East Lothian Local Transport Strategy 2018

Environmental Report

On behalf of **East Lothian Council**

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1 Introduction

1.1 Background

1.1.1 Peter Brett Associates LLP (PBA) has been commissioned by East Lothian Council (ELC) to undertake a Strategic Environmental Assessment (SEA) of the emerging ELC Local Transport Strategy 2018 ('the LTS'). This Environmental Report ('the ER') documents the findings of the SEA carried out in respect of the Draft East Lothian LTS ('the Draft LTS'), as presented to ELC in December 2017.

1.1.2 This introductory section identifies the purpose, objectives and structure of this ER. It then outlines core statutory requirements for undertaking SEA and provides a summary of the proposed content and purpose of the emerging East Lothian LTS.

1.2 Report Purpose and Objectives

1.2.1 The purpose of this report is to report the findings of a SEA of the Draft LTS, which has been prepared by ELC with support from PBA. In doing so, this ER responds to statutory SEA requirements, considers the evolution of the emerging LTS to date and presents an assessment of likely effects from the Draft LTS. As required by statutory SEA requirements, a Non-Technical Summary (NTS) of this ER has also been prepared to summarise the key findings from the SEA.

1.2.2 The main objectives of this report are to fulfil statutory SEA reporting requirements, to identify likely significant environmental effects from the Draft East Lothian LTS and to identify mitigation or enhancement measures which should be incorporated in the next or final version of the East Lothian LTS to enhance its effectiveness and environmental performance.

1.3 How to Comment on this Environmental Report

1.3.1 This ER and the associated NTS are being issued for consultation alongside the Draft East Lothian LTS. Subject to approval from ELC and the Scottish Ministers, all three documents will be consulted on from January 2018 for a period of 6 weeks. Details of how to participate in the consultation will be provided on ELC's website and published in a local newspaper prior to the consultation period commencing.

1.3.2 In accordance with Section 15(3)(b) of the 2005 Act, a letter confirming these consultation arrangements will be submitted to the Scottish Ministers by ELC prior to the consultation period commencing.

1.4 Structure of this Report

1.4.1 This report is structured as follows:

- The remainder of this section identifies core statutory requirements for undertaking SEA, explains the background to the development of the LTS and provides a summary of its proposed content and purpose;
- Section 2 provides an analysis of baseline characteristics, the predicted evolution of the baseline in the absence of the LTS, and a Review of other Plans and Programmes (RPP). The purpose of this section is to identify key environmental and sustainability issues which require consideration in the preparation of the LTS and in this SEA. The environmental baseline analysis is supported by a review of relevant environmental designations provided in Appendix A. The full RPP, which identifies relevant legislative

and policy requirements and targets and international, national, regional and local scale, is provided in Appendix B;

- Section 3 provides an overview of the SEA process undertaken to date and how the SEA has been carried out for the Draft LTS;
- Section 4 presents the key findings of the SEA undertaken for the Draft LTS. Detailed results from the SEA are also provided in Appendices D and E;
- Section 5 builds upon section 4 to identify mitigation and enhancement recommendations; and
- Section 6 provides an overview, identifies the next step in the SEA process and outlines potential monitoring arrangements.

1.5 Statutory Requirements

1.5.1 The 2005 Act requires Responsible Authorities, including local authorities, to assess the likely significant effects on the environment of implementing relevant Plans, Programmes or Strategies (PPS), as defined within the 2005 Act. This assessment must also examine the likely significant effects of implementing reasonable alternatives to the PPS under consideration (i.e. the LTS). The assessment will be carried out by following a staged process of reporting known as Strategic Environmental Assessment (SEA).

1.5.2 The LTS is proposed to be adopted by ELC as a document of public character. The document is required in response to administrative provisions[1] and has been prepared for transport planning and infrastructure development purposes. This includes contributing to the framework for future development consent of projects (including but not limited to transport infrastructure). The LTS is therefore considered to fall within the scope of Sections 4(1)(a) and 5(3) of the 2005 Act as a relevant and qualifying PPS. Furthermore, as the LTS covers all of the East Lothian Council area it will not merely determine the use of a small area at local levels. This means there was no option to exempt the LTS from the SEA requirements set out in the 2005 Act. ELC therefore determined that it was necessary to undertake a SEA of the LTS.

1.5.3 Under the 2005 Act, once the need for SEA of a PPS has been established (see above) a three stage process is required:

- **SEA Scoping** (Section 15): Responsible Authorities must provide the Consultation Authorities with sufficient information to enable them to consider the proposed scope, level of detail and consultation period for an environmental report to accompany the PPS;
- **Preparation of and Consultation regarding an Environmental Report** (Section 14): Responsible Authorities must prepare an environmental report to "*identify, describe and evaluate the likely significant effects on the environment of implementing*" the PPS and its reasonable alternatives. This ER should be based on the outcomes of SEA Scoping and the information requirements specified in Schedule 3 of the 2006 Act. The ER must be consulted on in tandem with the PPS for a period as agreed with the Consultation Authorities through SEA Scoping. **This ER responds to these legislative requirements**; and,

[1] The LTS responds to both the SEStrans Regional Transport Strategy (RTS) Refresh 2015 and Scotland's Transport Future: Guidance on Local Transport Strategies (Transport Scotland, March 2015). In particular, the 2005 Guidance encourages the preparation of LTS and specifies content which should be included in such documents.

- **Preparation of a Post Adoption SEA Statement** (Section 18): Following the adoption of a PPS the Responsible Authority must prepare a statement setting out, amongst other matters, how environmental considerations and the SEA have been taken into account within the adopted PPS.

1.6 Background to the East Lothian LTS

1.6.1 The previous East Lothian LTS was published in 2001 to set out East Lothian Council's transportation policies and proposals at that time. The 2001 LTS aligned with the then statutory Development Plan for East Lothian, comprising the (then) approved Lothian Development Plan (1994) and the adopted East Lothian Local Plan (2000).

1.6.2 Owing to significant changes in transport needs, demands, investment priorities and governance arrangements since 2001, as well as the influence of relevant policy changes, ELC has determined it necessary to prepare a new LTS. A review of all PPS which have informed the development of the emerging LTS is provided in Appendix B. Three PPS published since 2001 are of particular importance in determining the need for a new LTS, namely:

- Scotland's Transport Future: Guidance on Local Transport Strategies (Transport Scotland, March 2015). This document encourages the preparation of LTS and specifies content which should be included in such document;
- SEStrans Regional Transport Strategy (RTS) Refresh 2015 (SEStrans, 2015). This document provides a regional transport strategy for the Edinburgh and South East Scotland and specifies a number of actions and policy measures which should be implemented through new LTS across the region; and,
- East Lothian Local Development Plan (LDP) Proposed Plan (2016). This document provides a spatial strategy and suite of development management policies to guide spatial development within East Lothian and to assess planning applications for development proposals.

1.6.3 The proposed period of the new LTS, 2018 – 2023, is intended to align with the expected plan period for the East Lothian LDP. At the time of writing, a formal Examination of the East Lothian LDP Proposed Plan (2016) is ongoing, with the adoption of the finalised LDP expected in February 2018. The progress of the LDP Examination has been monitored throughout and has informed the preparation of this ER.

1.6.4 In addition to responding to relevant policy changes the new LTS needs to address changes in transportation needs, demands and investment priorities of relevance to East Lothian. These substantive issues are addressed in full within the introductory sections of the draft LTS.

1.7 Preparation of the East Lothian LTS 2018

1.7.1 ELC commenced the development of a new LTS in 2011 and to date have undertaken a number of activities. This includes holding an initial consultation exercise in 2011, undertaking a review of relevant literature, identifying and analysing transport related issued and problems, and developing potential transport interventions to address these.

1.7.2 The delay in bringing forward a new LTS since the process started in 2011 is attributable to important planning policy changes in the interim, as to be effective the LTS needs to closely align with the up to date planning policy context. Key changes since 2011 include the approval of the South East Scotland Strategic Development Plan (SESplan SDP) (2013), the publication of a new Scottish Planning Policy (SPP) and National Planning Framework 3 (NPF3) (2014), the publication of the SESplan 2 SDP Proposed Plan (2016) and the preparation of the East Lothian LDP Proposed Plan (2016).

1.7.3 A draft of this ER was first provided to ELC in September 2017, including a suite of recommended mitigation and enhancement measures (see Table 5.1 of this ER). Suitable amendments were then made to the Draft LTS to address predicted significant adverse effects and to improve the clarity of the document. The inclusion of this mitigation results in no significant adverse effects now being predicted to result from the Draft LTS (December 2017). This ER has been updated to take account of the mitigation measures which have been incorporated into the Draft LTS.

1.8 Form of the LTS

1.8.1 The Draft LTS which has been assessed through this ER comprises the following sections:

- Introduction
  - Strategic Overview / Emerging NTS
  - Context
  - Consultation
  - Strategic Transport Network
  - Progress since LTS 2001
  - Key Transport Statistics
  - Summary
- Problems & Issues
  - Cycling and Walking
  - Public Transport
  - Land-use Integration
  - Roads and Parking
  - Changes affecting our behaviour
  - Constraints and opportunities
- Vision & Objectives
  - Vision
  - Objectives
  - Links to the Council's Overall Vision
- Strategy (including Policies and links to separate Action Plans)
  - Overview
  - Network Maintenance and Asset Management
  - A Safer East Lothian

- Active Travel and Healthy Lifestyles
- Accommodating Growth and Supporting the Economy
- Encouraging Sustainable Travel
- Action Plans

- Monitoring & Evaluation
  - Indicators and Targets
  - Timescales and Reporting

1.9 LTS Action Plans

1.9.1 Acting together the proposed vision, objectives and policies of the LTS will provide a strategic framework to address transportation issues across East Lothian over the period 2018 – 2023. Due to the wide range of issues and proposals identified within the LTS, as well as the wide range of stakeholders with relevant responsibilities, ELC are developing a series of linked Action Plans to deliver specific elements of the LTS.

1.9.2 At the time of writing, ELC have prepared the following draft Action Plans, which are subject to public consultation alongside the Draft LTS and this ER:

Network Maintenance and Asset Management

- Road Asset Management Plan

A Safer East Lothian

- Road Safety Plan

Active Travel and Healthy Lifestyles

- Active Travel Improvement Plan

Accommodating Growth and Supporting the Economy

- Parking Management Strategy

1.9.3 Additional Action Plans or associated documents are intended to be developed by ELC to help implement the LTS, including:

Active Travel and Healthy Lifestyles

- Active Travel Improvement Plan

Encouraging Sustainable Travel

- Public Transport Plan
- Quality Partnership

1.9.4 Once approved by ELC, all Action Plans will have the status of live delivery documents, rather than forming part of the LTS itself. They are being developed by ELC in consultation with external organisations to allow stakeholders take ownership of delivering relevant elements of

the LTS. However, the Actions Plans will be co-ordinated to ensure that cumulatively, they implement the LTS as a whole.

1.9.5 The scope of the Action Plans will be limited to delivering elements of the LTS, rather than setting out additional or new policies or proposals. As delivery plans rather than policy documents or strategies. the Action Plans are not considered likely to result in any significant environmental effects which have not already been identified through this SEA of the emerging LTS. Indeed, the Action Plans are one mechanism through which any mitigation identified through this SEA as being required in relation to the Draft LTS can be implemented. On this basis and given that the Action Plans do not form part of the LTS, it was agreed through the SEA Scoping process that they should be scoped out of this SEA.

1.9.6 In the event that any of the Action Plans are developed beyond their proposed scope to set out new or additional policies or proposals not already assessed within this SEA of the emerging East Lothian LTS, ELC will need to consider the implications of this under the 2005 Act. If necessary this would include undertaking a separate SEA for the relevant Action Plan, although this is not presently considered to be likely.

2 Environmental and Policy Context

2.1 Introduction

2.1.1 This section summarises relevant baseline environmental characteristics (including environmental problems and protection objectives), considers the evolution of the baseline in the absence of the LTS and notes the relationship between the LTS and other qualifying PPS.

2.2 Relevant Environmental Information

2.2.1 Drawing upon sources including the East Lothian LDP Proposed Plan Environmental Report (2016), Appendix A presents a review of the environmental aspects, context and baseline scenario within which the Draft East Lothian LTS has been developed. Issues including air, climatic factors, water, soil, biodiversity, health, population, cultural heritage, landscape and material assets have been included in establishing the environmental baseline. In line with the 2005 Act, Appendix A also identifies relevant environmental issues, problems and environmental protection objectives which have informed the development of the LTS and associated LTS SEA Framework.

2.2.2 A summary of the key environmental issues identified within Appendix A which need to be considered within the associated LTS SEA Framework is provided in Table 2.1 below.

Table 2.1 Key Environmental Issues Relevant to this SEA

SEA Topic	Key Environmental Issues
Air Quality & Climatic Factors	The need to minimise the emissions of pollutants to air. The need to improve air quality, particularly within AQMAs and other areas with known poor air quality The need to ensure that new development, including transport infrastructure and facilities, is adaptable to the effects of climate change. The need to mitigate climate change including through measures to decarbonise the transport sector.
Biodiversity, Flora & Fauna	The need to conserve and enhance biodiversity including sites designated for their nature conservation value. The need to maintain, restore and expand the priority habitats. The need to safeguard and enhance green infrastructure assets.
Water	The need to protect and enhance the quality of water sources and the water environment The need to locate new development including transport infrastructure away from areas of flood risk, taking into account the effects of climate change.
Land & Soil	The need to encourage and/or facilitate development on previously developed (brownfield) land (including through transport interventions).

SEA Topic	Key Environmental Issues
	The need to make best use of existing transport infrastructure. The need to protect prime / best and most versatile agricultural land. The need to protect sites designated for their geological interest. The need to safeguard soil resources.
Health	The need to protect the health and wellbeing of East Lothian's population. The need to promote healthy lifestyles and in particular address obesity and levels of physical activity. The need to protect and enhance open space provision and accessibility across East Lothian.
Population (including relevant socio-economic issues)	The need to align with relevant policies and proposals within the adopted and emerging statutory Development Plan for East Lothian, as well as with relevant national and local policy documents, to ensure that the LTS contributes to the development of an integrated, efficient and sustainable transport system that meets identified needs. The need to support plans and projects identified in the emerging Edinburgh Region City Deal. The need for East Lothian's transport system to support significant housing growth. The need to bring forward key employment sites and achieve economic growth across East Lothian in a sustainable manner that protects the environment whilst allowing social and economic progress that recognises the needs of all people. The need to increase local employment opportunities in order to reduce the gap between the number of households in the Districts' settlements and the availability of local jobs. The need to tackle deprivation, including areas with existing deprivation linked to poor accessibility to key services, facilities and economic opportunities. The need to maintain and enhance the vitality of the East Lothian's town and neighbourhood/village centres. The need to ensure that community facilities and services are accessible to users in order to meet the diverse needs of local communities. The need for the transport system to support growth of the tourism sector.
Cultural Heritage	The need to protect and enhance East Lothian's cultural heritage assets and their settings.

SEA Topic	Key Environmental Issues
Landscape	The need to conserve and enhance East Lothian's landscape character and to protect visual amenity.
Material Assets	The need to promote the efficient use of natural resources. The need to ensure the protection of East Lothian's mineral resources from inappropriate development, including potential sterilisation due to transport infrastructure.

2.3 Environmental Baseline Evolution

2.3.1 Taking account of the environmental information provided in Section 2.2 above and in Appendix A, Table 2.2 below outlines the expected evolution of the baseline environmental position in the absence of the implementation of the Draft East Lothian LTS.

2.3.2 For the purposes of this SEA, the evolution of the baseline scenario without the LTS is not itself considered to be a reasonable alternative and thus the continuation of the status quo does not require to be assessed within this ER. This is because the evolution of the baseline scenario would fail to address the transport issues, problems and objectives identified within the Draft LTS, whilst also failing to take account of the transport implications of the proposed site allocations and policies within the East Lothian LDP Proposed Plan (2016).

Table 2.2 Evolution of the Baseline Scenario in the Absence of the Proposed LTS

SEA Topic(s)	Possible Changes without the LTS
Air Quality & Climatic Factors	If the LTS is not implemented it is likely that demand for, and use of, motorised forms of transport would increase unchecked as physical development occurs across East Lothian, whilst opportunities to encourage transport modal shift to walking, cycling and public transport will be lost. In the absence of a shift towards the use of electric vehicles (which is not considered likely to occur on a significant scale in East Lothian within the relatively short timescales of the LTS) the resulting increase in traffic would increase fossil fuel combustion, carbon emissions and local atmospheric pollution, in particular greater release of particulate matter. This would act against wider policy efforts to decarbonise key economic sectors including transport mitigate climate change. It could also lead to worsening air quality. As a result, ELC could fail to meet their duties in relation to climate change mitigation and adaptation under the Climate Change (Scotland) Act 2009 and could be required to designate Air Quality Management Areas (AQMAs) to address areas of poor air quality. Continued breaches of European air quality limits could also trigger fines being imposed on the UK Government, the Scottish Government and/or ELC.
Biodiversity, Flora & Fauna	If the LTS is not implemented and demand for motorised travel increases, there would likely be a requirement for new and significant transport infrastructure above planned levels to cope with this demand. Construction of such infrastructure could put pressure on biodiversity, including the loss and fragmentation of habitats, while increases in traffic and noise could disturb sensitive species.
Water	If the LTS is not implemented and demand for motorised transport increases, it may be necessary to construct further large-scale transport facilities, such as new roads and bridges, to cope with transport demand. This could contribute to the pollution of the local water environment.
Land & Soil	If the LTS is not implemented and demand for motorised transport increases, it may be necessary to construct further large-scale transport facilities, such as new roads and bridges, to cope with demand. Construction and use of such facilities could lead to land contamination and soil erosion. Pressure for the development of new transport facilities could also lead to the loss of prime and/or best quality agricultural land.

SEA Topic(s)	Possible Changes without the LTS
Health	If the LTS is not implemented and a significant switch to healthy and active modes of transport, such as walking and cycling, is not achieved, various health issues, such as obesity, inactivity and poor air quality, will continue to affect the population, causing increases in ill-health and potentially a reduction in life expectancy. Developmental pressures for new transport infrastructure beyond planned levels to cope with the increased demand for road traffic could lead to the loss of areas of open space, reducing opportunities for physical activity.
Population	If the LTS is not implemented and the population of East Lothian continues to increase in line with projections, demand for transport will outstrip supply, leading to overcrowding of transport facilities. If improvements are not made to the walking, cycling and public transport environments, it is likely that most of the demand for transport will be for road transport, leading to increased congestion and pollution.
Cultural Heritage	If the LTS is not implemented and demand for road transport and parking continues to increase, this may put development pressure on areas of historic and/or archaeological interest, and undermine the character or conservation areas.
Landscape	If the LTS is not implemented, it is likely that demand for motorised travel will increase and this will necessitate the construction of new transport facilities beyond planned levels, which could have a significant negative impact on the landscape character of East Lothian, especially if additional new facilities are developed in rural areas.
Material Assets	Without the LTS it is likely that a range of sustainable transport facilities (including walking and cycling routes, cycle parking, public transport hubs) would not be delivered. This would jeopardise ELC's vision of creating a 21st century transport system that meets the needs of all those living in, working in and visiting East Lothian.

2.4 Relationship between the LTS and Other Qualifying PPS

2.4.1 A detailed review of all other PPS of relevance to the LTS (whether deemed as 'qualifying' PPS for the purposes of the 2005 Act or not) is provided in Appendix B. From this, the list of all other relevant PPS is provided in Table 2.3 below.

Table 2.3 List of Other Relevant PPS

Other PPS relevant to the LTS and this SEA	
International	
European Council Directive 92/43/EEC Habitats Directive	Paris Agreement. 2016
European Parliament Directive 2009/147/EC Conservation of Wild Birds	European Commission White Paper: Roadmap to a single European transport area towards a competitive and resource efficient transport system. 2011
European Biodiversity Strategy. As amended 2016	European Parliament Directive 2008/50/EC. Ambient Air Quality Directive
UN Convention of Biological Diversity	European Parliament Directive 2002/49/EC. Environmental Noise
Kyoto Protocol. 1997	Ramsar Convention. 1971
The Aarhus Convention. 1998	The Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)
The European Convention on the Protection of Archaeological Heritage (Valetta Convention)	European Landscape Convention 2000 (became binding March 2007)
EU Water Framework Directive (2000/60/EC)	EU Floods Directive 2007/60/EC
EU (2006) European Employment Strategy	
National	
Scotland's National Transport Strategy 2016	Water Environment (Controlled Directive by 2015. Activities) (Scotland) Regulations 2005
Scottish Planning Policy (SSP). 2014	SEPA, Groundwater Protection Policy for Scotland: Environmental Policy. 2009
PAN71 Conservation Area Management. 2004	The Scottish Soil Framework. 2009

Other PPS relevant to the LTS and this SEA	
Designing Streets. 2010	Climate Change (Scotland) Act 2009
National Roads Development Guide	Climate Change Delivery Plan. 2009
Cycling Action Plan for Scotland 2013	'Climate Ready Scotland'- Scotland's Climate Change Adaptation Programme. 2014
Let's Get Scotland Walking – A National Walking Strategy. 2014	UK Air Quality Strategy (2007)
Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles. 2013	Air Quality (Scotland) Regulations (amended) 2016
Scotland's Road Safety Framework to 2020.	Let's Make Scotland More Active: A Strategy for Physical Activity. 2003
Strategic Transport Projects Review. 2008	Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight. 2010
Infrastructure Investment Plan. 2015	Scotland's Economic Strategy. 2015
Wildlife and Countryside Act 1981	The Historic Environment Scotland Policy Statement. 2016
The Nature Conservation (Scotland) Act 2004	The Planning (Listed Buildings and Conservation Areas) Act 1997
Scotland's Biodiversity Strategy: It's in Your Hands. 2004	Water Environment and Water Services (Scotland) Act 2003
HM Government (1979) Ancient Monuments and Archaeological Areas Act	
Regional	
SESPlan Strategic Development Plan, 2013	SESplan Proposed Strategic Development Plan. 2016
SEStrans Regional Transport Strategy (RTS) 2015-2025	SEStran Development of a Strategic Urban Cycle Network. 2010
SEStran Park and Ride Strategy. 2010	SEStran Parking Management Strategy. 2009
SEStran Strategic Cross Boundary Cycle Development. 2015	Edinburgh and Lothians Forestry & Woodland Strategy
Local	

Other PPS relevant to the LTS and this SEA	
East Lothian Council Plan 2012-2017	East Lothian Proposed Local Development Plan. 2016
ELC Core Paths Plan	Air Quality Action Plan (AQAP) – Musselburgh 2017
ELC Single Outcome Agreement (SOA) 2013	East Lothian Environment Strategy 2010-2015
East Lothian Biodiversity Action Plan 2008-2013	Carbon Management Plan 2009-14
East Lothian Local Housing Strategy 2012-17	East Lothian Tourism Action Plan 2015
East Lothian Economic Development Strategy 2012-2022	

2.4.2 The relationships between the PPS identified in Table 2.3 and the LTS, as well as consequential implications for this SEA, are detailed in Appendix B. From Appendix B it is clear that the LTS should:

- Seek to develop a safe and secure, efficient and integrated transport system;
- Encourage measures that reduce the need to travel;
- Ensure the conditions are in place to allow a widespread uptake of active and sustainable modes of transport, including walking, cycling, public transport, car sharing and the adoption of cleaner fuel vehicles, and promote the use of such modes to communities across East Lothian;
- Look to improve journey times and connectivity to, from and within East Lothian, including its major population centres;
- Improve the accessibility of the transport system, ensuring users benefit from a range of transport modes appropriate to their needs;
- Ensure that transport is affordable and does not contribute to social exclusion;
- Enable the efficient movement of freight throughout East Lothian and encourage the transfer of freight from road to rail and sea;
- Contribute to the development of a vibrant and successful Edinburgh City Region;
- Minimise the impact of transport on biodiversity interests, particularly impacts upon sites and species designated at international or national levels for reasons of biodiversity conservation;
- Seek to minimise the environmental impact of transport, including in terms of reducing carbon and greenhouse gas emissions, reducing waste generation and using natural resources sustainably;
- Seek to minimise the amenity impacts of transport, including in terms of avoiding severance and deterioration of noise quality; and

- Seek to improve air quality across East Lothian, including but not limited to improvements in areas with known poor air quality.

3 The SEA Process

3.1 Introduction

3.1.1 This section provides an overview of the SEA process which has been undertaken to date for the emerging East Lothian LTS. It also outlines the approach taken to assess the Draft LTS through the preparation of this ER.

3.2 SEA Purpose and Objectives

3.2.1 In accordance with the 2005 Act, the purpose of SEA is to identify, assess and evaluate the likely significant environmental effects of a qualifying plan, programme or strategy (PPS). A key objective of SA, incorporating SEA, is to enhance the environmental and wider sustainability performance of a PPS. This is achieved through identifying any likely significant effects from implementation of the PPS as drafted, proposing mitigation measures to address any identified significant adverse environmental effects, and identifying enhancement measures to improve the overall performance of the PPS. As such, SEA is an integral part of good policy development and should not be viewed as a separate or retrospective activity.

3.3 Addressing Statutory Requirements

3.3.1 To satisfy statutory requirements, it is necessary for this SEA report to provide certain information. The approach to addressing relevant requirements is shown in **Table 3.1**.

Table 3.1: Requirements of the 2005 Act and how they are met through the SEA report

SEA Requirements	Section Reference
a) An outline of the contents, main objectives of the plan or programme and relationships with other relevant plans and programmes.	Section 2 and Appendix B
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Section 2 and Appendix A
c) The environmental characteristics of areas likely to be significantly affected.	
d) 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.	
e) The environmental protection objectives, established at international, community or national level which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	Section 2 and Appendix B
f) 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; cultural heritage, including architectural and archaeological heritage; landscape; and the interrelationship between the above factors. These effects should include secondary, cumulative, synergistic, short, medium and long term, permanent and temporary, positive and negative.	Section 4 and Appendices D - E

g) 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.	Section 5 and Appendices D - E
h) 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.	Section 3
i) A description of measures envisaged concerning monitoring.	Section 6
j) A non-technical summary of the information provided under the above headings.	Refer to separate Non-Technical Summary SA Report
Taking the environmental report and the results of the consultations into account in decision-making.	Sections 1, 4 and 6

3.4 Approach to SEA

SEA Project Team

3.4.1 The SEA of the emerging LTS is being undertaken independently by Peter Brett Associates LLP (PBA) on behalf of ELC. The consultant team involved in carrying out the SEA is therefore independent of the LTS preparation team within ELC, which helps to ensure the objectivity of the SEA.

3.4.2 PBA have provided drafting and technical support to ELC as required to support the preparation of the LTS and regular discussions have been held with senior ELC officers throughout the process. This has allowed informal and early feedback of key issues to take place prior to finalising the Draft LTS for public consultation.

3.4.3 The consultant team from PBA undertook SEA of all Draft East Lothian LTS components and any identified reasonable alternatives on an objective basis (see Section 3.5). Justifications were later provided by ELC for inclusion in this ER (Appendices D and E) to identify and explain, in the context of the SEA, why individual policies and interventions have been proposed. This helps to demonstrate how the components contained in the Draft East Lothian LTS have been developed in response to identified transport issues, problems and objectives.

Previous SEA Reporting

3.4.4 The only previous stage of SEA undertaken in respect of the emerging LTS was the preparation and consultation on an SEA Scoping Report. This was prepared by PBA on behalf of ELC and submitted to the Scottish Government's SEA Gateway in June 2017. The SEA Consultation Responses duly responded to the Scoping Report in early August 2017.

3.4.5 The main purpose of the SEA Scoping Report was to identify a proposed SEA Framework to assess in a systematic way the likely environmental effects from all components of the emerging East Lothian LTS. This Framework comprises a series of sustainability objectives and guide questions regarding identified socio-economic and environmental issues of relevance to East Lothian which may affect (or be affected by) the emerging LTS together with other relevant PPS. The SEA objectives are accompanied by a set of guide questions and criteria to enable assessment of proposed policies and interventions (i.e. the emerging East Lothian LTS components) as well as any identified reasonable alternatives.

3.4.6 The overall approach to SA and the SA Framework were amended to take account of Scoping consultation responses, as detailed in Table 3.2 below.

Table 3.2 Summary of Scoping Consultation Responses and Changes

Respondent Name	Summary of Comments	Response
Scottish Natural Heritage (SNH)	• SNH are content with the scope and level of detail proposed for the environmental report, as well as the proposed consultation period. • Questioned the need for a separate second assessment matrix solely looking at LTS vision and objectives in addition to matrix assessments for LTS policies and proposals. • Suggested that Biodiversity question 5 within the SEA Framework be updated to specifically include woodlands in the ancient woodland inventory. • Recommended that the SEA finds a way to identify Local Wildlife and Local Geodiversity Sites. • Suggested that a Guide Questions under SEA Objective 1 – Biodiversity should be expanded to include reference to "*habitat fragmentation or loss*".	• The support for the proposed approach is noted and welcomed. • Relevant amendments have been made to the SEA Framework (see Appendix C) used throughout this SEA, including the addition of references to ancient woodland inventory sites and to consider habitat fragmentation as well as loss. • The presence of Biodiversity and Geodiversity Sites has been acknowledged within a revised version of the review of environmental aspects and problems, provided in Appendix A.
Scottish Environmental Protection Agency (SEPA)	• SEPA support the proposed approach to the Environmental Report and the proposed consultation period. • SEPA support the proposed identification of the relationship between proposed development and implications for the environment from increased transport. Also support the proposed approach to using this SEA to assess effects from proposed transport interventions and policies which are included in the LTS but also related to the East Lothian LDP and associated Supplementary Guidance. • Support the proposed SEA Objectives and Guide Questions regarding Air Quality, Water and Climate.	• The support for the proposed approach is noted and welcomed. • Through further discussions with SEPA officers it was agreed that it would not be proportionate to include a health related Guide Question under each SEA Objective and that this would result in unnecessary duplication within the assessment. Instead it was agreed that an additional Guide Question would be included under SEA Objective 3: "*Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?*". This Guide Question has been inserted into the SEA Framework (see Appendix C).

Respondent Name	Summary of Comments	Response
	• Recommended that the Health SEA Objective and Guide Questions could usefully be linked to Objectives, potentially through use of health guide questions under other relevant SEA Objectives.	
Historic Environment Scotland (HES)	• HES are content with the approach and are satisfied with the scope and level of detail proposed for the assessment, as well as the proposed consultation period. • Welcomed the level of detail provided in the SEA Framework, and consider that the framework overall is clear and likely to allow for a robust assessment. • Questioned whether the scoring system would allow positive and negative (or other multiple) effects from the same LTS component to be reported within the Environmental Report. Recommended that this could be made clear through text commentaries. • Recommended that the list of designated sites provided in Appendix A should include those designated for reasons of cultural heritage value.	• The support for the proposed approach and the detailed content within the proposed SEA Framework is noted and welcomed. • The presence of cultural heritage designations (local and national) has been acknowledged within a revised version of the review of environmental aspects and problems, provided in Appendix A. • The scoring system that has been adopted allows for multiple scores to be reported in respect of individual policies, policy components or proposed infrastructure interventions. The '/' symbol has been used to separate out multiple effects where these are predicted from the same component of the LTS. Furthermore, Appendix D provides a summary of the range (maximum positive to maximum negative) of predicted effects from the proposed transport infrastructure interventions, whilst the individual scores for each intervention are detailed within Appendix E. This is considered to provide a sufficiently detailed yet proportionate level of assessment reporting.
Scottish Government SEA Gateway	• Noted the need to formally write to advise the Scottish Ministers of the period of consultation for the Environmental Report prior to commencing this period.	• Noted.

3.4.7 Taking account of the changes outlined in Table 3.2, the finalised SEA Framework used in this assessment is set out in Appendix C (Table C.1). This SEA Framework focuses on assessing potential effects on the 10 sustainability objectives listed in Table 3.3.

Table 3.3 SEA Objectives within the East Lothian SEA Framework

East Lothian LTS SEA Objectives
1. **Biodiversity:** Conserve or enhance biodiversity, flora and fauna.
2. **Population:** Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.
3. **Human Health:** Maintain, or provide opportunities to improve, human health.
4. **Land and Soil:** Conserve or enhance soil quality, quantity and function.
5. **Water:** Maintain or enhance the quality of the water environment and reduce flood risk.
6. **Air:** Maintain or enhance air quality.
7. **Climatic Factors:** Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.
8. **Material Assets:** Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.
9. **Cultural Heritage:** Preserve, protect and, where appropriate, enhance East Lothian's historic environment.
10. **Landscape:** Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity.

3.5 Preparation of this Environmental Report

3.5.1 PBA commenced work on the SEA of the Draft LTS in August 2017 following completion of the Draft LTS and the receipt of Scoping consultation responses from the SEA Consultation Authorities (see Table 3.2 above). The SEA was undertaken fully in accordance with the approach to SEA and the SEA Framework set out in the East Lothian LTS SEA Scoping Report (June 2017). For reasons of brevity the full assessment methodology adopted to undertake this SEA is therefore not reproduced in this ER and the SEA Scoping Report should be referred to for this.

3.5.2 A draft of this ER was first provided to ELC in September 2017, including a suite of recommended mitigation and enhancement measures (see Table 5.1 of this ER). Suitable amendments were then made to the Draft LTS to address predicted significant adverse effects and to improve the clarity of the document. The inclusion of this mitigation results in no significant adverse effects now being predicted to result from the Draft LTS (December 2017). This ER has been updated to take account of the mitigation measures which have been incorporated into the Draft LTS.

Approach to Reasonable Alternatives

3.5.3 Following the approach outlined in the East Lothian LTS SEA Scoping Report, consideration was given to the need to identify and assess any reasonable alternatives to the components within the Draft LTS. However, all of the proposed policies and transport infrastructure interventions represent the results of an extensive process (including detailed scenario modelling) to select initiatives, policy measures and interventions which would appropriately address the transport problems, issues and opportunities identified within the Draft LTS.

3.5.4 Taking account of the high level nature of the policies within the Draft LTS and on the basis that the inclusion of infrastructure interventions only provides broad policy support for them, rather than setting out detailed design options, no additional or different (i.e. alternative) initiatives, policy measures and interventions were identified as being capable of satisfactorily addressing relevant transport problems, issues and opportunities, as identified within the Draft LTS. For the purposes of this SEA, no reasonable alternatives could therefore be identified as requiring assessment within this ER. For the reasons detailed in Section 2.3, the evolution of the baseline scenario is also not considered to constitute a reasonable alternative for the purposes of the 2005 Act.

SEA Matrices

3.5.5 All components of the Draft LTS were assessed in detail using matrices to identify likely significant effects on the SEA objectives. This approach allowed for systematic recording of potential effects and their significance together with any assumptions, uncertainties and suggested mitigation or enhancement measures (e.g. changes to policy wording). The assessment of each LTS component was undertaken in September 2017 on a pre-mitigation basis, i.e. assuming full implementation of the Draft LTS as drafted at that point, without the provision of additional policy safeguards or mitigation measures. As noted above, this ER has since been updated to take account of subsequent changes to the Draft LTS, including the incorporation of recommended SEA mitigation measures.

3.5.6 The completed policy and intervention assessment matrices are provided in Appendices D and E, with a summary of key findings provided in Section 4 of this report. A matrix based assessment of the Vision and LTS Objectives within the Draft LTS is also provided in Section 4.

3.5.7 The qualitative scoring system shown in Table 3.4 below was adopted to complete all appraisal matrices and, in doing so, to identify likely significant environmental and wider sustainability effects.

Table 3.4 SEA Scoring System to Establish Likely Significant Effects

Score	Description	Symbol
Significant (Major) Positive Effect	The proposed option/policy contributes significantly to the achievement of the SEA objective.	++
Minor Positive Effect	The proposed option/policy contributes to the achievement of the SEA objective but not significantly.	+
Neutral Effect	The proposed option/policy is related to but does not have any effect on the achievement of the SEA objective	0
Minor Negative Effect	The proposed option/policy detracts from the achievement of the SEA objective but not significantly.	-

Score	Description	Symbol
Significant (Major) Negative Effect	The proposed option/policy detracts significantly from the achievement of the objective. Mitigation is therefore required.	--
Uncertain Effect	The proposed option/policy has an uncertain relationship to the SEA objective or the relationship is dependent on the way in which the aspect is managed. In addition, insufficient information may be available to enable an assessment to be made.	?
No Clear Relationship	There is no clear relationship between the proposed option/policy and the achievement of the SEA objective or the relationship is negligible.	~

Approach to Identifying Uncertainties, Assumptions and Mitigation

3.5.8 The identification of any assumptions and uncertainties is important, as all LTS components need to be unambiguous to ensure they can be implemented as intended. Where these have been identified as relating to all of the SEA objectives they are identified within Appendices D – E as 'core assumptions' and 'core uncertainties'.

3.5.9 As noted above, a draft of this ER was first provided to ELC in September 2017, including a suite of recommended mitigation and enhancement measures (see Table 5.1). Suitable amendments have since been made to the Draft LTS to address predicted significant adverse effects and to improve the clarity of the document. The inclusion of all recommended mitigation measures means that no further mitigation requires to be identified within this ER specifically in relation to the content of the Draft LTS.

3.5.10 However, as detailed in Section 5, it is recommended that additional mitigation should be incorporated into future ELC planning policy documents to ensure the avoidance of likely significant environmental effects from proposed transport interventions, as listed in LTS Policy 4 – Accommodating Growth and Supporting the Economy. This mitigation should take the form of requirements to undertake technical assessments regarding potential environmental effects and, depending on the outcome of such assessments, to implement mitigation, compensatory and/or offsetting measures as appropriate through consenting processes.

4 SEA of the East Lothian Local Transport Strategy

4.1 Overview

4.1.1 This section provides the results of the SEA undertaken for the Draft LTS. The following plan components have been subject to SA and are considered below in turn:

- Vision and LTS Objectives;
- Draft Policies; and,
- Proposed Transport Infrastructure Interventions.

4.1.2 Sections 4.2 – 4.4 identify likely effects from each substantive component of the Draft LTS. Mitigation and enhancement recommendations to address any predicted significant adverse effects and to enhance the sustainability performance and clarity of the Draft LTS are then detailed in Section 5.

4.2 SEA of Proposed Vision and LTS Objectives

4.2.1 This section considers the likely environmental effects arising from the Vision and LTS components of the Draft LTS.

4.2.2 In response to the transport problems, issues and opportunities identified within Section 2 of the draft East Lothian LTS, a holistic vision and seven accompanying LTS objectives are set out within Section 3. The stated vision is that:

"East Lothian will have well-connected communities with increased use of sustainable transport modes to access services and amenities."

4.2.3 To support the implementation of this vision, the Draft LTS defines a suite of seven LTS objectives, namely:

- *"To deliver a more attractive and safer environment for pedestrians and cyclists;*
- *To reduce the overall dependence on the car and the environmental impact of traffic;*
- *To promote the availability and use of more sustainable means of travel;*
- *To locate new development to reduce the need to travel;*
- *To maximise accessibility for all and reduce social exclusion; and*
- *To promote integration and interchange between different means of travel*
- *To maintain the transport network to a suitable standard to ensure it meets the needs of all users"*

4.2.4 Likely effects from the proposed Vision and LTS Objectives are assessed in Table 4.1 below. A common uncertainty applies to the assessment of these LTS components, in that owing to their high level nature there is necessarily a degree of uncertainty regarding their scope, whilst implementation details are deferred to specific LTS policies and proposals. However, these uncertainties do not restrict the assessment of these LTS components nor undermine the effectiveness.

Table 4.1 Compatibility of LTS Vision and Objectives with SEA Objectives

SEA Objective	LTS Vision	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Commentary
1. Biodiversity: Conserve or enhance biodiversity, flora and fauna.	~	+	~	~	~	~	~	~	Assessment of Predicted Effects • Whilst there is no direct relationship between the LTS Vision or Objectives and this SEA objective, the objective of reducing overall environmental impacts from traffic (LTS Objective 2) would indirectly help to protect biodiversity interests. Mitigation and Enhancement • None required Assumptions • It is assumed that efforts to reduce the environmental impacts of traffic would include measures to protect and enhance biodiversity interests, including sensitive habitats and protected species. Uncertainties • Owing to the high level nature of the LTS Vision and Objectives, there is necessarily a degree of uncertainty regarding their detailed scope whilst implementation details are deferred to specific LTS policies and proposals. However, these uncertainties do not undermine the effectiveness of the these LTS components.
2. Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	+	+	+	+	+	+	+	+	Assessment of Predicted Effects • The LTS Vision and all Objectives support this SEA Objective by focusing the LTS on meeting the accessibility and connectivity needs of the population in East Lothian. This ensures that the LTS is targeted towards enhancing quality of life and access to services and opportunities for East Lothian's residents. Mitigation and Enhancement • None required Assumptions • None identified Uncertainties • None required
3. Human Health: Maintain, or provide opportunities to improve, human health.	+	+	+	~	+	~	+	~	Assessment of Predicted Effects • The focus of the LTS Vision on increasing the use of sustainable transport modes to access services and amenities would contribute to this SEA objective by encouraging non car travel and supporting access to both healthcare facilities and physical recreation. LTS objectives 2 and 3 would have the same effect. • LTS objective 1 relates to the protection of physical health insofar as it supports road and travel safety. • The focus of LTS objective 6 on reducing social exclusion would indirectly contribute to this SEA objective in terms of supporting positive mental health and wellbeing outcomes. • There is no clear relationship between the other LTS objectives and the SEA objectives. Mitigation and Enhancement • None required.

SEA Objective	LTS Vision	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Commentary
									Assumptions • None identified Uncertainties • None identified.
4. Land and Soil: Conserve or enhance soil quality, quantity and function.	~	+	~	~	~	~	~	~	Assessment of Predicted Effects • Whilst there is no direct relationship between the LTS Vision or Objectives and this SEA objective, the objective of reducing overall environmental impacts from traffic (LTS Objective 2) would indirectly help to protect land and soil resources. • There is no clear relationship between the LTS Vision or other Objectives and this SEA objective. Mitigation and Enhancement • None required Assumptions • It is assumed that efforts to reduce the environmental impacts of traffic would include measures to safeguard land and soil resources. Uncertainties • None required
5. Water: Maintain or enhance the quality of the water environment and reduce flood risk.	~	~	+	~	~	~	~	~	Assessment of Predicted Effects • Whilst there is no direct relationship between the LTS Vision or Objectives and this SEA objective, the objective of reducing overall environmental impacts from traffic (LTS Objective 2) would indirectly help to protect water quality and reduce flood risks associated with transport infrastructure. • There is no clear relationship between the LTS Vision or other Objectives and this SEA objective. Mitigation and Enhancement • None required Assumptions • It is assumed that efforts to reduce the environmental impacts of traffic would include measures to protect water quality and reduce flood risk. Uncertainties • None required
6. Air: Maintain or enhance air quality.	+	+	+	+	+	~	~	~	Assessment of Predicted Effects • The LTS Vision and Objectives 1 - 4 all pertain to promoting sustainable modes of transport and reducing travel need, which would improve air quality in East Lothian. In particular, the objective of reducing overall environmental impacts from traffic (LTS Objective 2) would help to protect air quality. • There is no clear relationship between the other LTS objectives (5, 6 & 7) and this SEA Objective. Mitigation and Enhancement • None required.

SEA Objective	LTS Vision	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Commentary
									Assumptions • None identified. Uncertainties • None identified.
7. Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	+	+	+	+	+	~	~	~	Assessment of Predicted Effects • The LTS Vision and Objectives 1 - 4 all pertain to promoting sustainable modes of transport and reducing travel need, which would help to decarbonise the transport sector and reduce energy consumption and greenhouse gas emissions. The objective of reducing overall environmental impacts from traffic (LTS Objective 2) would help to reduce greenhouse gas emissions from road transport. • There is no clear relationship between the other LTS objectives (5, 6 & 7) and this SEA Objective. Mitigation and Enhancement • None required Assumptions • None identified Uncertainties • None required
8. Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	+	+	+	+	+	~	+	+	Assessment of Predicted Effects • The LTS Vision and Objectives 1 – 4, 6 and 7 all pertain to promoting sustainable modes of transport and reducing travel need, which would promote the efficient use of materials including transport routes and infrastructure. In particular, objective 7 relates to maintain the transport network to a suitable standard to meet the needs of all users. These components would therefore have Minor Positive effects on this SEA objective. • There is no clear relationship between LTS Objective 5 and this SEA objective. Mitigation and Enhancement • None required. Assumptions • None identified. Uncertainties • None identified.
9. Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	~	+	~	~	~	~	~	~	Assessment of Predicted Effects • Whilst there is no direct relationship between the LTS Vision or Objectives and this SEA objective, the objective of reducing overall environmental impacts from traffic (LTS Objective 2) would indirectly help to preserve and protect the historic environment. Mitigation and Enhancement • None required. Assumptions

SEA Objective	LTS Vision	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Commentary
									• It is assumed that efforts to reduce the environmental impacts of traffic would include measures to protect and enhance heritage interests, including sites designated for their cultural heritage value. Uncertainties • None identified.
10. Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	~	+	~	~	~	~	~	~	Assessment of Predicted Effects • Whilst there is no direct relationship between the LTS Vision or Objectives and this SEA objective, the objective of reducing overall environmental impacts from traffic (LTS Objective 2) would indirectly help to protect and enhance landscape and townscape character and visual amenity. Mitigation and Enhancement • None required. Assumptions • It is assumed that efforts to reduce the environmental impacts of traffic would include measures to protect and enhance landscape and townscape character and visual amenity. Uncertainties • None identified.

KEY								
	+	Compatible	?	Uncertain	~	No Clear Relationship		
	0	Neutral	-	Incompatible				

4.2.5 The assessment provided in Table 4.1 indicates that there is good coverage of all SEA objectives across the proposed LTS Vision and LTS Objectives. LTS Objective 2 has been shown to be particularly important in providing a hook to allow the environmental effects on transport infrastructure (existing and proposed) and travel behaviours to be considered in decision making. The Vision and LTS Objectives are therefore considered to provide a relatively strong framework to underpin the policies and proposals within the LTS, and no modifications are identified as being required.

4.3 SEA of Proposed Policies

4.3.1 This section presents key findings from the SEA of the policies within the Draft LTS. The summary assessment provided below uses each of the SEA Objectives from the SEA Framework as headings, whilst detailed assessment matrices identifying all likely effects from the policies is provided in Appendix D. Whilst this section discusses the key SEA findings for all five policies. it does not include consideration of the individual transport infrastructure interventions proposed under Policy 4 – Accommodating Growth and Supporting the Economy as these are instead addressed within Section 4.4.

SEA Objective 1 - Biodiversity: Conserve or enhance biodiversity, flora and fauna

4.3.2 Excluding potential effects from the proposed interventions, which are considered separately in Section 4.4 and Appendix E, there is only a weak relationship between policies 1 – 5 and this SEA objective. The proposed Street Lighting component of Policy 1 is predicted to have an overall Neutral effect on this SEA objective in relation to changes in light pollution and potential effects on faunal species including bats.

SEA Objective 2 - Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents

4.3.3 All of the policies within the draft East Lothian LTS are predicted to have positive (beneficial) effects on this SEA objective, either through increasing accessibility to facilities, services and economic opportunities or by ensuring adequate transport infrastructure provision (including parking) to support the efficient movement of people and freight. The level of positive effect does however vary depending on the components of each policy, as detailed in Appendix D.

SEA Objective 3 - Human Health: Maintain, or provide opportunities to improve, human health

4.3.4 Components within policies 1 and 2 are predicted to have Major Positive effects on this SEA objective through enhancing road safety and implementing maintenance work to ensure the safety of the transport network for all users. Components of policies 3 - 5 are also predicted to have Major Positive effects on this SEA objective by promoting active and public transport use instead of car travel and by safeguarding or enhancing accessibility to key facilities and services, including open space and healthcare facilities.

SEA Objective 4 - Land and Soil: Conserve or enhance soil quality, quantity and function.

4.3.5 Excluding potential effects from the proposed interventions, which are considered separately in Section 4.4 and Appendix E, there is no clear relationship between policies 1 – 5 and this SEA objective.

SEA Objective 5 - Water: Maintain or enhance the quality of the water environment and reduce flood risk.

4.3.6 Excluding potential effects from the proposed interventions, which are considered separately in Section 4.4 and Appendix E, there is no clear relationship between policies 1 – 5 and this SEA objective.

SEA Objective 6 - Air: Maintain or enhance air quality

4.3.7 Policies 3 – 5 set out measures which would help to safeguard, enhance and promote access to active and public transport modes. This would support sustainable modal shifts and could reduce car dependency, resulting in positive effects on this SEA objective. The level of positive effect does however vary depending on the components of each policy, as detailed in Appendix D. There are no specific effects predicted from policies 1 or 2 on this SEA objective.

SEA Objective 7 - Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change

4.3.8 The street lighting component of Policy 1 would have a Major Positive effect on this SEA objective by reducing greenhouse gas (GHG) emissions from lighting. Other components of policies 1, 2, 3 and 5 would help to safeguard, enhance and promote access to active and public transport modes. This would support sustainable modal shifts and could reduce car dependency, resulting in reduced GHG emissions and positive effects on this SEA objective. Excluding potential effects from the proposed interventions, which are considered separately in Section 4.4 and Appendix E, there is no clear relationship between policy 4 and this SEA objective.

SEA Objective 8 - Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes

4.3.9 Policies 1 - 5 include components which would ensure that existing transport infrastructure assets are appropriately managed and new or upgraded infrastructure is provided to meet the accessibility and wider travel needs of residents, businesses and visitors. The level of positive effect does however vary depending on the components of each policy, as detailed in Appendix D.

SEA Objective 9 - Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment

4.3.10 Excluding potential effects from the proposed interventions, which are considered separately in Section 4.4 and Appendix E, there is no clear relationship between policies 1 – 5 and this SEA objective.

SEA Objective 10 - Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity

4.3.11 Excluding potential effects from the proposed interventions, which are considered separately in Section 4.4 and Appendix E, there is no clear relationship between policies 1 – 5 and this SEA objective.

Cumulative and Synergistic Effects from Draft Policies

4.3.12 Policies 1 - 5 include components which would act together to ensure that existing transport infrastructure assets are appropriately managed and new or upgraded infrastructure is

provided to meet the accessibility and wider travel needs of residents, businesses and visitors in East Lothian. In doing so the policies would collectively help to safeguard, enhance and promote access to active and public transport modes, which would support sustainable modal shifts. Similarly, the policies would interact to ensure the safe and adequate provision of transport infrastructure to accommodate planned development and meet identified travel needs. In overall terms, Major Positive (significant beneficial) cumulative effects are therefore predicted on SEA objectives 2, 3, 6, 7 and 8. For the avoidance of doubt, no Major Negative (significant adverse) cumulative effects are predicted to arise from the interaction of LTS policies 1 – 5.

4.4 SEA of Proposed Transport Interventions

4.4.1 This section presents key findings from the SEA of the proposed transport infrastructure interventions identified within Policy 4 of the draft LTS, together with any reasonable alternatives. Detailed assessment matrices identifying all likely effects from the proposed interventions are provided in Appendix E. To ensure proportionality and consistency throughout this assessment, the following groupings of proposed interventions have been subject to SEA separately:

- Traffic Management Measures and Existing Station Enhancements;
- New Road Interventions;
- New Rail Interventions; and,
- New Active Travel Interventions.

4.4.2 Key findings from the assessment of the proposed transport infrastructure interventions are summarised below. Where the assessment has identified a need for policy level mitigation to be provided (e.g. through amending the LTS or other documents) this is detailed separately within Section 5.

SEA of Proposed Transport Infrastructure Interventions

SEA Objective 1 - Biodiversity: Conserve or enhance biodiversity, flora and fauna

4.4.3 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on biodiversity interests, from Minor Negative to Uncertain, as detailed in Appendix E:

- Owing to separation distances, none of the proposed interventions are predicted to have a direct effect on sites designated at national or European levels for reasons of biodiversity conservation or value. Intervention J does however have the potentially to indirectly affect the Forth of Forth SPA, Ramsar Site and SSSI, although any effects are Uncertain at this stage;
- Several of the interventions would involve land take and/or construction activities in close proximity to clusters of semi-natural ancient or native woodland, resulting in potential disturbance to or localised reduction in woodland habitats. Other proposed interventions would involve land take over prime agricultural land or carbon rich soils, again resulting in potential localised disturbance;
- In all cases where the proposed interventions interact with identified ecological sensitivities, in the absence of further mitigation through relevant ELC planning policy documents the interventions could have an adverse effect on this SEA objective by disrupting or damaging valued habitats and species, potentially resulting in localised habitat loss or fragmentation.

SEA Objective 2 - Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents

4.4.4 The proposed transport infrastructure interventions within Policy 4 would have either Major or Minor Positive effects on this SEA objective, as detailed in Appendix E:

- Major positive effects are predicted from the proposed new rail, road and active travel interventions, as these would improve access to facilities and services by sustainable means, and promote social inclusion in the area; and,

- Minor Positive effects would result from the proposed junction improvement and traffic management measures, as whilst these would enhance the capacity of the road network and would therefore support the efficient movement of freight and people, the measures would not directly enhance accessibility.

SEA Objective 3 - Human Health: Maintain, or provide opportunities to improve, human health

4.4.5 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Major Positive, as detailed in Appendix E:

- Positive effects are predicted to result from rail and active travel projects, which would improve access to facilities and services by sustainable means and reduce the negative effects on transport on human health, including air pollution, noise and vibration; and,

- Negative effects are predicted to result from the proposed construction of new infrastructure as this could generate adverse effects on sensitive environmental receptors during construction (e.g. accidental pollution discharge to nearby watercourses, soils and air) with consequential potential negative physical health outcomes. The proposed road upgrade and new road provision interventions could have further adverse health effects by exacerbating existing high levels of vehicular traffic in East Lothian, with associated adverse effects on local air quality and health outcomes.

SEA Objective 4 - Land and Soil: Conserve or enhance soil quality, quantity and function.

4.4.6 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Major Negative to Uncertain, as detailed in Appendix E:

- All of the proposed junction upgrades, the new road interventions and the Active Travel Corridor would entail the loss of prime agricultural land, in most cases adjacent to existing transport infrastructure. None of the proposed interventions would result in the loss of carbon-rich soils; and,

- In the absence of further mitigation through relevant ELC planning policy documents, there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes, e.g. localised accidental pollution discharge or the more substantive release of contaminated materials from excavations. This could directly affect the quality of affected land and soil resources, with potentially wider indirect effects on the quality of adjacent land through the migration of ground or water based pollutants.

SEA Objective 5 - Water: Maintain or enhance the quality of the water environment and reduce flood risk.

4.4.7 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Uncertain, as detailed in Appendix E:

- Several of the interventions would involve land take and/or construction activities over or in close proximity to the coast, defined rivers and other small waterbodies including agricultural ditches. Culverting may therefore be needed and flood risks may arise, whlst in the absence of mitigation construction activities could also result in accidental pollution discharge and/or the more substantive release of contaminated materials from excavations into the water environment. These interventions therefore have the potential to adversely affect water quality and flows, with consequential potential effects on aquatic ecology; and,

- The proposed major junction upgrades and new roads are likely to require the implementation of surface water drainage strategies including the use of SUDs. In areas of existing poor overland drainage this could represent an environmental improvement, resulting in a positive effect on this SEA objective.

SEA Objective 6 - Air: Maintain or enhance air quality

4.4.8 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Major Positive to Minor Negative, as detailed in Appendix E:

- Positive effects would result from the proposed rail and active travel interventions as these would encourage modal shift towards sustainable means, reducing car travel needs and associated air pollution levels; and,

- Negative effects would result from the proposed road/junction upgrades and new road interventions as these could exacerbate existing high levels of vehicular traffic in particular areas of East Lothian, with associated adverse effects on local air quality.

SEA Objective 7 - Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change

4.4.9 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Major Positive to Minor Negative, as detailed in Appendix E:

- Positive effects would result from the proposed rail and active travel interventions as these would encourage a modal shift towards sustainable means, reducing GHG emissions; and,

- Negative effects would indirectly result from the proposed road/junction upgrades and new road interventions as these could support the growth of vehicular traffic, which would contradict the push for sustainable modal shifts and indirectly support the growth of GHG emissions from the transport sector.

SEA Objective 8 - Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes

4.4.10 The proposed transport infrastructure interventions within Policy 4 would all result in the provision of upgraded or new transport infrastructure (including public access routes) to meet identified needs, resulting in Major Positive effects on this SEA Objective, except from a predicted Minor Positive effect from Intervention N (re-opening of Haddington rail line) due to potential land use conflicts that would need to be addressed.

SEA Objective 9 - Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment

4.4.11 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Uncertain, as detailed in Appendix E:

- Several of the interventions would utilise land within Inventory of Historic Battlefield Sites, resulting in the potential disturbance of archaeological remains and the setting of these heritage assets. In addition, some of the interventions would be located in relatively close proximity to Scheduled Monuments, Listed Buildings and Historic Gardens, resulting in potential adverse effects on the setting of these heritage assets; and,

- The proposed interventions located outwith the above constrained areas would have a Neutral effect on this SEA objective.

SEA Objective 10 - Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity

4.4.12 The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Uncertain, as detailed in Appendix E:

- Negative effects on landscape character, townscape character and visual amenity could result from the proposed transport interventions involving land take and the development of new infrastructure; and,

- The interventions not requiring land take or physical development would have a Neutral effect on this SEA objective.

5 Mitigation and Enhancement Recommendations

5.1 Introduction

5.1.1 Schedule 3 of the 2005 Act requires consideration to be given to "*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*". This section builds upon Section 4 and Appendices D – E to identify mitigation which has already been embedded into the Draft LTS through the SEA process and any further mitigation which is considered to be required.

5.2 Embedded Mitigation

5.2.1 A draft of this ER was first provided to ELC in September 2017, including a suite of recommended mitigation and enhancement measures. These recommendations are re-produced below in Table 5.1, which also indicates how the measures have now been incorporated into the Draft LTS. The inclusion of this mitigation now results in no significant adverse effects now being predicted to result from the Draft LTS itself and is considered to enhance the clarity and effectiveness of the document.

Table 5.1 Schedule of Policy Mitigation Recommendations

Draft LTS Policy No.	SEA Recommendations (September 2017)	Relevant SEA Objective No.	ELC Response
1	1. To ensure that Policy 1 (the Road Asset Management Plan and Maintenance Strategy) does not result in unintended adverse environmental effects, it is recommended that the Draft LTS should be modified to confirm that the implementation of the RAMP and Maintenance Strategy would have due regard to the protection of the environment, including through the adoption of appropriate environmental management and pollution prevention measures during physical works.	1, 4, 5, 8, 9	The Draft LTS has been amended to include an overarching mitigation statement: *"The RAMP…will also ensure that environmental impacts are fully considered through the adoption of appropriate environmental management and pollution prevention measures".*
	2. For clarity it is recommended that the maintenance policy measure within Policy 1 should be renamed "*Maintenance Strategy and Whole Life Costing*". This would more clearly define the scope and potential effects of the policy measure.	8	Policy 1 renamed for clarity.
2	3. For clarity it is recommended that the Safe Walking and Cycling Routes and Accessibility for All policy measures within Policy 2 should be expanded to confirm whether or not these measures are likely to include physical infrastructure works involving land take, as if required this could result in environmental effects.	1, 4, 5, 8, 9	The Draft LTS has been amended to include an overarching mitigation statement: "*Any physical changes to the infrastructure, especially the provision of off-street cycle routes and paths may require negotiation over 3rd party land and where this is necessary the environmental impacts of planned improvements should be given due consideration*".
	4. To better align the Draft East Lothian LTS within the SEA objectives it is recommended that the Road Safety Plan policy measure within Policy 2 should be expanded to confirm whether this measure would address infrastructure	8	The Road Safety Plan policy measure within Policy 2 has been expanded to confirm that these issues will be taken account of within the policy measure.

Draft LTS Policy No.	SEA Recommendations (September 2017)	Relevant SEA Objective No.	ELC Response
	resilience issues and the impacts of adverse weather such as flooding.		
3	5. For clarity it is recommended that the Cycling and Walking Networks policy measure within Policy 3 should be expanded to confirm whether or not this measure is likely to include physical infrastructure works involving land take, as if required this could result in environmental effects	1, 4, 5, 8, 9	The Draft LTS has been amended to include an overarching mitigation statement: "*Any physical changes to the infrastructure, especially the provision of off-street cycle routes and paths may require negotiation over 3rd party land and where this is necessary the environmental impacts of planned improvements should be given due consideration*".
	6. It is recommended that Policy 3 should be modified to confirm that the implementation of the Cycling and Walking Networks policy measure would have due regard to the protection of the environment, including through the adoption of appropriate environmental management measures and appropriate protection of environmental quality and sensitive ecological features.	1, 4, 5, 8, 9	The Draft LTS has been amended to include an overarching mitigation statement: *"Any planned improvements to the physical infrastructure will need to be carefully planned and where proposed improvements are likely to impact 3rd party land then it will be essential to ensure that environmental impacts of proposed alterations are considered at an early stage in the design process. Care will also be required in respect of ecological impacts with sensitive mitigation measures considered, where appropriate".*
4	No recommended mitigation in respect of proposed policy measures. See Section 5.4 below for recommended mitigation in respect of proposed transport infrastructure interventions.	N/A	The Draft LTS has been amended to include an overarching mitigation statement: "*It will be essential to ensure that the suitable siting, design and mitigation techniques are adopted to minimise likely adverse effects on the environment as early in the design*

Draft LTS Policy No.	SEA Recommendations (September 2017)	Relevant SEA Objective No.	ELC Response
			process as possible, to ensure that known risks are considered and mitigated early in the process".
5	No recommended mitigation in respect of proposed policy measures.	N/A	N/A

5.3 Further Mitigation

5.3.1 The assessment of proposed transport infrastructure interventions provided in Appendix E and summarised in Section 4.4 has identified that insufficient policy protection is currently in place through the Draft LTS in combination with the East Lothian LDP Proposed Plan 2016) to avoid or prevent potential adverse environmental effects from the implementation of all proposed transport interventions that require land take or physical infrastructure works. This includes multiple interventions for which safeguarding land allocations are included within the East Lothian LDP Proposed Plan (2016), without associated assessment requirements or mitigation being identified specifically in relation to the transport infrastructure proposal.

5.3.2 The rationale for the approach taken in the East Lothian LDP Proposed Plan (2016) was that the safeguarding allocations do not directly enable the transport infrastructure interventions to proceed and they will still require detailed consideration through consenting processes at the appropriate time, which may be after the lifetimes of the proposed LDP and LTS. Nevertheless, the safeguarding land allocations combined with the identification of the proposed interventions within the Draft LTS means that for the purposes of the 2005 Act, the interventions are considered to constitute 'proposals'. In consequence, it is necessary for any mitigation measures identified within Appendix E as being required at this stage to be secured.

5.3.3 As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects on a wide range of environmental and amenity receptors. The potential need for specific measures to be deployed requires to be considered at the appropriate time throughout the design and consenting processes for each of the proposed interventions. The Draft LTS therefore includes (as a form of mitigation) the following overarching statement, which should be a material consideration in the determination of relevant planning applications:

"It will be essential to ensure that the suitable siting, design and mitigation techniques are adopted to minimise likely adverse effects on the environment as early in the design process as possible, to ensure that known risks are considered and mitigated early in the process".

5.3.4 It is recognised that ELC will not be the main delivery body of some of the proposed interventions and that some interventions are not likely to be delivered within the lifetime of this LTS due to funding, land ownership and other constraints. However, as transport safeguarding allocations are included within the East Lothian LDP Proposed Plan (2016) it is considered necessary to also identify further mitigation within ELC's planning policy framework to determine any forthcoming consenting applications for the interventions. The inclusion of relevant mitigation measures within ELC's planning policy framework would also help to influence the future development and delivery of the interventions to minimise adverse environmental effects and maximise their contributions to relevant SEA objectives.

5.3.5 It is therefore recommended that planning policy or guidance requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention should be inserted into relevant ELC planning policy documents. It will be for ELC to determine the most appropriate planning policy document for this mitigation to be included within in respect of the individual proposed transport interventions; this could include updated versions of existing planning policy documents or the development of new LDP Supplementary Guidance or Development Briefs.

6 Conclusions, SEA Next Steps and Monitoring

6.1 Summary of Environmental Report

6.1.1 This ER and an associated NTS have been prepared to accompany the Draft LTS. All three documents all representations received in response to them will inform the Final East Lothian LTS, which ELC intends to adopt in Spring 2018.

6.1.2 This SEA report has:

- Provided an overview of the Draft LTS;
- Identified the purpose and legal requirements of undertaking SEA;
- Described the approach to undertaking the SEA of the Draft LTS;
- Detailed the findings of the SEA of the Draft LTS; and,
- Proposed mitigation and enhancement measures to improve the effectiveness and environmental performance of the emerging LTS.

6.2 How to Comment on this Environmental Report

6.2.1 This ER and the associated NTS are being issued for consultation alongside the Draft East Lothian LTS. Subject to approval from ELC and the Scottish Ministers, all three documents will be consulted on from January 2018 for a period of 6 weeks. Details of how to participate in the consultation will be provided on ELC's website and published in a local newspaper prior to the consultation period commencing.

6.2.2 In accordance with Section 15(3)(b) of the 2005 Act, a letter confirming these consultation arrangements will be submitted to the Scottish Ministers by ELC prior to the consultation period commencing.

6.3 Next Stages of East Lothian LTS Preparation and SEA

6.3.1 The SEA of the emerging LTS will continue until the adoption of the LTS. This ER has been prepared to accompany the consultative Draft LTS, following which a revised (final) version of the LTS will be prepared and presented to a full meeting of ELC for adoption. The preparation of the final East Lothian LTS will take account of:

- All findings and recommendations within this ER; and,
- All representations received regarding both the Draft LTS and this associated Environmental Report (including the associated NTS).

6.3.2 At the time of adoption, a Post Adoption Statement must be published setting out how the SEA process has informed the adopted LTS. The Statement must also identify "*the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme*".

6.4 Monitoring

6.4.1 The 2005 Act requires SEA Environmental Reports to provide a "*description of the measures envisaged concerning monitoring*" after the adoption of the PPS.

6.4.2 For a successful monitoring framework, ELC must ensure that the indicators they choose for monitoring are specific, manageable and targeted towards measuring the implementation of the East Lothian LTS. For instance, demonstrating a relationship between the condition of a specific environmental receptors and the East Lothian LTS may be difficult. In additional monitoring indicators must be relevant to the East Lothian LTS and should also only address matters required through policy, rather than with reference to quantified targets that exceed policy expectations or relate to protection of environmental assets not addressed in the East Lothian LTS.

6.4.3 The SEA Framework set out in Appendix C provides a good starting point for developing targets and indicators for monitoring of the effects predicted through this SEA. In addition, the Draft LTS itself sets out a proposed monitoring framework to monitor performance against the LTS Objectives (and thus the overall LTS Vision), as detailed in Table 6.1 below.

Table 6.1 Proposed Monitoring Framework within Draft East Lothian LTS

Indicator	Target	Baseline (Component of Draft LTS)	Obj 1	Obj 2	Obj 3	Obj 4	Obj 5	Obj 6	Obj 7
1. Modal share for travel to work	Reduce levels of car use and increase use of sustainable modes including walking, cycling and public transport by 2020.	Key Statistics Section A		✓	✓				
2. People that drive every day	Reduce people that drive every day to at least align with the national average (currently 42%) by 2020.	Key Statistics Section B	✓	✓	✓	✓			
3. Traffic growth over a 10 year period	Reduce rate of traffic growth over a rolling 10 year period to at least align with the national average (currently 8.3%) by 2020.	Key Statistics Section E	✓	✓	✓	✓			
4. Roads needing repair	Reduce percentage of roads needing repair to 25% by 2020.	Key Statistics Section E	✓		✓				✓
5. Households with access to a bicycle	Increase households owning a bicycle to 55% by 2020.	Key Statistics Section F	✓	✓	✓	✓	✓	✓	
6. People that walk regularly as a means of transport	Increase people that walk regularly as a means of transport from 75% to 80% by 2020.	Key Statistics Section F	✓	✓	✓	✓	✓	✓	
7. Fatal, serious and total road accident casualties	In comparison to the 2004-2008 average, achieve a: • 40% reduction in people killed by 2020; and • 55% reduction in people seriously injured by 2020.	Key Statistics Section C	✓						✓

8. Park and Ride provision	Increase official Park and Ride spaces by a minimum of 10% by 2020.	Key Statistics Section I		✓	✓		✓	✓	
9. Train station passengers	Increase patronage at all train stations on a year on year basis up to and including 2020.	Key Statistics Section J		✓	✓		✓		
10. Supported bus services spend	Reduce expenditure on supported bus services on a year on year basis up to and including 2020 whilst maintaining adequate bus service coverage.	Contracts covering 13 routes costing over £850k per annum.		✓	✓	✓	✓		
11. Community transport initiatives operating	Maintain as a minimum current geographical and passenger coverage of Community Transport initiatives up to and including 2020.	5 existing Community Transport Schemes		✓	✓	✓	✓		
12. Pedestrians using town centres	Increase pedestrians using town centres on a year on year basis up to and including 2020.	No baseline data	✓		✓				✓
13. Parking turnover in town centres	Increase parking turnover in town centres on a year on year basis up to and including 2020.	No baseline data	✓				✓	✓	
14. Areas amongst the most deprived in Scotland	Maintain and, if possible, reduce the number of datazones within the 15% most deprived in Scotland up to and including 2020.	3 of 976 datazones in 15% most deprived in Scotland (SIMD 2012)				✓	✓		
15. Housing completions by area	Ensure all new housing developments are accessible by a range of transport modes not just by car up to and including 2020.	Not Applicable		✓	✓	✓	✓	✓	
16. People claiming jobseekers allowance	Maintain existing levels as a minimum and seek to reduce proportion of people claiming jobseekers allowance by 2020.	Key Statistics Section G					✓		

17. People economically active	Maintain existing levels as a minimum and seek to increase the proportion of people economically active by 2020.	Key Statistics Section G					✓		

6.4.4 Given that the monitoring framework detailed above relates only to the LTS objectives, to ensure full compliance with the 2005 Act additional monitoring may be required in relation to the proposed LTS policies, including the proposed infrastructure interventions listed within Policy 4. To satisfy this requirement whilst ensuring consistency between the implementation of the East Lothian LTS and the East Lothian LDP, it is proposed that the approach to monitoring set out within the Draft Environmental Report which accompanied the East Lothian LDP Proposed Plan (2016) should be extended to monitor the effects of policies and proposals set out in both documents.

6.4.5 It is therefore proposed that Monitoring Statements will be prepared to inform the future review of both the LDP and LDP at the appropriate time. These Monitoring Statements will take account of the LTS Monitoring Framework provided in Table 6.1 above but will also consider all relevant environmental, socio-economic and spatial issues and the effectiveness of all policies and proposals, in order to assess the overall effectiveness of and interactions between the East Lothian LTS and LDP. This will allow any unforeseen issues to be addressed and any changes required within future iterations of the documents to be identified.

Appendix A Relevant Environmental Aspects and Problems

A.1.1 This Appendix supports the ER for the Draft East LTS by providing a review of relevant aspects/characteristics of the environment. This review describes aspects of the environment which are likely to be significantly affected by the LTS and identifies environmental issues, problems and environmental protection objectives of relevance to the LTS (and therefore to the SEA being undertaken).

A.1.2 Table A.1 identifies sites designated at international, national or local levels for reasons of biodiversity conservation, cultural heritage or geological importance within or otherwise affecting East Lothian (i.e. including offshore Special Protection Areas (SPA). The site specific context of these sites (e.g. their sensitivity) was considered when characterising the environmental baseline position and identifying the relevance of existing environmental problems to the PPS under consideration in this ER.

Table A.1 Designated Sites within East Lothian

Site Name	Designation	Implications for LTS	Implications for SEA
Firth of Forth	SPA	The LTS must safeguard the integrity and conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation, species protection, cultural heritage importance or geological importance.	Relevant SEA objectives must afford adequate and proportionate protection to local national and international designations, in line with the requirements identified in the previous column for the LTS and taking account of the site specific characteristics of relevant designations.
Forth Islands	SPA		
Bass Rock	SSSI – Biological		
Barns Ness Coast	SSSI – Mixed		
Bangley Quarry	SSSI - Geological		
Danskine Loch	SSSI – Biological		
Firth of Forth	SSSI - Mixed Ramsar Site Special Protection Area		
Forth Islands	SSSI - Biological Special Protection Area		
Garleton Hills	SSSI – Geological		
John Muir	Country Park		
Keith Water	SSSI – Geological		
Lammer Law	SSSI – Biological	The LTS must safeguard the integrity and conservation objectives of any site designated at international, national or local levels for	Relevant SEA objectives must afford adequate and proportionate protection to local national and international designations, in line with the

Site Name	Designation	Implications for LTS	Implications for SEA
Lammermuir Deans	SSSI – Biological	reasons of biodiversity conservation, species protection, cultural heritage importance or geological importance.	requirements identified in the previous column for the LTS and taking account of the site specific characteristics of relevant designations.
North Berwick Law	SSSI – Biological		
Outer Firth of Forth and St Andrews Bay Complex	Special Protection Area		
Papana Water	SSSI – Biological		
Rammer Cleugh	SSSI - Mixed		
Traprain Law	SSSI - Mixed		
Woodhall Dean	SSSI- Biological		
East Lothian has 4 historic battlefields currently included on the national inventories (and a further 4 historic battlefields not designated nationally)	National Inventory of Historic Battlefields		
East Lothian has 291 Scheduled Monuments	Scheduled Monument	The LTS must safeguard the integrity and conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation, species	Relevant SEA objectives must afford adequate and proportionate protection to local national and international designations, in line with the requirements identified in the previous column for

Site Name	Designation	Implications for LTS	Implications for SEA
		protection, cultural heritage importance or geological importance.	the LTS and taking account of the site specific characteristics of relevant designations.
East Lothian has approximately 2,700 listed buildings and 30 conservation areas	Listed Building and Convervation Area	The LTS must safeguard the integrity and conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation, species protection, cultural heritage importance or geological importance.	Relevant SEA objectives must afford adequate and proportionate protection to local national and international designations, in line with the requirements identified in the previous column for the LTS and taking account of the site specific characteristics of relevant designations.
59 Local Biodiversity Sites are proposed for allocation within the East Lothian LDP Proposed Plan (2016). This will replace previously allocated Local Wildlife Sites.	Local Wildlife Sites	The LTS must safeguard the integrity and conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation, species protection, cultural heritage importance or geological importance.	Relevant SEA objectives must afford adequate and proportionate protection to local national and international designations, in line with the requirements identified in the previous column for the LTS and taking account of the site specific characteristics of relevant designations.
30 Local Geodiversity Sites are proposed for allocation within the East Lothian LDP Proposed Plan (2016)	Local Geodiversity Sites	The LTS must safeguard the integrity and conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation, species protection, cultural heritage importance or geological importance.	Relevant SEA objectives must afford adequate and proportionate protection to local national and international designations, in line with the requirements identified in the previous column for the LTS and taking account of the site specific characteristics of relevant designations.

A.1.3 Informed by Table A.1, Table A.2 below outlines relevant aspects/characteristics of the environment within or affecting East Lothian and identifies associated existing environmental problems and issues. This table also identifies the implications of the identified baseline environmental conditions and environmental issues and problems for the LTS and for this SEA. The table therefore fulfils information requirements specified in Schedule 3 to the 2005 Act.

Table A.2 Review of Relevant Environmental Aspects, Issues and Problems

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
1. Biodiversity, Fauna and Flora	There are a number of sites designated for their biodiversity value in East Lothian, these include firth of Forth Ramsar Site, two SPAs (Firth of Forth and Forth Islands), 15 sites of Special Scientific Interest (SSSI).	There are a number of designated sites for biodiversity in East Lothian which must be considered when planning development. Whist there are no Special Areas of Conservation (SAC), some parts of the south-eastern Lammermuirs (Monynut Water) drain in to the River Tweed SAC in the Scottish Borders Council area.	The LTS can help preserve and enhance biodiversity and other natural heritage assets through its policies and proposals, and by avoiding development in these delicate places and preventing indirect harmful effects resulting from development in other locations.	New transport developments have potential to put pressure on protected sites through habitat loss, recreational impact, water abstraction, pollution and disturbance. The SEA must protect against this.
2. Population	In 2010 East Lothian had an estimated population of 97,500, comprising 46,800 males and 50,700 females. It has a working age population of 61,200 people (62%) and 81% of the population had an NVQ1 Level qualification and above. 2016 SIMD data lists data zones in Musselborourgh, Prestonpans, Tranent and Haddington as among the 15% most deprived areas in Scotland.	East Lothian's population is increasing, and projected to increase by 33% to around 128,300 in the year 2033 and is expected to experience the highest rate of population growth in Scotland during this period – around 30% of this expected from natural change where as 70% from net migration. This increase in population is spread across all age groups, however the pensionable age population is expected to increase by 43% and the amount of people over 75 is expected to increase by 95%.	The LTS must prepare for this predicted increase in population and life expectancy in East Lothian and plan to ensure there is sufficient capacity and accessible infrastructure on the transport network. To reduce pressure on the transport network there is evidence that the construction and promotion of green and active travel networks can be integrated with interventions to provide many health benefits and prolong life expectancy of deprived or vulnerable members in the community.	The SEA must ensure current and future population of East Lothian is catered for by the development, including users of all backgrounds and abilities.

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
		Whilst East Lothian has a qualified labour force across all sectors there are pockets of deprivation, and a mismatch between the size of labour force and the availability of jobs meaning residents are commuting to find employment elsewhere. This is exacerbated by relatively poor accessibility of the area via national and international transport modes, and therefore the area is perceived as being less attractive for large businesses to establish themselves there.	The LTS can maintain and increase quality of life for residents by directing development to appropriate areas and regenerating disadvantaged areas. The LTS can also support a range of mixed uses in town centres and urban areas, and help provide a good level of service provision for access to education, employment and healthcare, making East Lothian a more attractive place for businesses and its potential workforce	
3. Human Health	Life expectancy in East Lothian is greater than the average for Scotland with life expectancy at birth currently being 77.3 for males and 81.2 for females. East Lothian has 1,409ha of open space of different types.	Whilst life expectancy in East Lothian is overall higher than the average for Scotland, it contains some notable pockets of variation; for example, in Wallyford and Tranent where life expectancy is below the Scottish average.	The LTS should seek to improve quality of life for residents of East Lothian through improved access to employment, education and healthcare. The LTS should also seek to improve levels of safety and security on the transport network, especially for pedestrians, cyclists and public transport users.	The SEA must improve the quality of life and human health for communities through improved transport networks and access to open space.

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
		East Lothian is generally well provided for in terms of green and open space, however three areas do not meet standards set out on the Open Space Audit and Greenspace Mapping (2009) criteria; namely ▪ Dunbar and Tranent for Quantity; ▪ Musselborourgh, Prestonpans and Tranent for quality; ▪ Areas of Dunbar Haddington, North Berwick, Gullane and Tranent for accessibility.	LTS can enhance and safeguard open and green space through careful consideration of its plans and policies.	Development, including through transport, puts pressure to build on urban open spaces. The SEA must consider current amount of resources allocated towards green and open space and how future growth in population will add demand to these spaces.
		East Lothian has no Major Hazard Sites, as defined by the Health and Safety Executive, however Torness Nuclear Power Station does lie within the area. There are also 10 Major Pipelines carrying gas throughout the area.	The LTS must ensure that planned developments do not endanger or negatively impact on the Power Stations or pipelines in the East Lothian Area	The SEA must ensure all hazard sites or potentially dangerous existing locations are considered in the strategy.
		Noise mapping next to major transport corridors (e.g. A1 and East Coast Main Rail Line) were recorded around 65-70dB, with levels around 60-65dB experienced on land immediately adjacent. Where transport routes are located close to one another noise levels were also recorded as high as 55-60dB on land located between routes.	The LTS must consider the impact of noise on the health and wellbeing of residents and visitors and mitigate negative affects where possible.	The SEA must ensure against excessive noise levels resulting from planned development.

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
4. Soil	Significant areas of land in East Lothian is classified as prime agricultural land by the James Hutton Institute for Soil Research (Class 1-3i). The area also contains a high proportion of the Scottish Resource, including peat soils.	Substantial parcels of rural land within East Lothian is classified as prime agricultural land. The majority is contained in areas where development has already occurred and is therefore likely to experience pressure for further development in future. This prime land must be protected as much as possible, and any potential impacts must be minimised.	The LTS must protect this prime agriculture land from development as demand for development rises alongside land for food production.	The SEA must ensure only developments that protect or improve the quality of soil are allowed to proceed to construction. The SEA must also ensure no contaminants are allowed to escape from development sites and cause soil pollution, and in some cases surface and ground water pollution.
		ELC contains areas of peat soils, predominantly in the uplands of the Lammermuir Hills. Development has the potential to cause soil sealing and disturb carbon rich soils, resulting in the loss of soil function and the release of stored carbon.	The LTS must ensure that any subsequent plans, policies and developments do not result in the disturbance of peat soils.	
5. Water	East Lothian has 53 water bodies including rivers, lochs, estuaries, coastal waters and ground water bodies. The Tyne and Esk Rivers (and smaller courses) discharge in to the Firth of Forth where Natura 2000 and SSSI's exist. In the Monynut/Mayshiel areas of the Lammermuirs, streams flow south to the River Tweed which eventually passes to the River Tweed Special Area of	A 2009 SEPA reports suggest 66% of water bodies in ELC are classified as being moderate, poor or bad ecological state, predominantly in areas with high agricultural activity and associated diffuse source pollution, water abstraction, flow regulation and morphological changes. Sewage disposal contributes towards point source pollution within the East Lothian Coastal, River Esk and River Tyne catchments.	The LTS must ensure its subsequent projects and plans do not affect water or cause undue pollution. This includes contaminants leaking from project sites to pollute surface and ground water supplies.	The SEA must ensure that development, including transport infrastructure, protects or enhances the ecological status of the water environment.

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
	Conservation in the Scottish Borders Council Area.	Point source pollution from mining and quarrying is a pressure also affecting the River Esk.		
	The Tyne and Esk Rivers and the Biel Water have a history of flooding, affecting agricultural land and the towns of Musselborough, Haddington and West Barns which continue to be at risk.	Approximately 3.2% of East Lothian is at medium to high risk from fluvial flooding, with around 2.2% of properties at medium to high risk of flooding. Approximately 1.1% of East Lothian is at risks from coastal flooding, and around 5.2% properties are at medium to high risk of such flooding.	The LTS must be aware of flood risk areas and ensure developments are not at unnecessary risk of flooding and do not adversely affect efforts to manage floods (e.g. infrastructure defences).	
6. Air Quality	The majority of air pollutants (benzene, 1,3-butadine, carbon monoxide, sulphur dioxide and lead) have been screened out in previous assessments for East Lothian and exceedances of air quality objectives for these pollutants are unlikely.	Pollutants of concern in East Lothian are particulate matter (PM10) and nitrogen dioxide (NO2) that originate principally from road traffic. Monitoring of PM10 continues in Musselborourgh however is not considered likely to breach air quality objectives across the rest of the LA area. However, monitoring of NO2 levels in 2012/13 confirmed that areas of Musselborourgh High Street are exceeding the nitrogen dioxide annual mean objectives. ELC have declared an Air Quality Management Area (AQMA) in Musselborourgh with additional NO2 monitoring sites in Tranent	Road traffic is the primary source of air pollution and traffic growth arising from the LTS and future development may be a further constraining factor. The LTS must reduce local air pollution and alleviate public health concerns by promoting sustainable and active travel modes.	The SEA must ensure transport developments do not exacerbate air pollution, and instead lead to increased public use of sustainable modes. The SEA should recognise that changes to air quality can also have an impact on ecosystem services which affect biodiversity and other environmental assets.

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
7. Climatic Factors	The DECC produces figures for *Carbon dioxide emissions within the scope of influence of Local Authorities;* and in 2009 estimated per capita emissions in East Lothian are 6.5 tonnes of CO2, which is slightly below the Scottish average of 6.8 tonnes per capita	The UK Climate Projects suggests by 2050, under the medium emissions scenario, the central estimate for East Scotland is for a 2.3°C increase in mean summer temperature, 13% drop in mean summer precipitation, 10% increase in mean winter precipitation and 13.9cm rise in sea level for Edinburgh. This will place significant strain on infrastructure and available resources in East Lothian.	As transport is a large contributor to emissions in East Lothian, the LTS must encourage low carbon transport and travel and promote developments that are accessible by public and active travel over motorised vehicles. The LTS should also consider its role in adapting to the effects of climate change.	The SEA must contribute towards the reduction in emissions, energy consumption and the promotion of climate change adaptation through developing sustainable transport networks.
8. Material Assets	In 2007 East Lothian had 59ha of vacant and derelict land, 22ha of which within urban land on a total of 17 sites (average 1.3ha in size), representing around 1% of all such land in such areas in Scotland. The remaining 36ha is on 10 countryside sites that are on average 3.6ha in size, again representing 1% of all such land in such areas in Scotland There are a wide range of mineral deposits within the area, including sand, gravel, building stone, rock aggregates (hardrock), limestone and shallow coal seams. Estimated waste figures for East Lothian (2009/2010) are 59,732 tonnes for household and 5,924	There is a scarcity of vacant urban land in East Lothian Council, in 2009 this was recorded as little as 4ha. There are 43 buildings at risk within the area. There are currently no operational coal mines in the area, however the remaining areas underlain by coal are close to existing relatively tight settlement groups with attractive landscape settings. Whilst East Lothian is well served by its strategic transport network there is an underlying problem of lack of capacity in transport infrastructure and local transport services, particularly those extending in a north/south direction. These factors will be exacerbated by the anticipated future population growth and resulting increased demand for	The LTS can help support and promote the efficient and appropriate use of material assets by encouraging efficient use of available land, making the best use of existing infrastructure and providing additional capacity and facilities if necessary in line with development. The LTS in its essence must promote the use of sustainable transport, and address capacity issues and localised problems on the transport network. Development resulting from the LTS must not compromise investment in North Berwick waste water treatment works.	The SEA must promote the sustainable use of assets and natural resources and protect the environment (along with mineral resources) and minimise impact.

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
	for commercial waste. 40.9% of all waste was recycled of composted. The A1(T), the East Coast Main Line and the North Berwick Branch Line are the main transport corridors through East Lothian. .	travel. Feedback from Transport Scotland suggests that capacity constraints on the A1 and Old Craighall Junction will constrain any further development being delivered in the area until it can be rectified. The rail network in the area also has limited capacity with the high frequency of services on the East Coast Main Line affecting scheduling for local services as well as on the North Berwick Branch Line. The North Berwick waste Water Treatment Works is very near capacity as a result of the foul drainage needs or nearby strategic housing. To realise this development SEPA require notable investment in infrastructure.		
9. Cultural Heritage	East Lothian has 291 Scheduled Monuments, 2,700 listed buildings, 30 conservation areas, 28 Gardens and Designated Landscapes and 4 historic battlefields currently included on the national inventories. The Historic Environment Record	East Lothian is an area of great historical significance, and it is believed there are few areas in the local authority where there is not potential archaeological remains.	The projects and proposals brought forward by the LTS should be indicate how they plan to enhance and protect the varied and valued historic environment in East Lothian. The LTS must also ensure access to cultural and/or	New development has the potential to put pressure on or by constrained by conversation areas and archaeological sites. The SEA must protect the historic environment from

SEA Environmental Aspect	Baseline Key Characteristics	Environmental Issues and Problems	Implications for LTS	Implications for SEA
	holds a further 7,500 known archaeological and historic sites, including a further 4 historic battlefields and numerous designated landscapes.		historically significant buildings is appropriate.	adverse impacts from planned development, including transport.
10. Landscape	East Lothian is an area with varied and attractive landscape comprising of countryside and coast, interspersed with historic towns and prominent geological features, including Garleton Hills, Lammermuir Hills and North Berwick and Trapain Laws. The land types vary between raised beaches and dunelands to prime quality agricultural farmland.	Currently there are 10 designated Areas of Great Landscape Value in East Lothian, including the coastline, the Lammermuir and Garleton Hills, and Traprain Law.	The LTS should consider the landscape features of East Lothian to ensure future developments are sensitive to local characteristics and topography, and retain East Lothian's distinctiveness. The LTS must ensure landscapes are well connected and appropriately enhance access to popular landscapes and towns where necessary.	The SEA must protect landscapes from adverse impact of transport developments, including that of noise. The SEA must protect landscapes from adverse impacts of transport developments and appropriately enhance access to popular landscapes and towns where necessary.

Appendix B Review of Plans, Programmes and Strategies

B.1.1 This Appendix supports the ER for the Draft LTS by providing a review of all qualifying PPS of relevance to the LTS. This review identifies relevant environmental protection objectives and policy requirements within the related PPS to establish the relationship between the other qualifying PPS and the LTS.

B.1.2 The review of relevant PPS is detailed in Table B.1 below.

Table B.1 Review of Relevant Plans, Programmes and Strategies

Legislation	Description	Implications for LTS	Implications for SEA
INTERNATIONAL			
European Council Directive 92/43/EEC Habitats Directive	The Directive promotes the maintenance of biodiversity by ensuring the conservation of a wide range of rare, threatened or endemic animal and plant species. This is done by taking account of economic, social, cultural and regional requirements to form a cornerstone of Europe's conservation policy. It also establishes the EU wide Natura 2000 network of protected ecological areas.	The LTS must enhance and protect biodiversity and habitats from loss or the adverse impacts of developments resulting from projects and plans outlined in the strategy.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the integrity and conservation objectives of designated sites. Guide questions should also assess wider effects on biodiversity, including upon Protected Species and valued habitats.
European Parliament Directive 2009/147/EC Conservation of Wild Birds.	The Directive promotes the protection of 500 wild bird species naturally occurring in the European Union, and their habitats. It establishes a network of Special Protections Areas (SPAs) including the most suitable territories for these species.		
European Biodiversity Strategy. As amended 2016	The Strategy aims to halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020.		
UN Convention of Biological Diversity	This UN convention has three main goals; the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from genetic resources.		
Ramsar Convention. 1971	This Treaty that provides the global framework for the conservation and wise use of wetlands and their resources.		

Legislation	Description	Implications for LTS	Implications for SEA
Kyoto Protocol. 1997	An International treaty that commits industrialised state parties to reducing their Greenhouse Gas (GHG) emissions,	The LTS should ensure that the projects and policies that it promotes contribute to the reduction of GHG emissions and help East Lothian adapt to the future adverse impacts of climate change.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on climate change mitigation and adaptation, including through GHG emissions.
The Paris Agreement. 2015	An International Treaty agreed by all UNFCCC signatory countries with the aims of holding the increase in global average temperature to "well below" 2 °C above pre-industrial levels, increase the ability to adapt to adverse impacts of climate change, and ensure finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development.		
The Aarhus Convention. 1998	Established a number of rights of the public with regard to the environment. Local authorities should provide for: ▪ The right of everyone to receive environmental information; ▪ The right to participate from an early stage in environmental decision making; ▪ The right to challenge in a court of law public decisions that have been made without respecting the two rights above or environmental law in general.	The SEA must be undertaken in accordance with the 2005 Act and all other relevant statutory provision in order to ensure early and effective public participation within both the SEA and the development of the LTS.	The SEA must be undertaken in accordance with the 2005 Act and all other relevant statutory provision in order to ensure early and effective public participation within both the SEA and the development of the LTS.

Legislation	Description	Implications for LTS	Implications for SEA
European Commission White Paper: Roadmap to a single European transport area – towards a competitive and resource efficient transport system. 2011	Presents the European Commission's vision for the future of the EU transport system and sets the policy for the next decade, identifying four vision statements: ▪ Growing transport and supporting mobility while reaching a 60% emissions reduction target; ▪ An efficient core network for multimodal intercity travel; ▪ A global level playing field for long-distance travel and inter-continental freight; and ▪ Clean urban transport and commuting.	The LTS must recognise and contribute towards the EU's emphasis on carbon reduction and low carbon transport, as well as the policies sets out for rail, air, and sea travel.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on climate change mitigation and adaptation from the transport sector. The SEA Framework should also include SEA Objectives and guide questions to assess likely significant effects on accessibility, the effectiveness of the transport system in meeting identified needs, and the contribution of the transport system to sustainable development.
European Parliament Directive 2008/50/EC on Ambient Air Quality Directive	This Directive sets legally binding limits for concentrations of pollutants that impact on human health such as particulates (PM10 and PM2.5) and nitrogen dioxide (NO2).	The LTS must acknowledge long term air quality objectives. As transport is a primary contributor to poor air quality, particularly in urban areas, the LTS must identify ways to mitigating transport's contribution to poor air quality.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on air quality.
European Parliament Directive 2002/49/EC on Environmental Noise	This Directive sets out actions to avoid, prevent or reduce the harmful effects of noise from major sources, including road, rail and air traffic. It focuses on the impact of such noise on individuals, complementing existing EU standards for noise emission from specific sources.	The LTS must recognise transport's contribution to noise emissions and seek to address this through development decisions and the promotion of quieter transport modes.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on amenity, including noise levels.

Legislation	Description	Implications for LTS	Implications for SEA
The Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)	The main purpose of the convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage and to foster closer European co-operation in defence of heritage. Recognition that conservation of heritage is a cultural purpose and integrated conservation of heritage is an important factor in the improvement of quality of life.	The LTS must protect cultural heritage sites and buildings from any adverse impacts arising from development, projects and plans.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the historic environment.
The European Convention on the Protection of Archaeological Heritage (Valetta Convention)	Agreement that the conservation and enhancement of an archaeological heritage is one of the goals of urban and regional planning policy. It is concerned in particular with the need for co-operation between archaeologists and planners to ensure optimum conservation of archaeological heritage.		
European Landscape Convention 2000 (became binding March 2007)	Convention outlined the need to recognise landscape in law, to develop landscape policies dedicated to the protection, management and creation of landscapes, and to establish procedures for the participation of the general public and other stakeholders in the creation and implementation of landscape policies. It also encourages the integration of landscape into all relevant areas of policy, including cultural, economic and social policies.	The LTS must consider the outcomes of the convention and ensure landscapes are protected and appropriately managed through any development arising as a result of the strategy	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on landscape character, important landscape features and visual amenity.

Legislation	Description	Implications for LTS	Implications for SEA
EU Water Framework Directive (2000/60/EC)	Establishes a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which: ▪ Prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems; ▪ Promotes sustainable water use based on a long-term protection of available water resources; ▪ Aims at enhanced protection and improvement of the aquatic environment, inter alia, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances; ▪ Ensures the progressive reduction of pollution of groundwater and prevents its further pollution, and ▪ Contributes to mitigating the effects of floods and droughts.	The LTS must ensure that any development resulting from the strategy does not have an adverse impact on the water environment and lead to the local authority failing to ensure water bodies achieve “good status” for chemical and biological river quality.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the water environment.

Legislation	Description	Implications for LTS	Implications for SEA
EU Floods Directive 2007/60/EC	This strategy aims to provide a consistent approach to managing flood risk across Europe.	The LTS must recognise that development can impact vulnerability to flooding and increase risk due to climate change.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects relating to flood risk.
EU (2006) European Employment Strategy	This strategy seeks to engender full employment, quality of work and increased productivity as well as the promotion of inclusion by addressing disparities in access to labour markets.	The LTS must deliver plans, policies and projects which support these aims.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on employment levels and social inclusion.
NATIONAL			
Scotland's National Transport Strategy (Refresh) 2016	This document sets out the Scottish Government's ambitions for transport, including three strategic outcomes: ▪ Improve journey times and connections between our cities and towns and our global markets to tackle congestion and provide access to key markets; ▪ Reduce emissions to tackle climate change and improve local air quality; and ▪ Improve quality, accessibility and affordability of transport to give people the choice of public transport and real alternatives to the car.	The LTS must be consistent and complimentary to the plans and policies outlined in the National Transport Strategy and suggest local policies and actions that contribute to the delivery of the national vision.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on climate change mitigation and adaptation from the transport sector. The SEA Framework should also include SEA Objectives and guide questions to assess likely significant effects on accessibility, the effectiveness of the transport system in meeting identified needs, and the contribution of the transport system to sustainable development.

Legislation	Description	Implications for LTS	Implications for SEA
PAN71 Conservation Area Management. 2004	Planning Advice Note that gives guidance of a conversation area as a means to safeguard and enhance the sense of place, character and appearance of the most valued historic places. The PAN provides further advise on managing change and sets out a checklist for appraising conservation areas and advise on funding and implementation.	LTS should not have a negative impact on any conservation areas in East Lothian	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the historic environment.
National Planning Framework 3. 2014	Sets out the Scottish Government's strategy for long-term spatial development of Scotland's towns, cities and countryside. NPF3 is the spatial expression of the Government Economic Strategy, and supports four main themes: "*A successful, sustainable place; a low carbon place; a natural, resilient place; and a connect place.*"	The LTS should be consistent and reflect the Scottish Government's commitment to delivering these national developments	The SEA Framework should also include SEA Objectives and guide questions to assess likely significant effects on placemaking, connectivity, accessibility and contributing to sustainable development. The SEA Framework should also include SEA Objectives and guide questions to assess likely significant

Legislation	Description	Implications for LTS	Implications for SEA
Scottish Planning Policy (SSP). 2014	The SPP sets out national planning policies which reflect the Government's priorities for operation of the planning system and the development and use of land. In terms of transport the planning system should support patterns of development which ▪ Optimise the use of existing infrastructure; ▪ Reduce the need to travel; ▪ Provide safe and convenient opportunities for walking and cycling for both active travel and recreation, and facilitate travel by public transport; ▪ Enable the integration of transport modes; and ▪ Facilitate freight movement by rail or water.	The LTS should be complementary and consistent with the SPP; supporting the emphasis on reducing the need to travel, maximising the benefits of green infrastructure and promoting sustainable transport and active travel	effects on material assets, including optimising the use of existing infrastructure. .
Designing Streets. 2010	This design guidance encourages improvement in the way in which urban streets are designed, with emphasis that this should derive from a response to the location rather than the rigid application of standards. The document calls for appropriate balance between different users and that traffic capacity will not always be the primary consideration in designing roads and road layout.	The LTS should reflect these guidance documents, encouraging all new and upgraded streets to conform to its principles.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on townscape character and place-making.

Legislation	Description	Implications for LTS	Implications for SEA
National Roads Development Guide	This document follows the principles outlined in Designing Streets, with a change in policy to allow designers, planners and roads engineers to collaborate to develop a design led solution		
Cycling Action Plan for Scotland 2013	This strategy outlines a number of infrastructure, behaviour change and monitoring actions to achieve the vision set by the Scottish Government and Transport Scotland*; "by 2020, 10% of everyday journeys taken in Scotland will be by bike".*	The LTS should share and contribute towards the aspirations of this is vision by demonstrating links that will complement the actions set out by the Cycling Action Plan,	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on accessibility and connectivity using various modes of transport.
Let's Get Scotland Walking – A National Walking Strategy. 2014	The strategy's vision is *"a Scotland where everyone benefits from walking as part of their everyday journeys, enjoys walking in the outdoors and where places are well designed to encourage walking".* This will be achieved through cultivating a culture of walking through better quality walking environments.	The LTS will be a key contributor to realising the ambitions of this walking strategy. This is done by providing a number of opportunities to encourage walking in East Lothian as a mode of transport by creating more attractive infrastructure and places.	

Legislation	Description	Implications for LTS	Implications for SEA
Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles. 2013	The document outlines a vision that "*by 2050 Scottish towns, cities and communities will be free from the damaging effects of petrol and diesel fuelled vehicles"*, building on existing government commitments to the almost complete decarbonisation of road transport by 2050 also. The document also stipulates from 2040 almost all new vehicles sold will be near zero emission at the tailpipe and by 2030 half of all fossil fuelled vehicles will be phased out of urban environments in Scotland.	The LTS should reflect and be consistent with this new emphasis on alternatively fuelled vehicles, and suggests projects and plans to demonstrate how East Lothian can contribute to meeting national vision and targets.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on climate change mitigation, including through the uptake of electric vehicles and charging infrastructure.
Scotland's Road Safety Framework to 2020.	Sets out a framework for improving road safety in Scotland over a ten-year period with the vision there will be "A *steady reduction in the numbers of those killed and those seriously injured, with the ultimate vision of a future where no-one is killed on Scotland's roads, and the injury rate is much reduced"*	The LTS must support and plan for a safe transport system via road construction, accident investigation and analysis, traffic calming, speed limits and facilities for pedestrians and cyclists. East Lothian must also deliver road safety education.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on road safety.
Strategic Transport Projects Review. 2008	Identifies 29 transport investment priorities to be developed and delivered in Scotland between 2012 and 2032.	The LTS must reflect and support these committed projects.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on accessibility and connectivity.
Infrastructure Investment Plan. 2015	The document sets out priorities for investment and a long term strategy for the development of public infrastructure in Scotland, setting out the key requirements for each sector.		SEA should include objectives or criteria to assess potential effects on connectivity, accessibility and material assets including existing infrastructure.

Legislation	Description	Implications for LTS	Implications for SEA
Wildlife and Countryside Act 1981	Provides the primary legislation for the protection of animals, plants and certain habitats in the UK. It sets out the requirements of protection and associated fines if the Act is not adhered to. It requires any land that is identified as being of special interest by reason of any of its flora, fauna, geological or physiographical features to be classified as a Site of Special Scientific Interest (SSSI) and afforded certain protection against damaging measure or sale.	The LTS must be compliant with this Act by protecting wildlife, the countryside, National Parks, the designation of protected areas and public rights of way.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the integrity and conservation objectives of designated sites. Guide questions should also assess wider effects on biodiversity, including upon Protected Species and valued habitats.
The Nature Conservation (Scotland) Act 2004	This document places duties on public bodies in relation to the conversation of biodiversity, increases protection for SSSI sites and a series of other measures to conserve biodiversity and protect and enhance the biological and geological natural heritage of Scotland.	The LTS must seek to protect and where possible enhance the biodiversity and natural heritage of Scotland by ensuring any resulting projects emanating from the strategy do not negatively impact on habitats.	
Scotland's Biodiversity Strategy: It's in Your Hands. 2004	A 25-year strategy outlining the Scottish Government's approach to biodiversity conservation and enhancements in Scotland in 2030.		
Water Environment and Water Services (Scotland) Act 2003	This legislation seeks to ensure that any human activity that can have a negative impact on water quality and quantity is controlled. The regulations cover rivers, lochs, transitional waters, coastal waters, groundwater and groundwater dependant wetlands.	The LTS must ensure that any development resulting from the strategy does not have an adverse impact on the water environment and lead to the local authority failing to ensure water bodies achieve good	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the water environment, including surface and ground water quantity and quality.

Legislation	Description	Implications for LTS	Implications for SEA
Water Environment (Controlled Directive by 2015. Activities) (Scotland) Regulations 2005	Implements the obligations of section 20 of the Water Environment and Water Services (Scotland) Act 2003 and the requirements of the Water Framework Directive (2000/60/EC). The document sets out the framework for protecting the water environment that integrates the control of pollution, abstractions, dams and engineering activities in the water environment.	ecological status, as required in the Water Framework Directive by 2015	
SEPA, Groundwater Protection Policy for Scotland: Environmental Policy. 2009	This policy seeks to protect groundwater quality by minimising the risks presented by point and diffuse sources of pollution. It also outlines objectives to maintain groundwater resource by influencing the design of abstractions and developments which could affect the quantity of available groundwater.		
The Scottish Soil Framework. 2009	Sets out a Scottish Government framework to promote the sustainable management and protection of soils consistent with the economic, social and environmental needs of Scotland. Its vision is *"that soils are recognised as a vital part of our economy, environment and heritage, to be safeguarded for existing and future generation"*	The LTS must ensure any developments resulting from the strategy do not have a negative impact on soil quality, either from building on high quality soils or from contaminants leaking from development soils in to the ground.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on land and soil resources.

Legislation	Description	Implications for LTS	Implications for SEA
Climate Change (Scotland) Act 2009	This Act commits Scottish Government to establishing a zero carbon economy through the reduction of GHG emissions. Using a 1990 baseline two key targets were set; a reduction of 42% in GHG by 2020, and an 80% reduction in emissions by 2050. The Act intends Local Authorities to adhere to the requirements and targets set	LTS must promote and contribute towards the targets set by the bill by identifying and promoting sustainable transport and travel opportunities which will contribute towards meeting the GHG emission reduction targets. The LTS will also maximise opportunities for climate change adaptation measures.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on climate change mitigation and adaptation, including through GHG emissions. SEA should include objectives or criteria to assess potential effects on climate change responses/adaptations
Low Carbon Scotland - Meeting our Emissions Reduction Targets 2013-2027, 2013	Sets out the high level measures required to meet the targets outlined in the Act, several of which affect the transport sector including; ▪ Improvements in energy efficiency of petrol and diesel vehicles and increasing uptake of hybrid and electric engines with supporting infrastructure; ▪ Smarter measures including reduced travel and modal shift to less carbon-intensive modes of transport such as public transport and active travel; ▪ Demand management including road space reallocation; and, ▪ Changes to the pattern of development to reduce the need to travel.	The LTS must demonstrate how local plans and projects contribute towards meeting the targets of the Climate Change (Scotland) Act.	

Legislation	Description	Implications for LTS	Implications for SEA
'Climate Ready Scotland'- Scotland's Climate Change Adaptation Programme. 2014	As required by the Climate Change (Scotland) Act, the programme addresses the anticipated impacts of climate change in Scotland, and sets out the Government's objectives in terms of adapting to climate change, their proposals for meeting these objectives, and timescales they will be introduced.	The LTS should recognise that climate change may disrupt transport networks in Scotland (through flooding, landslides, drought etc.), and appropriately plan to adapt to these challenges.	
UK Air Quality Strategy (2007)	The strategy sets out air quality objectives and policy options to further improve air quality in the UK. These options are intended to provide direction benefits to public health as well benefits to quality of life and protection of the environment.	As transport is the primary contributor to poor air quality in East Lothian, the LTS must acknowledge these long term air quality objectives and outline how the strategy will contribute towards the reduction in harmful pollutants and increase the uptake of cleaner, less harmful modes of transport.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on air quality
Air Quality (Scotland) Regulations (amended) 2016	This document specifies the pollutants that require assessment by Local Authorities in Scotland, and the objectives and timescales that require to be achieved.		
Let's Make Scotland More Active: A Strategy for Physical Activity. 2003	The strategy sets out the vision that "*people in Scotland will enjoy the benefits of having a physically active life"* and aims to increase the proportion of people who are physically active.	The LTS should acknowledge the role that transport can have on physical activity levels and seek to increase the number of journeys undertaken by active modes. This will	SEA should include objectives or criteria to assess potential effects on human health, including through promoting or supporting physical activity.

Legislation	Description	Implications for LTS	Implications for SEA
Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight. 2010	The document sets out a policy direction for central and local government decision makers in the short to medium term to address obesity and its social and economic implications. The document has identified a national indicator to *'reduce the rate of increase in the proportion of children with their Body Mass Index out with a healthy range by 2018'.* One of the intervention categories identified is Energy Expenditure, with "*increasing opportunities for the uptake of walking, cycling and physical activity in our daily lives and minimising sedentary behaviour*" identified as a priority.	include infrastructure and behaviour change projects to make walking and cycling a safe and attractive modes of transport.	
Scotland's Economic Strategy. 2015	The strategy sets out the Scottish Government's ambition to create a more cohesive and resilient economy, with an approach based on two key pillars; increasing competitiveness and tackling inequality. There are four broad priority areas where actions will be targeted; investment, innovation, inclusive growth and internationalisation.	The LTS should make clear the role transport can play in stimulating economic growth, and identify measures to contribute to the development of an efficient, low carbon transport system.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on employment, economic opportunities and the contribution of the transport system to implementing sustainable development.

Legislation	Description	Implications for LTS	Implications for SEA
HM Government (1979) Ancient Monuments and Archaeological Areas Act	This is the main legislation concerning archaeology in the UK. This Act, building on legislation dating back to 1882, provides for nationally important archaeological sites to be statutorily protected as Scheduled Ancient Monuments. Section 61(12) defines sites that warrant protection due to their being of national importance as 'ancient monuments'. These can be either Scheduled Ancient Monuments or "*any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it*".	The LTS must ensure development resulting from the strategy has no adverse effect on the historic environment, including Ancient Monuments and Areas of Archaeological Importance.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the historic environment.
The Historic Environment Scotland Policy Statement. 2016	The policy statement is produced to account for changes arising from the Historic Environment Scotland Act (2014) that created Historic Environment Scotland and amended statutory processes relating to the historic environment. The statement supports SPP and other guidance documents to direct planning authorities in their application for conservation area consent, and consideration of planning applications affecting the historic environment and the setting of individual elements of the historic environment.		

Legislation	Description	Implications for LTS	Implications for SEA
The Planning (Listed Buildings and Conservation Areas) Act 1997	This document outlines the approach taken in planning for listed buildings, conservation areas and designated landscapes and gardens.	The LTS must ensure that listed buildings, conservation areas and designated landscapes and gardens are not adversely impacted by developments resulting from the strategy.	
REGIONAL			
SESplan Strategic Development Plan (SDP), 2013	This document sets out a vision statement, spatial strategy and delivery framework to influence the development of Edinburgh and South-East Scotland, including East Lothian, up to 2032. This includes the identification of Strategic Development Areas (SDAs) and strategic policies to guide LDPs and development proposals.	The LTS should address the scale of development anticipated in East Lothian and ensure the transport network can accommodate such increased demand. The LTS should conform with the spatial strategy and strategic policies	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on placemaking, economic growth, spatial development, populations and the environment.

Legislation	Description	Implications for LTS	Implications for SEA
SESplan Proposed SDP, 2016	Once approved by the Scottish Ministers, this document will replace the existing SESplan SDP (2013). The document provides a vision, spatial strategy and strategic policies for the city region over a 20-year period from 2018. The strategy focuses on growth predominantly in and around Edinburgh, place making in the city region, strategic cross boundary transport improvements, green belts and related countryside designations, and cross-boundary green networks. The document notes that SESplan member authorities are engaged in negotiations to conclude a 'City Region Deal' for the city region with the UK and Scottish Governments. This is likely to result in the funding and delivery of in new infrastructure projects to accelerate economic growth.	set out in the approved and next SESplan SDPs.	
SEStrans Regional Transport Strategy (RTS) 2015-2025	The RTS provides a transport strategy for south east Scotland and outlines a vision for transport solutions regionally and nationally, where transport systems contribute to economic growth by allowing businesses to function effectively, allowing all groups in society to share in the region's success through access to services and infrastructure, respects the environment and contributes to better public health.	The LTS should complement and support the vision of the RTS by promoting relevant plans and projects at the local level.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on connectivity, accessibility and parking.

Legislation	Description	Implications for LTS	Implications for SEA
SEStran Park and Ride Strategy. 2010	This strategy is nested within the RTS objectives, and outlines the role of park and rides in meeting wider transport aspirations and targets. The document sets out a framework for development and assessing future investments in park and rides	When considering park and ride infrastructure, the LTS should reflect and support the objectives of this strategy.	
SEStran Parking Management Strategy. 2009	This document gives guidance to partnership local authorities, including East Lothian, to manage parking to the benefit of residents, visitors and business users and discourage commuter parking in line with National and Regional transport strategy objectives.	When considering parking management, the LTS should reflect and support the guidance of this document.	
SEStran Strategic Cross Boundary Cycle Development. 2015	This document provides investment guidance for cross-local authority boundary sections of the regional cycle network, with particular focus on routes suitable for commuters.	The LTS should consider the guidance and research provided by this document when planning cycle route plans and projects in East Lothian.	
SEStran Development of a Strategic Urban Cycle Network. 2010	This document outlines SEStran's vision that new cycling infrastructure will be given status equal to the provision of new infrastructure for other road users e.g. motor vehicles. The overall aim of the document is to promote urban cycling and encourage modal shift, achieving an average of 6.3% journeys to work by bicycle by 2023.		

Legislation	Description	Implications for LTS	Implications for SEA
Edinburgh and Lothians Forestry & Woodland Strategy	The strategy guides woodland expansion and management across the Lothian area in a manner that optimised their contribution to the region's people, economy and environment.	The LTS should promote and protect the area's woodland assets.	The SEA Framework should include SEA Objectives and guide questions to assess potential effects on woodland and forests.
LOCAL			
East Lothian Council Plan 2012-2017	The plan's aim is *"to create a prosperous, safe and sustainable East Lothian that will allow our people and communities to flourish".* To achieve this the Plan has four objectives; ▪ Growing our Economy ▪ Growing our Communities ▪ Growing our People ▪ Growing the capacity of our Council	The LTS should complement the aspirations of the plan by recognise the role transport can play in supporting East Lothian's economy and providing for local communities and people.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on employment, regeneration, economic opportunities and accessibility to key services.
East Lothian Proposed Local Development Plan 2016	The proposed LDP sets out a spatial development strategy for East Lothian to 2024 and beyond as well as a detailed policy framework for guiding development. The LDP sets out where development should and should not occur, including housing, education and retailed development, new transport links and other infrastructure.	The LTS should complement the proposed LDP and plan to provide sufficient capacity on the transport network for anticipated increases in housing and population.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on housing, education and transport infrastructure to meet identified needs.

Legislation	Description	Implications for LTS	Implications for SEA
ELC Core Paths Plan	Core paths form the basic network of paths around East Lothian, and link to and support the wider network of other paths that already exist in the local authority area. Whilst the paths can vary in terms of how they are constructed, they must provide for all types of users (walkers, cyclists, horse riders etc.) and people of varying abilities.	The LTS should support the implementation and upkeep of the Core Path Plan by improving opportunities for walking and cycling, and accessibility to the countryside and green spaces.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on accessibility, connectivity and tourism.
Air Quality Action Plan (AQAP) – Musselburgh 2017	The Musselburgh AQAP outlines 13 potential measures for improving air quality within the Musselborourgh High St AQMA. The document produced in line with its statutory obligations under the Environment Act 1995.	Road traffic has been identified as the principle source of the local exceedance of NO2 within the Musselborourgh High St AQMA – the LTS must contribute towards reducing these traffic related emissions.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on air quality, particularly within AQMAs.
ELC Single Outcome Agreement (SOA) 2013	The Single Outcome Agreement (SOA) is ELC's 10-year partnership plan, which outlines the outcomes they wish to achieve and how they will allocate resources to deliver those outcomes. The overarching priority of the plan is to reduce inequalities across and within their communities.	Transport is a factor in achieving five of the SOA's high level outcomes and the LTS should play a role in achieving their objectives, particularly outcome 3: *"Communities in East Lothian able to adapt to climate change and reduced finite resources".*	The SEA Framework should include SEA Objectives and guide questions to assess the contribution of the transport system to implementing sustainable development.
East Lothian Environment Strategy 2010-2015	This document outlines steps to help East Lothian respond to the challenges of climate change, over consumption of resources, and inequality. One key objective from the strategy is *"Connecting communities and increasing use of sustainable forms of transport"*	The LTS should not negatively impact on the environment and promote projects that encourage use of sustainable modes of transport.	

Legislation	Description	Implications for LTS	Implications for SEA
East Lothian Biodiversity Action Plan 2008-2013	The Action Plan produces a list of habitats and species that are at particular risk of local extinction. A series of Habitat Action Plans describe the East Lothian Landscape and present a table of actions aimed at protecting and enhancing the condition of Priority Species and Habitats and associated wildlife.	The LTS should not negatively impact on biodiversity in the area, including impacting on Priority Habitats.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on the integrity and conservation objectives of designated sites. Guide questions should also assess wider effects on biodiversity, including upon Protected Species and valued habitats.
Carbon Management Plan 2009-14	This Carbon Management Plan sets the Council an ambitious and challenging target of 25% carbon emissions reduction by 2014	The LTS should demonstrate how local plans and projects contribute towards meeting the targets of the Climate Change (Scotland) Act.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on climate change mitigation and adaptation.
East Lothian Local Housing Strategy 2012-17	The strategy sets out key housing issues and challenges in East Lothian. The five outcomes are: ▪ Increase housing supply and improve access to appropriate housing including affordable housing; ▪ Improve the condition and energy efficiency, and where appropriate the management, of existing housing stock; ▪ Fewer people become homeless; ▪ People with particular needs are able to access and sustain their choice of housing including independent living, where appropriate; and ▪ Few people live in fuel poverty	The LTS should contribute towards meeting the aims of the strategy by providing suitable transport provision that will allow for sustainable, long term investment in housing that will accommodate East Lothian's projected increase in population.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on populations and material assets, including any specific effects on housing provision.

Legislation	Description	Implications for LTS	Implications for SEA
East Lothian Tourism Action Plan 2015	The plan has been developed to help focus activities and actions within the tourism sector that can attract key audiences to the East Lothian. It plays to Local Authority's strengths and acknowledges where development and activity should be focused in order to maximise greatest economic return for all involved. In a SWOT analysis the "*A1 - direct route through East Lothian to Edinburgh and South*" was identified as a key weakness.	The LTS should support the aims of the action plan by providing quality and attractive transport provision to East Lothian's key tourism destinations and markets.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on air economic opportunities, employment and tourism.
East Lothian Economic Development Strategy 2012-2022	The vision of the strategy is "*In 2020 East Lothian will have a dynamic and flourishing economy with our citizens proud to live, learn, work and play in East Lothian*". This is supported by two strategic goals: ▪ To increase the number of businesses in East Lothian with growth potential. ▪ To increase the proportion of East Lothian residents working in and contributing to East Lothian's economy.	The LTS should work towards achieving the goals and targets of the strategy, particularly the Edinburgh City Deal, by providing quality transport provision that will attract and support local businesses in East Lothian and support people in working in and contributing to the local economy.	The SEA Framework should include SEA Objectives and guide questions to assess likely significant effects on economic development, employment, economic opportunities, regeneration and populations.
East Lothian Council Standards for Development Roads. 2008	The document outlines the Council's standards for developing roads, particularly how they relate to ELC's design standards for new housing areas.	The LTS should promote infrastructure development that complies with this design guidance.	The SEA Framework should include SEA objectives and guide questions to assess the likely

Appendix C East Lothian LTS SEA Framework

C.1.1 The final SEA Framework which has been used in this assessment of the Draft East Lothian LTS is provided in Table C.1 below.

Table C.1 Proposed SEA Framework

SEA Objective	SEA Guide Questions	SEA Topic
1. Biodiversity: Conserve or enhance biodiversity, flora and fauna.	• Will the LTS affect the integrity or conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation or species protection? • Will the LTS result in any negative impacts on or place pressure on the conservation objectives of any Special Area of Conservation (SAC) or Special Protection Area (SPA)? • Will the LTS cause disruption or damage to any valued species or habitat, including but not limited to European Protected Species and their habitats? • Will the LTS safeguard against habitat loss or fragmentation and will it conserve or enhance habitat connectivity? • Will the LTS conserve or enhance protected trees or woodland important for its type, extent or landscape significance?	Biodiversity, Flora and Fauna
2. Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	• Will the LTS provide adequate transport facilities that meet the needs of the people of East Lothian? • Will the LTS contribute to regeneration of disadvantaged areas? • Will the LTS ensure access via active travel or public transport options to facilities, or services, or employment opportunities? • Will the LTS reduce congestion and allow for greater journey time reliability? • Will the LTS support the efficient movement of freight?	Population

SEA Objective	SEA Guide Questions	SEA Topic
	• Will the LTS promote social inclusion and improve accessibility to key destinations, especially for those without a private car? • Will the LTS support changing demographics in East Lothian by providing appropriate transport facilities to meet their needs? • Will the LTS support economic development and employment opportunities through tourism in the area?	
3. Human Health: Maintain, or provide opportunities to improve, human health.	• Will the LTS facilitate and/or encourage use of public transport and active travel? • Will the LTS promote the provision of safe pedestrian and cycle access links? • Will the LTS improve accessibility to open spaces, or sports facilities, or the core path network, for physical recreational purposes? • Will the LTS reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? • Will the LTS increase or decrease noise and vibration? • Will the LTS reduces the likelihood of transport-related road accidents and casualties? • Will the LTS improve access to healthcare facilities? • Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?	Human Health
4. Land and Soil: Conserve or enhance soil quality, quantity and function.	• Will the LTS avoid the loss of prime quality agricultural land? • Will the LTS avoid the loss of rare or carbon-rich soils? • Will the LTS result on the release of substances that could potentially contaminate the soil?	Soil

SEA Objective	SEA Guide Questions	SEA Topic
	• Will the LTS ensure that possible contamination will be properly remediated and not impact upon sensitive receptors such as human health and the water environment, including groundwater?	
5. Water: Maintain or enhance the quality of the water environment and reduce flood risk.	• Will the LTS avoid inappropriate development in areas at flood risk and ensure that the overall flood risk in the area is not increased as a result of development? • Will the LTS mitigate flood risk and ensure appropriate drainage from developments and transport infrastructure through requiring the implementation of appropriate measures including SUDS? • Will the LTS Increase development that physically impacts on a watercourse or the coastline? • Will the LTS maintain or enhance the ecological status of the water environment? • Will the LTS result in the release of water-borne pollution into watercourses, groundwater or reservoirs? • Will the LTS increase the amount of surface water runoff into water bodies?	Water
6. Air: Maintain or enhance air quality.	• Will the LTS maintain or enhance current levels of air quality? • Will the LTS impact (positively or adversely) on existing Air Quality Management Areas or other areas with known poor air quality? • Will the LTS lead to an increase or a reduction in vehicular traffic? • Will the LTS lead to an increase or reduction in traffic flows on congested routes? • Will the LTS promote good public transport accessibility? • Will the LTS promote good local access to existing facilities, services and employment?	Air

SEA Objective	SEA Guide Questions	SEA Topic
7. Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	• Will the LTS reduce the need to travel and the distance travelled, especially by motorised forms of transport? • Will the LTS contribute to or challenge the decarbonisation of the transport sector? • Will the LTS support a sustainable pattern of development which minimises energy consumption and GHG emissions? • Will the LTS promote resilience to the effects of climate change through, for example, flood, storm, landslip or subsidence? • Will the LTS promote sustainable and active travel? • Will the LTS promote the use of clean fuels/technologies?	Climatic Factors
8. Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	• Will the LTS promote the re-use of existing buildings worthy of retention, make an efficient use of land and / or prioritise the use of brownfield land over greenfield land? • Will the LTS affect the extraction of mineral resources, including potential sterilisation of such resources? • Will the LTS support and / or ensure provision of adequate infrastructure, services and facilities? • Will the LTS promote the reduction, reuse and recycling of waste? • Will the LTS allow for the sustainable use of resources? • Will the LTS promote or restrict access to public routes including Core Paths, Public Rights of Way (PRoW), National Walking and Cycling Routes and National Trails? • Will the LTS support sustainable asset management and practices, reducing traffic congestion or imposed delays and disruption over the network by co-ordinated, planned activities?	Material Assets

SEA Objective	SEA Guide Questions	SEA Topic

9. Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	• Will the LTS impact on any historic buildings / sites, including:
	  ○ the character or appearance of Conservation Areas?
	  ○ listed building or their settings?
	  ○ Scheduled Ancient Monuments or their settings?
	  ○ local archaeological sites?
	  ○ Historic Gardens or Designed Landscapes?
	  ○ sites included in the Inventory of Historic Battlefields?
		Cultural Heritage

10. Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	• Will the LTS prevent development from harming locations containing built or natural landscape features of significance? • Will the LTS protect the separate identity of settlements? • Will the LTS allow the consolidation /appropriate expansion of the existing settlement pattern and settlement structure? • Will the LTS conserve or enhance important areas of open / green space? • Will the LTS detract from or harm the landscape setting of settlements within East Lothian? • Will the LTS reduce public open space and green space within East Lothian?	Landscape

Appendix D SEA of Proposed Policy Measures

D.1 Overview

D.1.1 This appendix provides a detailed appraisal of predicted effects from the draft policies contained within the Draft LTS. This assessment is consistent with the SEA Framework and methodology defined within the East Lothian LTS SEA Scoping Report (June 2017), as amended to take account of Scoping responses from the SEA Consultation Authorities. In accordance with core Strategic Environmental Assessment (SEA) requirements, this assessment focuses on identifying significant environmental effects and relevant mitigation measures to address any identified Major Negative (i.e. significant adverse) effects. The assessment also identifies potential uncertainties and unforeseen consequences associated with the draft policies and set out additional proposed mitigation and enhancement measures to address these issues.

D.1.2 The following timeframes are used in this assessment:

- Short term – Effects occurring over a duration of up to 2 years from the LTS adoption date but then ceasing, including construction effects;
- Medium term – Effects occurring over a duration of 2 – 10 years from the LTS adoption date but then ceasing; and,
- Long Term – Effects occurring for a period longer than 10 years from the LTS adoption date, including indefinite and permanent effects.

D.1.3 Notwithstanding the use of these timeframes to comply with the 2005 Act, the default position in this SEA is that all policies would have effects over the Long Term as once implemented they would affect development decisions, travel behaviours, accessibility and/or the functioning of the local transport network for an indefinite period (until potential future policy changes).

D.1.4 The symbology and scoring system shown in Table 3.4 of the Environmental Report is used throughout this SEA. Each of the draft policies is subject to SEA below using a set of tables which firstly identify the constituent components of each policy (and any reasonable alternatives) and then assess the likely environmental effects of these constituent components against the SEA Framework.

D.2 SEA of Policy 1 Components – Network Maintenance and Asset Management

D.2.1 This subsection provides an assessment of the component measures within Policy 1 as listed in Table D.1, together with any identified reasonable alternatives. The assessment is provided in Table D.2.

D.2.2 The core assumptions and uncertainties listed in Table D.1 have been considered when assessing the relevant policy measure(s) against all SEA objective. Where assumptions or uncertainties are only relevant for the assessment of a policy measure against individual SEA objectives, these are instead noted within the SEA Matrix provided in Table D.2.

Table D.1 Policy 1 Proposed Policy Measures - Justification and Consideration of Alternatives/Options

Policy Measures	Justification	Core Assumptions and Uncertainties
Development of a Road Asset Management Plan (RAMP)	The plan will help the council prioritise and plan maintenance work undertaken on the local transport network, including roads, footpaths, cycle paths, lighting etc.	It is assumed that the RAMP and Maintenance Strategy would only cover existing assets and not involve the construction of new infrastructure and facilities. It is further assumed that the implementation of the RAMP and Maintenance Strategy would have due regard to the protection of the environment, including through the adoption of appropriate environmental management and pollution prevention measures during physical works.
Implementation of Maintenance Strategy and Whole Life Costing	Maintenance of the local road network is a statutory responsibility of the Council. The work includes roads, structures, winter maintenance and street cleaning.	
Street Lighting	An ongoing programme of upgrades and replacements of street lighting, including the implementation of low energy LED lanterns. Implementation of LED lights are highly energy efficient and enjoy a long lifespan.	It is assumed that the Street Lighting Programme relates only to the maintenance and upgrading of the existing street lighting network, rather than the development of new street lights where these are currently absent. Any new street lighting proposals are assumed to form part of specific development proposals (and would therefore be subject to planning consent) rather than being included in this Programme. Any new street lighting must be sensitively sited and designed to avoid adverse effects on biodiversity interests and residential amenity.

SEA of Draft LTS Policy 1 Components

SEA Objective	SEA Guide Questions	Policy Measures		Commentary	
		RAMP	Maintenance Strategy and Whole Life Costing	Street Lighting Programme	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	Will the LTS affect the integrity or conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation or species protection? Will the LTS result in any negative impacts on or place pressure on the conservation objectives of any Special Area of Conservation (SAC) or Special Protection Area (SPA)? Will the LTS cause disruption or damage to any valued species or habitat, including but not limited to European Protected Species and their habitats? Will the LTS safeguard against habitat loss or fragmentation and will it conserve or enhance habitat connectivity? Will the LTS conserve or enhance protected trees or woodland important for its type, extent or landscape significance?	~	~	0	<u>Assessment of Predicted Effects</u> • There is no clear relationship between the RAMP or Maintenance Strategy components of Policy 1 and this SEA objective. • Existing street lighting may have a negative adverse effect on the behaviour and success of wildlife, particularly nocturnal species. The replacement of incandescent bulbs with LED lighting and new columns would however help to minimise light pollution by focusing light on intended areas of streets rather than the surrounding environment. On balance, this component of Policy 1 is considered to have a Neutral effect on this SA objective. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.1. <u>Uncertainties</u> None identified.

Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	Will the LTS provide adequate transport facilities that meet the needs of the people of East Lothian? Will the LTS contribute to regeneration of disadvantaged areas? Will the LTS ensure access via active travel or public transport options to facilities, or services, or employment opportunities? Will the LTS reduce congestion and allow for greater journey time reliability? Will the LTS support the efficient movement of freight? Will the LTS promote social inclusion and improve accessibility to key destinations, especially for those without a private car? Will the LTS support changing demographics in East Lothian by providing appropriate transport facilities to meet their needs? Will the LTS support economic development and employment opportunities through tourism in the area?	+	+	+	<u>Assessment of Predicted Effects</u> • Both the RAMP and Maintenance Strategy would provide systematic and efficient mechanisms to prioritise and implement maintenance work on the local transport network. They would therefore act as tools to ensure that the local transport network remains safe for use and continues to provide quality infrastructure (including roads, footpaths and cycle ways). This would safeguard existing transport accessibility to facilities, services and employment opportunities. However, as management tools they would not themselves have direct physical effects, nor would they enhance accessibility through developing new transport infrastructure. These components of Policy 1 are therefore predicted to have Minor Positive effects on this SEA objective. • The maintenance and upgrading of street lighting would ensure residents and visitors to East Lothian are able, and feel safe, to access public transport and active travel routes. However, as the Street Lighting Programme does not cover the development of new street lights it would not enhance actual or perceived safety where street lighting is not currently present, including alongside some transport infrastructure. On balance, the Street Lighting Programme component of Policy 1 is predicted to have only a Minor Positive effect on this SA objective. <u>Mitigation and Enhancement</u> None required.

					Assumptions See core assumptions in Table D.1. Uncertainties None identified.
Human Health: Maintain, or provide opportunities to improve, human health.	Will the LTS facilitate and/or encourage use of public transport and active travel? Will the LTS promote the provision of safe pedestrian and cycle access links? Will the LTS improve accessibility to open spaces, or sports facilities, or the core path network, for physical recreational purposes? Will the LTS reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? Will the LTS increase or decrease noise and vibration? Will the LTS reduces the likelihood of transport-related road accidents and casualties? Will the LTS improve access to healthcare facilities? Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?	+	++	++	Assessment of Predicted Effects Both the RAMP and Maintenance Strategy would provide systematic and efficient mechanisms to prioritise and implement maintenance work on the local transport network. They would therefore act as tools to ensure that the local transport network remains safe for use and continues to provide quality infrastructure (including roads, footpaths and cycle ways). The RAMP would indirectly help to safeguard continuity of access to open spaces, sports facilities and healthcare infrastructure, resulting in a Minor Positive effect on this SEA objective. The Maintenance Strategy would have more direct effects by ensuring that all users have continuity of access to quality transport infrastructure, including public and active transport, and therefore to recreational and healthcare facilities. The implementation of the winter maintenance regime detailed within this policy component maintenance would also reduce the likelihood of road accidents and casualties, which would protect physical health. Overall the policy component is predicted to have a Major Positive effect on this SA objective. The maintenance and upgrading of street lighting would ensure would ensure that residents of East Lothian are able, and feel safe, accessing active travel and public transport links. It would also improve road safety, helping to reduce the likelihood of transport related

					road accidents. Overall the policy component is predicted to have a Major Positive effect on this SA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.1. Uncertainties None identified.
Land and Soil: Conserve or enhance soil quality, quantity and function.	Will the LTS avoid the loss of prime quality agricultural land? Will the LTS avoid the loss of rare or carbon-rich soils? Will the LTS result on the release of substances that could potentially contaminate the soil? Will the LTS ensure that possible contamination will be properly remediated and not impact upon sensitive receptors such as human health and the water environment, including ground water?	~	~	~	Assessment of Predicted Effects Taking account of the core assumptions detailed in Table D.1, these policy measures are not likely to result in any new land take for transport infrastructure and there is therefore no clear relationship between these measures and the SEA objectives. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.1. As part of these it is assumed that appropriate pollution prevention measures would be adopted during physical works to prevent fuel spillages or the release of hazardous substances into the environment. Uncertainties None identified.
Water: Maintain or enhance the quality of the	Will the LTS avoid inappropriate development in areas at flood risk and ensure that the overall flood risk	~	~	~	Assessment of Predicted Effects

water environment and reduce flood risk.	in the area is not increased as a result of development? Will the LTS mitigate flood risk and ensure appropriate drainage from developments and transport infrastructure through requiring the implementation of appropriate measures including SUDS? Will the LTS Increase development that physically impacts on a watercourse or the coastline? Will the LTS maintain or enhance the ecological status of the water environment? Will the LTS result in the release of water-borne pollution into watercourses, groundwater or reservoirs? Will the LTS increase the amount of surface water runoff into water bodies?				There is no clear relationship between these measures and the SEA objectives. Mitigation and Enhancement None required.. Assumptions See core assumptions in Table D.1. As part of these it is assumed that appropriate measures would be adopted during physical works to prevent pollution of the water environment. Uncertainties None required
Air: Maintain or enhance air quality.	Will the LTS maintain or enhance current levels of air quality? Will the LTS impact (positively or adversely) on existing Air Quality Management Areas or other areas with known poor air quality? Will the LTS lead to an increase or a reduction in vehicular traffic?	0	0	0	Assessment of Predicted Effects The assessed policy measures would help provide residents with continued access to public transport and active travel facilities, but are themselves unlikely to contribute to a reduction in levels of air pollution and/or traffic congestion. Neutral effects on this SEA objective are therefore predicted. Mitigation and Enhancement None required.

	Will the LTS lead to an increase or reduction in traffic flows on congested routes? Will the LTS promote good public transport accessibility? Will the LTS promote good local access to existing facilities, services and employment?				Assumptions See core assumptions in Table D.1. As part of these it is assumed that appropriate measures would be adopted during physical works to prevent pollution of the environment. Uncertainties None identified.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	Will the LTS reduce the need to travel and the distance travelled, especially by motorised forms of transport? Will the LTS contribute to or challenge the decarbonisation of the transport sector? Will the LTS support a sustainable pattern of development which minimises energy consumption and GHG emissions? Will the LTS promote resilience to the effects of climate change through, for example, flood, storm, landslip or subsidence? Will the LTS promote sustainable and active travel? Will the LTS promote the use of clean fuels/technologies?	0	0	++	Assessment of Predicted Effects The RAMP and implementation of the Maintenance Strategy would help provide residents with continued access to public transport and active travel facilities. This could indirectly increase the uptake of sustainable travel modes and the decarbonisation of the transport sector, but there is only a very weak relationship between these policy measures and this SEA objective. Neutral effects on this SEA objective are therefore predicted. The maintenance and upgrading of street lighting including the roll out of LED technology would directly reduce GHG emissions from lighting, as well as promoting the safe use of active and public transport modes. This would have a Major Positive effect on this SA objective. Improved street lighting would promote the use of public transport and active travel facilities and the implementation of LED technology will reduce the GHG emissions associated from the lighting. Mitigation and Enhancement None required. Assumptions

					See core assumptions in Table D.1. As part of these it is assumed that the policy measures would be undertaken in according with the public body duties contained within section 44 of the Climate Change (Scotland) Act 2009. Uncertainties It is not clear whether the RAMP and Maintenance Strategy, including proposed Whole Life Costing of infrastructure accounts for future increases in maintenance costs due to the effects of climate change – e.g. flooding, adverse weather and increased erosion. This should be clarified in Policy 1.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	Will the LTS promote the re-use of existing buildings worthy of retention, make an efficient use of land and / or prioritise the use of brownfield land over greenfield land? Will the LTS affect the extraction of mineral resources, including potential sterilisation of such resources? Will the LTS support and / or ensure provision of adequate infrastructure, services and facilities? Will the LTS promote the reduction, reuse and recycling of waste? Will the LTS allow for the sustainable use of resources? Will the LTS promote or restrict access to public routes including Core Paths, Public Rights of Way	++	++	++	Assessment of Predicted Effects The RAMP and Maintenance Strategy would that ensure existing assets are appropriately managed and maintained to safeguard their future use in order to meet travel needs in East Lothian. These policy measures would therefore have Major Positive effects on this SEA objective. The maintenance and upgrading of street lighting would support the provision of adequate transport infrastructure in urban areas. The long life associated with LED lighting would ensure the long term sustainability of these assets in both economic and environmental terms, resulting in a Major Positive effect on this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.1.

	(PRoW), National Walking and Cycling Routes and National Trails? Will the LTS support sustainable asset management and practices, reducing traffic congestion or imposed delays and disruption over the network by co-ordinated, planned activities?				Uncertainties None identified.
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	Will the LTS impact on any historic buildings / sites, including: the character or appearance of Conservation Areas? listed building or their settings? Scheduled Ancient Monuments or their settings? local archaeological sites? Historic Gardens or Designed Landscapes? sites included in the Inventory of Historic Battlefields?	~	~	~	Assessment of Predicted Effects There is no clear relationship between these measures and the SEA objectives. Mitigation and Enhancement None required Assumptions See core assumptions in Table D.1. As part of these it is assumed that appropriate measures would be adopted during physical works to protect the historical environment from adverse effects. Uncertainties None identified.
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	Will the LTS prevent development from harming locations containing built or natural landscape features of significance? Will the LTS protect the separate identity of settlements? Will the LTS allow the consolidation /appropriate expansion of the	~	~	~	Assessment of Predicted Effects There is no clear relationship between these measures and the SEA objectives. Mitigation and Enhancement None required Assumptions See core assumptions in Table D.1. As part of these it is assumed that appropriate measures would be

	existing settlement pattern and settlement structure? Will the LTS conserve or enhance important areas of open / green space? Will the LTS detract from or harm the landscape setting of settlements within East Lothian? Will the LTS reduce public open space and green space within East Lothian?				adopted during physical works to protect important areas of open space and visual amenity. <u>Uncertainties</u> None identified.

D.3 SEA of Policy 2 Components – A Safer East Lothian

D.3.1 This subsection provides an assessment of the component measures within Policy 2 as listed in Table D.3, together with any identified reasonable alternatives. The assessment is provided in Table D.4.

D.3.2 The core assumptions and uncertainties listed in Table D.3 have been considered when assessing the relevant policy measure(s) against all SEA objective. Where assumptions or uncertainties are only relevant for the assessment of a policy measure against individual SEA objectives, these are instead noted within the SEA Matrix provided in Table D.4.

Table D3 Policy1 Proposed Policy Measures - Justification and Consideration of Alternatives/Options

Policy Measures	Justification	Core Assumptions and Uncertainties
Road Safety Plan	The plan will help the council prioritise investment in road safety measures and address the most problematic areas as a priority.	None identified
20mph limits	Proposed introduction in local areas to reduce speeding and improve road safety.	None identified
Safe Walking and Cycling routes	This general policy commitment and package of measures seeks to have ensure access to safe cycling and walking routes across East Lothian. It is therefore required to protect road safety and support the uptake of active travel modes.	There is uncertainty regarding any new infrastructure asset requirements, land take and associated physical environmental effects associated with the Safe Walking and Cycling Routes and Accessibility for All policy measures. For the purposes of assessing these policy measures it is assumed that these measures do not cover new physical infrastructure proposals/interventions, as those are detailed under Policy 4.
Accessibility for all	This general policy commitment and package of measures seeks to tackle social exclusion and ensure access to services and amenities across East Lothian. It is therefore required to meet existing and future population needs.	

Table D4 SEA of Draft LTS Policy 2 Components

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	Will the LTS affect the integrity or conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation or species protection? Will the LTS result in any negative impacts on or place pressure on the conservation objectives of any Special Area of Conservation (SAC) or Special Protection Area (SPA)? Will the LTS cause disruption or damage to any valued species or habitat, including but not limited to European Protected Species and their habitats? Will the LTS safeguard against habitat loss or fragmentation and will it conserve or enhance habitat connectivity? Will the LTS conserve or enhance protected trees or woodland	~	~	+	~/?	<u>Assessment of Predicted Effects</u> The Safe Walking and Cycling Routes policy measure includes a requirement to consider the environmental impacts of planned improvements on 3rd party land, which would indirectly help to safeguard biodiversity interests and have a Minor Positive effect on this SEA Objective. There is no clear relationship between the other assessed policy measures and this SEA objective. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.3. <u>Uncertainties</u> See core uncertainties in Table D.3.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	important for its type, extent or landscape significance?					
Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	Will the LTS provide adequate transport facilities that meet the needs of the people of East Lothian? Will the LTS contribute to regeneration of disadvantaged areas? Will the LTS ensure access via active travel or public transport options to facilities, or services, or employment opportunities? Will the LTS reduce congestion and allow for greater journey time reliability? Will the LTS support the efficient movement of freight? Will the LTS promote social inclusion and improve accessibility to key destinations, especially for those without a private car? Will the LTS support changing demographics in East Lothian by	+	+	++	++	Assessment of Predicted Effects The Road Safety Plan policy measure would seek to protect residents' quality of life by minimising dangers from transport related accidents and casualties, and by ensuring public transport, roads and active travel routes remain safe. This would have a Minor Positive effect on this SEA objective. 20mph zones would improve pedestrian safety and reduce the risk of traffic accidents. It would also enhance quality of life by creating more pedestrian and cycle friendly streets and residential areas, bringing a range of associated health and access benefits. This would have a Minor Positive effect on this SEA objective. The Safe Walking and Cycling Routes and Accessibility for All policy measures would support good access for all demographic groups across East Lothian to essential facilities, goods and services. This would directly promote social inclusion and accessibility to key destinations. The policy

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	providing appropriate transport facilities to meet their needs? Will the LTS support economic development and employment opportunities through tourism in the area?					measures would also support long distance walking and cycling routes with associated tourism benefits for East Lothian, including along the John Muir Way. Owing to the direct relationship between these policy measures and this SEA objective, Major Positive effects are predicted. Mitigation and Enhancement None required Assumptions No relevant assumptions identified. Uncertainties None identified
Human Health: Maintain, or provide opportunities to improve, human health.	Will the LTS facilitate and/or encourage use of public transport and active travel? Will the LTS promote the provision of safe pedestrian and cycle access links? Will the LTS improve accessibility to open spaces, or sports facilities,	++	++	++	++	Assessment of Predicted Effects The Road Safety Plan measure seeks to reduce incidences of transport related accidents and causalities, alongside creating a safer environment for pedestrians and cyclists. This would directly protect physical and mental health and wellbeing, resulting in a Major Positive effect on this SEA objective.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	or the core path network, for physical recreational purposes? Will the LTS reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? Will the LTS increase or decrease noise and vibration? Will the LTS reduces the likelihood of transport-related road accidents and casualties? Will the LTS improve access to healthcare facilities? Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?					20mph zones would reduce the incidences of transport related road accidents and casualties, and would help to create a safer environment for pedestrian and cyclists, resulting in a Major Positive effect on this SEA objective. The Safe Walking and Cycling Routes and Accessibility for All policy measures would provide residents with access to essential facilities, goods and services as well as providing access to core path network for recreational activities. Facilitating an increase in active travel would also reduce air pollution and noise in urban areas. These policy measures would therefore have Major Positive effects on this SEA objective. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.3. <u>Uncertainties</u> See core uncertainties in Table D.3.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
Land and Soil: Conserve or enhance soil quality, quantity and function.	Will the LTS avoid the loss of prime quality agricultural land? Will the LTS avoid the loss of rare or carbon-rich soils? Will the LTS result on the release of substances that could potentially contaminate the soil? Will the LTS ensure that possible contamination will be properly remediated and not impact upon sensitive receptors such as human health and the water environment, including groundwater?	~	~	+	~	Assessment of Predicted Effects The Safe Walking and Cycling Routes policy measure includes a requirement to consider the environmental impacts of planned improvements on 3rd party land, which would indirectly help to safeguard soil resources and have a Minor Positive effect on this SEA Objective. There is no clear relationship between the other assessed policy measures and this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.3. Uncertainties See core uncertainties in Table D.3.
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	Will the LTS avoid inappropriate development in areas at flood risk and ensure that the overall flood risk in the area is not increased as a result of development?	~	~	+	~/?	Assessment of Predicted Effects The Safe Walking and Cycling Routes policy measure includes a requirement to consider the environmental impacts of planned improvements on 3rd party land, which could

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	Will the LTS mitigate flood risk and ensure appropriate drainage from developments and transport infrastructure through requiring the implementation of appropriate measures including SUDS? Will the LTS Increase development that physically impacts on a watercourse or the coastline? Will the LTS maintain or enhance the ecological status of the water environment? Will the LTS result in the release of water-borne pollution into watercourses, groundwater or reservoirs? Will the LTS increase the amount of surface water runoff into water bodies?					indirectly help to safeguard the quality of the water environment and have a Minor Positive effect on this SEA Objective. There is no clear relationship between the other assessed policy measures and this SEA objective. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.3. <u>Uncertainties</u> See core uncertainties in Table D.3.
Air: Maintain or enhance air quality.	Will the LTS maintain or enhance current levels of air quality? Will the LTS impact (positively or adversely) on existing Air Quality	~	0	+	±	<u>Assessment of Predicted Effects</u> There is no clear relationship between the Road Safety Plan policy measure and this SEA objective.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	Management Areas or other areas with known poor air quality? Will the LTS lead to an increase or a reduction in vehicular traffic? Will the LTS lead to an increase or reduction in traffic flows on congested routes? Will the LTS promote good public transport accessibility? Will the LTS promote good local access to existing facilities, services and employment?					Implementing 20mph zones would promote a safer environment for those to take up walking and cycling, however it would not directly reduce the impact of current vehicle congestion and resulting air pollution. A Neutral effect on this SEA objective is therefore predicted. The Safe Walking and Cycling Routes and Accessibility for All policy measures would promote good public transport accessibility, improve access to essential facilities and services and reduce car travel needs. The policy measures would therefore indirectly help to protect and enhance air quality. Mitigation and Enhancement None required Assumptions No relevant assumptions identified. Uncertainties None identified
Climatic Factors: Contribute to reducing GHG emissions and	Will the LTS reduce the need to travel and the distance travelled,	~/?	+	++/?	++/?	Assessment of Predicted Effects

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
energy consumption or adapting to the effects of climate change.	especially by motorised forms of transport? Will the LTS contribute to or challenge the decarbonisation of the transport sector? Will the LTS support a sustainable pattern of development which minimises energy consumption and GHG emissions? Will the LTS promote resilience to the effects of climate change through, for example, flood, storm, landslip or subsidence? Will the LTS promote sustainable and active travel? Will the LTS promote the use of clean fuels/technologies?					There is no clear relationship between the Road Safety Plan policy measure and this SEA objective. Implementing 20mph zones would promote a safer environment for residents to take up walking and cycling and could discourage car use for short journeys within residential areas where alternative travel modes exist. The policy measure would however only have a weak and indirect relationship with GHG emissions reduction and this SEA objective. The Safe Walking and Cycling Routes and Accessibility for All policy measures would directly support the uptake of active and sustainable travel modes, whilst reducing car travel needs in order to access essential facilities and services. This would help to reduce transport GHG emissions, resulting in a Major Positive effect on this SEA objective. Mitigation and Enhancement None required Assumptions No relevant assumptions identified. Uncertainties

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
						None identified.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	Will the LTS promote the re-use of existing buildings worthy of retention, make an efficient use of land and / or prioritise the use of brownfield land over greenfield land? Will the LTS affect the extraction of mineral resources, including potential sterilisation of such resources? Will the LTS support and / or ensure provision of adequate infrastructure, services and facilities? Will the LTS promote the reduction, reuse and recycling of waste? Will the LTS allow for the sustainable use of resources? Will the LTS promote or restrict access to public routes including Core Paths, Public Rights of Way (PRoW), National Walking and	++/?	~	++/?	+/?	Assessment of Predicted Effects The Road Safety Plan policy measure would support the provision of adequate transport infrastructure meet the accessibility and wider travel needs of residents and visitors to East Lothian, resulting in a Major Positive effect on this SEA objective. There is no clear relationship between 20mph zones and this SEA objective. The Walking and Cycling Routes policy measure seeks to adequately maintain and to make efficient and effective use of non-vehicular transport infrastructure. This includes existing off-road routes including the Core Path network, National Cycle Network and national walking routes. The policy measure also commits the Council to exploring potential re-allocation of road space where viable, which would further promote the sustainable and efficient use of infrastructure assets. A Major Positive effect is therefore predicted on this SEA objective. The Accessibility for All policy measure would seek to enhance access to essential facilities

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	Cycling Routes and National Trails? Will the LTS support sustainable asset management and practices, reducing traffic congestion or imposed delays and disruption over the network by co-ordinated, planned activities?					and services and reduce car travel needs. This would indirectly contribute to the efficient and effective use of existing transport infrastructure and the provision of new infrastructure where required to enhance accessibility. This would have a Minor Positive effect on this SEA objective. <u>Mitigation and Enhancement</u> To enhance the effectiveness of these policy measures it is recommended that appropriate text should be inserted under Policy 2 to address the uncertainties identified below. <u>Assumptions</u> None identified. <u>Uncertainties</u> See core uncertainties in Table D.3. It is unclear whether the Road Safety Plan would address infrastructure resilience issues and the impacts of adverse weather such as flooding.
Cultural Heritage: Preserve, protect and, where appropriate,	Will the LTS impact on any historic buildings / sites, including:	~	~	+	~/?	<u>Assessment of Predicted Effects</u> The Safe Walking and Cycling Routes policy measure includes a requirement to consider

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
enhance East Lothian's historic environment.	the character or appearance of Conservation Areas? listed building or their settings? Scheduled Ancient Monuments or their settings? local archaeological sites? Historic Gardens or Designed Landscapes? sites included in the Inventory of Historic Battlefields?					the environmental impacts of planned improvements on 3rd party land, which would indirectly help to protect historic sites (including their setting) and have a Minor Positive effect on this SEA Objective. There is no clear relationship between the other assessed policy measures and this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.3. Uncertainties See core uncertainties in Table D.3.
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	Will the LTS prevent development from harming locations containing built or natural landscape features of significance? Will the LTS protect the separate identity of settlements? Will the LTS allow the consolidation /appropriate	~	~	+	~/?	Assessment of Predicted Effects The Safe Walking and Cycling Routes policy measure includes a requirement to consider the environmental impacts of planned improvements on 3rd party land, which would indirectly help to safeguard visual amenity and have a Minor Positive effect on this SEA Objective.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Road Safety Plan	20 mph zones	Safe Walking and Cycling Routes	Accessibility for All	
	expansion of the existing settlement pattern and settlement structure? Will the LTS conserve or enhance important areas of open / green space? Will the LTS detract from or harm the landscape setting of settlements within East Lothian? Will the LTS reduce public open space and green space within East Lothian?					There is no clear relationship between the other assessed policy measures and this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.3. Uncertainties See core uncertainties in Table D.3.

D.4 SEA of Policy 3 Components – Active Travel and Healthy Lifestyles

D.4.1 This subsection provides an assessment of the component measures within Policy 3 as listed in Table D.5, together with any identified reasonable alternatives. The assessment is provided in Table D.6.

D.4.2 The core assumptions and uncertainties listed in Table D.5 have been considered when assessing the relevant policy measure(s) against all SEA objective. Where assumptions or uncertainties are only relevant for the assessment of a policy measure against individual SEA objectives, these are instead noted within the SEA Matrix provided in Table D.6.

Table D.5 Policy 3 Proposed Policy Measures - Justification and Consideration of Alternatives/Options

Policy Measures	Justification	Core Assumptions and Uncertainties
Travel Plans	Travel plans are a package of soft measures tailored to the needs of an organisation that can influence people to voluntarily change their behaviour to more sustainable means.	None identified
Influencing Active Travel	Promoting behaviour change through active travel encourages a healthy lifestyle and the reduction of car use.	None identified
Cycling and Walking Networks	The LTS reports walking and cycling as an excellent way of delivering a range of health and social benefits.	There is uncertainty regarding any new infrastructure asset requirements, land take and associated physical environmental effects associated with the Cycling and Walking Networks policy measures. It is recommended that this should be address through inserting appropriate environmental protection text into Policy 3 (see SEA objective 1 commentary box below). For the purposes of this assessment the policy measure is assumed not to include support for specific active travel infrastructure proposals/interventions, as those are detailed under Policy 4.

Table D.6 SEA of Draft LTS Policy 3 Components

SEA Objective	SEA Guide Questions	Measures			Commentary
		Travel Plans	Influencing Active Travel	Walking and Cycling Network	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	Will the LTS affect the integrity or conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation or species protection? Will the LTS result in any negative impacts on or place pressure on the conservation objectives of any Special Area of Conservation (SAC) or Special Protection Area (SPA)? Will the LTS cause disruption or damage to any valued species or habitat, including but not limited to European Protected Species and their habitats? Will the LTS safeguard against habitat loss or fragmentation and will it conserve or enhance habitat connectivity? Will the LTS conserve or enhance protected trees or woodland important for its type, extent or landscape significance?	~	~	?	<u>Assessment of Predicted Effects</u> There is no clear relationship between the Travel Plans and Influencing Active Travel policy measures and this SEA objective. By maintaining and enhancing East Lothian's Active Travel infrastructure, the Walking and Cycling Network policy measure would support access to nature for residents and visitors. However, the measure could also indirectly increase visitor numbers and recreational pressures on sensitive areas including the Firth of Forth SPA and other designated sites. Whilst any specific effects on biodiversity interests would depend upon the implementation of this policy measure and therefore an overall uncertain effect is predicted, there remains the potential for a Minor Negative effect to occur if the policy measure increases recreational pressures on sensitive areas. <u>Mitigation and Enhancement Mitigation and Enhancement</u> To ensure the avoidance of adverse effects on biodiversity interests it is recommended that the Walking and Cycling Network policy measure should be expanded to reference the need to protect environmental quality and safeguard sensitive ecological features. This should include providing

					appropriate protection for designated sites, valued specie and habitats, soil ecosystems and important woodlands. Assumptions See core assumptions in Table D.5. Uncertainties Uncertainties None identified.
Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	Will the LTS provide adequate transport facilities that meet the needs of the people of East Lothian? Will the LTS contribute to regeneration of disadvantaged areas? Will the LTS ensure access via active travel or public transport options to facilities, or services, or employment opportunities? Will the LTS reduce congestion and allow for greater journey time reliability? Will the LTS support the efficient movement of freight? Will the LTS promote social inclusion and improve accessibility to key destinations, especially for those without a private car? Will the LTS support changing demographics in East Lothian by providing appropriate transport facilities to meet their needs?	++	++	++	Assessment of Predicted Effects The assessed policy measures would all have direct Major Positive effects on this SEA objective by increasing accessibility to facilities, services and employment opportunities, which would enhance social inclusion, and by supporting the growth of the tourism sector along active travel routes. Walking and Cycling network will provide transport facilities for residents in East Lothian, as well as promoting economic development by attracting tourists Mitigation and Enhancement None required Assumptions See core assumptions in Table D.5. Uncertainties None identified

	Will the LTS support economic development and employment opportunities through tourism in the area?				
Human Health: Maintain, or provide opportunities to improve, human health.	Will the LTS facilitate and/or encourage use of public transport and active travel? Will the LTS promote the provision of safe pedestrian and cycle access links? Will the LTS improve accessibility to open spaces, or sports facilities, or the core path network, for physical recreational purposes? Will the LTS reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? Will the LTS increase or decrease noise and vibration? Will the LTS reduces the likelihood of transport-related road accidents and casualties? Will the LTS improve access to healthcare facilities? Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?	++	++	++	<u>Assessment of Predicted Effects</u> The assessed policy measures would all have direct Major Positive effects on this SEA objective by promoting active and public transport modes, including through behaviour change initiatives, whilst enhancing accessibility to key facilities and services. This could increase active travel participation, with associated physical health benefits, whilst reducing the need for car travel and thereby reducing the negative impacts of transport related pollution, noise and air quality on health outcomes. The Walking and Cycling Network will improve accessibility to open spaces and sports/recreational facilities as well as reducing urban noise and air pollution. <u>Mitigation and Enhancement</u> None required <u>Assumptions</u> See core assumptions in Table D.5. <u>Uncertainties</u> None identified.

Land and Soil: Conserve or enhance soil quality, quantity and function.	Will the LTS avoid the loss of prime quality agricultural land? Will the LTS avoid the loss of rare or carbon-rich soils? Will the LTS result on the release of substances that could potentially contaminate the soil? Will the LTS ensure that possible contamination will be properly remediated and not impact upon sensitive receptors such as human health and the water environment, including groundwater?	~	~	~/?	Assessment of Predicted Effects There is no clear relationship between the assessed policy measures and this SEA objective. Any potential physical environmental effects resulting from the Walking and Cycling Network policy measure are dependent on the core assumption detailed in Table D.5 and therefore cannot be known at this stage. Until further information is known about the location and alignment of any walking and cycling routes it is unclear the impact it will have on land and soil. Mitigation and Enhancement None required Assumptions See core assumption in Table D.5. Uncertainties None required
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	Will the LTS avoid inappropriate development in areas at flood risk and ensure that the overall flood risk in the area is not increased as a result of development? Will the LTS mitigate flood risk and ensure appropriate drainage from developments and transport infrastructure through requiring the implementation of appropriate measures including SUDS? Will the LTS Increase development that physically impacts on a watercourse or the coastline?	~	~	~	Assessment of Predicted Effects There is no clear relationship between the assessed policy measures and this SEA objective. Any potential physical environmental effects resulting from the Walking and Cycling Network policy measure are dependent on the core assumption detailed in Table D.5 and therefore cannot be known at this stage. Mitigation and Enhancement None required Assumptions See core assumption in Table D.5. Uncertainties

	Will the LTS maintain or enhance the ecological status of the water environment? Will the LTS result in the release of water-borne pollution into watercourses, groundwater or reservoirs? Will the LTS increase the amount of surface water runoff into water bodies?				None required
Air: Maintain or enhance air quality.	Will the LTS maintain or enhance current levels of air quality? Will the LTS impact (positively or adversely) on existing Air Quality Management Areas or other areas with known poor air quality? Will the LTS lead to an increase or a reduction in vehicular traffic? Will the LTS lead to an increase or reduction in traffic flows on congested routes? Will the LTS promote good public transport accessibility? Will the LTS promote good local access to existing facilities, services and employment?	+	+	+	<u>Assessment of Predicted Effects</u> Implementation of the Travel Plans policy measure would encourage residents, users of new development and Council staff to consider sustainable and active modes of transport, thereby reducing vehicle traffic and associated air pollution. As a soft measure dependant on behaviour change, this would have a Minor Positive effect on this SEA objective. The Influencing Active Travel policy measure would support behavioural change in favour of active travel uptake. Whilst dependant on implementation, this measure would encourage residents to consider walking and cycling as a means of transport, thereby reducing vehicle traffic and the associated air pollution. As a soft measure dependant on behaviour change, this would have a Minor Positive effect on this SEA objective. The Walking and Cycling Networks policy measure would encourage modal shift towards active travel by supporting, maintaining and enhancing active travel routes in East Lothian. This would support increased uptake of active travel by residents and visitors, which would indirectly helpy to reduce vehicle traffic

					and the associated air pollution. A Minor Positive effect is therefore predicted from this policy measure on this SEA objective. Mitigation and Enhancement None required Assumptions See core assumptions identified in Table D.5. Uncertainties None identified
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	Will the LTS reduce the need to travel and the distance travelled, especially by motorised forms of transport? Will the LTS contribute to or challenge the decarbonisation of the transport sector? Will the LTS support a sustainable pattern of development which minimises energy consumption and GHG emissions? Will the LTS promote resilience to the effects of climate change through, for example, flood, storm, landslip or subsidence? Will the LTS promote sustainable and active travel? Will the LTS promote the use of clean fuels/technologies?	++	++	+	Assessment of Predicted Effects All of the assessed policy measures promote sustainable modal shifts and the uptake of active travel. The measures would therefore reduce car travel needs and help to decarbonise the transport sector whilst increasing accessibility to key services and facilities. The Travel Plans and Influencing Active Travel policy measures have direct relationships with this SEA objective and are therefore predicted to have Major Positive effects. Walking and Cycling networks will encourage residents to consider walking and cycling as a means of transport, thereby reducing vehicle traffic and the associated the associated greenhouse gases. Mitigation and Enhancement None required Assumptions See core assumptions identified in Table D.5. Uncertainties

					None identified
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	Will the LTS promote the re-use of existing buildings worthy of retention, make an efficient use of land and / or prioritise the use of brownfield land over greenfield land? Will the LTS affect the extraction of mineral resources, including potential sterilisation of such resources? Will the LTS support and / or ensure provision of adequate infrastructure, services and facilities? Will the LTS promote the reduction, reuse and recycling of waste? Will the LTS allow for the sustainable use of resources? Will the LTS promote or restrict access to public routes including Core Paths, Public Rights of Way (PRoW), National Walking and Cycling Routes and National Trails? Will the LTS support sustainable asset management and practices, reducing traffic congestion or imposed delays and disruption over the network by co-ordinated, planned activities?	~	~	++	<u>Assessment of Predicted Effects</u> There is no clear relationship between Travel Plans or Influencing Active Travel policy measures and this SEA objective. The Walking and Cycling Networks policy measure seeks to protect, maintain and enhance active travel routes provision in East Lothian. The measure would support increased access to public routes and transport infrastructure including Core Paths, the National Cycle Network and the John Muir Way National Trail, resulting in a Major Positive effect on this SEA objective. <u>Mitigation and Enhancement</u> None required <u>Assumptions</u> None required <u>Uncertainties</u> None identified.
Cultural Heritage: Preserve, protect and, where appropriate,	Will the LTS impact on any historic buildings / sites, including:	~	~	?	<u>Assessment of Predicted Effects</u> There is no clear relationship between the assessed policy measures and this SEA objective. Any potential physical environmental effects resulting

enhance East Lothian's historic environment.	the character or appearance of Conservation Areas? listed building or their settings? Scheduled Ancient Monuments or their settings? local archaeological sites? Historic Gardens or Designed Landscapes? sites included in the Inventory of Historic Battlefields?				from the Walking and Cycling Network policy measure are dependent on the core assumption detailed in Table D.5 and therefore cannot be known at this stage. Mitigation and Enhancement None required Assumptions See core assumption in Table D.5. Uncertainties None required
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	Will the LTS prevent development from harming locations containing built or natural landscape features of significance? Will the LTS protect the separate identity of settlements? Will the LTS allow the consolidation /appropriate expansion of the existing settlement pattern and settlement structure? Will the LTS conserve or enhance important areas of open / green space? Will the LTS detract from or harm the landscape setting of settlements within East Lothian? Will the LTS reduce public open space and green space within East Lothian?	~	~	?	Assessment of Predicted Effects There is no clear relationship between the assessed policy measures and this SEA objective. Any potential physical environmental effects resulting from the Walking and Cycling Network policy measure are dependent on the core assumption detailed in Table D.5 and therefore cannot be known at this stage. However, it should be noted that the Walking and Cycling Network policy measure would support access to the important areas of open space and the countryside, including allowing residents and visitors to experience scenic views. Mitigation and Enhancement None required Assumptions See core assumption in Table D.5. Uncertainties None required

D.5 SEA of Policy 4 Components – Accommodating Growth and Supporting the Economy

D.5.1 This subsection provides an overall assessment of the component measures within Policy 4 as listed in Table D.7, together with any identified reasonable alternatives. The assessment is provided in Table D.8. However, each of the transport infrastructure interventions proposed within Policy 4 are also assessed individually within Appendix E.

D.5.2 All of the proposed interventions represent the results of an extensive process to select interventions which would appropriately address the transport problems, issues and opportunities identified within the LTS. No other transport interventions were identified as being capable of satisfactorily addressing the identified transport problems, issues and opportunities. For the purposes of SEA, no reasonable alternatives to the proposed transport interventions could therefore be identified.

D.5.3 The core assumptions and uncertainties listed in Table D.7 have been considered when assessing the relevant policy measure(s) against all SEA objective. Where assumptions or uncertainties are only relevant for the assessment of a policy measure against individual SEA objectives, these are instead noted within the SEA Matrix provided in Table D.8.

Table D.7 Policy 4 Proposed Policy Measures - Justification and Consideration of Alternatives/Options

Measures	Justification	Core Assumptions and Uncertainties
Parking Strategy and Enforcement	ELC is implementing a Parking Strategy to improve the efficiency of the current parking supply and reduce negative impacts of parking on local communities.	It is assumed that the Parking Strategy would focus on existing parking provision and wold not involve the construction of new infrastructure or facilities which would involve land take and/or could have physical environmental effects. It is further assumed that the implementation of the Parking Strategy would have due regard to the protection of the environment and amenity, in particular by setting out measures and enforcement action to reduce negative impacts of parking on communities.
Proposed Transport Interventions (Rail, Road and Active Travel Infrastructure)	Each of the proposed transport infrastructure interventions is required for a specific purpose, as detailed within the LTS and further explained within the East Lothian LDP Proposed Plan (2016). That Plan includes safeguarding land allocations for some of	It is assumed that the inclusion of each proposed infrastructure intervention within the LTS indicates the support of East Lothian Council for their delivery to achieve specific transport objectives, but that it does not necessarily

	the proposed interventions, but specific assessment or mitigation requirements have not been identified to date. The rationale for the proposed interventions includes the need to increase capacity at key junctions and sections of road to accommodate existing and future demand, including in order for proposed residential and commercial developments to be acceptable in planning terms. Other interventions are proposed in order to support sustainable modal shifts and the uptake of active travel. All of the justifications for individual proposed transport interventions are consistent with the aims, objectives and policy requirements of the National Planning Framework 3, the Scottish Planning Policy (2014) and the East Lothian Local Development Plan (2016).	indicate a funded commitment to deliver each measure according to a fixed design. At this stage there is varying degrees of uncertainty regarding the proposed alignment, land take, physical characteristics and delivery mechanisms of each proposed infrastructure intervention. It is assumed that any land-take required is either within the ownership of or could reasonably be acquired by ELC for the purposes of delivering the proposed interventions. Each of the proposed interventions therefore needs to be assessed in high level policy terms rather than detailed design terms (which would be done at a later stage through the consenting process for each intervention).

Table D.8 SEA of Policy 4 Components

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	Will the LTS affect the integrity or conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation or species protection? Will the LTS result in any negative impacts on or place pressure on the conservation objectives of any Special Area of Conservation (SAC) or Special Protection Area (SPA)? Will the LTS cause disruption or damage to any valued species or habitat, including but not limited to European Protected Species and their habitats? Will the LTS safeguard against habitat loss or fragmentation and will it conserve or enhance habitat connectivity? Will the LTS conserve or enhance protected trees or woodland important for its type, extent or landscape significance?	~	See Appendix E. predicted effects range from - to ?	<u>Assessment of Predicted Effects</u> • There is no clear relationship between the Parking Strategy component of Policy 4 and this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on biodiversity interests, from Minor Negative to Uncertain, as detailed in Appendix E: ○ Owing to separation distances, none of the proposed interventions are predicted to have a direct effect on sites designated at national or European levels for reasons of biodiversity conservation or value. Intervention J does however have the potentially to indirectly affect the Forth of Forth SPA, Ramsar Site and SSSI, although any effects are Uncertain at this stage. ○ Several of the interventions would involve land take and/or construction activities in close proximity to clusters of semi-natural ancient or native woodland, resulting in potential disturbance to or localised reduction in woodland habitats. Other proposed interventions would involve land take over prime agricultural land or carbon rich soils,

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				again resulting in potential localised disturbance. ○ In all cases where the proposed interventions interact with identified ecological sensitivities, the interventions could, in the absence of mitigation, have an adverse effect on this SEA objective by disrupting or damaging valued habitats and species, potentially resulting in localised habitat loss or fragmentation. <u>Mitigation and Enhancement</u> • As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on biodiversity interests. Policy requirements to secure this should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Population: Maintain or enhance the quality of life and access to services	Will the LTS provide adequate transport facilities that meet the	+	See Appendix E: predicted effects	<u>Assessment of Predicted Effects</u>

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
and opportunities for East Lothian's residents.	needs of the people of East Lothian? Will the LTS contribute to regeneration of disadvantaged areas? Will the LTS ensure access via active travel or public transport options to facilities, or services, or employment opportunities? Will the LTS reduce congestion and allow for greater journey time reliability? Will the LTS support the efficient movement of freight? Will the LTS promote social inclusion and improve accessibility to key destinations, especially for those without a private car? Will the LTS support changing demographics in East Lothian by providing appropriate transport facilities to meet their needs? Will the LTS support economic development and employment opportunities through tourism in the area?		range from ++ to +	• The Parking Strategy component of Policy 4 would set out measures to reduce parking demand in areas with insufficient parking capacity, to direct this demand to areas with sufficient capacity, and to encourage sustainable modal shifts in order to reduce car travel needs. This component of Policy 4 would therefore safeguard and enhance access to services and facilities, thereby enhancing social inclusion, whilst also indirectly reducing potential adverse amenity effects associated with parking. A Minor Positive effect is therefore predicted. • The proposed transport infrastructure interventions within Policy 4 would have either Major or Minor Positive effects on this SEA objective, as detailed in Appendix E: ○ Major positive effects are predicted from the proposed new rail, road and active travel interventions, as these would improve access to facilities and services by sustainable means, and promote social inclusion in the area. ○ Minor Positive effects would result from the proposed junction improvement and traffic management measures, as whilst these would enhance the capacity of the road network and would therefore support the efficient movement of freight and people, the measures would not directly enhance accessibility.

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				Mitigation and Enhancement • None required Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Human Health: Maintain, or provide opportunities to improve, human health.	Will the LTS facilitate and/or encourage use of public transport and active travel? Will the LTS promote the provision of safe pedestrian and cycle access links? Will the LTS improve accessibility to open spaces, or sports facilities, or the core path network, for physical recreational purposes? Will the LTS reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? Will the LTS increase or decrease noise and vibration? Will the LTS reduces the likelihood of transport-related road accidents and casualties?	+	See Appendix E: predicted effects range from - to ++	Assessment of Predicted Effects • Implementation of the Parking Strategy component of Policy 4 would safeguard and enhance access to services and facilities including open space and healthcare infrastructure, whilst also reducing potential adverse amenity effects associated with parking (e.g. disturbance to residents). This component of Policy 4 is therefore predicted to have a Minor Positive effect on this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Major Positive, as detailed in Appendix E: ○ Positive effects are predicted to result from rail and active travel projects, which would improve access to facilities and services by sustainable means and reduce the negative effects on transport on human health, including air pollution, noise and vibration.

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
	Will the LTS improve access to healthcare facilities? Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?			○ Negative effects are predicted to result from the proposed construction of new infrastructure as this could generate adverse effects on sensitive environmental receptors during construction (e.g. accidental pollution discharge to nearby watercourses, soils and air) with consequential potential negative physical health outcomes. The proposed road upgrade and new road provision interventions could have further adverse health effects by exacerbating existing high levels of vehicular traffic in East Lothian, with associated adverse effects on local air quality and health outcomes. <u>Mitigation and Enhancement</u> • As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on human health. Specific mitigation measures may be required in respect of individual transport infrastructure interventions where these interact with or are otherwise predicted to result in adverse effects on identified environmental sensitivities associated with health outcomes, including watercourses and residential dwellings. Policy requirements to secure the implementation of sufficient mitigation measures through the consenting process for each relevant transport intervention should therefore be inserted

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Land and Soil: Conserve or enhance soil quality, quantity and function.	Will the LTS avoid the loss of prime quality agricultural land? Will the LTS avoid the loss of rare or carbon-rich soils? Will the LTS result on the release of substances that could potentially contaminate the soil? Will the LTS ensure that possible contamination will be properly remediated and not impact upon sensitive receptors such as human health and the water environment, including grounwater?	~	See Appendix E: predicted effects range from -- to ?	Assessment of Predicted Effects • There is no clear relationship between the Parking Strategy and this SEA objective • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Major Negative to Uncertain, as detailed in Appendix E: ○ All of the proposed junction upgrades, the new road interventions and the Active Travel Corridor would entail the loss of prime agricultural land, in most cases adjacent to existing transport infrastructure. None of the proposed interventions would result in the loss of carbon-rich soils. ○ In the absence of any mitigation there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes, e.g. localised accidental pollution discharge or the more substantive release of contaminated

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				materials from excavations. This could directly affect the quality of affected land and soil resources, with potentially wider indirect effects on the quality of adjacent land through the migration of ground or water based pollutants. Mitigation and Enhancement • As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on land and soil resources. Design processes should seek to minimise land take and in particular minimise the use/lss of prime agricultural land, whilst mitigation measures are likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including soil quality. Planning policy requirements to secure the implementation of sufficient mitigation measures through the consenting process for each relevant transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See core assumptions in Table D.7, including that the implementation of the Parking Strategy would not itself involve land take. Uncertainties

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				• See core assumptions in Table D.7. In particular, in the absence of any mitigation there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes, e.g. localised accidental pollution discharge or the more substantive release of contaminated materials.
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	Will the LTS avoid inappropriate development in areas at flood risk and ensure that the overall flood risk in the area is not increased as a result of development? Will the LTS mitigate flood risk and ensure appropriate drainage from developments and transport infrastructure through requiring the implementation of appropriate measures including SUDS? Will the LTS Increase development that physically impacts on a watercourse or the coastline? Will the LTS maintain or enhance the ecological status of the water environment? Will the LTS result in the release of water-borne pollution into watercourses, groundwater or reservoirs?	~	See Appendix E: predicted effects range from - to ?	<u>Assessment of Predicted Effects</u> • There is no clear relationship between the Parking Strategy component of Policy 4 and this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Uncertain, as detailed in Appendix E: ○ Several of the interventions would involve land take and/or construction activities over or in close proximity to the coast, defined rivers and other small waterbodies including agricultural ditches. Culverting may therefore be needed and flood risks may arise, whlst in the absence of mitigation construction activities could also result in accidental pollution discharge and/or the more substantive release of contaminated materials from excavations into the water environment. These interventions therefore have the potential to adversely affect water

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
	Will the LTS increase the amount of surface water runoff into water bodies?			quality and flows, with consequential potential effects on aquatic ecology; and, ○ The proposed major junction upgrades and new roads are likely to require the implementation of surface water drainage strategies including the use of SUDs. In areas of existing poor overland drainage this could represent an environmental improvement, resulting in a positive effect on this SEA objective. <u>Mitigation and Enhancement</u> • As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on the water environment. Design processes should seek to minimise the necessity of undertaking culverting or construction works adjacent to the water environment, whilst mitigation measures are likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including water quality. Policy requirements to secure the implementation of sufficient mitigation measures through the consenting process for each relevant transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u>

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				• See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Air: Maintain or enhance air quality.	Will the LTS maintain or enhance current levels of air quality? Will the LTS impact (positively or adversely) on existing Air Quality Management Areas or other areas with known poor air quality? Will the LTS lead to an increase or a reduction in vehicular traffic? Will the LTS lead to an increase or reduction in traffic flows on congested routes? Will the LTS promote good public transport accessibility? Will the LTS promote good local access to existing facilities, services and employment?	+	See Appendix E: predicted effects range from ++ to -	<u>Assessment of Predicted Effects</u> • The implementation of the Parking Strategy component of Policy 4 would help to manage traffic levels in urban areas, which would indirectly help to manage air quality levels and congestion in targeted areas. A Minor Positive effect on this SEA objective is therefore predicted. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Major Positive to Minor Negative, as detailed in Appendix E: ○ Positive effects would result from the proposed rail and active travel interventions as these would encourage modal shift towards sustainable means, reducing car travel needs and associated air pollution levels; and, ○ Negative effects would result from the proposed road/junction upgrades and new road interventions as these could exacerbate existing high levels of vehicular traffic in particular areas of East Lothian, with

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				associated adverse effects on local air quality. <u>Mitigation and Enhancement</u> • None required. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	Will the LTS reduce the need to travel and the distance travelled, especially by motorised forms of transport? Will the LTS contribute to or challenge the decarbonisation of the transport sector? Will the LTS support a sustainable pattern of development which minimises energy consumption and GHG emissions? Will the LTS promote resilience to the effects of climate change through, for example, flood, storm, landslip or subsidence? Will the LTS promote sustainable and active travel?	0	See Appendix E: predicted effects range from ++ to -	<u>Assessment of Predicted Effects</u> • Whilst the implementation of the Parking Strategy component of Policy 4 would help manage traffic levels in urban areas this is itself unlikely to support a sustainable pattern of development or incentivise/promote the use of sustainable and active travel. A Neutral effect is therefore predicted on this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Major Positive to Minor Negative, as detailed in Appendix E: ○ Positive effects would result from the proposed rail and active travel interventions as these would encourage a modal shift towards sustainable means, reducing GHG emissions; and,

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
	Will the LTS promote the use of clean fuels/technologies?			○ Negative effects would indirectly result from the proposed road/junction upgrades and new road interventions as these could support the growth of vehicular traffic, which would contradict the push for sustainable modal shifts and indirectly support the growth of GHG emissions from the transport sector. <u>Mitigation and Enhancement</u> • None required <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	Will the LTS promote the re-use of existing buildings worthy of retention, make an efficient use of land and / or prioritise the use of brownfield land over greenfield land? Will the LTS affect the extraction of mineral resources, including potential sterilisation of such resources? Will the LTS support and / or ensure provision of adequate	++	See Appendix E: predicted effects range from ++ to +	<u>Assessment of Predicted Effects</u> • The Parking Strategy component of Policy 4 would set out measures to maximise the efficient use of available car parking provision, including through demand management. This would directly support the sustainable and efficient use of existing infrastructure assets, resulting in a Major Positive effect on this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would all result in the provision of upgraded or new transport infrastructure (including public access routes) to meet identified needs, resulting in Major Positive effects on this SEA

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
	infrastructure, services and facilities? Will the LTS promote the reduction, reuse and recycling of waste? Will the LTS allow for the sustainable use of resources? Will the LTS promote or restrict access to public routes including Core Paths, Public Rights of Way (PRoW), National Walking and Cycling Routes and National Trails? Will the LTS support sustainable asset management and practices, reducing traffic congestion or imposed delays and disruption over the network by co-ordinated, planned activities?			Objective, except from a predicted Minor Positive effect from Intervention N (re-opening of Haddington rail line) due to potential land use conflicts that would need to be addressed. <u>Mitigation and Enhancement</u> • As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to minimise land use conflicts and potential disturbance to existing infrastructure or natural resources. Policy requirements to secure the implementation of sufficient mitigation measures through the consenting process for each relevant transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	Will the LTS impact on any historic buildings / sites, including: the character or appearance of Conservation Areas? listed building or their settings? Scheduled Ancient Monuments or their settings?	~	See Appendix E: predicted effects range from - to ?	<u>Assessment of Predicted Effects</u> • There is no clear relationship between the Parking Strategy component of Policy 4 and this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
	local archaeological sites? Historic Gardens or Designed Landscapes? sites included in the Inventory of Historic Battlefields?			on this SEA objective, from Minor Negative to Uncertain, as detailed in Appendix E: ○ Several of the interventions would utilise land within Inventory of Historic Battlefield Sites, resulting in the potential disturbance of archaeological remains and the setting of these heritage assets. In addition, some of the interventions would be located in relatively close proximity to Scheduled Monuments, Listed Buildings and Historic Gardens, resulting in potential adverse effects on the setting of these heritage assets; and, ○ The proposed interventions located outwith the above constrained areas would have a Neutral effect on this SEA objective. <u>Mitigation and Enhancement</u> • As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on this historic environment. Design processes should seek to minimise land take within Inventory of Historic Battlefield sites and to embed suitable mitigation measures / techniques in order to safeguard archaeological remains and the setting of designated heritage assets. Policy requirements to secure the implementation of sufficient mitigation measures through the consenting process for each relevant

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
				transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	Will the LTS prevent development from harming locations containing built or natural landscape features of significance? Will the LTS protect the separate identity of settlements? Will the LTS allow the consolidation /appropriate expansion of the existing settlement pattern and settlement structure? Will the LTS conserve or enhance important areas of open / green space? Will the LTS detract from or harm the landscape setting of settlements within East Lothian?	~	See Appendix E: predicted effects range from - to ?	<u>Assessment of Predicted Effects</u> • There is no clear relationship between the Parking Strategy component of Policy 4 and this SEA objective. • The proposed transport infrastructure interventions within Policy 4 would have a range of potential effects on this SEA objective, from Minor Negative to Uncertain, as detailed in Appendix E: ○ Negative effects on landscape character, townscape character and visual amenity could result from the proposed transport interventions involving land take and the development of new infrastructure; and, ○ The interventions not requiring land take or physical development would have a Neutral effect on this SEA objective. <u>Mitigation and Enhancement</u>

SEA Objective	SEA Guide Questions	Measures		Commentary
		Parking Strategy	Transport Infrastructure Interventions	
	Will the LTS reduce public open space and green space within East Lothian?			• As detailed in Appendix E, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on landscape/townscape character and visual amenity. Design processes should seek to screen new transport infrastructure from residential receptors and key views of landscapes wherever possible. Policy requirements to secure the implementation of sufficient mitigation measures through the consenting process for each relevant transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.

D.6 SEA of Policy 5 Components – Encouraging Sustainable Travel

D.6.1 This subsection provides an assessment of the component measures within Policy 5 as listed in Table D.9, together with any identified reasonable alternatives. The assessment is provided in Table D.10.

D.6.2 The core assumptions and uncertainties listed in Table D.9 have been considered when assessing the relevant policy measure(s) against all SEA objective. Where assumptions or uncertainties are only relevant for the assessment of a policy measure against individual SEA objectives, these are instead noted within the SEA Matrix provided in Table D.10.

Table D.9 Policy 5 Proposed Policy Measures - Justification and Consideration of Alternatives/Options

Measures	Justification	Core Assumptions and Uncertainties
Improving Buses	Upgrading bus stop infrastructure, implementing bus priority measures and enhancing bus integration facilities will improve the passenger experience and ease local congestion.	There is uncertainty regarding any land take and associated physical environmental effects associated with Improving Buses and Bike Hire Scheme policy measures. For the purposes of this assessment it has therefore been assumed that these components of Policy 5 would not themselves require land take and would be unlikely to generate associated environmental effects.
Bike Hire Scheme	The Council will explore the feasibility of introducing a bike hire scheme in the main towns.	
Electric Vehicles	The Council will encourage use of electric vehicles by expanding the number of public charging points and electric vehicles available through the Car Club scheme, provided by Carplus.	None identified
Integrated Ticketing	“ONE-TICKET” is an integrated ticket scheme that allows unlimited travel across the region on buses and trains for a set price.	None identified

Table D.10 SEA of Policy 5 Components

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	Will the LTS affect the integrity or conservation objectives of any site designated at international, national or local levels for reasons of biodiversity conservation or species protection? Will the LTS result in any negative impacts on or place pressure on the conservation objectives of any Special Area of Conservation (SAC) or Special Protection Area (SPA)? Will the LTS cause disruption or damage to any valued species or habitat, including	~	~	~	~	Assessment of Predicted Effects There is no clear relationship between any of the assessed policy measures and this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.9. Uncertainties See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	but not limited to European Protected Species and their habitats? Will the LTS safeguard against habitat loss or fragmentation and will it conserve or enhance habitat connectivity? Will the LTS conserve or enhance protected trees or woodland important for its type, extent or landscape significance?					
Population: Maintain or enhance the quality of life and access to services and opportunities for East	Will the LTS provide adequate transport facilities that meet the needs of the people of East Lothian? Will the LTS contribute to	++	0	++	~/?	<u>Assessment of Predicted Effects</u> Improvements to bus infrastructure and integration with other transport modes would reduce journey time and congestion for residents and promote social inclusion for those without a car. The Improving Buses policy component would therefore have a Major Positive effect on this SEA objective. Provision of electric vehicle facilities would provide additional transport infrastructure which could be used by residents and visitors to meet transport needs whilst decarbonising the transport sector. Owing to the weak

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
Lothian's residents.	regeneration of disadvantaged areas? Will the LTS ensure access via active travel or public transport options to facilities, or services, or employment opportunities? Will the LTS reduce congestion and allow for greater journey time reliability? Will the LTS support the efficient movement of freight? Will the LTS promote social inclusion and improve accessibility to key destinations, especially for those					relationship between the Electric Vehicles component of Policy 5 and this SEA objective, a Neutral effect on this SEA objective is predicted. The Public Bike Hire component of Policy 5 would, if implemented in full, provide additional transport infrastructure for East Lothian residents and tourists. This promotion of active travel would reduce congestion and increase accessibility for those without current access to a car. A Major Positive effect on this SEA objective is therefore predicted. There is no clear relationship between the Integrated Ticketing component of Policy 5 and this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.9. Uncertainties See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	without a private car? Will the LTS support changing demographics in East Lothian by providing appropriate transport facilities to meet their needs? Will the LTS support economic development and employment opportunities through tourism in the area?					
Human Health: Maintain, or provide opportunities to improve, human health.	Will the LTS facilitate and/or encourage use of public transport and active travel? Will the LTS promote the provision of safe pedestrian and cycle access links?	++	+	++	~	<u>Assessment of Predicted Effects</u> The Improving Buses and Bike Hire Scheme components of Policy 5 would directly support increased bus patronage and uptake of active travel. This would improve accessibility to recreational opportunities, open space and healthcare facilities, especially for those without a car. The implementation of a bike hire scheme would also directly enhance health outcomes by increasing participation in active travel and physical activity. These components of Policy 5 would therefore have Major Positive effects on this SEA objective.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	Will the LTS improve accessibility to open spaces, or sports facilities, or the core path network, for physical recreational purposes? Will the LTS reduce the negative impacts of transport on human health, especially in terms of pollution and air quality? Will the LTS increase or decrease noise and vibration? Will the LTS reduces the likelihood of transport-related road accidents and casualties?					There is no clear relationship between the Integrated Ticketing component of Policy 5 and this SEA objective. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.9. Uncertainties See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	Will the LTS improve access to healthcare facilities? Will the LTS safeguard sensitive environmental receptors to maintain and enhance human health?					
Land and Soil: Conserve or enhance soil quality, quantity and function.	Will the LTS avoid the loss of prime quality agricultural land? Will the LTS avoid the loss of rare or carbon-rich soils? Will the LTS result on the release of substances that could potentially contaminate the soil?	~	~		~	<u>Assessment of Predicted Effects</u> There is no clear relationship between these measures and the SEA objectives. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.9. <u>Uncertainties</u> See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	Will the LTS ensure that possible contamination will be properly remediated and not impact upon sensitive receptors such as human health and the water environment, including groundwater?					
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	Will the LTS avoid inappropriate development in areas at flood risk and ensure that the overall flood risk in the area is not increased as a result of development? Will the LTS mitigate flood risk and ensure appropriate drainage from developments and	~	~	~	~	<u>Assessment of Predicted Effects</u> There is no clear relationship between these measures and the SEA objectives. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.9. <u>Uncertainties</u> See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	transport infrastructure through requiring the implementation of appropriate measures including SUDS? Will the LTS Increase development that physically impacts on a watercourse or the coastline? Will the LTS maintain or enhance the ecological status of the water environment? Will the LTS result in the release of water-borne pollution into watercourses, groundwater or reservoirs? Will the LTS increase the amount of surface					

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	water runoff into water bodies?					
Air: Maintain or enhance air quality.	Will the LTS maintain or enhance current levels of air quality? Will the LTS impact (positively or adversely) on existing Air Quality Management Areas or other areas with known poor air quality? Will the LTS lead to an increase or a reduction in vehicular traffic? Will the LTS lead to an increase or reduction in traffic flows on congested routes? Will the LTS promote good	++	+	++	+	<u>Assessment of Predicted Effects</u> The Improving Buses component of Policy 5 would directly help to safeguard existing bus routes and encourage increased bus patronage. This would support sustainable modal shifts and could reduce car dependency, especially for single occupancy journeys and trips in local areas not served by public transport. This would help to reduce car traffic and associated air pollution, resulting in a Major Positive effect on this SEA objective. The development of additional electric vehicle (charging) facilities would support the uptake of electric vehicles across East Lothian, which on an incremental basis would reduce air pollution from conventional combustion engine powered vehicles that would otherwise be likely to be emitted. This would not however necessarily reduce the total number of conventional vehicles within East Lothian unless the rate of electrical vehicle purchases exceeds that for conventional vehicles, which cannot be controlled by this policy component alone. Any measures which promote the uptake of Electric Vehicles are likely to have a positive effect on local air quality through reducing air pollution, but the scale of the effect from this component of Policy 5 may be limited as other market based factors are likely to influence vehicle purchase and use decisions to a greater extent. On this basis, this component of Policy 5 is predicted to have a Minor Positive effect on this SEA objective. Provision of a public bike hire scheme will allow residents and visitors to East Lothian to choose active travel for more of their journeys, reducing congestion and improving access to facilities, services and employment using non-vehicular travel. The Bike Hire Scheme component of Policy 5

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	public transport accessibility? Will the LTS promote good local access to existing facilities, services and employment?					would therefore directly support sustainable modal shift and would have a Major Positive effect on this SEA objective. An integrated ticketing scheme such as ONE TICKET would support increased uptake of public transport, especially for multi-leg journeys. This would contribute to modal shift, thereby resulting in reduced traffic congestion and associated air pollution. Mitigation and Enhancement None identified. Assumptions See core assumptions in Table D.9. Uncertainties See core uncertainties in Table D.9.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	Will the LTS reduce the need to travel and the distance travelled, especially by motorised forms of transport? Will the LTS contribute to or challenge the decarbonisation of the transport sector?	++	+	++	+	Assessment of Predicted Effects The Improving Buses component of Policy 5 would directly help to safeguard existing bus routes and encourage increased bus patronage. This would support sustainable modal shifts and could reduce car dependency, especially for single occupancy journeys and trips in local areas not served by public transport. This would help to reduce car traffic and associated fossil fuel consumption and GHG emissions, resulting in a Major Positive effect on this SEA objective. The development of additional electric vehicle (charging) facilities would support the uptake of electric vehicles across East Lothian, which on an incremental basis would help to decarbonise the transport sector (assuming that the energy sector is also decarbonised in tandem). Increased provision of charging infrastructure would not however necessarily reduce the total number of GHG emitting conventional vehicles within East Lothian unless

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	Will the LTS support a sustainable pattern of development which minimises energy consumption and GHG emissions? Will the LTS promote resilience to the effects of climate change through, for example, flood, storm, landslip or subsidence? Will the LTS promote sustainable and active travel? Will the LTS promote the use of clean fuels/technologies?					the rate of electrical vehicle purchases exceeds that for conventional vehicles, which cannot be controlled by this policy component alone. Any measures which promote the uptake of Electric Vehicles are likely to have a positive effect on climate change mitigation, but the scale of the effect from this component of Policy 5 may be limited as other market based factors are likely to influence vehicle purchase and use decisions to a greater extent. On this basis, this component of Policy 5 is predicted to have a Minor Positive effect on this SEA objective. Provision of a public bike hire scheme would promote increased uptake of active travel and help to reduce car dependencies, especially in areas not served by public transport. The implementation of this policy component would therefore directly increase accessibility using non-vehicular transport and help to reduce GHG emissions from the transport sector. A Major Positive effect on this SEA objective is therefore predicted. An integrated ticketing scheme such as ONE TICKET would support increased uptake of public transport, especially for multi-leg journeys. This would enhance the attractiveness of public transport and contribute to sustainable modal shift, thereby helping to reduce car dependencies and GHG emissions from transport. Owing to the indirect relationship between the introduction of integrated ticketing and potential positive effects in terms of sustainable modal shifts,, this component of Policy 5 is only predicted to have a Minor Positive effect. <u>Mitigation and Enhancement</u> None identified. <u>Assumptions</u> See core assumptions in Table D.9. <u>Uncertainties</u>

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
						See core uncertainties in Table D.9.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	Will the LTS promote the re-use of existing buildings worthy of retention, make an efficient use of land and / or prioritise the use of brownfield land over greenfield land? Will the LTS affect the extraction of mineral resources, including potential sterilisation of such resources? Will the LTS support and / or ensure provision of adequate infrastructure, services and facilities? Will the LTS promote the reduction, reuse	++	++	++	++	<u>Assessment of Predicted Effects</u> All of the assessed components of Policy 5 seek to protect and enhance existing transport infrastructure whilst also developing new measures (e.g. integrated ticketing and bike hire) to maximise the sustainable use of infrastructure. As such, all of the assessed components would have Major Positive effects on this SEA objective. <u>Mitigation and Enhancement</u> None required. <u>Assumptions</u> See core assumptions in Table D.9. <u>Uncertainties</u> See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	and recycling of waste? Will the LTS allow for the sustainable use of resources? Will the LTS promote or restrict access to public routes including Core Paths, Public Rights of Way (PRoW), National Walking and Cycling Routes and National Trails? Will the LTS support sustainable asset management and practices, reducing traffic congestion or imposed delays and disruption over the network by co-ordinated, planned activities?					

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	Will the LTS impact on any historic buildings / sites, including: the character or appearance of Conservation Areas? listed building or their settings? Scheduled Ancient Monuments or their settings? local archaeological sites? Historic Gardens or Designed Landscapes? sites included in the Inventory of Historic Battlefields?	~	~		~	Assessment of Predicted Effects There is no clear relationship between these measures and the SEA objectives. Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.9. Uncertainties See core uncertainties in Table D.9.
Landscape: Conserve or enhance the character	Will the LTS prevent development from harming locations	~	~	~	~	Assessment of Predicted Effects There is no clear relationship between these measures and the SEA objectives.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
and appearance of settlements and the landscape, and protect visual amenity?	containing built or natural landscape features of significance? Will the LTS protect the separate identity of settlements? Will the LTS allow the consolidation /appropriate expansion of the existing settlement pattern and settlement structure? Will the LTS conserve or enhance important areas of open / green space? Will the LTS detract from or harm the landscape setting of settlements within East Lothian?					Mitigation and Enhancement None required. Assumptions See core assumptions in Table D.9. Uncertainties See core uncertainties in Table D.9.

SEA Objective	SEA Guide Questions	Policy Measures				Commentary
		Improving Buses	Electric Vehicles	Bike Hire Scheme	Integrated Ticketing	
	Will the LTS reduce public open space and green space within East Lothian?					

Appendix E SEA of Proposed Transport Interventions

E.1 Overview

E.1.1 This subsection provides an overall assessment of the proposed transport infrastructure interventions identified within Policy 4 as listed in Table E.1. The assessment is provided in Table E.2. The symbology and scoring system shown in Table 3.4 of the Environmental Report is used throughout this SEA.

Table E.1 Schedule of Proposed Transport Infrastructure Interventions

Intervention Name	Justification	SEA Reference
Traffic Management Measures and Existing Station Enhancements		
Existing Rail Station Enhancements (Extended Platforms & Parking)	Station platform lengthening and car park extensions at Musselburgh, Wallyford, Prestonpans, Longniddry and Drem rail stations. This would accommodate longer 8-car, trains.	Intervention A
Traffic Management Measures within Existing Carriageways	Traffic management measures to accommodate new developments and address identified congestion pinch-points from cumulative impacts, including within Musselburgh and Haddington.	Intervention B
Local Widening at Old Craighall Junction	Signal control of A1 off-slip and A720 approaches with local widening	Intervention C
QMU Campus Access Junction	Junction may be modified to provide on and off ramps in both directions.	Intervention D
Wallyford Interchange Capacity Upgrade	Further capacity may be required to accommodate additional development.	Intervention E

Intervention Name	Justification	SEA Reference
Bankton Junction Enhancement	Signal control of northern roundabout with local widening. Redesign of southern roundabout with local widening.	Intervention F
Meadowmill Junction to Bankton Improvements	Potential widening of rail bridge and roundabout improvements.	Intervention G
North Berwick Visitor Traffic and Marking Measures	Traffic and parking measures to accommodate the significant visitor numbers the town experiences, particularly during summer months.	Intervention H
Dolphingstone Junction	Local widening and optimisation of signal control staging, phasing and timings.	Intervention I
New Road Interventions		
New road connecting the B1348 and B1361 over land at and around Cockenzie Power Station	New road connecting the B1348 and B1361 over land and around Cockenzie Power Station and its former coal handling yard.	Intervention J
Tranent Town Centre One-Way System	Traffic impacts of housing allocations could be mitigated by introduction on a one-way system in the town centre.	Intervention K
New Rail Interventions		
Blindwells Rail Halt and Bankton Park and Ride	Safeguarding land for provision of a new rail halt at Blindwells and associated Park and Ride infrastructure.	Intervention L
East Linton Rail Station	A new rail station is being supported at East Linton, with commitment to its delivery from East Lothian Council and the Scottish Government.	Intervention M
Re-open Haddington rail line	Reinstatement of a branch railway line providing a connection from Haddington to Longniddry, where services could connect with existing rail lines.	Intervention N

Intervention Name	Justification	SEA Reference
Musselburgh parkway station (linked to Queen Mary University and business land	Provision of a new rail station to serve planned expansion of university and business uses.	Intervention O
New Active Travel Interventions		
East Lothian Active Travel Corridor	Segregated walk and cycle route extending from Musselburgh to Dunbar via Blindwells and Haddington.	Intervention P
Additional Pedestrian and Cycle Access (North – South) in Dunbar	Provision of an active travel corridor which includes a segregated walk and cycle route extending from Musselburgh to Dunbar via Blindwells and Haddington.	Intervention Q

E.2 Traffic Management Measures and Existing Station Enhancements

Table E.2 SEA of Proposed Traffic Management Measures and Existing Statement Enhancements – Assessment Matrix

SEA Objective	Intervention									Commentary
	A	B	C	D	E	F	G	H	I	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	~	~	-	-	-	-	-	~	-	Assessment of Predicted Effects • As interventions A, B, and H would involve no new land take or associated physical environmental effects, there is no clear relationship between these interventions and this SEA objective. • Interventions C - G and I would all require land take in locations where semi-natural ancient and/or native woodland are present. These interventions are therefore likely to involve the loss of small areas of sensitive woodland habitats, resulting in localised habitat fragmentation and potential disturbance to relevant faunal species. Owing to the small areas affected and the potential for mitigation to be deployed, these interventions are therefore predicted to have Minor Negative effects on this SEA objective. • Owing to the absence of known biodiversity features within close proximity, there is no clear relationship between Intervention D and this SEA objective. Mitigation and Enhancement • Whilst no significant adverse effects requiring mitigation have been identified, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects on biodiversity interests, including in relation to the potential loss of woodland habitats. The potential need for specific measures to be deployed requires to be considered throughout the design and consenting processes for each of the proposed interventions. Applications for proposed interventions with the potential to result in adverse effects on biodiversity interests should be supported by Ecological Assessments which should identify mitigation measures where required. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	++	+	+	+	+	+	+	++	+	Assessment of Predicted Effects • Intervention A would provide enhanced rail facilities for residents of East Lothian, improve access to public transport and facilities and services for those without a car. • Intervention B - G and I would enhance the capacity of the road network and tackle known congestion problems. This would support the efficient movement of freight and people but would not alone enhance accessibility, resulting in Minor Positive effects on this SEA objective through meeting identified transport needs. • Intervention H would seek to accommodate the significant number of visitors to North Berwick, directly supporting economic development and employment in the town. A Major Positive effect on this SEA objective is therefore predicted. Mitigation and Enhancement • None required Assumptions • See the core assumptions in Table D.7.

										Uncertainties • See core uncertainties in Table D.7.
Human Health: Maintain, or provide opportunities to improve, human health.	+	0	-	-	-	-	-	-	-	Assessment of Predicted Effects • Intervention A would provide enhanced rail facilities for residents of East Lothian. This promotion of public transport would indirectly contribute towards a reduction in air pollution and traffic congestion, resulting in a Minor Positive effect on this SEA objective. • Construction works required to implement interventions C - G and I have the potential to generate adverse effects on sensitive environmental receptors (e.g. accidental pollution discharge to nearby watercourses, soils and air) with consequential potential indirect negative physical health outcomes. These interventions could have further indirect adverse health effects by exacerbating existing high levels of vehicular traffic, with associated adverse effects on local air quality and health outcomes. In the absence of any mitigation these interventions would therefore have Minor Negative effects on this SEA objective. • There is no clear relationship between Intervention B and this SEA objective. Mitigation and Enhancement • Whilst no significant adverse effects on human health have been identified, to minimise potential adverse health effects suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the construction of the proposed interventions on the physical environment. Any need for specific mitigation measures should be identified through relevant technical assessments provided in support of applications for the proposed interventions, as appropriate. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Land and Soil: Conserve or enhance soil quality, quantity and function.	~	~	-	-	-	-	--	-	-	Assessment of Predicted Effects • Interventions C – G and I would result in the loss of small areas of prime agricultural land. In addition, in the absence of any mitigation there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes e.g. localised accidental pollution discharge or the more substantive release of contaminated materials from excavations. This could directly affect the quality of affected land and soil resources, with potentially wider indirect effects on the quality of adjacent land through the migration of ground or water based pollutants. Owing to the small areas of prime agricultural land which would be directly affected, interventions C – F and I are predicted to have only a Minor Adverse effect on this SEA objective. A Major Adverse effect is however predicted from Intervention G owing to the larger prime agricultural land take which would be required to dual this section of the A198. • There is no clear relationship between the other assessed interventions and this SEA objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted in respect of proposed interventions C- G and I to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on land and soil resources. Design processes should seek to minimise land take and the use of prime agricultural land, whilst mitigation measures are likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including soil quality. The need for such measures should be considered through the design and consenting of each proposed intervention as appropriate. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7.

										Uncertainties • See core uncertainties in Table D.7.
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	~	~	~	~	~	~	~	~	~	Assessment of Predicted Effects • Owing to the lack of proximity to waterbodies there is no clear relationship between the assessed interventions and this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Air: Maintain or enhance air quality.	+	-	-	-	-	-	-	~	-	Assessment of Predicted Effects • Intervention A would promote and encourage public transport use, thereby leading to a reduction in vehicular traffic and air pollution levels including in the town of Musselburgh (AQMA). A Minor Positive effect on this SEA objective is therefore predicted. • Interventions C – G and I would increase road capacity to accommodate traffic growth, which could exacerbate existing high levels of traffic across East Lothian and generate associated adverse effects on air quality. Owing to the lack of evidence available to indicate that these adverse effects would occur in areas with known poor air quality, only a Minor Negative effect on this SEA objective is predicted. • There is no clear relationship between Intervention H and this SEA objective. Mitigation and Enhancement • None identified. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	+	-	-	-	-	-	-	~	0	Assessment of Predicted Effects • Intervention A would promote and encourage use of existing public transport infrastructure, thereby leading to a reduction in transport related GHG emissions. A Minor Positive effect on this SEA objective is therefore predicted. • Interventions C – G and I would increase road capacity to accommodate traffic growth, which could exacerbate existing high levels of traffic across East Lothian and generate an associated increase in GHG emissions from the transport sector. Owing to the weak relationship between the assessed interventions and this SEA objective, only Minor Negative effects are predicted on this SEA objective. • There is no clear relationship between Intervention H and this SEA objective. Mitigation and Enhancement

										• None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	++	~	~	~	~	~	~	++	~	Assessment of Predicted Effects • All of the assessed interventions would result in the provision of upgraded or new transport infrastructure (including the capacity to accommodate longer trains under Intervention A) to meet identified needs. This would result in Major Positive effects on this SEA Objective. However, none of the assessed interventions would have clear effects on non-transport infrastructure capacity or functioning. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	~	~	-	~	-	-	-	~	~	Assessment of Predicted Effects • Interventions C, E, F and G would utilise land within Inventory of Historic Battlefield Sites, resulting in the potential disturbance of archaeological remains and the setting of these heritage assets. Minor Adverse effects are therefore predicted on this SEA objective. • Interventions C and F would also be located in relatively close proximity to individual Scheduled Monuments. In the absence of any mitigation there is the potential for these heritage assets to experience adverse effects on their setting as a result of these proposed interventions. Minor Adverse effects on this SEA objective are therefore predicted. • There is no clear relationship between the other assessed interventions and this SEA objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on this historic environment. Design processes should seek to minimise land take within Inventory of Historic Battlefield sites (for interventions C, E F and G) whilst mitigation measures are likely to be needed in respect of the same interventions to safeguard archaeological remains and the setting of designated heritage assets. The need for such measures should be considered through the design and consenting of each proposed intervention as appropriate. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.

Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	~	~	?	?	?	?	?	~	?

Assessment of Predicted Effects

- As interventions A, B, and H would involve no new land take or physical infrastructure which could affect landscape or townscape character, there is no clear relationship between these interventions and this SEA objective.
- Interventions C – G and I would all require land take and upgraded or new physical infrastructure, resulting in potential effects on local landscape character, townscape character and/or visual amenity. Given the small footprints of the proposed interventions and the absence of any landscape designations where the interventions would be located, there is insufficient evidence available to indicate that adverse landscape or visual effects would be generated. On this basis, these interventions would have Uncertain effects on this SEA objective.

Mitigation and Enhancement

- None required.

Assumptions

- See the core assumptions in Table D.7.

Uncertainties

- See core uncertainties in Table D.7.

E.3 New Road Interventions

Table E.3 SEA of Proposed New Road Interventions – Assessment Matrix

SEA Objective	Interventions		Commentary
	J	K	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	?	~	Assessment of Predicted Effects • At this early stage, no alignment (preferred or otherwise) has been identified for Intervention J so it is not possible to identify likely site-specific effects on biodiversity interests. However, the area around Cockenzie Power Station where this intervention would be situated lies adjacent the Firth of Forth SPA, Ramsar Site and SSSI along the coast, which is designated for qualifying bird species interests. Regardless of its alignment, in the absence of any mitigation the construction of this intervention could potentially result in indirect adverse effects (e.g. bird disturbance, release of pollutants, etc) on these designated sites, in addition to direct habitat loss and/or fragmentation that would occur along the alignment and working area of the proposed intervention. Insufficient evidence is presently available to indicate that an adverse effect on this SEA objective would be likely to occur, therefore an Uncertain effect is predicted. • Intervention K involves works to create a one-way system within Tranent Town Centre. Given the location of the intervention within a highly urbanised environment, no specific effects from this intervention on biodiversity interests are considered likely. There is therefore no clear relationship between the intervention and this SEA objective. Mitigation and Enhancement • Owing to the proximity of the intervention to European and nationally designated sites and the likely land take that would be required to deliver it, thereby potentially encroaching onto valuable habitats, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects on biodiversity interests, including in relation to the potential loss of woodland habitats. Any applications for Intervention J should be supported by Ecological Assessments and sufficient other environmental information which should identify mitigation measures where required. A Habitats Regulations Appraisal (HRA) screening would also be needed to determine whether a full Appropriate Assessment would be required. Planning policy requirements to secure the implementation of sufficient mitigation measures through the consenting process should therefore be inserted into relevant ELC planning policy documents as appropriate. • At this stage, no mitigation requirements have been identified in respect of Intervention K.

SEA Objective	Interventions		Commentary
	J	K	
			Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	++	+	Assessment of Predicted Effects • Intervention J would improve access to facilities, services and economic opportunity in the surrounding area and in particular would reduce severance between Cockenzie, Prestonpans and Port Seaton. The intervention would therefore have a Major Positive effect on this SEA objective. • Intervention K is aimed at enhancing the efficiency of the local road network in Tranent Town Centre rather than improving accessibility. The efficiency enhancements generated by this proposed intervention would therefore have only a Minor Positive effect on this SEA objective. Mitigation and Enhancement • None identified. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Human Health: Maintain, or provide opportunities to improve, human health.	-	-	Assessment of Predicted Effects • Construction works required to implement interventions J and K have the potential to generate adverse effects on sensitive environmental receptors (e.g. accidental pollution discharge to nearby watercourses, soils and air) with consequential potential indirect negative physical health outcomes. These interventions could have further indirect adverse health effects by increasing vehicular traffic movements, in particular if intervention K successfully increases the efficiency of the road network in Tranent Town Centre. Increased traffic has the potential to generate additional air pollution, thereby adversely affecting local air quality and physical health outcomes. Owing to a degree of uncertainty regarding whether the interventions would generate additional traffic, only Minor Adverse effects are predicted on this SEA objective. Mitigation and Enhancement • Whilst no significant adverse effects on human health have been identified, to minimise potential adverse health effects suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the construction of these proposed interventions on the physical environment. Any need for specific mitigation measures should be identified through relevant technical assessments provided in support of applications for the proposed interventions, as appropriate. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Land and Soil: Conserve or enhance soil quality, quantity and function.	-/?	~	Assessment of Predicted Effects

SEA Objective	Interventions		Commentary
	J	K	• Intervention J would require substantial land take and, depending on the selected road alignment, is therefore likely to result in the loss of at least some prime agricultural land. In addition, in the absence of any mitigation there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes e.g. localised accidental pollution discharge or the more substantive release of contaminated materials from excavations. This could directly affect the quality of affected land and soil resources, with potentially wider indirect effects on the quality of adjacent land through the migration of ground or water based pollutants. Owing to uncertainty regarding the extent and location of land take which would be required, only a Minor Adverse effect is predicted. • There is no clear relationship between Intervention K and this SEA objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted in respect of Intervention J to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on land and soil resources. Design processes should therefore seek to minimise land take and the use of prime agricultural land, whilst mitigation measures are also likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including soil quality. The need for such measures should be considered through the design and consenting of each proposed intervention as appropriate. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	?	~	Assessment of Predicted Effects • Depending on the selected route alignment, Intervention J may be sited close to the coast, resulting in the need to consider potential flood risks. In the absence of mitigation, the construction of Intervention J could also result in accidental pollution discharge and/or the more substantive release of contaminated materials from excavations into the water environment, including groundwater that would flow to the coast through the Firth of Forth SPA, Ramsar Site and SSSI. However, owing to its scale and sensitive location it is considered likely that Intervention J would need to be supported by the implementation of a surface water strategy, including the use of SUDs, which could help to regulate surface water run-off. Owing to uncertainties regarding the alignment and scale of Intervention J and also the mechanisms through which adverse effects could result on the water environment, at this stage an Uncertain effect is predicted. • Intervention K only requires a small area of land take within a highly urbanised environment, meaning that the construction and operation of the intervention is not likely to have a material impact on surface water run-off, flood risks or water quality. There is therefore no clear relationship between Intervention K and this SEA Objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the construction and operation of Intervention J on the water environment. Design processes should seek to avoid coastal flood risk areas and minimise the necessity of undertaking culverting, e.g. of agricultural ditches. Owing to the scale of the proposed intervention, measures are likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including water quality, as well as the implementation of a surface water drainage strategy and the use of SUDs during the operational phase. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for Intervention J should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7.

SEA Objective	Interventions		Commentary
	J	K	
			Uncertainties • See core uncertainties in Table D.7.
Air: Maintain or enhance air quality.	-/?	?	Assessment of Predicted Effects • Intervention J pertains to the construction of a new road, which could lead to an increase in vehicular traffic and associated air pollution. Owing to uncertainties regarding the scale, alignment and usage of Intervention J, only a Minor Adverse effect on this SEA objective is predicted at this stage. • Intervention K would introduce a one-way system into Tranent Town Centre in order to increase the efficiency of the local road network. This could reduce congestion but may also result in additional traffic being accommodated within the network, so on balance it is not clear whether the intervention would increase or decrease air pollutants from vehicles. The effect on local air quality and this SEA objective is therefore Uncertain. Mitigation and Enhancement • None required Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	-/?	~	Assessment of Predicted Effects • Intervention J pertains to the construction of a new road, which could to an increase in vehicular traffic and consequently GHG emissions. Owing to uncertainties regarding the scale and usage of Intervention J, only a Minor Adverse effect on this SEA objective is predicted at this stage. • There is no clear relationship between Intervention K and this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	++	++	Assessment of Predicted Effects • The assessed interventions would both result in the provision of upgraded or new transport infrastructure to address identified transport issues and problems, resulting in Major Positive effects on this SEA Objective. Intervention J would enhance accessibility and reduce severance between Cockenzie, Prestonpans and Port Seaton, whilst Intervention K would reduce traffic congestion and delays in Tranent Town Centre by implementing a new one-way system. Mitigation and Enhancement

SEA Objective	Interventions		Commentary
	J	K	
			• None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	-/?	-	Assessment of Predicted Effects • At this early stage no alignment (preferred or otherwise) has been identified for Intervention J, so it is not possible to identify likely site specific effects on heritage interests (physical or setting impacts). However, land adjacent to the former Cockenzie Power Station site lies within the Battle of Prestonpans Inventory Historic Battlefield, so there is the potential for adverse effects on archaeological preservation and the setting of this Battlefield from the construction and operation of the intervention. Owing to uncertainties regarding the alignment and scale of the intervention in relation to known heritage interests, at this stage only a Minor Negative effect is predicted on this SEA objective. • Intervention K would require the demolition of part of a public building within the Tranent Conservation Area. Whilst the building that would be lost is not listed nor of particular architectural value, the construction of this one-way system could still result in adverse effects on the setting of the Conservation Area between Loch Road and High Street. Given the absence of listed buildings in the vicinity of the area, only a Minor Negative effect is predicted on this SEA objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed interventions on the historic environment. • Design processes should seek to minimise land take from Intervention J within the Battle of Prestonpans Inventory of Historic Battlefield Site and to embed suitable mitigation measures / techniques in order to preserve archaeological remains. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for Intervention J should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	?	-	Assessment of Predicted Effects • Intervention J would involve land take and the development of new road infrastructure in a relatively exposed coastal and rural location. Depending on the alignment and scale of the road, which are currently uncertain, the intervention has to potential to generate adverse effects on local landscape character. At this stage an Uncertain effect is therefore predicted on this SEA objective. • Intervention K would require the demolition of part of a public building within the Tranent Conservation Area. Whilst the building that would be lost is not listed nor of particular architectural value, the construction of this one-way system could still result in adverse effects on local townscape character. A Minor Negative effect on this SEA objective is therefore predicted. Mitigation and Enhancement

SEA Objective	Interventions		Commentary
	J	K	• Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the assessed interventions on landscape/townscape character and visual amenity. Design processes should seek to screen new transport infrastructure from residential receptors and key views of landscapes and heritage interests wherever possible. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for both of these proposed interventions this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.

E.4 New Rail Interventions

Table E.4 SEA of Proposed New Rail Interventions – Assessment Matrix

SEA Objective	Intervention				Commentary
	L	M	N	O	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	?	~	-/?	-	Assessment of Predicted Effects • Depending on the positioning of a new rail halt, Intervention L could result in direct adverse effects on a cluster of semi-natural ancient woodland located in the eastern part of the safeguarded land allocation. At this stage however only an Uncertain effect can be predicted on this SEA objective. • The reuse of the Haddington Branch Railway corridor to create Intervention N would result in the loss of semi-natural, ancient and native woodland where these constraints presently intersect with the corridor. The construction of this intervention would also utilise substantial land, including for temporary working areas, which in the absence of mitigation could have adverse effects on valued habitats and faunal species. Owing to uncertainty regarding the extent of construction work required to deliver Intervention N, only a Minor Negative effect on this SEA objective is predicted. • The majority of the safeguarded land allocation for Intervention O comprises semi-natural ancient woodland. This intervention is therefore likely to result in direct adverse effects on woodlands and trees through habitat loss and fragmentation, with consequential impacts on faunal species. The extent of land take required for the Musselburgh Parkway station is however unknown at present, meaning that there is a degree of uncertainty regarding the extent of potential adverse effects on biodiversity interests. On this basis, Intervention O is predicted to have a Minor Negative effect on this SEA objective. • There are no identified ecological constraints within or adjacent to the safeguarded land allocations for Intervention M. In the absence of any further site-specific information and due to uncertainties regarding the land take required for the new East Linton station, a Neutral effect is predicted on this SEA objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects on biodiversity interests, including in relation to the potential loss or fragmentation of woodland habitats. Applications for the assessed interventions should be supported by Ecological and, if relevant, Arbocultural, Assessments alongside other environmental information to identify all mitigation measures where required. • Whilst the land required to implement interventions L – O is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions. Policy

SEA Objective	Intervention				Commentary
	L	M	N	O	
					requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	++	++	+/?	++	Assessment of Predicted Effects • Interventions L - O would increase access to rail travel for residents of East Lothian. This would enhance accessibility to key services, facilities and economic opportunities, especially for residents without access to a car. The interventions would therefore indirectly contribute to both the regeneration of communities and social inclusion. Through delivering substantial accessibility benefits the assessed interventions are predicted to have Major Positive effects on this SEA objective. • Intervention N has the potential to generate adverse effects on residential amenity from noise and vibration during the construction and operation of a new railway in close proximity to existing dwellings, which could adversely affect physical and mental health. Taking this into account in addition to the beneficial effects noted above, the intervention is predicted to have a Minor Positive but Uncertain overall effect on this SEA objective. Mitigation and Enhancement • None required. However, to maximise the ability of these interventions to contribute to this SEA objective, the location and design of proposed new stations within safeguarded land allocations must be carefully considered to integrate with surrounding existing and proposed land uses. This should be clarified within the LTS. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Human Health: Maintain, or provide opportunities to improve, human health.	++	++	?	++	Assessment of Predicted Effects • All of the assessed interventions would provide enhanced rail facilities for residents of East Lothian. Modal shift towards public transport would reduce negative impacts on health from transportation, including air pollution, noise and vibration. Except in relation to Intervention N (see below) the assessed interventions would have Major Positive effects on this SEA objective. • Intervention N could result in adverse effects on residential amenity through generating construction and operational noise and vibration in close proximity to existing dwellings and other sensitive receptors. These amenity effects could trigger negative physical and mental health outcomes. Owing to uncertainties regarding the precise alignment of Intervention N (including whether it may deviate from the disused Haddington Branch railway corridor in places) and how this could influence health outcomes, an Uncertain effect is predicted on this SEA objective. • , with associated negative consequences for physical and mental health, Mitigation and Enhancement • None required. Assumptions

SEA Objective	Intervention				Commentary
	L	M	N	O	
					• See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Land and Soil: Conserve or enhance soil quality, quantity and function.	-/?	-/?	-/?	-/?	Assessment of Predicted Effects • Interventions L, M and O would be sited on and involve the loss of prime agricultural land. In addition, in the absence of any mitigation there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes in all of the assessed interventions e.g. localised accidental pollution discharge or the more substantive release of contaminated materials from excavations. This could directly affect the quality of affected land and soil resources, with potentially wider indirect effects on the quality of adjacent land through the migration of ground or water based pollutants. • Owing to the relatively small land take required for the construction of the proposed stations (interventions L, M and O) and the relatively narrow linear corridor required for Intervention N, only Minor Adverse effects are predicted on this SEA objective. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted in respect of Interventions L - O to avoid, prevent or minimise adverse effects on land and soil resources. Design processes should therefore seek to minimise land take and the use of prime agricultural land, whilst mitigation measures are also likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including soil quality. The need for such measures should be considered through the design and consenting of each intervention as appropriate. • Whilst the land required to implement interventions L – O is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions. • Policy requirements to secure the implementation of sufficient mitigation through the consenting process for Interventions L - O should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	?	?	?	?	Assessment of Predicted Effects • None of the assessed interventions would intersect with waterbodies or involve works within identified flood risk areas. However, owing to their land take it is likely that applications to consent these interventions would need to be supported by the implementation of a surface water strategy, including the use of SUDs, which could help to regulate surface water run-off. Owing to uncertainties regarding the need for surface water drainage measures and potential adverse effects on the water environment, at this stage Uncertain effects is predicted from these interventions. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the construction and operation of Interventions L - O on the water environment. Design processes should seek to avoid flood risk areas and minimise the necessity of undertaking culverting, e.g. of agricultural ditches. Owing to the scale of the proposed intervention, measures are likely to be needed during construction to avoid adverse effects on identified environmental sensitivities as well as the implementation of a surface water drainage strategy and the use of SUDs during the operational phase. • Whilst the land required to implement interventions L – O is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for each relevant transport intervention this should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions

SEA Objective	Intervention				Commentary
	L	M	N	O	
					• See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Air: Maintain or enhance air quality.	++	++	++	++	Assessment of Predicted Effects • Interventions L - O relate to the development of new rail stations and infrastructure, which would promote and improve public transport accessibility, leading to a reduction in vehicular traffic and congestion. These interventions would therefore have Major Positive effects on this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	++	++	++	++	Assessment of Predicted Effects • Interventions L - O relate to the development of new rail stations and infrastructure, which would promote a modal shift towards sustainable travel and the decarbonisation of the transport sector. These interventions would therefore directly contribute to GHG emission reductions and climate change mitigation, resulting in Major Positive effects on this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	++	++	+	++	Assessment of Predicted Effects • The assessed interventions would both result in the provision of upgraded or new transport infrastructure to address identified transport issues and problems, including a need to provide access to the rail network for residents, businesses and other users at Blindwells, East Linton, Musselburgh and Haddington. The provision of additional rail infrastructure would directly support sustainable modal shifts and the efficient use of railway capacity. This would result in Major Positive effects on this SEA objective from Interventions L, M and O. • Intervention N would involve the loss of an existing Core Path along the currently discussed Haddington Branch Line corridor. The East Lothian LDP Proposed Plan (2016) already identifies a policy requirement for this Core Path to be re-provided or diverted as appropriate at the time of implementing this intervention. Taking account of this, Intervention N is predicted to have a Minor Positive effect on this SEA objective. Mitigation and Enhancement

SEA Objective	Intervention				Commentary
	L	M	N	O	• Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the construction and operation of Interventions L - O on material assets. This includes avoiding or minimising potential land use conflicts or natural resource sterilisation whilst ensuring that new rail infrastructure can integrate well with existing rail and other transport infrastructure. • Whilst the land required to implement interventions L – O is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for Intervention J should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	-	~	~	~	<u>Assessment of Predicted Effects</u> • Intervention L would be located within the Battle of Prestonpans Inventory Historic Battlefield, so there is the potential for adverse effects on archaeological preservation and the setting of this Battlefield from the construction and operation of this intervention. Owing to uncertainties regarding the alignment and scale of the intervention in relation to known heritage interests, at this stage only a Minor Negative effect is predicted on this SEA objective. • There is no clear relationship between the other assessed interventions and this SEA objective. <u>Mitigation and Enhancement</u> • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed interventions on the historic environment. Design processes should seek to minimise land take from Intervention L within the Battle of Prestonpans Inventory of Historic Battlefield Site and to embed suitable mitigation measures / techniques in order to preserve archaeological remains. • Whilst the land required to implement interventions L – O is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for the assessed transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	?	?	?	?	<u>Assessment of Predicted Effects</u> • The assessed interventions would involve land take and the development of new railway infrastructure in relatively exposed rural location. Depending on the alignment and scale of the halts and stations (interventions L, M and O) and a new branch railway to Haddington (intervention N), which are currently uncertain, the intervention has to potential to generate adverse effects on local landscape character. At this stage Uncertain effects are therefore predicted on this SEA objective. <u>Mitigation and Enhancement</u>

SEA Objective	Intervention				Commentary
	L	M	N	O	• Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the assessed interventions on landscape/townscape character and visual amenity. Design processes should seek to screen new transport infrastructure from residential receptors and key views of landscapes and heritage interests wherever possible. • Whilst the land required to implement interventions L – O is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for the assessed transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.

E.5 New Active Travel Interventions

Table E.5 SEA of Proposed New Active Travel Interventions – Assessment Matrix

SEA Objective	Intervention		Commentary
	P	Q	
Biodiversity: Conserve or enhance biodiversity, flora and fauna.	-/?	?	<u>Assessment of Predicted Effects</u> • The proposed route of Intervention P intersects with semi-natural and ancient woodland in five locations and with native woodland in other locations. The intervention is therefore likely to involve the loss of small areas of sensitive woodland habitats, resulting in localised habitat fragmentation and potential disturbance to relevant faunal species. Owing to the small areas affected and the potential for mitigation to be deployed, these interventions are therefore predicted to have Minor Negative but Uncertain effects on this SEA objective. • Owing to the absence of a defined route for Intervention Q, the relationship between the intervention and this SEA objective is Uncertain. <u>Mitigation and Enhancement</u> • Whilst no significant adverse effects requiring mitigation have been identified, suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects on biodiversity interests, including in relation to the potential loss of woodland habitats. The potential need for specific measures to be deployed requires to be considered throughout the design and consenting processes for each of the proposed interventions. Applications for proposed interventions with the potential to result in adverse effects on biodiversity interests should be supported by Ecological Assessments which should identify mitigation measures where required. • Whilst the land required to implement intervention P is identified as Transport Safeguarded Allocations within the East Lothian LDP Proposed Plan (2016), this Plan does not identify specific assessment or mitigation requirements in respect of these interventions, whilst a safeguarding allocation is not included for Intervention Q. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for the assessed transport interventions should therefore be inserted into relevant ELC planning policy documents as appropriate. <u>Assumptions</u> • See the core assumptions in Table D.7. <u>Uncertainties</u> • See core uncertainties in Table D.7.

SEA Objective	Intervention		Commentary
	P	Q	
Population: Maintain or enhance the quality of life and access to services and opportunities for East Lothian's residents.	++	++	Assessment of Predicted Effects • Interventions P and Q would provide new and safe active travel infrastructure for residents and visitors. This would support the uptake of active travel and would enhance social inclusion and accessibility for those without a car, whilst reducing car travel dependencies for short journeys close to the interventions. The assessed interventions are therefore predicted to have Major Positive effects on this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Human Health: Maintain, or provide opportunities to improve, human health.	++	++	Assessment of Predicted Effects • Interventions P and Q would provide new and safe active travel infrastructure for residents of East Lothian. This would support the uptake of active travel and would enhance social inclusion and accessibility for those without a car, whilst reducing car travel dependencies for short journeys close to the interventions. The interventions would therefore have direct beneficial health effects by supporting increased active travel (segregated from vehicular traffic) and opportunities for physical recreation, resulting in Major Positive effects on this SEA objective. Mitigation and Enhancement • None required Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Land and Soil: Conserve or enhance soil quality, quantity and function.	-/?	?	Assessment of Predicted Effects • Intervention P would be sited on and involve the loss of or fragmentation of prime agricultural land. • In addition, in the absence of any mitigation there is a degree of uncertainty regarding potential effects on land and soil resources from construction processes for both of the assessed interventions e.g. localised accidental pollution discharge or the more substantive release of contaminated materials from excavations. This could directly affect the quality of affected land and soil resources, with potentially wider indirect effects on the quality of adjacent land through the migration of ground or water based pollutants. • Owing to the relatively small land take required for the construction of Intervention P, only a Minor Adverse effect is predicted on this SEA objective. An Uncertain effect is predicted from Intervention Q owing to the absence of a defined route for the intervention at this stage. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted in respect of Interventions P and Q to avoid, prevent or minimise adverse effects on land and soil resources. Design processes should therefore seek to minimise land take and the use of prime agricultural land, whilst mitigation measures are also likely to be needed during construction to avoid adverse effects on identified environmental sensitivities

SEA Objective	Intervention		Commentary
	P	Q	
			including soil quality. The need for such measures should be considered through the design and consenting of each intervention as appropriate. • Whilst the land required to implement interventions P is identified as a Transport Safeguarded Allocation within the East Lothian LDP Proposed Plan (2016), this Plan does not identify associated assessment or mitigation requirements. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for the assessed transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Water: Maintain or enhance the quality of the water environment and reduce flood risk.	-/?	?	Assessment of Predicted Effects • In the absence of mitigation, the construction of Interventions P and Q could result in accidental pollution discharge and/or the more substantive release of contaminated materials from excavations into the water environment. • The proposed alignment of Intervention P intersects with four identified rivers: River Tyne east of East Linton, Minor River East of Tranent, River Esk south of Musselburgh and Beadle Water at West Barnes. The need to cross and undertake construction work in close proximity to these watercourses results in a Minor Adverse but Uncertain effect on this SEA objective. • Owing to the absence of a defined route for Intervention Q, the relationship between the intervention and this SEA objective is Uncertain. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the construction and operation of Interventions P and Q on the water environment. Design processes should seek to avoid flood risk areas and minimise the necessity of undertaking culverting. Mitigation measures are likely to be needed during construction to avoid adverse effects on identified environmental sensitivities including water quality. • Whilst the land required to implement interventions P is identified as a Transport Safeguarded Allocation within the East Lothian LDP Proposed Plan (2016), this Plan does not identify associated assessment or mitigation requirements, whilst land has not been safeguarded for Intervention Q. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for the assessed transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Air: Maintain or enhance air quality.	+	+	Assessment of Predicted Effects • Interventions P and Q would provide new and safe active travel infrastructure for residents and visitors to access facilities, services and employment. This would support the uptake of active travel and reduce the need for car travel over short distances, resulting in a potential reduction in vehicle traffic and associated air pollution. Owing to the indirect nature of this relationship Minor Positive effects on this SEA objective are predicted. Mitigation and Enhancement • None required.

SEA Objective	Intervention		Commentary
	P	Q	
			Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Climatic Factors: Contribute to reducing GHG emissions and energy consumption or adapting to the effects of climate change.	+	+	Assessment of Predicted Effects • Interventions P and Q would provide new and safe active travel infrastructure for residents and visitors to access facilities, services and employment. This would support the uptake of active travel and reduce the need for car travel over short distances, resulting in a potential reduction in vehicle traffic and associated GHG emissions from the transport sector. Owing to the indirect nature of this relationship Minor Positive effects on this SEA objective are predicted. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Material Assets: Manage, maintain or promote the efficient, effective or appropriate use of material assets, including natural resources and transport routes.	++	++	Assessment of Predicted Effects • The assessed interventions would both result in the provision of new active travel infrastructure to address the identified lack of provision in specific areas. In addition to providing local accessibility benefits, the interventions would enhance access for residents and visitors to wider networks of recreational routes including Core Paths and the National Cycle Way. The assessed interventions would therefore have Major Positive effects on this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Cultural Heritage: Preserve, protect and, where appropriate, enhance East Lothian's historic environment.	-	?	Assessment of Predicted Effects • The proposed alignment of Intervention P would be located in close proximity to 2 Scheduled Monuments (Roman Camps & Pre-Historic Settlement south of Inveresk and south of Tynefield), as well as in close proximity to 4 clusters of Listed Buildings (at Tranent and Glasmuir Parish Churches, Amisfield Muir and West Barnes Cottages). In the absence of any mitigation there is the potential for these heritage assets to experience adverse effects on their setting. A Minor Adverse effect is therefore predicted from Intervention P on this SEA objective.

SEA Objective	Intervention		Commentary
	P	Q	
			• Owing to the absence of a defined route for Intervention Q in relation to known heritage assets, the relationship between the intervention and this SEA objective is Uncertain. Mitigation and Enhancement • Suitable siting, design and mitigation techniques should be adopted to avoid, prevent or minimise adverse effects from the proposed transport infrastructure interventions on this historic environment. Mitigation measures are likely to be needed to safeguard archaeological remains and protect the setting of designated heritage assets. The need for such measures should be considered through the design and consenting of each proposed intervention as appropriate. • Whilst the land required to implement interventions P is identified as a Transport Safeguarded Allocation within the East Lothian LDP Proposed Plan (2016), this Plan does not identify associated assessment or mitigation requirements, whilst land has not been safeguarded for Intervention Q. Policy requirements to secure the implementation of sufficient mitigation through the consenting process for the assessed transport intervention should therefore be inserted into relevant ELC planning policy documents as appropriate. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.
Landscape: Conserve or enhance the character and appearance of settlements and the landscape, and protect visual amenity?	?	?	Assessment of Predicted Effects • Interventions P and Q would require land take and upgraded or new physical infrastructure, resulting in potential effects on local landscape character, townscape character and/or visual amenity. Given the small footprints of the proposed interventions and the absence of any landscape designations where the interventions would be located, there is insufficient evidence available to indicate that adverse landscape or visual effects would be generated. On this basis, these interventions would have Uncertain effects on this SEA objective. Mitigation and Enhancement • None required. Assumptions • See the core assumptions in Table D.7. Uncertainties • See core uncertainties in Table D.7.

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