility by preventing travel disruption and severance. By building resilience into the network, the lifespan of the transport infrastructure is likely to be increased and the health and safety of the network is also likely to be improved. This will have benefits for health, access and the economy. All three policies are likely to have positive effects on air quality and minimising GHG emissions as they aim to increase the resilience of the transport network, reducing the need for maintenance and new transport infrastructure. Policy 4.1.2 aims to encourage sustainable and adaptative design principles which includes the consideration of air quality into the design of the road schemes. It also aims to promote the use of sustainable materials with less environmental impacts in terms of their lifecycle. All three policies will have positive effects on flooding, but Policy 4.1.1 is likely to be more significant as it seeks to ensure changes or improvements to one section of the transport infrastructure does not exacerbate flood effects elsewhere.

Policy Theme 4.2 aims to improve highway maintenance and use of materials. Selecting design and materials with low emissions and careful timing of maintenance activities will reduce congestion associated with roadworks, which may have positive effects for health from reduce emissions from idling vehicles and reduced driver stress. All three policies will have major positive effects on the use and lifespan of existing transport infrastructure by prioritising maintenance setup, development of KPIs (Policy 4.2.1); standardisation of materials, sustainable and adaptive design principles (Policy 4.2.2); and actively considering climate change adaptation (Policy 4.2.3). Vulnerability to climate change is expected to be reduced through sustainable and adaptive design measures that consider climate change under Policy 4.2.2. Asset management that actively considers highways or other assets that are susceptible to climate change with maintenance regimes adapted for them under Policy 4.2.3 will have benefits for asset resilience. Policy 4.2.1 is likely to improve road safety and reduce accidents through improved maintenance of highways which should help maintain their good condition. The installation of smart methods of infrastructure monitoring under Policy 4.2.2 will contribute indirectly to road safety through automating alerts. Coordination of roadworks and implementation of safe design measures under Policy 4.2.3 will minimise disruption on the network and improve safety.

6.2.5 Objective 5: Embed a safe systems approach into all planning and transport operations to achieve Vision Zero – zero fatalities or serious injuries

Table 15: Policy Assessment Summary – Objective 5 Policies

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 5.1: Safety for all – a Safe Systems Approach															
Policy 5.1.1 A multi-agency approach to improving road safety	++	+++	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy 5.1.2 Continuous and comprehensive monitoring and evaluation of key road safety indicators	++	+++	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy 5.1.3 Support improvement in road user behaviour through education, training and publicity programmes	++	+++	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy 5.1.4 Adoption of the Safe System Approach into the mainstream of highway engineering	++	+++	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy Theme 5.2: Ensuring Transport Security															
Policy 5.2.1 Addressing personal safety and security issues	++	+++	++	++	++	-	0	0	0	0	0	+	+	0	+
Policy 5.2.2 Improving the security of public transport stops, stations and hubs	++	+++	++	++	+	+	0	0	0	0	0	+	+	0	+

Summary

Policy Theme 5.1 aims to improve the safety of the transport network. Moderate positive effects on health of the population is expected from the prevention and minimisation of injuries and death from road accidents through the promotion of road safety (Policy 5.1.1 and 5.1.3), monitoring (Policy 5.1.2) and review of road designs to conform with Safe System principles, such as speed limits (Policy 5.1.4). Major positive effects are expected on the safety of the transport network with collaboration between agencies and public service providers (Policy 5.1.1) to deliver a holistic road safety partnership. Both Policies 5.1.2 and 5.1.4 will involve the review, evaluation and monitoring of road safety with risk mapping leading to safety intervention, all of which are expected to improve safety of the transport network and thereby reducing accidents. Road safety courses and publicity campaigns (Policy 5.1.3) will have benefits through improved road user's behaviour leading to reduced accidents. There is likely to be minor positive effects on the support and contribution to local economic growth via increased road safety, reduced road accidents which may cause congestions (Policy 5.1.1, 5.1.2 and 5.1.4), thus improving efficiency of transport networks. Improved road user behaviour from education (Policy 5.1.3) may also

decrease the likelihood of accidents. All policies are expected to have an indirect minor positive effect on local air quality from the potential reduction of road accidents which cause congestions and idling emissions.

Policy Theme 5.2 aims to address personal safety and security issues on the transport network to make it more attractive and safer for users. Both policies address crime and fear of crime around transport which may improve accessibility, promote public transport use and contribute to reducing congestion. These policies could have the potential to have a major effect on people's willingness to travel and their ability to access jobs and key services. Personal security is important in enabling people to feel comfortable about walking, cycling, and using public transport, taxis and private hire vehicles. Policy 5.2.1 addresses evening, night time and early morning safety issues reducing fear of crime around transport. It also aims to target security enhancements through CCTV cameras at crime 'hotspots'. Policy 5.2.2. aims to work with public transport operators, police, community safety partnerships and passenger and user groups to tackle crime and anti-social behaviour at stops and stations particularly for vulnerable groups. These policies can therefore improve accessibility, promote public transport use and contribute to reducing congestion but can also benefit the local economy, especially the night-time economy, by helping people to make the journeys they want, when they want. There are also moderate positive health effects created from making cycling and walking safer for all, which both policies aim to achieve. A shift to public transport use and sustainable modes of transport could mean a potential reduction in private car use, which could have benefits for local air quality and GHG emissions. Policy 5.2.1 could have a minor negative impact on biodiversity through managing vegetation if managed poorly, but it would allow for fewer hiding locations.

6.2.6 Objective 6: Promote social inclusion through the provision of a sustainable transport network that is affordable and accessible for all

Table 16: Policy Assessment Summary – Objective 6 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 6.1: Transport Accessibility for All															
Policy 6.1.1 Supporting and promoting demand-responsive community transport services	+++	0	+++	0	0	0	0	0	0	0	0	0	0	0	+
Policy 6.1.2 Facilitating access to education and wider mobility for vulnerable children	++	0	+++	0	0	0	0	0	0	0	0	0	0	0	+
Policy 6.1.3 Improving the accessibility of transport infrastructure	+++	0	+++	0	0	0	0	0	0	0	0	0	0	0	0
Policy 6.1.4 Promoting the provision of accessible transport information	+++	0	+++	0	0	0	0	0	0	0	0	0	0	0	0

LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
	SEA Objectives														
Policy 6.1.5 Optimise the use of new technologies in improving the accessibility	+++	0	+++	0	0	0	0	0	0	0	0	0	0	0	0
Policy Theme 6.2: Transport Pricing and Affordability															
Policy 6.2.1: Improve our public transport to provide an affordable alternative to the car	+	0	+++	+++	+++	0	0	0	0	0	0	++	++	0	0
Policy 6.2.2: Improve the affordability of travelling by bus and rail	+	0	+++	+	+++	0	0	0	0	0	0	++	++	0	0
Policy Theme 6.3: Access to Education and Key Services															
Policy 6.3.1 Access to Education	+	+	++	+	++	+	0	0	0	0	0	+	+	0	0
Policy 6.3.2 Access to non-emergency healthcare and other key services	++	0	++	+	++	+	0	0	0	0	0	+	+	0	0
Policy 6.3.3 Digital inclusion	+	0	+	0	+	+	0	0	0	0	0	+	+	0	0
Policy Theme 6.4: The Future of Mobility															
Policy 6.4.1 Promote and support research, innovation and engagement work undertaken by Smart Cambridge	+	+	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy 6.4.2 Provide the infrastructure which will enable the uptake and optimisation of new transport and digital connectivity technologies	+	+	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy 6.4.3 Guiding the development of a regulatory framework under which new transport technology providers operate	+	+	++	+	+	0	0	0	0	0	0	+	+	0	0

Summary

Policy Theme 6.1 aims to increase the accessibility of the transport network for all including mobility impaired and vulnerable groups. All the policies will have positive effects on improving accessibility to key services, employment and recreational areas through increasing accessibility for all particularly vulnerable groups who may face barriers to accessing facilities, this will also help improve people's health and wellbeing. Policy 6.1.1 supports community transport which will help fill the gaps in public transport provision. This will particularly help rural communities and the elderly. Policy 6.1.2 aims to improve access to educational facilities for vulnerable children. Policy 6.1.3 aims to ensure transport and movement is accessible for all including vulnerable groups and mobility impaired persons and particularly looks at improving links to hospitals and health care facilities. Policy 6.1.4 aims to increase provision of accessible transport information, so that more people and groups are aware of the services they can use. Policy 6.1.5 aims to ensure certain groups are not accidently 'designed out' of being able to access transport and that accessibility, social inclusion and quality of life is improved for all.

Policy Theme 6.2 aims to ensure fair pricing on the transport network to ensure public transport is an affordable alternative to the car. The policies will improve provision of public transport and will for example make it easier for shift workers to use public transport. Improving the affordability of public transport will help reduce inequalities in certain areas as there will be better access to public transport for deprived communities. These policies are likely to benefit the health and wellbeing of communities. A major positive effect on accessibility is expected from improved services and lower travel costs. Collaboration with and financial support to public transport operators will improve overall service, increasing the reliability and efficiency and the network, contributing the movement of people and the local economy. Policy 6.2.2 will make use of public transport a more affordable option to commute to and from work and may increase access to employment areas. Improved affordability of public transport may potentially reduce the number of car trips required, reducing the amount of vehicular emission, having a positive effect on air quality and GHG emissions reduction.

Policy Theme 6.3 aims to increase access to education and key services through sustainable transport modes. Education can be linked to health therefore improving access to education (Policy 6.3.1) for those in need is likely to result in minor positive effects for the health of these individuals and potentially reduce health inequalities. The policy also aims to encourage active and sustainable modes of transport which can improve health. There is potential for moderate positive effects through Policy 6.3.2 as it is likely to increase inclusion in access to key services, including healthcare, which will likely improve health and reduce inequalities, particularly in rural areas. Digital inclusion through online services (Policy 6.3.3) is also likely to improve health and reduce inequalities as more people will be able to access information and potentially make healthier choices. Policy 6.3.1 has the potential to improve the health and safety of the transport network by supporting Bikeability cycle training for students which could lead to safer cycle travel. There is potential for indirect benefits for the economy through Policy 6.3.1 and Policy 6.3.2 as improving access to education opportunities could increase the labour market. In addition, if there are health improvements through increased access to healthcare, there are also potential benefits for the labour market. Policy 6.3.1 aims to promote sustainable and active methods of travel for students, parents and employees accessing education sites which could reduce congestion. It is likely that Policy 6.3.1 and 6.3.2 will deliver increased access to education, healthcare and other key services through the public transport network. There is also potential for congestion to be reduced through Policy 6.3.2 as it aims to support measures such as car share and cycle buddy networks which promote inclusion. Increasing digital inclusivity (Policy 6.3.3), has the potential to reduce the need for travel as individuals may be able to access key information online rather than travelling.

Policy Theme 6.4 promotes new technologies which may improve future mobility. All the policies promote new transport technologies. These are likely to promote sustainable low and zero forms of transport and smart technologies to reduce congestion and the need to travel. Therefore, long-term positive effects are likely for health and air quality due to reduced emissions associated with transport and indirect benefits for the economy. Policy 6.4.3 specifically mentions promoting the benefits of new transport technology to improve the connectivity of rural and less well-connected urban communities, therefore, benefiting accessibility.

6.2.7 Objective 7: Provide 'healthy streets' and high-quality public realm that puts people first and promotes active lifestyles

Table 17: Policy Assessment Summary – Objective 7 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 7.1: Public Rights of Way and Waterways															
Policy 7.1.1 Align policies for Public Rights of Way across Cambridgeshire and Peterborough	+	0	+	0	+	0	0	+	0	0	0	0	0	0	0
0Policy 7.1.2 Improve access to the green spaces for all	++	0	++	0	+	0	0	+	0	0	0	0	0	0	0
Policy 7.1.3 Develop a network which is safe and encourages healthy activities	++	+	+	0	+	0	0	+	0	0	0	0	0	0	0
Policy 7.1.4 Ensure new development is integrated into the Public Rights of Way network without damaging the countryside	++	0	++	0	+	0	0	+	0	0	0	0	0	0	0
Policy 7.1.5 Ensure high quality, definitive information, maps and records are available on the network	+	0	+	0	+	0	0	0	0	0	0	0	0	0	0
Policy 7.1.6 Ensure the network is complete to meet the needs of today's users and land managers	+	0	+	0	+	0	0	+	0	0	0	0	0	0	0
Policy 7.1.7 Support better land and waterway management	++	+	+	0	+	+	+	+	+	0	+	0	0	0	0
Policy Theme 7.2: Promote and Raise Awareness of Sustainable Transport Options															
Policy 7.2.1 Support travel plan development and implementation of travel plan measures within workplaces to ensure healthy, safe, low carbon travel options for commuters are actively encouraged and supported	++	0	+	0	++	+	0	0	0	0	0	++	++	0	+
Policy 7.2.2 Ensure the adoption and enforcement of local travel plan guidance, for new planning applications	+	0	+	0	++	+	0	0	0	0	0	++	++	0	+
Policy 7.2.3 Promote existing and new walking and cycling routes to commuters and residents	++	0	+	0	+++	+	0	0	0	0	0	+++	+++	0	+
Policy 7.2.4 Continue to promote cycle training in schools and for adults	++	+	+	0	+++	+	0	0	0	0	0	++	++	0	+
Policy 7.2.5 Improve availability, type and quality of information on sustainable modes ensuring health and air quality benefits are emphasised	++	0	+	0	+++	+	0	0	0	0	0	+++	+++	0	+
Policy Theme 7.3: Supporting and Promoting Health and Wellbeing															

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy 7.3.1 Reducing physical inactivity through active travel infrastructure, education, training and promotion	+++	++	+++	++	+++	+	0	+	0	0	0	++	++	0	0
Policy 7.3.2: Reducing air pollution through supporting zero and low emissions transport options and developing green infrastructure	++	0	0	+	+++	+	0	+	0	0	0	+++	+++	0	0
Policy 7.3.3: Improving street scene / public realm to improve safety	+	++	0	0	0	+	++	++	0	0	0	0	0	0	0
Policy 7.3.4: Increasing ability to access health care and leisure facilities / amenities	++	0	+++	+	+	+	0	0	0	0	0	+	+	0	0
Policy 7.3.5: Increasing ability to access to wider opportunities - employment, social activities	+	++	+++	+++	+	+	0	0	0	0	0	+	+	0	0

Summary

Policy Theme 7.1 aims to improve access to rights of way and connectivity to the countryside. Overall, all policies directly provide benefits to the health and wellbeing of the population by improving access to and quality of green space, paths for walking and cycling, and encouraging healthy activities along the rights of way network. While most of the recorded benefits of the policies are minor, on a holistic level the policies will provide significant improvements to health and wellbeing of local people, as well as townscape character through perceived 'pride' or 'opinion'. There is likely to be minor positive effects on the biodiversity, heritage, and flood risk as a result of Policy 7.1.7. It aims to both improve waterways to ensure they are more attractive for leisure activities and also includes provisions to consider the need for flood protection, conservation and heritage.

Policy Theme 7.2 aims to promote and raise awareness of sustainable transport options. All the policies aim to encourage use of sustainable travel modes, particularly walking and cycling which are active forms of travel and will have health benefits. If modal shift occurs, then there could be benefit for reduce congestion, GHG emissions, and air quality benefits which would have positive effects for health. Policy 7.2.4 promotes cycle training for children and adults. This may improve the confidence and competence of cyclists on the road, resulting in a safer road environment. Accessibility may be improved through the promotion of car share and bike loan schemes in Policy 7.2.1. Travel Plan guidance and provision of infrastructure as part of new developments will also assist and improve accessibility to a certain extent. Promotion and provision of walking and cycle routes, and training is expected to increase awareness and access to sustainable modes of transport.

Policy Theme 7.3 aims to support health and wellbeing through encouraging active travel, reducing air pollution and increasing accessibility to health, leisure, employment and social activities and facilities. All five of the policies are likely to have positive effects on improving the health of the population. Policy 7.3.1 aims to give walking and cycling the highest priority when developing streets and roads, promote healthy lifestyles for all demographics and

ensure cycle and footpaths are comprehensive. This promotion of active modes of transport will therefore likely have positive health effects. Policy 7.3.2 aims to reduce air pollution, Policy 7.3.4 aims to improve access to healthcare. These all have the potential for moderate positive effects on health and wellbeing. Policy 7.3.1 aims to ensure walking and cycle routes are safe for all and Policy 7.3.3 aims to promote a safe systems approach and deliver transport security through policies. These are likely to improve the safety of the transport network. Policy 7.3.5 also aims to promote a safe network for all. Policy 7.3.5 is likely to have positive effects for the local economy as it aims to increase the affordability and accessibility to employment. Policy 7.3.1 is also likely to contribute to economic growth as residential areas will be more connected to walking and cycling routes as well as to public transport meaning they can potentially access employment easier. Increasing access to health care (Policy 7.3.4) may also indirectly benefit the economy. Policy 7.3.2 may support transition to a low carbon economy. Policy 7.3.2 aims to reduce air pollution through promoting the use of low emission vehicles which is likely to have major benefits for air quality. Policy 7.3.1 also aims to promote active and sustainable modes of transport which is likely to improve air quality. Policy 7.3.4 and 7.3.5 may also improve air quality if improvements to accessibly is achieved through public transport. There is likely to be benefits for the historic environment and townscape as a result of public realm and streetscape improvements.

6.2.8 Objective 8: Ensure transport initiatives improve air quality across the region to exceed good practice standards

Table 18: Policy Assessment Summary – Objective 8 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 8.1: Air Quality															
Policy 8.1.1 Reducing vehicle emissions	+++	0	0	++	+++	+	0	0	0	0	0	+++	+++	0	+
Policy 8.1.2 Keeping emissions low in the future	+++	0	0	++	++	+	0	0	0	0	0	+++	+++	0	0
Policy 8.1.3 Improving public health	+++	0	+	++	+	0	0	0	0	0	0	+	+	0	0

Summary

Policy Theme 8.1 aims to improve air quality through the reduction of transport related emissions. Policy 8.1.1 and 8.1.2 are expected to improve and enhance the local air quality, particularly in the AQMAs. Policy 8.1.1 aims to encourage low emission and sustainable modes of transport (such as low emission taxis, cycle delivery and 'click and collect' facilities away from town centres) through developing licensing conditions, pricing mechanisms and incentivised schemes reducing the impacts within AQMAs. The policy is also investigating the potential for a Clean Air Zone in Cambridge city centre, one of the seven traffic related AQMAs within the Combined Authority Area. Policy 8.1.2 aims to protect and improve the local air quality through monitoring and planning policy improvements. Monitoring of the current air quality at key locations, developing and implementing more effective Air Quality Action Plans are key aims of this policy. Policy 8.1.3 supports sustainable transport modes which may help reduce air pollution from transport.

Improvements to air quality resulting from these policies will have positive effects on the health of local residents. Policy 8.1.2 is also expected to improve the health of the population by developing new air quality/planning policies in the area's Air Quality Action Plans such as Health Impact Assessments at the pre-application stage for major developments. The policy also aims to provide public information campaigns about the health impacts of air pollution and monitor air quality at key locations to develop and implement effective Air Quality Action Plans. Policy 8.1.3 aims to improve public health through information campaigns and supporting sustainable transport modes. Policy 8.1.1 would have a positive effect on congestion and the economy by creating 'click and collect' hubs at Park & Rides sites which would reduce the requirement for private use cars to enter town centres and investigating 'last mile' deliveries using electric car/taxi and/or bikes. Policy 8.1.3 will help ensure a healthy workforce, contributing to the local economy.

6.2.9 Objective 9: Deliver a transport network that protects and enhances our natural, historic and built environments

Table 19: Policy Assessment Summary – Objective 9 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 9.1: Protecting the Natural Environment															
Policy 9.1.1 Protection and enhancement of the natural environment	++	+	++	++	+++	+++	+	+	+++	+++	+++	++	++	+	+
Policy 9.1.2 Improving sustainable access to the natural environment	++	+	+++	++	+++	++	0	+	+	0	0	++	++	+	+
Policy 9.1.3 Delivering green infrastructure	++	++	+++	++	+++	++	0	+	+	0	++	++	++	+	+
Policy Theme 9.2: Enhancing our built environments and protecting our historic environments															
Policy 9.2.1 Support to enhance our built environment and protect our historic environment	+	+	+	+	++	0	+++	++	0	+	+	+	+	++	++

Summary

Policy Theme 9.1 aims to protect and enhance, and improve access to, the natural environment by sustainable modes. The policies will have positive effects for protection and enhancement of the natural environment including biodiversity and geodiversity, landscape, soils and the water environment. Policy 9.1.1 in particular will help ensure that transport infrastructure does not cause negative environmental effects and that opportunities for enhancement are maximised. Health and accessibility will also be improved through access to the natural environment by sustainable transport modes. However, increased footfall may affect the tranquillity of the countryside or damage ecological sites, so this will need to be carefully managed. The policies are also likely to have benefits for air quality and GHG reduction through promotion of sustainable non-motorised forms of transport, especially for short journeys.

Policy Theme 9.2 aims to protect and enhance the built and historic environment. The policy is likely to have a major positive effect on the historic environment, designing and developing the built environment in a way that is sympathetic to the local history. The policy also considers the specific challenges relating to the built environment in market towns and recognises and supports innovation and future mobility patterns, which are key for encouraging tourist activity within historic areas such as market towns. The policy is likely to develop a consistent approach to local policy with regard to design which reflects the current and future needs to support the health, social and cultural wellbeing of the community, through improving strategic pedestrian routes and reducing private car usage in the built environment will improve air quality and noise quality benefiting the local residents. The policy recognises the need to consider how the existing built environment needs to be adapted for, and new development needs to consider, the impacts of climate change. It aims to use the existing infrastructure, but to also future-proof it for future generations. Enhancements will have to remain sympathetic to the local historic character, however the policy supports and recognises innovation and future mobility patterns.

6.2.10 Objective 10: Reduce emissions to as close to zero as possible to minimise the impact of transport and travel on climate change

Table 20: Policy Assessment Summary – Objective 10 Policies

	SEA Objectives														
LTP policy	Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 10.1: Reducing the Carbon Emissions from Travel															
Policy 10.1.1 Utilising new technologies as they become available to minimise the environmental impacts of transport	+	0	0	+	+	+	0	0	0	0	0	++	++	0	0
Policy 10.1.2 Managing and reducing transport emissions	++	0	0	+	+	+	+	+	+	+	0	+++	+++	0	0
Policy 10.1.3 Encouraging and enabling sustainable alternatives to the private car including reducing the need to travel	++	+	++	+	+++	+	0	0	0	0	0	++	++	0	0

Summary

Policy Theme 10.1 aims to reduce carbon emission from travel through utilising new technologies and encouraging and enabling sustainable alternatives to the private car. All the policies encourage a move away from petrol/diesel transport to cleaner more sustainable alternatives which will have positive effects on reducing emissions associated with transport, health, reduced congestion and the economy. Policy 10.1.2 is likely to have major positive effects on air quality and GHG reduction as it is directly about reducing transport emissions from a range of sectors and modes. Policy 10.1.3 specifically encourages sustainable alternatives to the private car including reducing the need to travel which will have benefits for reduced congestion and accessibility, and air quality. Policy 10.1.2 encourages the use of Construction Environmental Management Plans (CEMPs) on major

transport projects. Measures included in the CEMP are likely to reduce effects on the environment during construction works, therefore, providing short-term protection.

6.2.11 Modal policies

Table 21: Policy Assessment Summary – Modal Policies

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy Theme 11: Walking															
Policy 11.1 Support an increased number of walking trips by establishing safe, interconnected pedestrian connections between key destinations across our cities and towns	+++	++	++	+	+++	+	0	0	0	0	0	+	+	0	0
Policy Theme 12: Cycling															
Policy 12.1 Enhance and expand the existing cycle networks in Cambridge and Peterborough and develop or improve cycling links to the surrounding settlements	+++	+++	++	+	+++	+	0	+	0	0	0	+++	+++	0	+
Policy 12.2: Enhance the cycle network within market towns with high quality links to key destinations and in rural areas provide cycle routes which connect to public transport hubs as well as key destinations such as major employment sites and secondary schools	+++	+++	++	+	+++	+	0	+	0	0	0	+++	+++	0	+
Policy 12.3: Ensure that cycle parking is secure, conveniently located and meets demand	++	+	+	0	++	+	0	+	0	0	0	++	++	0	+
Policy 12.4: Ensure that new developments provide a high-quality cycling environment as well as linkages into the existing cycle network and new links to key destinations where needed	+++	+++	++	+	+++	+	0	+	0	0	0	+++	+++	0	+
Policy 12.5: Promote cycling as a healthy, convenient and environmentally friendly mode of transport to residents, businesses and visitors	+++	++	++	++	+++	+	0	+	0	0	0	+++	+++	0	+
Policy Theme 13: Delivering a Seamless Public Transport System															
Policy 13.1 Explore new methods of ticketing to improve the ease and affordability of travel, including across transport modes and operators	++	+	++	+	+	0	0	0	0	0	0	+	+	0	0

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy 13.2 Improve journey information to maximise the ease of travelling by public transport	+	+	++	+	+	0	0	0	0	0	0	+	+	0	0
Policy 13.3 Support the delivery of new and improved integrated, multi-modal transport hubs	++	+	+++	++	+++	0	0	0	0	0	0	++	++	0	++
Policy 13.4 Support additional Park & Ride provision in conjunction with CAM, where fully integrated into local transport networks	++	+	+++	++	+++	? / -	? / -	? / - -	? / - -	? / -	? / -	++	++	? / -	0
Policy Theme 14: Rural Transport Services															
Policy 14.1: Explore different mechanisms to help deliver a more integrated, coherent rural transport network, in collaboration with operators, local councils, communities and stakeholders	++	+	+++	++	++	+	0	0	0	0	0	+	+	0	+
Policy 14.2: Work with operators to develop a frequent, attractive rural bus network, forming the backbone of the rural public transport network	++	+	+++	++	++	+	0	0	0	0	0	+	+	0	+
Policy 14.3: Support local community transport, fully integrated into the rural public transport network, for communities not served by the bus or rail network	++	+	+++	++	++	+	0	0	0	0	0	+	+	0	+
Policy Theme 15: Improving Public Transport in our Towns and Cities															
Policy 15.1 Support the continued development of urban bus networks by working in partnership with bus operators and local authorities to improve service quality, reliability and frequency	++	+	+++	+++	+++	+	0	0	0	0	0	++	++	0	+
Policy 15.2 Deliver transformational mass transit within our cities to support growth and deliver a step-change in accessibility	++	+	+++	+++	+++	? / - -	? / - -	? / -	? / -	? / -	? / -	++	++	? / -	0
Policy 15.3 Support measures to better manage demand for road space following the provision of high-quality public transport infrastructure	++	+	+	++	+++	+	0	0	0	0	0	++	++	0	0
Policy Theme 16: Travelling by Coach															
Policy 16.1 Providing sufficient space and appropriate infrastructure for coach services	+	+	++	++	+	+	0	0	0	0	0	+ / 0	+ / 0	0	+
Policy 16.2 Integrating coach services with wider public transport and highway networks	+	0	++	++	+	+	0	0	0	0	0	+ / 0	+ / 0	0	+
Policy Theme 17: Travelling by Train															

LTP policy	SEA Objectives: Health	Safety	Accessibility	Economy	Sustainable Transport	Biodiversity / Geodiversity	Historic Environment	Landscape	Soils	Water	Flood risk	Air Quality	GHG emissions	Climate resilience	Reuse of Infrastructure
Policy 17.1 Support measures to deliver a more reliable, integrated, passenger-friendly rail network	+	+	+++	+++	++	+	0	0	0	0	0	++	++	0	+
Policy 17.2 Facilitate improvements to our rail stations to improve the experience of travelling by train	+	+	+++	+	++	+	0	0	0	0	0	++	++	0	+
Policy 17.3 Explore options to expand the rail network to link to new settlements, corridors and growth areas	++	+	+++	+++	+++	? / - -	? / -	? / - -	? / - -	? / -	? / - -	+++	+++	0	+
Policy 17.4 Support frequency and journey time enhancements our rural and intercity rail links to improve connectivity and capacity	++	+	+++	+++	++	+	0	0	0	0	0	++	++	0	+
Policy Theme 18: The Local Road Network															
Policy 18.1 Identifying a Key Road Network	0	+	0	+	0	0	0	0	0	0	0	0	0	0	+
Policy 18.2 Promoting more efficient use of the existing network	+	+	+	++	+++	+	0	0	0	0	0	++	++	0	++
Policy 18.3 Aligning approaches to management and maintenance	0	+	0	+	0	0	0	0	0	0	0	0	0	0	++
Policy Theme 19: Parking															
Policy 19.1 The design of parking	+	+	+	+	+	0	0	0	0	0	0	+	+	0	0
Policy 19.2 Managing parking demand	+	+	+	0	+	0	0	0	0	0	0	+	+	0	0
Policy 19.3 Parking technology and implications of disruptive technology	0	0	+	+	0	0	0	0	0	0	0	0	0	0	0
Policy Theme 20: Making Long Distance Journeys by Car															
Policy 20.1 Improve our highway network to alleviate congestion, improve reliability and enhance our region's accessibility	- / +	++	++	++	- / ++	? / - -	? / -	? / -	? / - -	? / -	? / -	- / ++	- / ++	? / -	- / +
Policy 20.2 Develop new road corridors where required to support development and housing growth	- / +	- / +	++	++	- / ++	? / - -	? / -	? / -	? / - -	? / -	? / -	- / +	- / +	? / -	- / +
Policy 20.3 Support improvements on regional and national corridors to improve accessibility to the rest of the UK and abroad	- / +	- / +	++	++	- / ++	? / - -	? / -	? / -	? / -	? / -	? / -	- / +	- / +	? / -	- / +

Summary

Policy Theme 11 supports increased numbers of walking trips. The policy aims to promote walking for short distance trips, improve facilities and connectivity for pedestrians, and work with public health teams to encourage walking as a means to prevent and treat related conditions. This is likely to have major positive effects on health. Improved pedestrian links are expected to establish a safer environment for walkers, hence reducing potential

accidents. There is likely to be improved connectivity for walking trips therefore increasing accessibility. Improved pedestrian links which are integrated with infrastructure and developments and improved public realm will likely promote walking as alternative mode of transport. This could potentially reduce the need to travel by car, particularly for short journey, therefore reducing road traffic and congestion and resulting in benefits for air quality and GHG reduction.

Policy Theme 12 promotes enhancement and expansion of cycle facilities to encourage increased cycling. All five policies promote cycling as a viable mode of transport through improvements in infrastructure and facilities. This will likely lead to an increase in cycling activities which has the potential to improve health, increase accessibility and reduce road traffic congestion. Policies 12.1, 12.2 and 12.4 encourage safety through design and cycle segregation. This is likely to help reduce conflicts between cyclists and other road users, increasing safety. Policy 12.3 aims to ensure cycling parking is secure which will help to reduce crime related to bicycle theft. Policy 12.5 promotes cycle training and improved legibility of cycle networks which is likely to contribute to improved road safety. All the policies will likely result in positive effects for air quality and reducing GHG emissions by reducing the need to travel by car. An improvement in cycling infrastructure and the reduction in the number of cars could potentially contribute to enhancing the townscape. All five policies will maximise the use of cycling infrastructure and are likely to have indirect positive effects on biodiversity.

Policy Theme 13 aims to deliver a seamless public transport system through improved ticketing and affordability of travel, improved information for users, and delivery of integrated multi-modal transport hubs. This is likely to have positive effects on health, accessibility, the economy, air quality and reduced congestion as it may facilitate modal shift away from the private car. Policy 13.1 and 13.2 will improve accessibility through easier and more affordable public transport travel. Measures such as integrated ticketing and a clearer pricing structure are likely to improve access for vulnerable groups. Policies 13.3 and 13.4 are likely to have major benefits for accessibility. Measures such as improving major transport hubs, creating small rural hubs close to existing transport corridors, and new park and ride facilities along key highway corridors will help increase accessibility via a range of transport options. Policy 13.4 promotes park and ride sites, depending on the location of these sites there could be negative effects on ecology, heritage and landscape. The site selection process will need to take this into account.

Policy Theme 14 aims to increase the public transport connectivity of rural areas as well as promoting the use of demand-responsive transport (DRT) and pooling services where public transport is not feasible. This is likely to increase accessibility to key services and open up employment opportunities, particularly for those without access to a private car. There is also likely to be economic opportunities for those delivering DRT services or for organisations such as Uber. There is also likely to be a reduction in private car usage due to increase public transport connectivity which is likely to have positive effects on air quality and GHG emissions.

Policy Theme 15 aims to improve public transport in urban areas. All three policies are likely to have major positive effects on reducing road traffic congestion. Policy 15.1 and 15.2 aim to promote public transport as an efficient and reliable alternative to car travel and Policy 15.3 aims to introduce measures to reduce congestion beyond improving the public transport network. There is likely to be increased accessibility as a result of all the policies, however Policy 15.1 and 15.2 will create links to a wider area through both improved and new infrastructure. Economic benefits are also likely, particularly for Policy 15.2 which will connect the city centre of Cambridge to key business destinations around the city. Positive effects on air quality and GHG emissions are also expected for all three policies. Policy 15.2 includes the potential for new infrastructure, which could have potential negative effects for biodiversity and geodiversity, the historic environment, landscape, and soils. However, it will make use of existing busways as well as new

routes, the route selection process is likely to take environmental aspects into account and project level mitigation may be required. Tunnelling under Cambridge as part of the Cambridgeshire Autonomous Metro (CAM) will generate a large amount of excavated material and a strategy should be developed for its reuse.

Policy Theme 16 support travel by coach. The policies have the potential to increase the accessibility of the region as well as key attractions and destinations within the region. This will likely attract more visitors and will have subsequent benefits for the local economy. Policy 16.1 also aims to improve coach services for vulnerable users which could improve the physical and mental well-being of these individuals. There is also potential for positive effects on road congestion, air quality, GHG emissions, biodiversity and the water environment emissions, if the policies result in modal shift from the private car to coaches. However, if this shift is from other public transport modes or from increased numbers of visitors (resulting in more coaches) then effects are likely to be neutral.

Policy Theme 17 promotes rail improvements to increase travel by train. The policies include measures which are likely to promote and improve the experience of using rail services. There is likely to be increased accessibility through improved train frequency, reduced journey times and the introduction of new stations and new railway lines linking growth areas and key centres. This is likely to maximise the use the use of existing infrastructure. The policies are also likely to reduce the use of private car which will have direct positive effects on air quality and GHG emissions, and indirect positive effects on health and biodiversity. Policy 17.3 is likely to have major positive effects for improved accessibility, facilitating economic growth, and encouraging modal shift away from the private car due to the proposed new stations and rail routes. However, this Policy also has potential for negative effects on ecology, historic environment, flood risk, landscape and agricultural land loss depending on the location and project-level mitigation measures for new stations and rail routes.

Policy Theme 18 aims to promote efficient use and maintenance of the local road network. Policy 18.1 and 18.3 are likely to have positive effects on road health and safety as they will encouraged a co-ordinated and prioritised approach to highway maintenance and transport asset management, maintaining roads in a good condition for users. Policy 18.2 is also likely to have positive effects as a shift of freight movement from road to rail will reduce the number of HGVs on the roads which may improve health and safety. It also aims to reduce the need to travel and encourage public transport instead of the private car which may have benefits for health and safety. Policy 18.2 promotes the use of Intelligent Mobility solutions to actively manage traffic and make more efficient use of existing networks and services, as well as promoting new infrastructure and improving the quality of existing infrastructure which will result in improved accessibility to key services. Measures to discourage vehicles such as parking controls will need to ensure they do not adversely affect vulnerable or mobility impaired people who reply on the car or that appropriate alternative transport modes are in place to meet their needs. Policy 18.2 encourages the use of rail freight instead of road freight as well as promoting the use of more sustainable modes of transport through new infrastructure and improving the quality of existing infrastructure, and introducing vehicles controls such as parking restrictions/vehicle charging, which could have a positive effect on air quality and GHG reduction.

Policy Theme 19 aims to ensure appropriate parking standards and facilities. Policy 19.1 and 19.2 aim to increase access through parking for Blue Badge holders in safe, accessible locations close to key services and amenities. The policy also promotes safe, secure parking design for all road users, use of ultra-low emissions vehicles, and use of alternatives modes of transport to the private car. These policies will have minor positive effects on health. Policy 19.1 and 19.2 aim to manage and reduce demand for parking. This may reduce the numbers of vehicles in city/town centres making

them safer for pedestrians and cyclists. Policy 19.1 and 19.3 may indirectly benefit the economy as reduced town and city centre congestion will enable public transport and cycling to be more reliable and efficient. Use of smart technology will also have benefits. Policy 19.2 aims to manage parking by encouraging alternative modes of transport. However, reduction in parking or higher pricing may put some people off, whilst encouraging others. Policy 19.1 promotes use of electric and other ultra-low emission vehicles through lower tariffs on parking and priority spaces with charging infrastructure. This will help increase uptake of non-petrol/diesel vehicles which will have benefits for air quality. Policy 19.2 seeks to reduce demand for parking through provision of alternatives. This will help modal shift away from the private car and therefore, a reduction in associated transport emissions.

Policy Theme 20 aims to reduce congestion on the highway network. This will have benefits for health, air quality, and GHG reduction. However, an unintended consequence may be that it encourages increased vehicle use. The policies have the potential to increase the accessibility within the region by improving the capacity of the road network and supporting economic growth. Policy 20.1 also aims to promote a busway which could be used as an alternative to car travel. The policies promote new highway infrastructure and therefore, there is potential for negative effects on biodiversity, landscape, historic environment, and soils depending on their location, design and project level mitigation measures.

6.3 Assessment of LTP Projects

The projects proposed in the LTP have been assessed as part of the SEA process and the assessment tables are provided in Appendix H. Projects included in policies have also been assessed as part of that policy (see section 6.2). Projects that are currently under construction have not been assessed as these are considered part of the baseline. Several of the proposed projects in the LTP have already undergone SEA as part of the previous LTP development. These projects have only been re-assessed where the project has changed since the previous assessment.

The projects are at different stages of development, some are at the concept stage or do not have specific locations and others are more defined. The majority of projects are likely to have construction related effects including impacts on noise and vibration, air quality through dust from construction activities, visual intrusion, increased traffic from construction vehicle movements, use of materials, energy and water, and generation of waste materials. Depending on location, nature of the project and project level mitigation measures there is also potential for habitat loss and species disturbance, loss of agricultural land, water quality issues, flood risk issues, and effects on the setting of the historic environment and landscape character. The LTP contains policies to try and reduce the negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design. Each project taken forward will be subject to environmental assessment screening through the planning process.

There is also opportunity to provide positive effects through design and co-ordination with partners and other organisations, including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth

6.4 Cumulative Effects

The cumulative effects of the LTP have been assessed through consideration of:

- The effects of the LTP policies and projects as a whole on the SEA objectives
- The potential links and effects of the LTP with other tiers of plans and projects

6.4.1 Cumulative Assessment of the LTP

The LTP as a whole including all the proposed policies and projects was assessed against the SEA objectives to determine the cumulative positive or negative effects of the Cambridgeshire and Peterborough LTP. The results are presented in Table 22.

The LTP strategy is a blended approach as described in Section 5. It focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. Overall the LTP is likely to have significant positive social effects from increased accessibility (both affordability and connectivity), increased choice and reliability of sustainable transport modes, economic growth, and health benefits. The LTP promotes sustainable transport modes including low and zero emission vehicles which will help reduce transport-related emissions providing benefits for air quality, GHG reduction and health.

The LTP promotes new road and rail transport infrastructure which has the potential for positive or negative cumulative effects depending on the location of the projects and mitigation measures incorporated into the design. Negative cumulative effects could include habitat loss and fragmentation, death, injury or disturbance to species, visual impacts, damage to heritage assets and archaeology, effect on setting of heritage assets, landtake including loss of agricultural land, and water pollution. There is

also opportunity to provide positive effects including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth. There are also policies in the LTP that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment.

Table 22: Cumulative Effects of the LTP

SEA Objectives	LTP	Summary
Health	+++	Health benefits through promotion of active travel, improved air quality, and increased accessibility resulting in benefits for mental wellbeing.
Safety	++	Increased transport health and safety through crime prevention and security measures on public transport, segregation of road users, and training for cyclists.
Accessibility	+++	Increased accessibility through improved and well-connected sustainable transport modes, access of travel information, integrated ticketing and affordability of the public transport network.
Economy	+++	Contribution to economy growth through a more reliable and efficient transport network, facilitating visitor travel and business travel, and freight moment.
Sustainable Transport	+++	Promotion of sustainable transport modes including public transport, walking and cycling through increased provision, new routes, and improved services and facilities.
Biodiversity / Geodiversity	?	The LTP facilitates modal shift to sustainable transport modes which will have benefits for biodiversity. However, projects proposed within the LTP have the potential to negatively affect biodiversity through habitat and disturbance.
Historic Environment	?	The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for the historic environment. However, projects proposed within the LTP have the potential to negatively affect the historic environment through new infrastructure affecting the setting of heritage assets and potential disturbance of archaeology.
Landscape	?	The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for landscape. However, projects proposed within the LTP have the potential to negatively affect the character of the landscape through new infrastructure effects on visual amenity, tranquillity, and openness of the countryside.
Soils	?	The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for soils. However, projects proposed within the LTP have the potential to negatively affect soils through agricultural land loss.
Water	?	The LTP facilitates modal shift to sustainable transport modes which is likely to have benefits for the water environment. However, projects proposed within the LTP have the potential to negatively affect the water environment through water quality issues.
Flood Risk	+	The LTP aims to ensure transport project do not increase flood risk and that appropriate design features such as SuDS are included.
Air Quality	+++	The LTP facilitates modal shift to sustainable transport modes which will reduce emissions associated with transport and benefit air quality.
GHG emissions	+++	The LTP facilitates modal shift to sustainable low or zero carbon transport modes which will reduce GHG emissions associated with transport.
Climate Resilience	+	The LTP contains polices that require transport infrastructure projects to consider climate resilience within the design process.
Reuse of infrastructure	++	The LTP aims to maximise capacity and use of existing infrastructure and well as promoting new infrastructure.

6.4.2 Links with other plans and projects

Links with other plans

The LTP is a strategic document that sets the framework and principles for future transport planning in the Cambridgeshire and Peterborough area for the next 30 years. As such it has links with many other

plans (see Appendix B). In particular, it supports plans on emissions reduction, green infrastructure, healthy lifestyles, accessibility, and environmental improvement.

The Local Plan for each local authority forms the main policy document for delivering development within each area. The LTP has strong links with the Local Plans. In particular, the LTP policies on providing improved connections to new housing development and economic centres will link with new development sites put forward in the Local Plans. Each of Local Authorities within the LTP area have published a Local Plan that has been subject to SEA/SA (see Table 23).

The LTP is likely to support the delivery of the Local Plans and other plans such as climate change strategies and community strategies. The positive environmental effects associated with the enhancement of local sustainable transport within the LTP have the potential to provide significant positive environmental effects in combination with wider plans and polices on climate change and air quality. Policies on housing have the potential to result in positive environmental effects in combination with the LTP through unlocking development sites and supporting new residential developments which aim to ensure that they are integrated as part of sustainable transport networks, this will result in positive environmental effects for populations, communities and human health (through protecting and promoting everyone's physical and mental wellbeing and safety).

Table 23: Local Authority Local Plans

Local Authority	Local Plan	Local Plan SA
Cambridge City Council	Adopted Cambridge City Council Local Plan 2018[21]	Cambridge Local Plan Submission Sustainability Appraisal report and Habitats Regulations Screening Assessment (July 2013) and Addendum (2015, revised March 2016) and Sustainability Appraisal of Main Modifications (December 2017)[22]
East Cambridgeshire District Council	Adopted - East Cambridgeshire Local Plan April 2015[23] (Note the emerging Local Plan has been withdrawn)	Sustainability Appraisal of the Local Plan 2015[24]
Fenland District Council	Fenland Local Plan Adopted May 2014[25]	Sustainability Appraisal of the Fenland Local Plan (May 2014)[26]
Huntingdonshire District Council	Emerging Local Plan – Huntingdonshire Local Plan 2036: Proposed Submission (March 2018)[27]	Huntingdonshire's Local Plan to 2036: Final Sustainability Appraisal Report (December 2017)[28]
Peterborough City Council	Emerging Local Development Plans – Peterborough Local Plan (Proposed Submission) January 2018[29] Adopted Local Plan – Peterborough Core Strategy Development Plan Document Adopted 23rd February 2011[30]	Peterborough Local Plan (Submission Version) Sustainability Appraisal 9january 2018)[31]

21 https://www.cambridge.gov.uk/local-plan-2018
22 https://www.cambridge.gov.uk/local-plan-2018
23 https://www.eastcambs.gov.uk/local-development-framework/east-cambridgeshire-local-plan-2015
24 https://www.eastcambs.gov.uk/sites/default/files/SA%20report%20of%20the%20April%202015%20Adopted%20LP%20-%20FINAL.pdf
25 https://www.fenland.gov.uk/media/12064/Fenland-Local-Plan---Adopted-2014/pdf/Fenland_Local_Plan-Adopted_2014.pdf
26 http://www.fenland.gov.uk/CHttpHandler.ashx?id=10011&p=0
27 http://www.huntingdonshire.gov.uk/planning/new-local-plan-to-2036/local-plan-document-library/
28 http://huntingdonshire.gov.uk/media/2685/draft-final-sustainability-appraisal-report.pdf
29 https://drive.google.com/file/d/1ZwkIR2mdq3nO-DrOWi5B0U05f_njxYEb/view
30 https://www.peterborough.gov.uk/council/planning-and-development/planning-policies/local-development-plan/
31 https://drive.google.com/file/d/1EiXl1Cq8ckAhRqh8qVyKnSxqwIMPuxJQ/view

Local Authority	Local Plan	Local Plan SA
South Cambridgeshire District Council	Adopted South Cambridgeshire Local Plan 2018[32]	South Cambridgeshire Local Plan Submission Sustainability Appraisal Report and Habitats Regulations Screening Assessment (March 2014)[33] Sustainability Appraisal Addendum Report incorporating Habitats Regulations Assessment Screening Assessment (2015, revised March 2016)[34] Sustainability Appraisal of Main Modifications (December 2017)[35]

Links with other projects

Various projects will be taken forward in order to implement the LTP. Each proposed project will be assessed by the local planning authority in terms of its potential for environmental impacts and effects. A planning application search of local authority planning portals was made using criteria of presence of EIA screening request dated between 16/01/2014 and 16/01/2024 (five years prior to search date and five years post search date). Residential housing sites with under 100 units have been screened out as being insignificant. The results of the planning portal search are presented in Appendix I.

There is the potential for construction related cumulative effects on a number of social and environmental receptors (e.g. short-term declines in water quality or noise and visual disturbance). However, these potential effects will be identified within each project and minimised through the implementation of a Construction Environmental Management Plan. Projects will be spread across the region and are likely to have different phasing. Therefore, construction related cumulative effects are considered to be insignificant.

6.5 Transboundary Effects

The LTP has the potential for transboundary effects with neighbouring local authorities, especially through larger proposed rail and road schemes which may enhance accessibility in and out of the region to other areas of the country. Local transport plans for neighbouring authorities have been consulted to determine any potential trans-regional effects (see Table 24). The LTPs have also been subject to SEA to identify, mitigation and enhance environmental outcomes.

Table 24: Neighbouring Authority LTPs

Neighbouring Local Authority	LTP Priorities
Norfolk	Norfolk's 3rd Local Transport Plan, Connecting Norfolk, sets out the strategy and policy framework for transport up to 2026[36]. The policy themes of the plan are • Managing and maintaining the transport network • Sustainable growth • Strategic connections • Transport emissions • Road Safety • Accessibility

[32] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

[33] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

[34] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/

[35] https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/stages-in-the-preparation-of-the-local-plan-2018/main-modifications-to-the-local-plans-january-february-2018/

[36] https://www.norfolk.gov.uk/-/media/norfolk/downloads/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/roads-and-transport/norfolk-transport-plan-for-2026.pdf?la=en&hash=054A0C88BC2D430A37E41FD6ACB1EFA657FC8739

Neighbouring Local Authority	LTP Priorities
Suffolk	Suffolk's 3rd Local Transport Plan[37] sets out the county council's long-term transport strategy to 2031. The policy themes of the plan are: • Maintaining (and in the future improving) our transport networks • Tackling congestion • Improving access to jobs and markets • Encouraging a shift to more sustainable travel patterns
Hertfordshire	The plan[38] covers the period up to 2031. The Plan has the following objectives: • Improve access to international gateways and regional centres outside Hertfordshire • Enhance connectivity between urban centres in Hertfordshire • Improve accessibility between employers and their labour markets • Enhance journey reliability and network resilience across Hertfordshire • Enhance the quality and vitality of town centres • Preserve the character and quality of the Hertfordshire environment • Reduce carbon emissions • Make journeys and their impact safer and healthier • Improve access and enable participation in everyday life through transport
Central Bedfordshire	The Local Transport Plan[39] sets out the Council's aims and objectives to 2026. The Plan has the following objectives: • Increase the ease of access to employment by sustainable modes • Reduce the impact of commuting on local communities • Increase the number of children travelling to school by sustainable modes of transport • Improve access to healthcare provision • Ensure access to food stores and other local services particularly in local and district centres • Enable access to a range of leisure, cultural and tourism facilities for residents and visitors alike by a range of modes of transport • Enable the efficient and reliable transportation of freight • Encourage the movement of freight by sustainable modes • Minimise the negative impacts of freight trips on local communities • Reduce the risk of people being killed or seriously injured
Bedford	The LTP[40] runs from 2011 to 2021. The plan has the following objectives: • To provide a reliable and efficient transport system, in order to support a strong local economy and facilitate sustainable growth • To deliver improvements that encourage a reduction in transport emissions and greenhouse gases, in order to tackle climate change and develop a low carbon community capable of adapting to the impacts of climate change • To promote greater equality of opportunity by providing opportunities for all residents to access key services and facilities • To contribute to better safety, security and health by reducing death, injury or illness from transport and promoting travel modes that are beneficial to health • To encourage and support a sustainable transport system that contributes to a healthy natural and urban environment • To gain a better understanding of travel behaviour in and out of the Borough, in order to make informed decisions on how people can be encouraged to make "smarter" sustainable travel choices
Northampton	The LTP[41] runs to 2026. The plan has six strategic aims: • Fit for the Future – creating a transport system that supports and encourages growth and plans for the future impacts of growth, whilst successfully providing benefits for the County • Fit for the Community – through the transport system help to maintain and create safe, successful, strong, cohesive and sustainable communities where people are actively involved in shaping the places where they live

37 https://www.suffolk.gov.uk/assets/Roads-and-transport/public-transport-and-transport-planning/2011-07-06-Suffolk-Local-Plan-Part-1-lr.pdf

38 https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf

39 http://centralbedfordshire.gov.uk/Images/transport-strategy_tcm3-7901.pdf

40 http://bbcdevwebfiles.blob.core.windows.net/webfiles/Files/LTP3_Strategy_09_Feb_2011.pdf

41 https://www3.northamptonshire.gov.uk/councilservices/northamptonshire-highways/transport-plans-and-policies/Documents/Northamptonshire%20Transportation%20Plan%20-%20Fit%20for%20Purpose.pdf

Neighbouring Local Authority	LTP Priorities
	• Fit to Choose – ensuring that the people of Northamptonshire have the information and the options available to them to be able to choose the best form of transport for each journey that they make • Fit for Economic Growth – creating a transport system that supports economic growth, regeneration and a thriving local economy and successfully provides for population and business growth • Fit for the Environment – to deliver a transport system that minimises and wherever possible reduces the effect of travel on the built, natural and historic environment • Fit for Best Value - being clear about our priorities for investment and focusing on value for money by prioritising what we spend money on and how it can be beneficial for the county as a whole and search for alternative sources of funding
Rutland	Rutland's 4th LTP Moving Rutland Forward[42] covers the period to 2036 and is currently in draft. The plan has been developed with the following vision: • To facilitate delivery of sustainable population and economic growth • To meet the needs of our most vulnerable residents • To support a high level of health and wellbeing (including combating rural isolation)
Lincolnshire	The 4th Lincolnshire LTP[43] runs to 2023. The plan has the following objectives: • To assist the sustainable economic growth of Lincolnshire, and the wider region, through improvements to the transport network • To improve access to employment and key services by widening travel choices, especially for those without access to a car • To make travel for all modes safer and, in particular, reduce the number and severity of road casualties • To maintain the transport system to standards which allow safe and efficient movement of people and goods • To protect and enhance the built and natural environment of the county by reducing the adverse impacts of traffic, including HGVs • To improve the quality of public spaces for residents, workers and visitors by creating a safe, attractive and accessible environment • To improve the quality of life and health of residents and visitors by encouraging active travel and tackling air quality and noise problems • To minimise carbon emissions from transport across the county

[42] https://www.rutland.gov.uk/_resources/assets/attachment/full/0/72383.pdf

[43] https://www.lincolnshire.gov.uk//Download/102928

7 Mitigation and Monitoring

7.1 Mitigation

Mitigation and enhancement measures have been identified for the LTP to strengthen environmental outcomes. Table 26 presents the recommendations identified from the scoping feedback and how these have been incorporated into the LTP. Table 27 presents the mitigation and enhancement measures developed during the assessment stage and how these have been incorporated into the LTP. Table 27 presents additional recommendation from the SEA.

Table 25: Recommendations from Scoping Feedback

Topic	Recommendation	How addressed in the LTP
LTP Vision, Goals and Objectives	Include Conservation of the Historic Environment as a wider objective	This has been included under the LTP environmental objectives
	There is a vision of Equity, but the definition is one of Equality. The LTP should strive for equity, not equality to reflect the difference in the population and urban vs rural difference.	This has been changed from 'Equity' to 'Social'
	Include Health as a wider objective	This has been included under the LTP social objectives
	The Environment objective should read "Protect and enhance our environment…"	The LTP environment objective has been updated
	Include reference to digital technology and how this is likely to impact future travel.	The LTP document recognises the importance of digital technology on future travel and contains policies on this area

Table 26: Mitigation and Enhancement Measures Incorporated into the LTP

Policy	Relevant SEA topic	Mitigation Recommendation	How addressed in the LTP
Policy Theme 4.2: Maintaining and managing the transport network	Climate, Soils, Air quality, Material assets	• Include details on waste and material use within maintenance and capital projects, e.g. use of the waste hierarchy, maximising life and capacity of existing assets, using sustainably sourced materials with recycled content, reusing demolition material on new schemes etc. to support the principles of a circular economy.	This has been addressed within Policy Theme 4.2.
Policy Theme 10.1: Reducing the carbon emissions from travel	Climate, Air quality, Human health	• Policy 10.1.2 refers to electric vehicle charging points. To facilitate a switch to EV this could be widened to include EV infrastructure and information (not just charging points) e.g. priority parking for EV, an app with local maps on EV charging points and parking bays. • 'Low carbon economy' is mentioned in some of the other policies (e.g. built environment) but it would also seem to fit under policy 10.1 as reducing carbon emissions from travel will help contribute to a low carbon economy.	This has been addressed within Policy 10.1.2 This has been addressed within the text in Policy Theme 10.1
Policy Theme 9.1: Protecting our natural environment	Flora and fauna, Population, Human health, Landscape, Water	• Biodiversity net gain is referred to in the policy overview but not in the policy wording. Consider bringing this out in the policy as well. • Strengthen emphasis on cohesion and connectivity of green space and green infrastructure within Policy 9.1.3.	This has been addressed within the Policy Theme 9.1 overview text and Policy 9.1.3.

Table 27: Recommended Mitigation and Enhancement Measures

Policy	Relevant SEA topic	Mitigation Recommendation
Policy Theme 4.2: Maintaining and managing the transport network	Climate, Soils, Air quality, Material assets	• The policies under 4.2 are mainly focussed on highways, consider including other capital projects as well.
Policy Theme 9.1: Protecting our natural environment	Flora and fauna, Population, Human health, Landscape, Water	• Strengthen promotion of transport measures and opportunities with multiple benefits (e.g. benefits for transport but also for the environment and social (communities)) within the policies.
Policy Theme 3.2: Supporting the local visitor economy	Flora and fauna, Historic environment, Landscape	• The policy aims to increase access to tourism and natural areas. Visitor access and demand to tourism sites e.g. designated sites, heritage sites, will need to be balanced with protection of these sites to avoid damage
Policy Theme 5.2: Ensuring transport security	Flora and fauna	• Vegetation clearance for safety and security could have effects on biodiversity. Ensure an ecological survey is carried out prior to clearance works.
Policy Theme 9.1: Protecting the natural environment	Flora and fauna, Landscape	• The policies may result in increased footfall/visitors to natural areas and the countryside which may affect the tranquillity or damage sites. This will need to be carefully managed.
Policy Theme 13: Delivering a seamless public transport system	Flora and fauna, Historic environment, Water, Soils, Landscape	• Policy 13.4 promotes park and ride sites, depending on the location of these sites there could be negative effects on the environment. The site selection process will need to take this into account.
Policy Theme 15: improving public transport	Flora and fauna, Historic environment, Water, Soils, Landscape	• Tunnelling under Cambridge as part of the CAM project will generate a large amount of excavated material and a strategy should be developed for its reuse.

Policy Theme 1.1 (enabling development), 2.2 (expanding labour markets), 3.1 (accessing ports and airports), 3.3 (supporting business clusters), 15 (improving public transport), 17 (travelling by train), 20 (making long distance journeys by car) all include infrastructure projects as part of the policies. The LTP also includes a range of projects, most of which include new and/or upgraded infrastructure. There is potential for negative effects on the environment depending on their location, design and project level mitigation measures. However, there are also opportunities for enhancement through design and co-ordination with partners and other organisations. The LTP contains policies that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design.

7.2 Monitoring

Monitoring the negative effects of implementing the Cambridgeshire and Peterborough LTP is an essential ongoing element of the SEA process. Monitoring helps ensure that the identified SEA objectives are being achieved, allows early identification of unforeseen adverse effects and thus appropriate remedial action can be taken. Monitoring will be an important requirement to measure performance and ensure the LTP is being successfully implemented. The DCLG guidance states that it is inappropriate to monitor everything, and monitoring proposals should be focused on the following areas that:

- Indicate a likely breach of international, national or local legislation, recognised guidelines or standards
- May give rise to irreversible damage, with a view to identifying trends before such damage occurs
- Were subject to uncertainty in the SEA and where monitoring would enable prevention or mitigation measures to be taken.

Negative effects identified during the SEA process were centred around future transport infrastructure development and the potential for effects on ecology, historic environment, water quality, landscape, flood risk, and soils.

The LTP itself includes a set of measurement and performance indicators which will be monitored to assess the success and progress of the LTP. These indicators are presented in Table 28. Additional indicators proposed for monitoring as part of the SEA are presented in Table 29. The majority of the proposed SEA indicators were monitored through the previous LTPs, so a baseline should be available.

Table 28: LTP Measurement and Performance Indicators

LTP Indicators
Non-frequent bus services running on time
Average excess waiting time for frequent bus services
Total passenger services on local bus services
Rail cancellations and significant lateness (CaSL)
Total station entries and exits, total Combined Authority
Percentage of population within 30 minutes of key amenities by public transport or walking
Average minimum journey times by walking or public transport to nearest of selected rail stations (Department for Transport, Morning peak)
Average minimum journey times by car transport to nearest of selected rail stations (Department for Transport, Morning peak)
Congestion – average journey time per mile during morning peak
Average number of selected major road junctions within 30 minutes' drive (Department for Transport, morning peak)
Attitudes towards cycling – "I think that cycling on the road is safe"
Method of travel to work by active modes
Percentage of the population who cycle at least three times per week
Percentage of the population who make journeys by walking at least three times per week
Ratio of median house prices to median salary
Ratio of lower quartile house price to lower quartile salary
Ratio of new dwellings to population increase
Percentage of public transport users within 30 minutes of key amenities by public transport or walking
Ratio of housing targets to housing completions
Average minimum journey times by car to the nearest of selected airports (Department for Transport, Morning Peak)
Average minimum journey times by public transport to the nearest of selected airports (Department for Transport, Morning Peak)
Number of tourists per annum
Total Foreign Direct Investment (FDI)
GVA per head
Birth of businesses per 100,000 of population
Survey – "Does your business think that the transport network in the local network is of a high standard"
Numbers of Air Quality Management Areas (AQMAs)
Estimated total volume of Carbon Dioxide emissions from transport (kt CO_2)
Trends in NO_2 concentration at a range of monitoring sites
Trends in PM_{10} concentration at a range of monitoring sites
Total people killed or seriously injured in road traffic accidents per annum
Total slight injuries in traffic accidents
Total number of assaults on public transport per annum
Survey data – "I feel that Public Transport is safe to use"

Source: Cambridgeshire and Peterborough LTP

Table 29: Additional Monitoring Indicators

SEA Topic	Indicator	Responsibility	Timeframe
Flora and Fauna	Number, area and condition of designated sites	CPCA/ All Councils/ NE/ Cambridgeshire and Peterborough Environmental Records Centre	Annual
	Achievement of biodiversity net gain on LTP projects	CPCA / NE	Annual
	Achievement of BAP targets, especially for roadside verges and in new planting interventions	CPCA / NE	Annual
Historic environment	Number of listed buildings and those at risk	CPCA / Historic England (Heritage counts and Heritage at Risk Register)	Annual;
	Number of scheduled monuments and those at risk		
	Number of registered parks and gardens and those at risk		
	Number of conservation areas and those at risk		
Water quality	% of transport interventions incorporating conditions to protect groundwater, where these have been requested by the Environment Agency	EA	Annual
	% of transport interventions incorporating conditions (such as SUDS) to protect surface water, where these have been requested by the Environment Agency	EA	Annual
Landscape	Extent of green belt	Councils	Annual
	Public green space lost/ gained as a result of LTP projects	CPCA	Annual
Flood risk	Flood and coastal erosion risk management and sustainable drainage systems (SDL080)	CPCA/ All Councils/ EA	Annual
Soils	Total area of grade 1, 2 or 3a agricultural land lost due to LTP projects	CPCA	Annual
	Number of transport interventions that lead to the remediation of contaminated land	CPCA/ All Councils	Annual

8 Summary

8.1 Conclusions of the SEA

The SEA undertaken for the Cambridgeshire and Peterborough LTP has helped to identify the likely effects of the LTP policies and projects. The LTP strategy is a blended approach as described in Section 5. It focuses on a range of significant capital investments in highway, public transport and walking and cycling infrastructure, designed to support a significant increase in travel demand (expected to be generated by significant new development) but tailored to the local geographic and travel context. Overall the LTP is likely to have significant positive social effects from increased accessibility (both affordability and connectivity), increased choice and reliability of sustainable transport modes, economic growth, and health benefits. The LTP promotes sustainable transport modes including low and zero emission vehicles which will help reduce transport-related emissions providing benefits for air quality, GHG reduction and health.

The LTP promotes new road and rail transport infrastructure which has the potential for positive or negative effects depending on the location of the projects and mitigation measures incorporated into the design. Negative effects could include habitat loss and fragmentation, death, injury or disturbance to species, visual impacts, damage to heritage assets and archaeology, effect on setting of heritage assets, landtake including loss of agricultural land, and water pollution. There is also opportunity to provide positive effects through design and co-ordination with partners and other organisations, including habitat creation and enhancement, incorporation of green infrastructure, increased access to the natural and historic environment (although increased pressure on these assets would need to be managed), increased accessibility and connectivity, and facilitating economic growth. The LTP also contains policies that aim to reduce negative effects associated with transport infrastructure and protect and enhance the natural and built environment including requiring a Construction Environmental Management Plan (CEMP) and considering environmental protection and enhancement within project design. The SEA process has also resulted in mitigation and enhancement measures being identified for the LTP to strengthen environmental outcomes.

8.2 Next Steps

The SEA Environmental Report will be published for public consultation alongside the draft Cambridgeshire and Peterborough LTP. A consultation log of responses will be produced. Following consultation, the Environmental Report will be updated to reflect consultation comments and any changes between the draft and final LTP.

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