STRATEGIC ENVIRONMENTAL ASSESSMENT

Environmental Report

Local Transport Strategy
2020 – 2025

sustainable thriving achieving
East Dunbartonshire Council
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Contents

Non-Technical Summary

Strategic Environmental Assessment and the Local Transport Strategy

As part of the preparation of the Local Transport Strategy (LTS), East Dunbartonshire Council carried out a Strategic Environmental Assessment (SEA). The process of SEA is a systematic method for considering the likely environmental effects of this Strategy. It aims to:

- Integrate environmental factors into the Strategy preparation and decision-making
- Improve the Strategy and enhance environmental protection
- Increase public participation in decision making
- Facilitate the openness and transparency of decision-making

Key SEA Stages

The key SEA stages carried out in the preparation of the LTS were:

Screening & Determination: This is the process whereby the Screening Report is produced to set out the characteristics of the Strategy and its likely environmental effects, if implemented. The Council requests the views of the Consultation Authorities: Scottish Natural Heritage (SNH), Historic Environment Scotland (HES) and the Scottish Environmental Protection Agency (SEPA) on the likely significant of any environmental effects identified through the formal submission of the Screening Report. After taking into account the views of each of the Consultation Authorities, the Council must determine whether a SEA is required or not and advertise their decision-making.

Scoping: This is the process by which details for the Environmental Report were determined. Through the Scoping Report the level of detail and the consultation period was determined for the Environmental Report and followed by a consultation with the appropriate Consultation Authorities.

Environmental Assessment: The Environmental Report documents the environmental assessment of the LTS. The assessments of the relevant components were carried out in parallel to the development of the Strategy. This helped the policy-maker to refine the Strategy in order to avoid or mitigate the negative environmental impacts and to further enhance the positive environmental impacts.

Post-Adoption Statement: The Post-Adoption Statement will demonstrate how the findings of the SEA have been taken into account in the adopted LTS. In accordance with the Environmental Assessment (Scotland) Act 2005, the Post-Adoption Statement will highlight:

- How the environmental considerations have been incorporated into the LTS;
- How the findings of the Environmental Report have been taken into account;
- How opinions expressed, from both the Community and Consultation Authorities during the consultation of the Environmental Report have been taken into account;
- The reasons for choosing the LTS as adopted in light of other reasonable alternatives; and,
- The measures to be taken to monitor the significant effects of the implementation of the Strategy.

The purpose of SEA is to inform the development process of the LTS. The assessment identified, described and evaluated the likely significant negative and positive environmental effects of the LTS, including any alternatives. This was beneficial in order to reduce, avoid or mitigate any potential environmental impact and further enhance any potential positive impacts. This Environmental Report presents the results of the SEA for the LTS. It also establishes a monitoring framework and measures to mitigate any adverse impacts that may occur as a result of the strategic document.

Key Facts Relating to the Local Transport Strategy

Responsible Authority	East Dunbartonshire Council
Title of PPS	Local Transport Strategy
Purpose of PPS	The purpose of the Strategy is to provide a document that is consistent with national, regional and local aspirations and addresses multiple policy objectives, agreed and evaluated by stakeholders and the public. The Strategy will: • Be consistent with existing and emerging EDC policies such as the Active Travel Strategy, Green Network Strategy, Economic Development Strategy, Local Biodiversity Action Plan, Open Space Strategy and Air Quality Strategy, • Support deliver the delivery of East Dunbartonshire's Local Development Plan, and; • Present a range of policies and actions that set out the Council's general approach to sustainable transport issues, improving general transport conditions and providing residents with enhances transport options that are not reliant on private vehicle use.
What prompted the PPS	Local authorities are expected to maintain an up to date Local Transport Strategy in order to ensure that the evidence base and framework for transport projects is up to date and reflects current trends and national and regional issues. The Council recently published Route Corridor Studies (multi modal transport appraisal) on the A81 and A803, which serve as evidence base for planning transport interventions. These studies will require to be reflected in the next iteration of the study in order to ensure consistency with recent evidence and this is a requirement of public sector transport funders such as Transport Scotland and SPT.
Subject	Transport
Period covered	2020 – 2025
Frequency of updates	The Strategy will be updated every four years, with biennial monitoring reports.
Area covered by PPS	The geographical area of East Dunbartonshire Council plus Mugdock Country Park (geographically contained within Stirling Council but managed by EDC), and potential linkages, where appropriate, to surrounding Council areas, namely Glasgow, West Dunbartonshire, Stirling and North Lanarkshire.
Summary of nature/ Content of the PPS	In summary the East Dunbartonshire LTS will: • set out the strategy for the Council's roads and transportation plans • provide a transport objectives link between the Council's Local Outcomes Improvement Plan Community Planning, Local Development Plan and other policies • focus the Council's transport budget towards making sure that transport investment contributes positively to regeneration and sustainable development • maintain and improve, where possible, the quality and safety of roads and transportation

	• aim to improve health by encouraging walking and cycling • improve public transport services and accessibility to services, where possible It is proposed that the new LTS will be structured around the following chapters: • Review of Local Transport Strategy 2009 – 2013 and Monitoring Report; • Evidence review including • The Demographic profile of East Dunbartonshire; • Transport Statistics review • Route Corridor Studies review • Policy Context; • Report of Engagement to date; • Issues and Constraints; • Ambition and Transport Planning Objectives (TPOs) • Transport Options Report (and consultation report) – links to TPOs • Action Plan for each of four EDC communities • Monitoring and Evaluation.
Proposed/draft outcomes	The Local Transport Strategy will update the Local Transport Strategy 2009 – 2013 and respond to updated local demands for enhanced transport networks.

Context of the Local Transport Strategy

The East Dunbartonshire Local Transport Strategy 2020-2025 is a detailed vision for enhancing transport and travel in East Dunbartonshire. This strategy replaces the Local Transport Strategy 2013-17 which contributed to delivering a more sustainable and accessible transport network for the area. Enhancing the transport network is a key driver for: improving the local economy, improving the environment, increasing social inclusion and delivering health benefits for all residents and visitors of East Dunbartonshire. The Local Transport Strategy sets out the Council's policy on transport, presents Transport Planning Objectives and coordinates future priorities through a series of actions and interventions to enhance transport and travel in East Dunbartonshire.

It will be shaped by Local Planning Objectives and Transport Options. These strategic elements will help shape other plans, policies, programmes, strategies, masterplans and commitments by the Council.

Environmental Baseline Data for East Dunbartonshire

The environmental baseline information for East Dunbartonshire has been identified in relation to each of the environmental factors scoped into the assessment for the LTS (*Population and Human Health; Biodiversity, Flora and Fauna; Cultural Heritage; Landscape; Soil and Geology; Water Quality; Climatic Factors and Material Assets*). The information has been collated using a range of statistics and resources, including information from Scotland's Environment Web, SNH, SEPA, Historic Environment Scotland, SNIFFER, Forestry Commission Scotland, Scottish Government, National Records and Air Quality Scotland, as well as local information obtained from the different relevant Services within the Council. The baseline data has been updated if and when available data has become available in order to ensure that the data is as relevant as possible.

Section 2.2 of the main report contains a full outline of the environmental baseline data for each of the environmental factors considered in SEA, including spatial representations of the main environmental constraints in East Dunbartonshire using Geographical Information Systems (GIS).

Existing Environmental Problems

Reviewing the environmental baseline data for East Dunbartonshire helped to identify any existing environmental problems that would need to be taken into account during the preparing and implementation of the LTS.

The main challenges identified include:

- Hillhead, Lennoxtown, Twechar and Auchinairn have been identified as areas of socio-economic deprivation according to the Scottish Index of Multiple Deprivation (SIMD).
- The need to enhance and promote active travel networks, particularly by integrating them within wider networks to provide further health benefits to the community, particularly deprived or vulnerable individuals.
- Conflicts between access to the environment and local biodiversity, habitats and cultural assets. However improved transport networks could encourage appropriate access giving residents and visitors greater opportunities to experience their local communities.
- Both Bishopbriggs and Bearsden Cross are designated as Air Quality Management Areas (AQMA). The options explored in the LTS will contribute to local air quality management to ensure that poor air quality is reduced.
- Changes and enhances to the local transport network can play a role in mitigating or adapting to the effects of climate change, particularly at the local level.
- In general, other issues include parking constraints, particularly at rail stations, poor bus service provision in some areas and traffic congestion.

Assessment of Environmental Effects

The main function of the Environmental Report as part of the full SEA process is to suggest ways to improve the environmental performance of the plans and strategies through assessment of the significant environmental effects identified. An assessment of the Strategy's Strategic Direction, Transport Planning Objectives and Transport Options were carried out which highlighted an overall positive effect on the environment with the potential for significant impacts and particular focus of effects for multiple factors, Population and Human Health, Air Quality, Climatic Factors and Material Assets. The positive nature of the effects have been enhanced, where it was deemed appropriate, through the integration of proposed mitigation measures. A summary of the findings are detailed below:

Population & Human Health and Material Assets	• Opportunities to enhance the existing network for active travel as well as better public transport facilities, giving communities better access within East Dunbartonshire and across the region. This supports accessibility for leisure and employment opportunities • Better options for travel within and to other communities from East Dunbartonshire's Place Areas to support each Place Plan • A modal shift towards a more sustainable and connected transport network
Cultural Heritage and Biodiversity, Flora & Fauna	Localised impacts on cultural and biodiversity designations

Air Quality & Climatic Factors	• A modal shift away from vehicular based travel through the promotion of active travel alternatives which in turn will contribute to a reduction in air pollution and carbon emission levels • A positive influence on traffic flow, particularly in relation to actions relating to Urban Traffic Control Systems, public realm improvements and road narrowing.

Section 3 and Appendix D provide full details of the assessments.

Mitigation and Monitoring

Mitigation measures have been proposed through the environmental assessments and incorporated into the Strategy where necessary in order to avoid, reduce, mitigate or offset any potential adverse environmental impacts and enhance any uncertain, neutral, positive environmental impacts identified. The mitigation measures incorporate all environmental factors which were scoped into the assessment and will be the responsibility of East Dunbartonshire Council to implement in conjunction with key agencies and stakeholders.

The mitigation measures will form part of the Post-Adoption Statement for the LTS, prepared as soon as reasonably practicable after the adoption of the Strategy, in accordance with Section 18 of the Environmental Assessment (Scotland) Act 2005. The environmental baseline data (**Section 2.2**) and the monitoring indications as part of the proposed monitoring framework (**Section 4.2**) will form the basis of future monitoring of the potential effects, predicted and unforeseen, of the LTS on the local environment.

Next Steps: Statutory Consultation

The next step for both the Environmental Report and the LTS is a 6 week consultation with the public and key agencies. All of the comments received will be taken into account and amendments may be made accordingly to both documents. Any significant changes to the Strategy in relation to consultation responses may require further consideration in terms of environmental implications.

The statutory consultation for this Strategic Environmental Assessment document and corresponding LTS is:

Tuesday 17 September – Tuesday 12 November

If you would like to express your views on the Environmental Report, your comments should be submitted through email or post to the following:

Email: sustainability@eastdunbarton.gov.uk
Post: Sustainability Policy
Place, Neighbourhood and Corporate Assets
East Dunbartonshire Council
Broomhill Industrial Estate
Kilsyth Road
Kirkintilloch
G66 1TP

Summary of Environmental Report

Following the Screening Determination & Scoping for the Local Transport Strategy (LTS), East Dunbartonshire Council is carrying out a full environmental assessment for the LTS.

Section 1: Key Facts	This section provides some key facts about the LTS and a brief summary regarding the content.
Section 2: Strategic Action Context	This section provides an overview of the LTS and the main issues it is likely to address. In addition, this section provides the environmental baseline data collected and used as part of the assessment of the Strategy.
Section 3: Assessment of Environmental Effects	This section outlines how the SEA process incorporates the identification of reasonable alternatives; assessment methodology, assessment process and findings regarding each Strategy element and the influence of the SEA on the LTS.
Section 4: Mitigation and Monitoring	This section sets out the concluding stages proposed for the Environmental Report.
Section 5: Statutory Consultation and SEA Timetable	This section outlines the consultation dates and procedures and the timeline for the LTS and corresponding SEA documentation.
Appendix A: Influence of key legislation & PPS	This appendix lists key legislation, plans, programmes, policies and strategies that influence or are influenced by the LTS.
Appendix B: Consultation Responses to the Scoping Report	The appendix highlights the main issues raised by the Consultation authorities during the consultation of the Scoping Report and how they have been addressed within the Environmental Report.
Appendix C: SEA Assessment Criteria and Questions	This appendix outlines the chosen assessment methodology for both the policy framework and site proposals.
Appendix D: Assessment of Transport Options	This appendix contains the full assessments of the Transport Options and alternatives.

Section 1: Key Facts

1.1. Key Facts relating to the Local Transport Strategy

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Proposed/draft outcomes	The Local Transport Strategy will update the Local Transport Strategy 2009 – 2013 and respond to updated local demands for enhanced transport networks.

Section 2: Strategic Action Context

2.1. Relationship with other Plans, Programmes and Strategies

2.1.1. There are a number of other strategies and plans internationally, nationally, regionally and locally that the Local Transport Strategy (LTS) needs to be integrated with. The following list indicate the primary related legislation and **Figure 1** shows a diagrammatic representation, although it does not include every one of the plans listed. The template below is useful for demonstrating such relationships.

International

- Kyoto Protocol (1997)
- Gothenburg Protocol (1999)
- Johannesburg Declaration (2002)

European

- EU Climate and Energy Framework (2008 and updates)
- European Biodiversity Strategy
- EU Birds Directive
- EU Habitats Directive
- EU Water Framework Directive
- EU 2020 Biodiversity Strategy
- EU Floods Directive

National

- National Transport Strategy (Refreshed 2015)
- UK Post-2010 Biodiversity Framework
- Nature Conservation (Scotland) Act 2004
- Scottish Forestry Strategy (2006)
- Scottish Planning Policy 2014
- National Planning Framework 3
- Let's Get Scotland Walking – A National Walking Strategy
- Active Travel, Active Scotland: Our Journey to a Sustainable Future 2012
- A Long Terms Vision for Active Travel in Scotland 2030 (2014)
- Cycling Action Plan for Scotland 2017 – 2020
- Cleaner Air for Scotland 2015
- Low Carbon Scotland – Meeting the Emissions Reduction targets 2013-2027
- 'Climate Ready Scotland' – Scotland's Climate Change Adaptation Programme
- Scottish Climate Change Declaration 2007
- Climate Change (Scotland) Act 2009
- Scotland's Zero Waste Plan 2010
- Scotland's Economic Strategy 2015
- National Walking Strategy 2014
- Historical Environmental Scotland Policy Statement 2016

Regional

- Strathclyde Partnership for Transport – A Catalyst for Change: Regional Transport Strategy (RTS) 2008 – 2021
- SDP Clydeplan
- Glasgow and Clyde Valley Strategic Development Plan

- Antonine Wall Management Plan 2014 – 2019

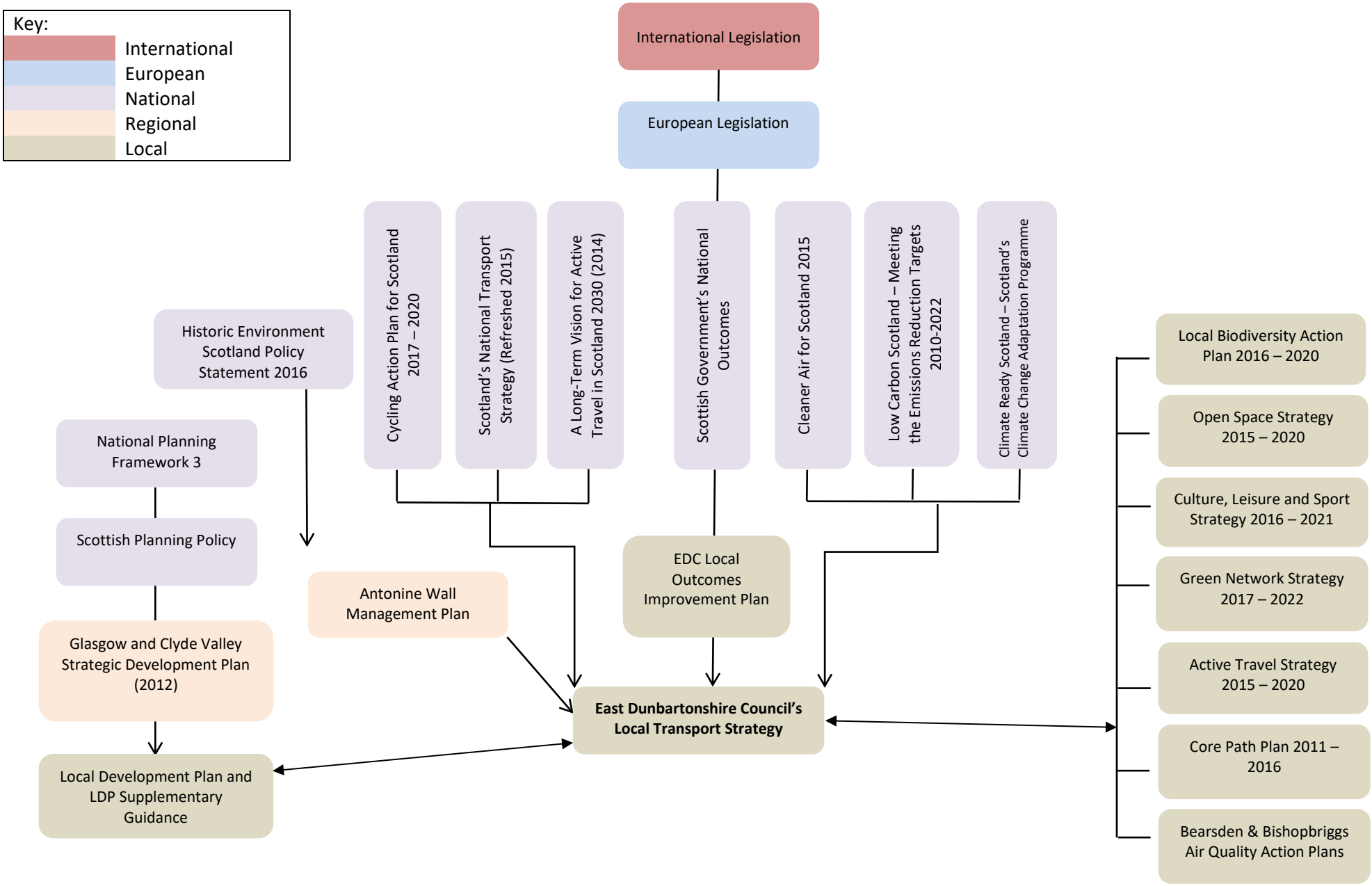
Local

- East Dunbartonshire Local Outcome Improvement Plan
- Local Plan 2 and emerging Local Development Plan
- Sustainability and Climate Change Framework 2016 – 2021
- Green Network Strategy 2017 – 2022
- Culture, Leisure and Sport Strategy 2016 – 2021
- Core Path Plan 2011 – 2016
- Local Transport Strategy 2013-17
- Local Biodiversity Action Plan 2017 – 2021
- Open Space Strategy 2015 – 2020
- Active Travel Strategy 2015 – 2020
- Carbon Management Plan 2015 – 2020
- Bearsden Air Quality Management Plan (draft) 2018
- Bishopbriggs Air Quality Management Plan 2012
- Economic Development Strategy 2017 – 2020

2.1.2 Cross-boundary effects with neighbouring authorities will be considered through the integration of the LTS as well as a consideration of Plans and Strategies produced by the neighbouring authorities. This will be particularly important in relation to Mugdock Country Park, which lies within the Stirling Council area. It may also be necessary to work with other neighbouring local authorities in the development of actions that result in strategic, regional and local impacts with potential cross-boundary effects. However, it is not expected that the LTS will require consideration of transboundary effects with neighbouring EU Member States.

2.1.3 **Appendix A** lists key legislation, plans, programmes, policies and strategies that influence or are influenced by the LTS. This list includes documents that refer to international, European Community, and national environmental objectives; regional and local objectives. Their content, where appropriate, has been used to inform the environmental objectives for the SEA of the Strategy.

Figure 1: Interrelationship of the Local Transport Strategy with Other Plans, Programmes and Strategies



2.1.4 The Environmental Protection Objectives that are contained within international, European, UK and Scottish legislation, as well as national guidance which are considered to be of the greatest relevance to the LTS will be taken into account when preparing the Plans. These are set out in **Appendix A**.

2.2. Baseline Environmental Data

2.2.1. The early stages of SEA, such as describing the baseline, identifying environmental problems/issues and analysing the links and relationships between other strategic actions, should be carried out concurrently and they should inform each other throughout the process. This approach has been adopted as part of the LTS SEA.

2.2.2. In order to measure the significant environmental effects of these strategic actions the current state of the environment must be known. East Dunbartonshire Council will gather sufficient information to provide the current state of the environment, or an Environmental Baseline, utilising GIS mapping where possible, to show the geographical location and scale of key environmental designations and assets. The potential effects (including, cumulative, secondary and synergistic effects) of the information contained within the LTS and their alternatives have been measured against this baseline.

2.3.1 For the purposes of this Report, a broad summary of baseline environmental information has been collated. **Table 1** below summarises the main baseline environmental features.

2.3.2 **Table 1** contains a broad summary of the baseline environmental information which has been collated and also includes the SEA objectives used for the assessment. These have been developed taking into account the summary baseline data. The SEA Objectives were used to assess the Strategy and they provide the basis for the development of the assessment questions and monitoring indicators.

Table 1: Proposed Environmental Baseline Data

Environmental Factor	Summary of baseline Environmental Data	Source of Data Collected	Proposed SEA Objectives
Population & Human Health	East Dunbartonshire has a total population of 108,130 (2017); an increase of 0.5% from 107,540 in 2016. Population Projections forecast that the population of East Dunbartonshire will increase to 112,640 by 2026 (+4.7% increase between 2016 and 2026). East Dunbartonshire has an ageing population. This is highlighted through the population projections that by 2026 East Dunbartonshire's 75+ population will increase by +30.5% based on 2016 levels. Areas of Hillhead, Lennoxtown and Auchinairn are in the most deprived 20% in Scotland (SIMD 2016). Twechar is also considered to be an area of socio-economic disadvantaged. Each of these localities have a Locality Plan as outlined in the Local Outcome Improvement Plan (LOIP). Generally the health of the residents of East Dunbartonshire is good with nearly 73% of the residents being generally healthy, in comparison to the average of Scotland (68%) according to the 2001 census. The level of residents found to be in general health status of 'not good' within East Dunbartonshire and Scotland was 8% and 10% respectively. In terms of walking and cycling to work in 2012/13, East Dunbartonshire had low rates of walking (5.1%) when compared with the Scottish national average	Population, health and employment statistics – National Records for Scotland – last updated March 2018 – 2011 Scottish Census – Nomis 2015 Local Authority Labour Market Profile SIMD 2016 Open Space Audit and Strategy East Dunbartonshire Green Network Strategy East Dunbartonshire Local Outcome Improvement Plan	To improve human health and community wellbeing

	(13.2%). Walking to work rates in East Dunbartonshire represent the 2nd lowest rates in Scotland against all other Council areas. There are similarly low levels of cycling to the Scottish national average (2.3%). The percentage of economically active people living in East Dunbartonshire has decreased between 2014 and 2015 by -0.6%; however, this percentage is still higher than both the Scottish and British national averages at 78.2%. Of this total in East Dunbartonshire, 82.1% of economically active people are male and 74.5% female. There are 6 Strategic Green Network Assets in the area: including Mugdock Country Park and Milngavie Reservoirs and 6 Green Network Strategic Access Links, including the long distance paths of the West Highland Way and John Muir Way.		
Cultural Heritage	East Dunbartonshire has: - • 1 UNESCO World Heritage Site (part) - Frontiers of the Roman Empire (Antonine Wall). A buffer zone has been identified around the Wall to help protect its setting, in Supplementary Planning Guidance. • 48 Scheduled Monuments. In particular the Forth & Clyde Canal and Antonine Wall are made up of a series of Scheduled Monuments. • 177 Listed Building, including 15 Category A (of national importance) including: Luggie Water Aqueduct and Bridge; Mugdock & Craigmaddie Reservoirs; three churches, two castles, three town houses , four country houses and a	Historic Environment Scotland Sites and Monuments Record (SMR) East Dunbartonshire Council United Nations Educational, Scientific and Cultural Organisation – World Heritage Site Designation Scottish Natural Heritage Scottish Canals Heritage Strategy 2013-38 Buildings at Risk Register for Scotland.	To protect, conserve and, where appropriate, enhance the historic environment

	cemetery. There are 84 category B designations and 78 category C designations. • 15 Conservation Areas (4 of which are designated as outstanding) • 21 Townscape Protection Areas • Mugdock and Craigmaddie Reservoirs national inventory Garden and Designed Landscape, and two other sites recommended as having the potential for meeting national inventory standards. 30 such sites have also been identified as having local value. • There are nine buildings identified in the Buildings at Risk Register, one of which has restoration in progress. It is important to recognise and consider non-designated heritage assets as part of the assessment process		
Biodiversity, Flora & Fauna	East Dunbartonshire has: • 6 Sites of Special Scientific Interest (SSSI) • 5 Local Landscape Areas • 76 Local Nature Conservation Sites (LNCS) with biodiversity value and an additional 16 proposed • 34 LNCS with geodiversity value • 356 Tree Preservation Orders • 3 Local Nature Reserves (LNR) which include Merkland LNR, Lenzie Moss LNR and Kilmardinny Loch. • An identified green network in particular 8 Green Network Habitat Links, including the River Kelvin and its tributaries.	Priority Species and Habitats. Regionally and locally designated sites. East Dunbartonshire Green Network Strategy Record areas and levels of planting Results of the review of LNCS and Important Wildlife Corridor designations detailed in EDC's	To protect, enhance, create and, where necessary, restore biodiversity and encourage habitat connectivity

	There are a number of Protected Species identified in East Dunbartonshire (including those with former Species Action Plans, priority species and lesser priority species). These are detailed in East Dunbartonshire's Local Biodiversity Action Plan. Several Invasive Non-Native Species (INNS) have been identified in East Dunbartonshire. Woodland in East Dunbartonshire: • Native woodland in East Dunbartonshire comprises 22.1% of the total woodland area (4.8% of the total land area). • 95ha of woodland is present on ancient woodlands, which makes up 34% of native woodland • The main native woodland types in East Dunbartonshire are lowland mixed deciduous woodland (34%), wet woodland (25%) and upland birchwoods (21%).	Natural Environment Planning Guidance EDC Local Biodiversity Action Plan Scottish Natural Heritage Native Woodland Survey of Scotland report for East Dunbartonshire, October 2010 Scottish Ancient Woodland Inventory	
Soil & Geology	Despite three quarters of the land in East Dunbartonshire being utilised for agricultural processes, the district has a small percentage (5%) of prime agricultural soil. Currently East Dunbartonshire has not designated any areas of land as contaminated land as defined in the Environmental Protection Act 1990. However, a list of potential contaminated sites has been created based on previous land use. On this list 618 potentially contaminated sites (to varying degrees of contamination) have been identified.	EDC Local Development Plan Scottish Vacant and Derelict Land Survey 2017 James Hutton Institute Scottish Natural Heritage British Geological Survey UKRIGS (Regionally Important Geological or Geomorphological Site) SNH Carbon and Peatland Map 2016	To maintain or improve soil quality, prevent any further degradation of soils and conserve recognised geodiversity assets.

	There are currently 25 Vacant and Derelict Land within East Dunbartonshire with a total area of 76 hectares. East Dunbartonshire also has 1 RIGS (Regionally Important Geological or Geomorphological Site) at Clachan of Campsie. It has 36 sites representing geological diversity, and 34 are recommended as Local Geodiversity Sites (LGS). There are varying levels of identified peatland in East Dunbartonshire including: • Class 1, 3, 4 and 5 across the Campsie Fells • Class 3 predominantly in the Kilpatrick Hills • Areas of Class 1 and 5 including High Moss • Class 3, 4 and 5 around Lennox Forrest • Areas of Class 4 in Kirkintilloch, Torrance and Twechar		
Landscape	East Dunbartonshire's landscape is diverse in terms of character and land uses. The district is characterised by five main types of landscape character: Drumlin Foothills; Rolling Farmland; Broad Valley Lowland; Rugged Moorland Hills; and urban areas. The topography of East Dunbartonshire is generally low lying, undulating land with the exception of the two Local Landscape Areas; the Campsie Fells and the Kilpatrick Hills to the North and West of the district respectively. There are five Local Landscape Areas (LLA) within East Dunbartonshire Council's boundary, including the Campsie Fells, Kilpatrick Hills, Bar Hill (which are also Green Network Strategic Assets); Bardowie, Balmore and Torrance and Glazert Valley.	British Geological Survey UKRIGS (Regionally Important Geological or Geomorphological Site) Glasgow & Clyde Valley Landscape Character Assessment, 1999 EDC Local Development Plan	To protect and, where appropriate, restore landscape character, local distinctiveness and promote access to the wider environment

	East Dunbartonshire has a total of 973.46 hectares of urban open space; the greatest proportion of which is classified as semi-natural greenspace and Regional Greenspace. The green belt is a Development Plan policy which covers the East Dunbartonshire area, with the exception of the upland areas; its objectives include maintaining the character and distinctiveness of the areas settlements.		
Water Quality	The main watercourses within East Dunbartonshire are the River Kelvin, Glazert Water, Allander Water, Luggie Water, Forth and Clyde Canal and Bothlin Burn. East Dunbartonshire also has two reservoirs in Milngavie and a number of other small dams in various locations throughout East Dunbartonshire, which are of significant value to the surrounding area. Watercourse ecological status related to East Dunbartonshire: • River Carron – good classification (improved from previous year) • River Kelvin (Glazert Water to Tidal Limit – poor classification (degraded from previous year) • River Kelvin (Kelvinhead to Glazert) – bad classification (degraded from previous year) • Allander Water – moderate classification (degraded from previous year) • Craigmaddie Burn – good classification (no change from previous year) • Luggie Water (Kelvin to Mollins Burn) – moderate classification (no change from previous year)	River Basin Management Plans Local water quality data Drinking water quality SEPA – RBMP Data EDC Local Biodiversity Action Plan	To prevent deterioration and, where possible, enhance the water environment

	• Bothlin Burn (Garnkirk Burn to Luggie confluence) – moderate classification (no change from previous year) • Glazert Water/Finglen Burn – poor classification (degraded from previous year) • Kirk Burn – moderate classification (no change from previous year) • Garrel Burn – poor classification (degraded from previous year) • Forth and Clyde Canal (Mountblow to Maryhill and Glasgow Branch to Kirkintilloch) – good classification (degraded from previous year) • Stand Burn/Park Burn – poor classification (degraded from previous year) • Luggie Water (u/s Mollins Burn) – good classification (improved from previous year) • Forth and Clyde Canal (Kirkintilloch to Kelvinhead) – good classification (degraded from previous year) • Board Burn – moderate classification (no change from previous year) The groundwater sources applicable to East Dunbartonshire: • Clydebank: good • Kilpatrick: good • Lennoxtown: poor • Denny: poor • Carron and Touch: good • Campsie: good • Kirkintilloch: poor • Glasgow and Motherwell: poor • Kelvin Sand and Gravel: good • Clydebank Sand and Gravel: good *Flooding is discussed in Climatic Factors		

Air Quality	A significant concern for air quality in East Dunbartonshire is transport which is the main contributor of air pollutants such as NO_2 (nitrogen dioxide) and PM10 (particulates). The busiest routes that are of concern in relation to air quality within East Dunbartonshire are the A803 and B812 in Bishopbriggs; the A81 through Milngavie; and the A809 and A739 through Bearsden. There are currently two Air Quality Management Areas (AQMA) declared within East Dunbartonshire, Bishopbriggs and Bearsden Cross, both of which were declared an AQMA after several years of exceeding national NO_2 and PM10 objective levels, although the levels have been decreasing over the years. Bearsden Cross experienced an annual average of 33 $\mu g/m^3$ of NO_2 (low) and 13 $\mu g/m^3$ of PM10 (low) in 2017. Bishopbriggs experienced an annual average of 27 $\mu g/m^3$ of NO_2 (low) and 16 $\mu g/m^3$ of PM10 (low) in 2017. Traffic levels across the Council area have shown to be steadily decreasing since 2012 which can be attributable to a number of factors including the promotion of sustainable travel and influencing economic factors.	East Dunbartonshire Council National Air Emissions Inventory Scottish Government DEFRA Scottish Transport Bus and Coach Statistics No. 32, 2013 Local Transport Strategy 2013 – 2017 Scottish Air Quality statistics www.scottishairquality.scot/ DECC Transport and Travel in Scotland East Dunbartonshire Council – Air Quality Monitoring Report 2017/18 – ratified 2017 data	To prevent deterioration and, where possible, enhance air quality
Climatic Factors	A significant source of carbon dioxide in East Dunbartonshire is attributable to vehicular transport emissions (144.3ktCO_2), which contributes towards climate change, although the largest proportion of	Flood Risk Assessments Flood defences	To contribute towards the reduction of Scottish greenhouse gas outputs in line with Government targets.

	CO2 emissions is attributable to domestic emissions (208.4 $ktCO_2$). Travel: • The level of public transport access varies across the area. Kirkintilloch is served by bus services that provide access to towns and villages in East Dunbartonshire and adjacent local authorities such as Glasgow. However, there are areas that do not have services that are frequent or operate out-with peak travel periods and daytime hours. • The number of vehicle miles has been increasing in recent years between 2007 and 2016 with 557,000,000 miles recorded on EDC roads in 2016. • Rail patronage has increased by approximately 10% from the period 2016/17 to 2017/18 across all rail stations in East Dunbartonshire. • The number of local bus services used by adults, aged 16+, in 2017 have remained fairly similar to bus patronage in 2016, although there is approximately 7% more people not using buses each month in 2017 compared to 2016. Only 6% of people use a bus every, or almost every, day. • In 2017, 85.4% of households in East Dunbartonshire had access to at least 1 car. • Glasgow is a key attraction for both employment and higher education opportunities for the population of East Dunbartonshire which increases the need for travel. CO2 emissions associated with the expenditure of energy from industrial/commercial (including agriculture) and domestic buildings accounts for 96.8 ktCO2 and 208.4 ktCO2 respectively in 2012. Such energy use has a significant impact on air quality.	Emissions levels within East Dunbartonshire Flooding and storm information and events Renewable energy potential Scottish Government SEPA East Dunbartonshire Council Office of Rail and Road UK Climate Impacts Programme Scottish Transport Statistics Scottish Transport Bus and Coach Statistics No. 32, 2013 SEPA Flood map Scotland's Climate Change Declaration 2017-18 Report (SSN; Keep Scotland Beautiful; EDC) Scottish Government UK local authority and regional carbon dioxide emissions national statistics: 2017-18	To reduce overall flood risk by ensuring new development is not at flood risk and it doesn't add to the risk elsewhere. For areas already at flood risk secure management measures.

	Flooding has been an issue in the Kelvin Valley for many years with the most recent flood events occurring in 1994 and 2005. The main areas of concern for potential flooding are the River Kelvin and its tributaries – the Allander, Glazert and Luggie Waters. East Dunbartonshire only has one operating landfill (Inchbelle Quarry, Kirkintilloch) but is only used for the disposal of inert materials, mainly construction materials. All household and commercial municipal waste is transferred to landfills in North Lanarkshire. Therefore, there is minimal methane produced from landfill within East Dunbartonshire to impact on climate change.		
Material Assets	East Dunbartonshire is supplied by various levels of transport infrastructure, through well serviced rail networks, bus routes encompassing the whole district and the various road networks that link settlements within East Dunbartonshire together with providing routes out with the district. There are 54km of A class roads, 47 km of B class roads and 34km of C class roads. This amounts to 27% of the road network. There are 369 km of unclassified roads. East Dunbartonshire has a network of Core Paths and public open spaces which provide opportunities for recreation. Some of these also provide active travel routes from residential areas to services and businesses.	Transport and infrastructure data Core Path Network and Rights of Way Walking and cycle routes Public open spaces and accessibility Scottish Government East Dunbartonshire Council Transport Scotland SPT	To promote the sustainable use of community assets, natural resources and material assets

2.3. Environmental Issues[1] for the Local Transport Strategy

2.3.1. The purpose of this section is to explain how existing environmental issues will affect or be affected by the Local Transport Strategy, and whether this strategic action is likely to aggravate, reduce or otherwise affect existing environmental issues. The main environmental issues and problems facing East Dunbartonshire are outlined in **Table 2** below.

Table 2: Environmental Issues

SEA Topic	Relevant Environmental Issues
Population and Human Health	Eight datazones within East Dunbartonshire fall into the top 25% most deprived areas in Scotland; these are located in Hillhead, Lennoxtown, Auchinairn and Milngavie. In particular, some areas in Hillhead remain within the 5% most deprived areas in Scotland according to the Scottish Index of Multiple Deprivation.
	With areas of deprivation in East Dunbartonshire and an increasingly ageing population, there is a significant reliance on public transport and access to primary facilities such as town centres, retail parks, healthcare and leisure. To reduce this need and pressure, there is significant evidence that enhancement and promotion of green and active travel networks can be integrated with interventions and provide further health benefits to deprived or vulnerable members of the community.
	Local pollution such as vehicle fumes can aggravate asthma and cause / exacerbate other health issues. Respiratory and heart disease can be linked to transport emissions; reducing emissions can improve public health and reduce levels of respiratory disease within East Dunbartonshire.
	East Dunbartonshire should aim to improve levels of safety and security on the transport network, especially for pedestrians, cyclists and those on public transport. This will improve the perception of public transport and encourage greater usage.
	Conflicts may arise between increasing public access within East Dunbartonshire and the need to conserve the natural environment. This will be a vital consideration for the LTS to address and prevent such conflicts.
	Current use and awareness of East Dunbartonshire's active travel network has scope to be improved. Increasing the awareness, understanding of the role of the active travel alternatives amongst the population of East Dunbartonshire, as well as how local communities can gain benefits from accessing local and regional facilities using the network alongside the upgrade of the network should be a significant factor for consideration in the LTS. This should include the promotion of the active travel network for educational purposes in partnership with local schools.
	Encouraging the involvement of the community in projects linked to the enhancement of East Dunbartonshire's sustainable travel network has the potential to further benefit health and wellbeing. This is likely to improve the appreciation of the environment as well as achieve the renewal of run down areas, particularly those in urban contexts, and increase economic value and investment to the area. There is scope for this to be promoted through the LTS.

[1] The term "environmental issues" is the name collectively given to air, water, soil, biodiversity, climatic factors, landscape, material assets, population and human health as well as cultural heritage (including architectural and archaeological heritage) in the EU Directive 2001/42/EC. In practice they are referred to as "SEA topics".

Cultural Heritage	There are a number of cultural heritage assets in East Dunbartonshire including the Antonine Wall (UNESCO World Heritage Site) and the Forth and Clyde Canal which require protection and management.
	East Dunbartonshire has a varied and valued natural and historic cultural heritage. In the development of the LTS, the interventions, proposals and opportunities that will be identified should address how they can contribute to enhancing and protecting the historic environment.
	East Dunbartonshire is host to tourist attractors across the whole of the council-wide area such as the Antonine Wall Heritage Site, the Campsie Fells, West Highland Way and Mugdock Country Park. The LTS is likely to improve access to these assets. However, increased footfall to the main attractors can result in both positive impacts, such as stimulating the local economy, and negative impacts, such as path erosion and the degradation of sites/buildings and their setting.
Biodiversity, Flora and Fauna	East Dunbartonshire has a wide range of designated and non-designated sites, including those of ecological importance and protected species. This is seen through a number of Local Nature Conservation Sites and Important Wildlife Corridors, Tree Preservation Orders and Local Nature Reserves. East Dunbartonshire also has 6 Sites of Special Scientific Interest (SSSI). The management and protection of these assets is essential through the LTS.
	Invasive Non-Native Species in East Dunbartonshire have been identified in East Dunbartonshire. Their location and management should be recognised within the Strategy.
	There are a number of protected species and habitats within East Dunbartonshire which will need to be considered as part of the LTS. The LTS offers the scope to ensure that benefits for biodiversity is considered as a vital part of the wider active travel network in East Dunbartonshire and will play a contributing role for continued enhancement and protection of such species to avoid any loss. These concerns should be considered alongside the Councils LBAP, Open Space Strategy and Green Network Strategy.
	Habitat connectivity within East Dunbartonshire is fragmented. In particularly, river and canal corridors are, to varying extents, below their potential in terms of habitat connectivity as a result of confinement and the presence of Invasive Non-Native Species. There is scope to reduce habitat fragmentation through improvements to access routes across the council area, with additional benefits anticipated in relation to biodiversity.
Soil and Geology	There are several sites in East Dunbartonshire that have been identified as peatland. Any action as part of the Strategy that may result in the disturbance of such sites for the release of carbon should be avoided. This includes conflicts between the transport network improvements and peatland protection.
	There is scope within the LTS to consider the role of enhanced biodiversity in managing ecosystem services including carbon storage, drainage and to alleviate flooding.
	There are 36 sites identified as being geologically diverse, of which 34 have been assigned as Local Geodiversity Sites (LGS). The area also hosts 1 RIGS (Regionally Important Geological or Geomorphological Site) and 1 SSSI of geological importance. The LTS should consider these designations in the development of the opportunities and actions within the Strategy to ensure their protection and enhancement where possible.

Landscape	East Dunbartonshire has varying degree of landscapes including the green belt, the Campsie Fells/Kilpatrick Hills and agricultural land. Ensuring that the landscapes are well-connected throughout East Dunbartonshire is a vital consideration for the LTS.
	East Dunbartonshire has a number of Local Landscape Areas with high/moderate scenic value as well as varied landscape character and setting across the Council area, including the Campsie Fells and Kilpatrick Hills. The LTS should take into account the specific landscape features to ensure that there are no specific conflicts these areas and access issues, and are sensitive to, the local landscape and retain East Dunbartonshire's local distinctiveness.
	The cumulative effects of projects that will enhance or extend the active travel network that may be established through the Strategy should be accounted for at a local, EDC-wide and regional level.
Water Quality	There are a number of good/moderate quality watercourses in East Dunbartonshire including the Forth and Clyde Canal which is also a Scheduled Monument. These assets require protection to which the LTS can contribute to in order to reduce, prevent or offset any adverse impacts to water quality.
	There are a number of sites within East Dunbartonshire's landscape which are classified as wetland. Wetlands provide vital habitats for a number of species and ecosystem services but their quality is under pressure from external influences such as flooding, developments and access. The Strategy should account for this priority habitat in the development of its action plan as well as consider its role in reducing pressures on this resource to maintain a high level of water quality.
Air Quality	Unacceptably high levels of air pollution can be harmful to the environment and human health. East Dunbartonshire currently has two designated Air Quality Management Areas (Bishopbriggs and Bearsden Cross). These are managed through Air Quality Management Plans and the emerging Air Quality Strategy, the requirements of which should be taken into account within the LTS.
	Changes to air quality can have a significant impact on ecosystem services, which can affect biodiversity value and environmental assets.
Climatic Factors	Domestic emissions account for the largest proportion of carbon dioxide in East Dunbartonshire, although emissions from transport account for the largest proportion of NO_2 and PM10 emissions. This contributes to the effects of climate change which include changing temperatures and rainfall patterns, and increased incidences of extreme weather events. Where appropriate, the interventions proposed as part of the LTS should consider its role in mitigating or adapting to the effects of climate change.
	Climate change has a direct link to flood risk. The SEPA Flood Risk Map has identified several locations within the East Dunbartonshire Council area which could have a significant impact on habitats and the value of East Dunbartonshire's environment.
Material Assets	As a result of the spatial strategy of the impending Local Development Plan there is potential for a rise in developments in East Dunbartonshire over the life of the Plan. New developments are likely to require new or improved transport infrastructure which have the potential to result in further fragmentation of habitats and requirements for access routes which should be accounted for within the LTS.
	It is important that natural resources in East Dunbartonshire are managed sustainably.

	There are currently a series of Core Path Networks, Rights of Way and open spaces in East Dunbartonshire which create recreational opportunities, promote active travel and provide a sense of community. The opportunities that will be identified through the Strategy should consider its role in enhancing existing networks as well as integrating with the new green network across the council-wide area. The sites identified in the Open Space Strategy should also be accounted for.
	There is currently a lack of good quality active travel routes and options across the Council area which link certain towns, villages and community areas. Specific areas which could be improved, and additional active travel infrastructure provided include: • Bishopbriggs to Lenzie • Bearsden/Milngavie to Kirkintilloch/Lenzie • Torrance to Kirkintilloch • Bearsden and Milngavie (local)
	The current transport network has a limited amount of on-road active travel provision. Additional provision of such improvements has the potential to significantly increase the active travel participation throughout East Dunbartonshire.
	Integration of our active travel network with public transport will be an essential part of the LTS. Improving the link between these forms of transport has the potential to significantly increase sustainable travel participation, subsequently reducing car journeys and associated emissions levels throughout East Dunbartonshire.

2.4. Evolution of the Environment in the Absence of the Local Transport Strategy

2.4.1. The SEA process is also required to assess the likely impact on the environment if the LTS was not implemented, or the existing Strategy was not updated.

2.4.2. The LTS will communicate the Councils strategy, proposals and interventions for transport and travel to East Dunbartonshire's communities and stakeholders. The Strategy is set within the framework of the National and Regional Transport Strategies and aim to achieve the vision of a safe, accessible, integrated and reliable transport system that meets the needs of the communities it serves.

2.4.3. In the absence of the emerging LTS, it is likely the following would occur:

- Failure to link projects on the ground with national, regional and local outcomes, including environmental considerations.
- Failure to demonstrate the cumulative and long-term positive impact of sustainable travel has on a number of indicators such as: health and wellbeing, modal shift, air quality, reduced congestion, increased economic competitiveness, increased attractiveness of the walking environment and perception of improved safety.
- There would be an increased likelihood of roads being built to serve development, rather than development locations and design being negotiated close to existing transport infrastructure.
- Gaps in the local travel networks will remain unaddressed and potential opportunities not being maximised.

- Obvious connections (easy wins) in the transport and travel network being overlooked.
- Selection of projects not informed by robust evidence base and clear rationale based on objective led process.

2.4.4. The LTS will be an important vehicle in achieving the overarching vision of East Dunbartonshire's Local Outcome Improvement Plan, which includes commitments relating to health inequalities and economic regeneration. Environmental protection is intrinsically linked to these agendas, and measures such as promoting healthy lifestyles and encouraging leisure related economic activity will contribute towards physical, social and financial wellbeing.

2.4.5. The following bullet points set out in more detail the likely implications:

- **Biodiversity**: Uncoordinated promotion of access to our natural assets and random delivery of developments to the transport network could result in adverse effects on biodiversity and vulnerable species and habitats.
- **Landscape**: Improving sustainable transport networks will require enhancement of the existing urban and rural environments to make the choice to walk or cycle for travel purposes more attractive. The LTS is likely to include interventions which will as a by-product of enhancing the transport network, improve local landscapes. Another benefit as a result of the LTS is the promotion of settlement connectivity in East Dunbartonshire away from the road network. This is likely to reduce the need to build new roads which would remove previously greenbelt/open space assets. Without the LTS, there will be a lack of coordination between road-based and sustainable transport alternatives which would contribute to perceptions of poor local landscape quality.
- **Cultural Heritage**: Uncoordinated promotion of access to our historic environmental assets could result in degradation of East Dunbartonshire's built heritage and inadvertently harm the area's cultural offer and heritage.
- **Air Quality & Climatic Factors**: Modal shift away from private cars is a major contributor to improved air quality in urban areas, failure to provide a coordinated framework for delivering measures that facilitate this modal shift would result in increased risk of air quality remaining an unacceptably poor level or worsening. Transport emissions from private cars on average equate to approximately 25% of CO2 emissions. Increasing sustainable transport provision is a major approach to reducing private car journeys and subsequently reducing the CO2 generated by the transport sector.
- **Water**: Although protection of water quality as a result of development would be controlled through other legislation, the cumulative effects of increased unplanned transport development without a corresponding provision for sustainable travel would likely increase car use which through increased emissions could have adverse effects on hydrological environments and drainage requirements as part of infrastructure improvements.
- **Population & Human Health**: Failure to deliver a coordinated approach to facilitating increased proportion of journeys taken by active means carries significant health risks for our population in the future. In order to increase activity levels, provision for sustainable travel to increase the rates of people walking and cycling for everyday and leisure journeys should be delivered via a clear framework. With failure to provide this coordinated approach it is unlikely adequate investment will be made to the active travel network and levels of

participation will stagnate. This would represent a risk to aggregate health levels as a result of inactivity, contributing to already rising obesity levels and corresponding health risks.

- **Soil & Material Assets**: The LTS would present, and have a direct influence, on opportunities to further promote the sustainable use of materials and contribute to improvements to the varying walking and cycling path networks in East Dunbartonshire. This would reduce the need for further road building which could have adverse effects on soil and material assets through the loss of open / greenspace. Without the influence of the LTS, these opportunities are less likely to be identified and the benefits to the relevant material assets will be minimal.

3.1. Assessment Framework

3.1.1 The Environmental Assessment (Scotland) Act 2005 requires the Environmental Report to assess and evaluate the likely significant impacts that the Local Transport Strategy (LTS) will have on the environment. It is essential to SEA that the assessment process and reporting of the findings are unbiased, robust, objective, transparent and ultimately easy to follow and understand.

3.1.2 The assessment will focus on the strategic direction, Transport Planning Objectives and transport options being considered for the LTS. It should be noted that only the significant environmental impacts will be identified and assessed through the SEA process.

3.1.3 In addition to this, the assessment will evaluate the Strategy as a whole in terms of the potential cumulative effects (direct, indirect, secondary and synergistic) associated with the implementation of the LTS. **Table 3** gives an indication to each of the stages as part of the assessment framework.

Table 3: Assessment framework

Assessment Stage	Assessment Method
LTS Vision	The Vision for the LTS is that of East Dunbartonshire's Local Outcomes Improvement Plan (LOIP)[2]. The LOIP has been through the process of SEA and therefore the LTS vision will not require additional assessment.
Strategic Direction	The different strategic approaches, as outlined in Paragraph 3.3.1., will be assessed against the proposed SEA objectives to identify the SEA preferred option for the strategic direction of the Strategy.
Transport Planning Objectives	The Transport Planning Objectives, along with all reasonable alternatives, were tested against the proposed SEA objectives for alignment and compliance. The findings of this assessment process helped guide the refinement and improvement of the components throughout the development of the LTS.
Transport Options	A suite of transport options and alternatives were assessed as part of a Transport Options Report (TOR) prior to a public consultation on the options. These have been refined and new assessments carried out on altered or new options as part of this Environmental Report, which include suggested SEA alterations, improvements and mitigation measures, where necessary. The SEA process has been used to inform the final options for the LTS.

3.2. Assessment Methodology

3.2.1 The SEA Directive requires the environmental effects of 'reasonable alternatives' to the strategic document to be identified, described and assessed where appropriate. The LTS has been assessed against the list of environmental issues set out in Schedule 3 of the Environmental Assessment (Scotland) Act 2005.

[2] https://www.eastdunbarton.gov.uk/our-local-outcomes

3.2.2 It also requires environmental assessments to consider the environmental objectives established at International, European Community and national levels that are relevant to the strategic document. During the Scoping stage of SEA, it was determined that the environmental issues likely to be significantly impacted by the LTS were all of the environmental factors. The Consultation Authorities were in agreement with this level of scope, as expressed in their views following the consultation at the Scoping stage (**Appendix B**).

3.2.3 East Dunbartonshire Council has adopted a set of SEA Objectives and criteria questions for the environmental issues that were scoped into the assessment, shown in **Table 4**, which were derived from other legislation and Strategies (**Appendix A**). The criteria questions are used to guide the assessments of all elements of the Plans.

Table 4: SEA objectives

Environmental Factor	SEA Objectives
Population and Human Health	To improve human health and community wellbeing
Cultural Heritage	To protect, conserve and, where appropriate, enhance the historic environment
Biodiversity, Flora and Fauna	To protect, enhance, create and, where necessary, restore biodiversity and encourage habitat connectivity
Soil and Geology	To protect and, where appropriate, use high quality and sensitive soils in a sustainable manner and conserve recognised geodiversity assets
Landscape	To protect, enhance and, where appropriate, restore landscape character, local distinctiveness and scenic value
Water Quality	To prevent deterioration and, where possible, enhance the water environment
Air Quality	To prevent the deterioration and, where possible, enhance air quality
Climatic Factors	To contribute towards the reduction of Scottish greenhouse gas outputs in line with Government targets in order to reduce or prevent the overall effects of climate change including those related to flood risks
Material Assets	To promote the sustainable use of community assets and natural resources in East Dunbartonshire

3.3. Alternatives

3.3.1. Through the development of East Dunbartonshire's LTS there may be alternatives as to how the Strategy is delivered or implemented. The reasonable alternatives to the LTS are:

- **Do minimum approach** – this alternative requires East Dunbartonshire Council and partners to continue to carry out essential maintenance on the road and active travel network, but carry out no improvements.
- **Sustainable transport approach (active travel and public transport focus)** – this alternative requires East Dunbartonshire Council and partners to focus primarily on investment in public transport infrastructure, subsidised services and active travel provision. This will be at the expense of improving and maintain the local road network.
- **Private vehicle approach** – this alternative requires East Dunbartonshire Council and partners to concentrate investment in the local road network and traffic flow and leave

public transport and active travel development to the market. This approach would cease investment in public transport and active travel infrastructure and increase investment into improving and maintaining the road network.

- **Integrated approach (based on a combination of all modes of transport)** – this alternative requires East Dunbartonshire Council and partners to adopt a mixed and pragmatic approach where the focus may be on improving sustainable transport but also to ensure that the local road network is well maintained and improved where necessary in order to reduce journey times, improve traffic flow, reduce congestion and air pollution.

3.3.2. The environmental assessment will also, where appropriate, propose further alternatives to the proposed strategic elements, as well as suggest changes from an SEA perspective that will form part of the overall Strategy. This will guide any required mitigation measures in order to reduce any potential negative/adverse impacts or to suggest enhancements to those receptors that provide potential positive impacts to East Dunbartonshire.

3.4. Assessment Findings

3.4.1 An environmental assessment has been undertaken for the proposed Transport Planning Objectives and options for the Strategy and has been assessed against the SEA Objectives and criteria, based on their predicted impact on the current environmental baseline. The assessment has been conducted using professional judgement and GIS analysis where appropriate.

3.4.2 The environmental assessments have been recorded in the form of a matrix identifying the environmental performance of each component against the SEA objectives and criteria. The environmental effects are recorded according to their nature (positive, neutral, negative, unknown or no significant effect). The significance of these effects is determined using a combination of the magnitude of the impact and the importance or sensitivity of the receiving environment.

3.4.3 Recommendations have been made where necessary so that environmental considerations are incorporated into the LTS. The assessments also seek to enhance the environmental benefits and suggest recommendations to further enhance or protect the environment.

3.4.4 **Table 5 and 6** provide a full assessment of the Strategic Direction and Transport Planning Objectives respectively. The full assessments for the Transport Options can be found in **Appendix D** provide a full assessment of the Transport Planning Objectives and options for the LTS respectively. An assessment has been undertaken for each component, including all reasonable alternatives and recommendations considered, the key environmental factors are outlined including the influence of SEA on the development of the LTS. In each case the SEA preferred option has been illustrated and commentary to support the reasoning and the options taken forward into the Strategy have also been illustrated.

3.4.5 In cases where the assessed SEA preferred option has not been carried forward into the Strategy as a preferred option the detailed non-environmental reasoning for this has been expanded upon within the assessment summary.

3.5. Assessment: Strategic Direction

3.5.1 The alternatives for delivering an update to the previous iteration of the Local Transport Strategy have been identified, as in paragraph 3.3.1, and assessed as part of the SEA process. **Table 5** sets out the assessments for each strategic direction option and highlights the main differences between the preferred alternatives and the other options.

Table 5: Full assessment of the Strategic Direction for the LTS

ASSESSMENT TABLE KEY			
+ +	Major Positive	✓	SEA Preferred Option
+	Minor Positive		
0	Neutral	✓	LTS Preferred Alternative Option
X	No Significant Effect		
-	Minor Negative		
- -	Major Negative		
?	Uncertain		

	SEA ENVIRONMENTAL FACTORS									
Strategic Direction	**Population and Human Health**	**Cultural Heritage**	**Biodiversity, Flora and Fauna**	**Soil and Geology**	**Landscape**	**Water Quality**	**Air Quality**	**Climatic Factors**	**Material Assets**	**SEA Preferred Option**
Option 1	**0**	**X**	**X**	**X**	**X**	**X**	**0**	**0**	**0**	
	Strategic Direction: Do minimum approach									
	Assessment Commentary: Whilst this alternative to the proposed update to the LTS will result in essential maintenance on the existing road and active travel networks, it will not present an opportunity to review and update existing priorities and commitments in the previous LTS in order to allow for improvements to the existing transport network. This is likely to result in neutral impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets** only.									
Option 2	**+/0**	**?**	**?**	**?**	**?**	**?**	**+**	**+**	**+/0**	
	Strategic Direction: Sustainable transport approach (active travel and public transport focus)									

Strategic Direction	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
	Assessment Commentary: This alternative strategic direction would involve a commitment to improving the sustainable transport network in East Dunbartonshire with a focus on improvements to public transport infrastructure and active travel routes. Whilst this could present potential minor positive impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets** in terms of a shift towards a more sustainable transport network locally which can help to reduce emissions associated with vehicular transport, thus potentially improving air quality and the negative effects associated with climate change. This could also result in local health improvements and give people greater opportunities to engage in active travel and access their local environment. However this approach would limit opportunities to improve and maintain the local road network and other transport options and therefore the effects to the above mentioned environmental factors might also be limited to neutral only. At this stage, the effects on the other environmental factors are unknown.									
Option 3	**+/-**	**?**	**?**	**?**	**?**	**?**	**-/- -**	**-/- -**	**+**	
	Strategic Direction: Private vehicle approach									
	Assessment Commentary: Although this approach to an updated LTS will improve the existing road network which in turn will help traffic flow and improve public safety, resulting in potential positive impacts to **Population and Human Health and Material Assets** in terms of a more efficient network with less opportunity for traffic related health and safety incidences. However, an investment in the road network has the potential to increase overall vehicle use and therefore result in minor negative impacts to **Air Quality and Climatic Factors** in terms of increased numbers of cars on the roads, potential idling, and increased emissions. In vulnerable areas, such as town centres, near schools and designated Air Quality Management Areas (AQMA) the impacts could be significant. As a result, this could lead to emissions-associated health issues.									
Option 4 ✓	**+/++**	**X**	**X**	**X**	**X**	**X**	**+/++**	**+/++**	**+/++**	✓
	Strategic Direction: Integrated approach – combination of all modes of transport									
	Assessment Commentary: This mixed approach to improving the overall transport network in East Dunbartonshire including the sustainable transport and active travel network. This approach would ensure that the local transport network is well-maintained and improvements are made where necessary, resulting in a network that will accommodate improved journey times, traffic flow, reduce congestion and encourage a change in behaviour towards more sustainable modes of transport in order to improve air quality and reduce the transport-related effects of climate change. Therefore it is anticipated that there would be minor positive impacts on									

	SEA ENVIRONMENTAL FACTORS									
Strategic Direction	**Population and Human Health**	**Cultural Heritage**	**Biodiversity, Flora and Fauna**	**Soil and Geology**	**Landscape**	**Water Quality**	**Air Quality**	**Climatic Factors**	**Material Assets**	**SEA Preferred Option**
	Population and Human Health, Air Quality, Climatic Factors and Material Assets, with the potential for significant positive effects.									

3.5.2. The proposed options for the Strategic Direction of the LTS have been considered through the SEA process. The outcome of the assessment is that each of the SEA preferred option has been carried forward into the Strategy.

3.6. Assessment: Transport Planning Objectives

3.6.1 The Transport Planning Objectives and their 'reasonable alternatives' have been identified and assessed as part of the SEA process. **Table 6** sets out the assessment for each of the Transport Planning Objective and highlights the main differences between the preferred alternatives and the other options.

3.6.2 Direct modifications have been made where necessary so that greater environmental considerations are incorporated into the final proposals for the LTS.

Table 6: Full assessment of the LTS Transport Planning Objectives

ASSESSMENT TABLE KEY			
+ +	Major Positive	✓	SEA Preferred Option
+	Minor Positive		
0	Neutral	✓	LTS Preferred Alternative Option
X	No Significant Effect		
-	Minor Negative		
- -	Major Negative		
?	Uncertain		

Proposed Objectives and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Proposed Objective 1										
Alternative 1.1 ✓	+ +	?/+	?/+	?/ 0	?/+	?/+	+ +	+	+ +	✓
	Proposed Objective: Increase modal shift towards more sustainable modes of travel for both travel to work/study and leisure trips									
	Assessment Commentary: Through this objective and the intention to increase sustainable modes of travel for both commuting and leisure journeys it will result in the potential for positive effects in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. This objective will focus on increasing the proportion of everyday journeys by public transport, walking or cycling and create a realistic, natural option and alternative to private car use throughout East Dunbartonshire. This objective could contribute towards a behavioural change throughout the Council for accessing key attractors, reduce traffic congestion and related harmful carbon emissions levels. The significant positive effects will be mainly focussed around the increased provision and participation in sustainable transport alternatives throughout East Dunbartonshire which will have a significant impact on air quality levels through modal shift away from private car use, physical activity, and health and community wellbeing improvements.									

The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive impact on these factors but this will be dependent on sustainable transport infrastructure improvements or transport options to deliver this objective. Modal shift towards sustainable transport modes could potentially contribute to a reduction in road based travel and related run-off pollution which in turn could reduce potential detrimental effects on **Water Quality**.

Proposed Mitigation Measures:

Cultural Heritage

- Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting.
- Ensure appropriate and responsible access to heritage assets.

Biodiversity, Flora and Fauna

- Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc.
- Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented.

Soil and Geology

- Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil.
- Implement soil erosion prevention measures outlined in good practice guidance where necessary.

Landscape

- Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan.

Water Quality and Climatic Factors

- Control and treatment of surface run-off.
- Adoption of best practices to prevent/minimise adverse impacts to drainage.
- Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required.

Alternative 1.2	**+**	**?/+**	**?/+**	**?/ 0**	**?/+**	**?/+**	**+**	**+**	**+**

Proposed Objective: Increase modal shift towards more sustainable modes for leisure trips by improving public transport to attractions

	Assessment Commentary: Through this objective and the intention is to increase sustainable modes of travel for leisure journeys will result in potential for minor positive effects in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. This objective is likely to generate measures which may reduce private vehicle trips around attractions in East Dunbartonshire. These would reduce congestion and parking pressures at attractions like Mugdock Country Park, potentially increasing visitor rates with positive impacts on economic growth. However this objective fails to address the potential for realising the benefits of modal shift from travel to work and study journeys, which make up the majority of journeys in the area and therefore the overall impacts of this objective, are likely to be minimal. The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive impact on these factors but this will be dependent on sustainable transport infrastructure improvements or transport options to deliver this objective. Modal shift towards sustainable transport modes could potentially contribute to a reduction in road based travel and related run-off pollution which in turn could reduce potential detrimental effects on **Water Quality**.	
	Proposed Mitigation Measures: The same proposed mitigation measures as **Alternative 1.1**.	
Alternative 1.3	**+** | **?/+** | **?/+** | **?/0** | **?/+** | **?/+** | **+** | **+** | **+**	
	Proposed Objective: Increase modal shift towards more sustainable modes for travel to work and study by improving public transport	
	Assessment Commentary: This objective is likely to generate measures which may reduce private vehicle trips on the key cross boundary routes in East Dunbartonshire. These would reduce congestion on radial corridors, relieve parking pressures at transport hubs, improve journey times, reduce harmful emissions levels and reduce noise. However, this objective fails to address the potential for realising the benefits of modal shift from leisure journeys by increasing sustainable travel to main attractions. There is potential for minor positive effects in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive impact on these factors but this will be dependent on sustainable transport infrastructure improvements or transport options to deliver this objective. Modal shift towards sustainable transport modes could potentially contribute to a reduction in road based travel and related run-off pollution which in turn could reduce potential detrimental effects on **Water Quality**.	
	Proposed Mitigation Measures: The same proposed mitigation measures as **Alternative 1.1**.	

Proposed Objective 2										
Alternative 2.1 ✓	+ +	?	?	?	?	?	+	+	+	✓
Proposed Objective: Reduce inequality by providing high quality access for all										
Assessment Commentary: Through this objective and the intention to use and improve sustainable transport modes as an enabler to improve opportunities for all by increasing access to essential services and facilities that are both affordable and easily realised, there is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. This objective will focus on social inclusion and intends to benefit the most deprived areas of East Dunbartonshire while also encouraging active travel, healthy travel habits, outdoor leisure and improve health and wellbeing throughout the local authority area. This objective is anticipated to increase the proportion of everyday journeys by public transport, walking or cycling and create a realistic option and alternative to private car use throughout East Dunbartonshire. This objective could contribute towards a behavioural change throughout the Council for accessing essential services and facilities, reducing traffic congestion and related harmful carbon emissions levels. The significant positive effects will be mainly focussed around the increased provision and participation in sustainable transport alternatives throughout East Dunbartonshire which will have a significant impact on air quality levels through modal shift away from private car use, physical activity, and health and community wellbeing improvements. The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive impact on these factors but this will be dependent on sustainable transport infrastructure improvements or transport options to deliver this objective.									
Proposed Mitigation Measures: **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc. - Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology**									

	- Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape** - Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required.									
Alternative 2.2	**+**	**?**	**?**	**?**	**?**	**?**	**+**	**+**	**+**	
	Proposed Objective: Improve the transport network for the elderly and disabled									
	Assessment Commentary: Through this objective improved access to the sustainable transport network is intended to be an enabler to improve opportunities for the elderly and disabled by increasing access to essential services and facilities that are both affordable and easily realised. There is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. This objective is focussed on improvements aimed at very specific cohorts and is not based on ensuring optimum access standards for all transport network users. This objective would likely result in measures that are helpful to some users with restricted mobility but fail to improve overall standards or access. This will reduce the positive impacts on physical activity, health and community wellbeing, by limiting the scope of the transport strategy, while also reducing the overall impacts of a sustainable transport modal shift. The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive impact on these factors but this will be dependent on sustainable transport infrastructure improvements or transport options to deliver this objective.									
	Proposed Mitigation Measures: The same proposed mitigation measures as **Alternative 2.1**.									
Proposed Objective 3										
Alternative 3.1 ✓	**+ +**	**?/+**	**?/+**	**?/0**	**?/+**	**?/+**	**+ +**	**+ +**	**+**	✓
	Proposed Objective: Reduce emissions through reduced vehicle mileage in East Dunbartonshire									
	Assessment Commentary: Through this objective the intention is to increase everyday journeys through the use and improvement of sustainable transport. From a National perspective EDC has a higher than average car ownership and lower than average active travel									

	participation and public transport usage rate. Through this objective there is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. This objective will focus on reducing journeys through private vehicular travel in order to achieve a reduction in related carbon emissions. The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive impact on these factors but this will be dependent on sustainable transport infrastructure improvements or transport options to deliver this objective. In particular, the intended modal shift towards sustainable transport modes could potentially contribute to a reduction in road based travel and related run-off pollution which in turn could reduce potential detrimental effects on **Water Quality**.	
	Proposed Mitigation Measures: **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc. - Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology** - Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape** - Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required.	

Alternative 3.2	**+ +**	**X**	**X**	**X**	**X**	**X**	**+ / ++**	**+**	**?/+**
	Proposed Objective: Impose stricter emission standards for vehicles travelling in East Dunbartonshire								
	Assessment Commentary: Through this objective it is likely that older vehicles, which usually have the worst emissions standards, would be removed. Higher emissions standards are likely to be imposed on the Council fleet and taxis. However, enforcement of the private vehicles standards would not be financially feasible or deliverable, given the staff resources/costs required which will limit the significance of the positive impacts through this objective. It may be possible to restrict entry to certain geographical zones to zero emissions vehicles only but it would not be practical to restrict entry to the whole authority area. There is potential for positive effects specifically in relation to **Population and Human Health, Air Quality and Climatic Factors**. These effects will be mainly through the related health and wellbeing benefits of improved air quality, reductions in harmful emissions through vehicular travel and potential positive impact on the two existing designated Air Quality Management Areas in Bishopbriggs and Bearsden by creating zero emissions zones.								
Proposed Objective 4									
Alternative 4.1 ✓	**+ + / -**	**?/ + / -**	**?/ + / -**	**?/ + / -**	**?/ + / -**	**?/ + / -**	**+ +/- -**	**+ + / -**	**+ / -**
	Proposed Objective: Facilitate sustainable economic growth by improving connections across our boundaries and between our communities								
	Assessment Commentary: This objective is intended to encourage improvements to transport connectivity between East Dunbartonshire's communities and with other neighbouring authorities across our boundaries. Through this objective there is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. Whilst the development of sustainable transport infrastructure has an overall positive effect on many environmental factors the encouraged improvements of the road network could offset the positive effects anticipated through this objective and cause a net neutral or possibly even negative impact on a number of factors, particularly **Air Quality and Climatic Factors**. This objective will focus on mixed transport interventions to encourage inward investment and economic growth, including the development of vibrant, well-connected town centres and active destinations. This objective could contribute to improved transport linkages between communities, particularly rural areas, while also encouraging behavioural change throughout the Council for accessing essential services and facilities, reducing traffic congestion and related harmful carbon emissions levels. The significant positive effects will be mainly focussed around the increased provision and participation in sustainable transport alternatives throughout East Dunbartonshire which will have a significant impact on air quality levels through modal shift away from private car use, physical activity, and health and community wellbeing improvements.								

	The effects on the remaining environmental factors are uncertain at this stage with the potential to provide a positive and negative impact on these factors but this will be dependent on sustainable transport or road based infrastructure improvements and selected transport options to deliver this objective.	
	Proposed Mitigation measures: **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc. - Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology** - Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape** - Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required. - Use of construction SUDS and adoption of best practices to avoid pollution of watercourses. **Air Quality and Climatic Factors** - Ensure road improvements are designed with due regard to areas of poor air quality e.g. AQMAs. - Should changes in road alignment be proposed, it is important to ensure, where practicable, that the distance between road traffic and sensitive receptors is not significantly reduced. Where the opportunity presents itself, the distance	

	between road traffic and sensitive receptors with poor air quality should be increased in order to improve local air quality at these receptors.	
Alternative 4.2	**-** **?/-** **?/-** **?/-** **?/-** **?/-** **-/- -** **-** **?/-**	
	Proposed Objective: Stimulate economic growth by increasing road capacity to reduce congestion	
	Assessment Commentary: An increase in the road capacity would reduce congestion in the short term and reduce commuting journey times but is likely to exacerbate the long term problem by signalling to commuters and travelling public that the council is primarily seeking to accommodate car drivers rather than sustainable modes of transport. While increasing capacity may relieve some congestion it is likely to increase overall emissions levels and have negative impacts on **Population and Human Health, Air Quality and Climatic Factors**. Increasing road capacity will be contrary to Councils intention of increasing modal shift, contribute to an increase in carbon emissions and poor air quality and create an overall less attractive and pleasant environment to live, work and visit. The effects on the remaining environmental factors are uncertain at this stage with the potential to provide negative impact on these factors but this will be dependent on the road based infrastructure improvements and selected transport options to deliver this objective.	
	Proposed Mitigation Measures: **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc. - Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology** - Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape**	

	- Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required. - Use of construction SUDS and adoption of best practices to avoid pollution of watercourses. **Air Quality and Climatic Factors** - Ensure road improvements are designed with due regard to areas of poor air quality e.g. AQMAs. - Should changes in road alignment be proposed, it is important to ensure, where practicable, that the distance between road traffic and sensitive receptors is not significantly reduced. Where the opportunity presents itself, the distance between road traffic and sensitive receptors with poor air quality should be increased in order to improve local air quality at these receptors.	
Alternative 4.3	**+ +** | **?/ +** | **?/ +** | **?/ +** | **?/ +** | **?/ +** | **+ +** | **+ +** | **+ +** **Proposed Objective:** Stimulate economic growth by focussing solely on improving public transport infrastructure **Assessment Commentary:** This objective would lead to improvements to bus and rail infrastructure which would make public transport journeys a more attractive and realistic alternative throughout East Dunbartonshire. This objective in combination with the Councils Active Travel Strategy would form a strong alliance to drive the improvements in the sustainable transport network in East Dunbartonshire. This objective is likely to provide positive impacts on all environmental factors, most significantly concerning **Population and Human Health, Air Quality, Climatic Factors and Material Assets.** **Proposed Mitigation Measures:** **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc.	✓

	- Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology** - Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape** - Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required. - Use of construction SUDS and adoption of best practices to avoid pollution of watercourses.	
Proposed Objective 5		
Alternative 5.1 ✓	**+ +** | **X** | **X** | **X** | **X** | **X** | **+ +** | **+ +** | **+ +** **Proposed Objective:** Improve health by increasing walking and cycling rates **Assessment Commentary:** Through this objective the intention is to increase everyday journeys through the use and improvement of sustainable transport. From a National perspective EDC has a higher than average car ownership and lower than average active travel participation and public transport usage rate. Through this objective there is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. This objective will focus on reducing journeys through vehicular travel in order to achieve a reduction in related carbon emissions. The national policy framework for increasing activity levels is clearly set out in the Cycling Action Plan for Scotland and the National Walking Strategy and Lets Get Scotland More Active. There is substantial evidence that increasing physical activity levels contribute to a healthier lifestyle bringing numerous benefits including: a higher quality of life for the people in East Dunbartonshire, reducing health inequalities; reduced risk of developing health problems like heart disease, stroke, Type 2 Diabetes and cancer. Changing travel habits by helping people who are able to do so, get out of the car and travel actively by walking or cycling would go some way to improving the health of the residents of East Dunbartonshire. Increased walking and	✓

	cycling at the expense of private car journeys would also contribute to reduced emissions levels with positive impacts on human health, air quality and contributing towards National emissions reduction targets.	
	Proposed Mitigation Measures: **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc. - Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology** - Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape** - Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required. - Use of construction SUDS and adoption of best practices to avoid pollution of watercourses.	
Alternative 5.2	**+** | **?/ +/-** | **?/ +/-** | **?/ +/-** | **?/ +/-** | **?/ +/-** | **+** | **+** | **+**	
	Proposed Objective: Improve health in East Dunbartonshire by providing attractive walking and cycling routes	
	Assessment Commentary: Through this objective the intention is to provide attractive waking and cycling routes to improve health in East Dunbartonshire. Through this objective there is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. However, the objective relates to provision of routes as a means to	

	improving health but not an actual increase in rates of cycling or walking. Thus if this objective were fulfilled, its success would be measured by the number of attractive routes delivered which if located in unsuitable locations could be under-utilised and have a very low impact on human health due to low uptake. It is likely that provision of routes would contribute to increased activity levels undertaken by residents, however it would be difficult to link rates with new routes. Through this objective there is potential for positive effects specifically in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. However, the effects on the remaining environmental factors are uncertain at this stage with the potential to provide positive and negative impact on these factors but this will be dependent on the location and natural and historic environmental constraints present for proposed walking and cycling infrastructure projects to deliver this objective.	
	Proposed Mitigation Measures: **Cultural Heritage** - Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting. - Ensure appropriate and responsible access to heritage assets. **Biodiversity, Flora and Fauna** - Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc. - Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented. **Soil and Geology** - Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil. - Implement soil erosion prevention measures outlined in good practice guidance where necessary. **Landscape** - Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan. **Water Quality and Climatic Factors** - Control and treatment of surface runoff. - Adoption of best practices to prevent/minimise adverse impacts to drainage. - Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required. - Use of construction SUDS and adoption of best practices to avoid pollution of watercourses.	

Proposed Objective 6										
Alternative 6.1	+	X	X	X	X	X	X	X	X	
	Proposed Objective: Improve safety by slowing vehicle speeds									
	Assessment Commentary: This objective is likely to have a positive effect on safety but is focussed solely on reducing speeds to reduce accident levels. There are a range of other measures that could reduce accidents which are not focussed on slowing vehicle speeds, such as promotional campaigns, advanced driver training, improved crossing facilities, protected separate cycle lanes etc, which may improve safety without necessarily reducing vehicle speeds.									
Alternative 6.2 ✓	+ +	X	X	X	X	X	X	X	X	✓
	Proposed Objective: Improve safety on all modes of transport									
	Assessment Commentary: Taking measures to reduce the risk of accidents and improve safety is likely to have the greatest impact on improving safety on East Dunbartonshire's transport network. While the rate of casualties in East Dunbartonshire is currently falling, it is still imperative for the Council to strive for a zero casualty rate on its roads, cycle ways and paths in order to minimise injuries and deaths on the roads. This objective is anticipated to have significant positive impacts on **Population and Human Health** through a mix of measures including physical improvements to reduce vehicle speeds and promotional campaigns for safer driving, reduced drink driving, advanced driver training etc.									

3.6.3. The proposed Transport Planning Objectives, and all reasonable alternatives, for the LTS have been considered through the SEA process. The outcome of the assessment is that SEA preferred options for Objectives 1, 2, 3, 5 and 6 have been carried forward into the Strategy, in some cases incorporating SEA suggested alterations and/or mitigation. However, the SEA preferred option for Objective 4 has not been taken forward to the draft LTS for the following reason. The alternative option focuses on improving connectivity between East Dunbartonshire and the Glasgow City Region as well as improving connectivity between our communities such as the villages and between town centres. It, therefore, relates to all modes as it is a general objective for connectivity to ensure that people of East Dunbartonshire can get to areas of employment as an economic driver and that inward investment is attracted to the area as a whole.

3.7. Assessment: Transport Options

3.7.1 An environmental assessment has been undertaken for each of the transport options. The assessments have been recorded in the form of a matrix identifying the environmental performance against each of the scoped-in environmental factors and set criteria.

3.7.2 SEA suggested alterations and/or mitigation measures have been made where necessary to ensure that greater environmental considerations are incorporated into the final proposals for the LTS. This has been done through SEA commentary and suggested mitigation sections for each proposed option and their alternatives.

3.7.3 The full site assessment for each transport option are contained within **Appendix D**. The site assessment findings, suggested alterations and proposed mitigation measures have been used to form the decision-making within the LTS. The SEA mitigation measures for relevant options have been integrated into the delivery plan in the LTS to ensure that the SEA information is integrated into the project level in an efficient process.

3.7.4 Whilst the assessments highlighted positive impacts in relation to improved infrastructure, better access to sustainable transport and better connectivity within East Dunbartonshire and neighbouring areas, the main negative impacts identified were attributable to impacts of new or improved infrastructure on built and natural designations and the potential to encourage use of private vehicles. Where negative impacts have been identified the environmental assessments of the sites have included mitigation measures or SEA suggested alterations to address these negative impacts.

3.8. Cumulative Impacts

3.8.1. Following the assessment of each of the components of the LTS an assessment of the cumulative effects is carried out. Cumulative effects can arise from the combined effects of Strategies, as well as a result of interaction between different components of a single Strategy. For example, where several developments each have insignificant effects but together have a significant effect, or where several individual effects of the PPS have a combined effect.

3.8.2. It should be noted that, with the implementation of the proposed mitigation measures suggested in each of the individual local opportunities assessments, the effects for each of the environmental factors are likely to be neutralised and other effects could potentially become more positive in nature.

3.8.3. The cumulative, secondary and synergistic effects of the LTS Transport Planning Objectives and Planning Options have been determined as detailed below. As the Options are defined by community areas, the cumulative effects for each community have been outlined in **Tables 7 – 11** as well as the impact of the Strategy as a whole for East Dunbartonshire.

Table 7 – Area Wide Cumulative, Secondary & Synergistic Effects

Environmental Factor	Cumulative, Secondary & Synergistic Effects
Population & Human Health	Overall minor and major positive impacts including: • Better access to the wider environment for leisure and business purposes as a result of improved transport networks and • Smarter travel options including active travel, public transport and Car Clubs
Material Assets	
Cultural Heritage	No significant impacts identified
Biodiversity, Flora & Fauna	No significant impacts identified
Soil & Geology	No significant impacts identified
Landscape	No significant impacts identified
Water Quality	No significant impacts identified
Air Quality	Overall minor positive impacts, with the potential for significant effects, including: • A modal shift away from vehicular based travel through the promotion of active travel alternatives which in turn will contribute to a reduction in air pollution and carbon emission levels and • A positive influence on traffic flow, particularly in relation to actions relating to Urban Traffic Control Systems, public realm improvements and road narrowing.
Climatic Factors	

Table 8 – Bearsden & Milngavie Cumulative, Secondary & Synergistic Effects

Environmental Factor	Cumulative, Secondary & Synergistic Effects
Population & Human Health	Overall minor and major positive impacts including: • Better access to the wider environment for leisure and business purposes as a result of improved transport networks and • Smarter travel options including active travel and improved accessibility to public transport facilities
Material Assets	

Cultural Heritage	Cumulative minor negative impacts in relation to the implications of new parking options on the A81 corridor at existing rail stations and the potential construction of a new rail station at the Allander due to impacts on Conservation Areas and Townscape Protection Areas both within Milngavie and Bearsden town centres, as well as potential impacts to the Antonine Wall World Heritage Site Buffer Zone.
Biodiversity, Flora & Fauna	No significant impacts identified
Soil & Geology	No significant impacts identified
Landscape	No significant impacts identified
Water Quality	No significant impacts identified
Air Quality	Overall minor positive impacts including: • A modal shift away from vehicular based travel through the promotion of active travel alternatives which in turn will contribute to a reduction in air pollution and carbon emission levels.
Climatic Factors	However a number of negative impacts were identified, notably in relation to new parking options on the A81 corridor at existing rail stations and the potential construction of a new rail station at the Allander. These include: • Localised increased traffic, especially at peak times, to access such facilities and • Impacts to the flood risk area located along the A81 and near the Allander.

Table 9 – Bishopbriggs, Torrance, Balmore & Bardowie Cumulative, Secondary & Synergistic Effects

Environmental Factor	Cumulative, Secondary & Synergistic Effects
Population & Human Health	Overall minor and major positive impacts including: • Better access to the wider environment for leisure and business purposes as a result of improved transport networks • Better transport connections in areas such as Auchinairn • Improved transport options as part of the City Deal project, including a potential rail station at Westerhill, and • Smarter travel options including active travel and improved accessibility to public transport facilities
Material Assets	
Cultural Heritage	No significant impacts identified
Biodiversity, Flora & Fauna	No significant impacts identified
Soil & Geology	No significant impacts identified
Landscape	No significant impacts identified
Water Quality	No significant impacts identified
Air Quality	Overall minor positive impacts, with the potential for significant effects, including: • A modal shift away from vehicular based travel through the promotion of active travel alternatives which in turn will contribute to a reduction in air pollution and carbon emission levels and

	• Active monitoring and management of Bishopbriggs AQMA

Table 10 – Kirkintilloch, Lenzie, Waterside and Twechar Cumulative, Secondary & Synergistic Effects

Environmental Factor	Cumulative, Secondary & Synergistic Effects
Population & Human Health	Overall minor and major positive impacts including: • Better access to the wider environment for leisure and business purposes as a result of improved transport networks. The options within the Hillhead & Harestanes Place Plan will, in particular, result in cumulative and secondary positive impacts as local walking and transport routes are upgraded and enhanced to suit local demand. • Smarter travel options including active travel and improved accessibility to public transport facilities, particularly in the Kirkintilloch/Lenzie/Woodilee area.
Material Assets	
Cultural Heritage	No significant impacts identified
Biodiversity, Flora & Fauna	No significant impacts identified
Soil & Geology	No significant impacts identified
Landscape	No significant impacts identified
Water Quality	No significant impacts identified
Air Quality	Overall minor positive impacts, with the potential for significant effects, including: • A modal shift away from vehicular based travel through the promotion of active travel alternatives which in turn will contribute to a reduction in air pollution and carbon emission levels

Table 11 – Lennoxtown, Milton of Campsie, Haughhead & Clachan of Campsie Cumulative, Secondary & Synergistic Effects

Environmental Factor	Cumulative, Secondary & Synergistic Effects
Population & Human Health	Overall minor and major positive impacts including: • Better access to the wider environment for leisure and business purposes as a result of improved transport networks • Improved public realm to support improved accessibility for pedestrians and • Smarter travel options including active travel and improved accessibility to public transport facilities
Material Assets	
Cultural Heritage	No significant impacts identified
Biodiversity, Flora & Fauna	No significant impacts identified
Soil & Geology	No significant impacts identified
Landscape	No significant impacts identified
Water Quality	No significant impacts identified

Air Quality	Overall minor positive impacts, with the potential for significant effects, including: • A modal shift away from vehicular based travel through the promotion of active travel alternatives which in turn will contribute to a reduction in air pollution and carbon emission levels and

3.9. Influence of SEA on the Local Transport Strategy

3.9.1. Through each of the assessments for the Strategic Direction, Transport Planning Objectives and Transport Options there have been notable examples of the positive influence of SEA on the development of the LTS including the acceptance of a number of SEA suggested alterations, the inclusion of SEA preferred options and the integration of proposed mitigation measures in to the Strategy. The SEA preferred options were fed back to the LTS stakeholders and an agreement was made to adopt these into the final draft of the LTS.

3.9.2. However, the SEA preferred option was not accepted as the Strategy preferred option for all options assessed; these were Option 31 Alternatives 1 and 2. Therefore justification for this decision was requested and provided by the Strategy development officer. The reason for these decisions are outlined in **Table 12.**

Table 12 – Justification for not taking forward SEA Preferred Options

Option	Wording	Justification
Option 31 LTS preferred alternative	Investigate the design and implementation requirements of parking options at rail stations on the A81 corridor	The option of expanding the rail station car park at Milngavie was the preferred option in the 2018 A81 Options Appraisal Study. However, some more detailed analysis is required to assess the feasibility of delivering this option at Milngavie and at other stations on the A81 corridor. The option of extending the Bears Way was the second highest scoring option in the 2018 A81 Options Appraisal Study so was included as an alternative option. However, in September 2016, the Council voted to halt progress on this project and there has been no decision taken since to continue the project, therefore it will not be included in the draft LTS.
Option 31 SEA preferred alternative	Extension of segregated Bears Way cycleway (phases 2 and 3)	

3.9.3. The SEA process has influenced the Strategy direction of the LTS by ensuring that the additional elements proposed within the SEA preferred vision are incorporated into the Transport Planning Objectives and Transport Options.

3.9.4. Mitigation measures have also been identified as part of the assessments where appropriate and discussed with the relevant stakeholders in order to avoid adverse impacts, reduce the significance of the effects or enhance neutral or positive impacts. Mitigation has also taken the form of suggested alterations to the wording of the Objectives and Options considered and project level mitigation.

4.1. Mitigation Measures

4.1.1. Schedule 3 paragraph 7 of the Environmental Assessment (Scotland) Act 2005 require that the Environmental Report includes the measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse effects on the environment of implementing the Local Transport Strategy (LTS).

4.1.2. Mitigation measures have been proposed and incorporated into each of the assessments, where necessary, in order to avoid, reduce, mitigate or offset any potential adverse environmental impacts and enhance any neutral or positive environmental impacts identified. For the assessment of the LTS, mitigation has been incorporated into the assessments which have led to the adoption as the Strategy preferred option in the majority of cases.

4.1.3. The SEA suggested alterations and mitigation measures will be used to inform the delivery of individual projects to ensure that the SEA information is integrated into the project level in an efficient process.

4.1.4. Where the mitigation proposed does not relate to modification to the Strategy itself the proposed mitigation measures have been set out in **Table 13** to clearly identify: (1) the impacted and (2) the measures required. The lead authority for implementing such measures will be determined by who is delivering the option.

Table 13 – Proposed Mitigation Measures

Issue/Impact Identified in the Environmental Assessment	Mitigation Measure
Waste from construction and changes to infrastructure	Good practice guidance should be followed relating to construction dust and waste management e.g. environmental protection standards, good codes of practice, construction principles and design guides. Waste should be reused or recycled where possible.
Short-term disruptions to routes and the use of facilities e.g. bus stops/shelters	Where disruption to routes and bus stops/shelters occurs arrangement should be made to provide alternative infrastructure in the short-term
Impacts to cultural heritage assets including restricting access	Minimise and monitor any ground disturbance and incorporate design measures in order for required infrastructure improvements and maintenance to be carried out in a sensitive and sustainable manner to avoid or minimise any impacts on the historic environmental assets or their setting.
	Ensure appropriate and responsible access to heritage assets.
Changes to existing public realm and transport network resulting in adverse effects on the character and quality of conservation areas	Avoid or reduce impacts by improving the quality, design and appropriateness of street furniture, lighting, road signs, safety features, public transport facilities (bus stops) and by reducing street clutter.

Impacts relating to new or altered infrastructure on species and habitats with the potential to impact on features of ecological value	Additional surveys to determine level and type of species/habitats that will be potentially impacted from the intended outcomes such as bat surveys/extended habitat surveys etc.
	Any infrastructure changes/improvements should aim to retain features of ecological value within the design. The highest priorities for protection such as woodland, riparian habitats, ponds, wetlands etc. should be considered and any impact prevented
	The materials used should be considerate of the surrounding environment
Impacts of construction on geological and soil assets including peat	Further surveys of peatland/carbon rich soils should be carried out to ensure construction activities achieve outcomes which will not devalue protected soil.
	Implement soil erosion prevention measures outlined in good practice guidance where necessary.
New or alterations to existing road and path networks on the existing landscape	Integration of high environmental and design standards that maintain existing landscape distinctiveness and will be consistent with the Local Development Plan.
Impacts on drainage, surface water and flood risk areas as a result of new or altered road and path networks	Control and treatment of surface run-off
	Adoption of best practise to prevent/minimise adverse impacts to drainage
	Further Flood Risk Assessments to determine extend of flood risk in the area and the implementation of flood risk management measures, if required
	Ensure all new transport interventions and transport improvement works will implement appropriate measures to minimise pollution from surface water run off e.g. oil separators and silt traps.
Transport network improvements impacting on local air quality	Ensure road improvements are designed with due regard to areas of poor air quality e.g. AQMAs.
	Should changes in road alignment be proposed, it is important to ensure, where practicable, that the distance between road traffic and sensitive receptors is not significantly reduced. Where the opportunity presents itself, the distance between road traffic and sensitive receptors with poor air quality should be increased in order to improve local air quality at these receptors.

4.2. Monitoring

4.2.1 Through Section 19 of the Environmental Assessment (Scotland) Act 2005, East Dunbartonshire Council is required to monitor significant environmental effects of the implementation of the LTS. The monitoring should be implemented to enable the identification of any unforeseen adverse effects at an early stage to allow the appropriate remedial action to be implemented.

4.2.2 The specific measures that are to be taken to monitor the significant environmental effects of the implementation of the LTS will form part of the Post-Adoption Statement, prepared as soon as reasonably practicable after the adoption of both documents in accordance with Section 18 of the Act. It is envisaged that the following indicators will be included within the monitoring framework.

4.2.3 The proposed SEA monitoring framework (**Table 14**) will directly align with the monitoring framework for the LTS. The progress being made in the delivery of each action contained within the action plan will be monitored throughout the lifetime of the Strategy. The progress being made in delivering on the six Transport Planning Objectives will also be monitored by recording progress being made across a number of indicators. These indicators are provided through national, regional and local datasets as well as information recorded by the Council delivery services.

Table 14: Proposed SEA Monitoring Framework for the LTS

Mode	Theme	Indicator	Source	Baseline	Link to Transport Planning Objective(s)
Active Travel	Travel to school	Proportion of pupils who walk to school	Hands Up Scotland Survey	43.4% (2018)	1, 5
		Proportion of pupils who cycle to school	Hands Up Scotland Survey	3.1% (2018)	1, 5
	Travel to work	Proportion of East Dunbartonshire residents who walk to work	National Census	4.8% (2011)	1, 5
		Proportion of East Dunbartonshire residents who cycle to work (Average 2013-2017)	Travel and Transport in Scotland	1.4% (2013-2017 average)	1, 5
	Frequency of walking	Adults (16+) – frequency of walking as a means of transport in previous 7 days	Travel and Transport in Scotland	No days – 36.2% 6-7 days – 13.9% (2016)	1, 5
	Training	Number of children trained in	East Dunbartonshire Council	Level 1 – 344 Level 2 – 333	5, 6

Mode	Theme	Indicator	Source	Baseline	Link to Transport Planning Objective(s)
		Bikeability cycle training		(2016/17)	
	Training	Proportion of primary schools delivering Level 2 Bikeability cycle training	East Dunbartonshire Council	22% (2016/17)	5, 6
	Cycle counts	Number of people passing cycle counters in EDC	East Dunbartonshire Council / Sustrans / Scottish Canals	Various levels across separate counters	1, 5
Public transport	Bus services	Adults (16+) use of local bus services in the previous month	Travel and Transport in Scotland	Every day or almost every day – 6% Not used in the past month – 64.2% (2017)	1
	Rail patronage	Estimated entries and exits at stations	Office of Rail and Road	Bearsden – 542,322 Bishopbriggs – 772,256 Hillfoot – 317,556 Lenzie – 885596 Milngavie – 940026 Westerton – 783,084 (2017/18)	1
	Travel to work	Proportion of East Dunbartonshire residents who travel to work by bus	National Census	7.4% (2011)	1 ,3
		Proportion of East Dunbartonshire residents who travel to work by train	National Census	8.4% (2011)	1, 3

Mode	Theme	Indicator	Source	Baseline	Link to Transport Planning Objective(s)
Roads	Road traffic	Vehicle kilometres travelled on EDC roads	Scottish Transport Statistics	581 million km (2017)	3
	Road counts	Number of vehicles on specific roads	East Dunbartonshire Council	Various levels across separate counters	3
	Road condition	Rating of EDC road conditions by traffic light systems	East Dunbartonshire Council	Red (all roads) – 6% Amber (all roads) – 29%	6
	Travel to work	Proportion of East Dunbartonshire residents who travel to work by car	National Census	67.7% (2011)	3
	Frequency of driving	People aged 17+ frequency of driving	Travel and Transport in Scotland	Every day – 41.7% Less than once a month – 0.9% (2017)	3
Parking	Use of EDC Car Parks	Use and turnover of EDC Charged car parks	East Dunbartonshire Council	Various levels across town centre car parks	1
	Use of EV charging points	Total number of charging events / kwh charged	East Dunbartonshire Council / Scottish Government	Various levels across individual charging points	1, 3
All modes	Inequalities	Overall SIMD ranking for EDC and geographic access ranking	Scottish Index for Multiple Deprivation		2
	Employment	Level of employment by type in East Dunbartonshire	NOMIS		4
	Employment	Growth of employment sectors	Scottish Government		4

5.1. Statutory Consultation

5.1.1. The statutory consultation for this SEA document and corresponding Local Transport Strategy (LTS) is:

Tuesday 17 September – Tuesday 12 November

5.1.2. Responses should be submitted through email or post to the following addresses:

Email: sustainability@eastdunbarton.gov.uk

Post: Sustainability Policy
Place, Neighbourhood and Corporate Assets
East Dunbartonshire Council
Broomhill Industrial Estate
Kilsyth Road
Kirkintilloch
G66 1TP

5.2. SEA Timetable

5.2.1. The SEA activities to date and approximate timetable for the LTS and further SEA stages are summarised below (**Table 15**). The SEA process has aligned with the development stages for the Strategy itself.

5.2.2. Please note that the anticipated timescales for the completion of further SEA stages and the Strategy may require to be extended if contributions from the Outcome Delivery Groups are delayed or are reallocated due to failure of Partners to deliver them.

Table 15: **Consultation and SEA timetable**

Strategy Preparation Stages	SEA Stages	Timescale & Consultation Period, if required
Preliminary Assessment and Survey / Research work as part of the Transport Options Report	Scoping Report: • Collate and forecast baseline environmental information • Adopt SEA environmental objectives and criteria	• March – June 2016 (research and draft) • Scoping Report submitted to the SEA Gateway on 8th June 2016 • 5 week period of Consultation with the Consultation Authorities.
Prepare Draft Plan	Environmental Assessment: • Assess the LTS Strategic Direction and Transport Planning Objectives	• June 2016 – July 2019

	• Assess Transport Options • Assess alternatives to the LTS and options considered • Prepare Draft Environmental Report	
Publish & Consult on Draft Plan	Publish & Consult on Draft Environmental Report	• Seeking Committee Approval for the Draft Strategy and ER at Place, Neighbourhood and Corporate Assets Committee 29th August 2019 • Submission of the Draft ER to the CA's September 2019 (6 week consultation)
Adopt Plan	Produce Post-Adoption Statement and publish along with the adopted Finalised LTS	• Final Strategy aiming to publish in January 2020 • Submission of Post-Adoption Statement to the CAs February/March 2020
Monitor & Review	Monitor and Review	On-going/Annual review Public report to be produced by Policy Officer in 2022

Section 6: Appendices

Appendix A – Relevant Policies, Plans, Programmes, Strategies, Legislation and Environmental Protection Objectives

Please note that this appendix lists key legislation, plans, programmes, policies and strategies that influence or are influenced by the Local Transport Strategy. Their content, where appropriate, has been used to inform the environmental objectives for the SEA of the Plan.

Relevant PPS and Legislation	Summary / Objectives or requirements	How objectives and requirements influence or are influenced by the Local Transport Strategy
International		
Rio Declaration (1992)	The Declaration sets out 27 principles to enable the global community to work towards international agreements that respect the interests of all and protect the integrity of the global environmental and developmental system. The Declaration highlighted the necessity to protect and enhance the environment, economics and social aspects in both developed and developing countries.	The LTS will demonstrate a commitment at a local level to realise economic, social and environmental wellbeing as much as possible for the residents and visitors of East Dunbartonshire.
Johannesburg Declaration (2002)	The Johannesburg Declaration on Sustainable Development. The 2002 Declaration built upon the principles established through the Rio Declaration and further developed principles of sustainable development and sought international commitment to these Sustainable Development Principles.	Within the LTS, all outcomes will be guided by sustainable development principles.
National		
Local Government in Scotland Act 2003	This Act describes the way in which local authorities discharge their functions and about the local provision of certain public services; to give local authorities power to do things which they consider will advance well-being; to provide exemptions and reliefs from non-domestic rates in relation to certain lands and heritages; to confer power on the Scottish Ministers to combine certain lands and heritages for the purposes of assessing rateable value; to require local authorities to prepare, and endeavour to implement, a plan relating to the carrying out of their waste disposal and collection functions; to make new provision about	The Local Government in Scotland Act 2003 set the statutory basis for community planning in which the Community Empowerment (Scotland) Act 2015 stems from.

	the capital expenditure of those authorities and about the making of capital grants to them; to make some miscellaneous provisions connected with the functions of local authorities; and for connected purposes.	
Community Empowerment (Scotland) Act 2015	The Community Empowerment Act will help to empower community bodies through the ownership of land and buildings, and by strengthening their voices in the decisions that matter to them. It will also improve outcomes for communities by improving the process of community planning, ensuring that local service providers work together even more closely with communities to meet the needs of the people who use them. The Act does a number of things including: extending the community right to buy, making it simpler for communities to take over public sector land and buildings, and strengthening the statutory base for community planning. Crucially it can help empower community bodies through the ownership of land and buildings and strengthening their voices in the decisions and services that matter to them.	The Community Empowerment (Scotland) Act 2015 replaced Local Government in Scotland 2003 as the primary legislative provision for community planning. Part 9 of the Community Empowerment (Scotland) Act 2015 relates specifically to Allotments and sets out definitions for an allotment, the requirements for local authorities to provide allotments, maintain a list for local demand, leasing opportunities and maintenance of access to allotments. Specific for the preparation of a Local Transport Strategy, the Act sets a duty upon all local authorities in Scotland to prepare a food-growing strategy, review the strategy every 5 years and as part of the strategy conduct an annual allotments report with the details of all of the different allotments in the local authority's area. The Act is the main driver behind the preparation of the Local Transport Strategy for East Dunbartonshire.
National Planning Framework 3	The National Planning Framework 3 is the Scottish Government's Strategy for the long term development of Scotland's towns, cities and the countryside. It sets out key planning outcomes for Scotland: • A successful sustainable place – supporting economic growth, regeneration and the creation of well-designed places • A low carbon place – reducing our carbon emissions and adapting to climate change • A natural resilient place – helping to protect and enhance our natural cultural assets and facilitating their sustainable use • A connected place – supporting better transport and digital connectivity	A sustainable, low carbon and natural resilient place are the most relevant outcomes that the Local Transport Strategy is likely to align with.

Scottish Planning Policy (SPP)	The consolidated SPP provides a shorter, clearer and more focused statement of national planning policy. The SPP and NPPG series has been replaced by a single SPP. As part of the commitment to proportionate and practical planning policies, the Scottish Government has rationalised national planning policy. The SPP sets out: • the Scottish Government's view of the purpose of planning, • the core principles for the operation of the system and the objectives for key parts of the system, • statutory guidance on sustainable development and planning under Section 3E of the Planning etc. (Scotland) Act 2006, • concise subject planning policies, including the implications for development planning and development management, and • The Scottish Government's expectations of the intended outcomes of the planning system. Alongside policy on development plans, development management, community engagement, sustainable development, climate change and sustainable economic growth, the SPP sets out policies related to the delivery of low carbon communities and natural heritage.	Scottish Planning Policy (SPP) outlines the need for community engagement, sustainable development, and contributions towards the requirements of the Climate Change (Scotland) Act 2009. It also lists open space and physical activity as a key priority for Scotland's planning system which the Local Transport Strategy is likely to contribute to.
Scottish Government National Outcomes	Fifteen National Outcomes were set for the Scottish Government, and were updated in 2011. These include: • We live in a Scotland that is the most attractive place for doing business in Europe. • We realise our full economic potential with more and better employment opportunities for our people.	Of the 15 National Outcomes, the outcomes that will link to the Local Transport Strategy are: • We are better educated, more skilled and more successful, renowned for our research and innovation. • We live longer, healthier lives. • We have improved the life chances for children, young people and families at risk.

	• We are better educated, more skilled and more successful, renowned for our research and innovation. • Our young people are successful learners, confident individuals, effective contributors and responsible citizens. • Our children have the best start in life and are ready to succeed. • We live longer, healthier lives. • We have tackled the significant inequalities in Scottish society. • We have improved the life chances for children, young people and families at risk. • We live our lives safe from crime, disorder and danger. • We live in well-designed, sustainable places where we are able to access the amenities and services we need. • We have strong, resilient and supportive communities where people take responsibility for their own actions and how they affect others. • We value and enjoy our built and natural environment and protect it and enhance it for future generations. • We take pride in a strong, fair and inclusive national identity. • We reduce the local and global environmental impact of our consumption and production. • Our people are able to maintain their independence as they get older and are able to access appropriate support when they need it. • Our public services are high quality, continually improving, efficient and responsive to local people's needs.	• We live in well-designed, sustainable places where we are able to access the amenities and services we need. • We have strong, resilient and supportive communities where people take responsibility for their own actions and how they affect others. • We value and enjoy our built and natural environment and protect it and enhance it for future generations. • We reduce the local and global environmental impact of our consumption and production. • Our people are able to maintain their independence as they get older and are able to access appropriate support when they need it.
Regional		

Clydeplan 2016	**Placemaking Principle: Adaptable** • Supporting a Successful and Sustainable city region, Natural, Resilient city region • Supports the 'compact city' model with priority given to brownfield locations supporting low energy consumption and higher residential density within a mixed land use context • Contributes towards the delivery of the Glasgow and Clyde Valley Green Network in particular and support for community growing. • Supports the 'town centre first principle', where multiple uses and activities including housing, retail employment and community facilities are clustered in accessible locations in support of the centres role and function.	By setting the spatial vision for planning at a regional level and the planning outcomes it aims to achieve align with Scotland's national outcomes and helps to inform the local interpretation for planning. This will need to be reflected within the LTS.
Sow and Grow Everywhere (SAGE) Strategy	SAGE (Sow And Grow Everywhere) Strategy was a visionary initiative focussed on bringing changes to community food growing in the Glasgow and Clyde Valley (GCV) area. It was partnered by the GCV Green Network Partnership exploring the following: • bringing vacant and derelict land in densely populated urban areas into use for growing as an interim land use • bringing underused land (amenity space) in peripheral estates and social housing areas ('green desert') into use at scales up to market garden growing • bringing under used private garden space in suburban or outlying areas into use for growing • bringing under used public land into active use for growing The Strategy provided the template for Glasgow City Council's Stalled Space initiative and launched several projects including: • Shettleston Community Growing project - for Glasgow City Council / Shettleston Housing Association	East Dunbartonshire Council's Local Transport Strategy will be able to reflect, where possible, the principles explored in the SAGE Strategy.

	• Greyfriar's Gardens - for Glasgow City Council / Merchant City Community Council • Gartnavel Growing Space - for NHS Greater Glasgow & Clyde / Forestry Commission Scotland • Partick Growing Space - for Partick Housing Association • Bellsmyre Growing Space - for the Bellsmyre Community Garden Association • Possil Health Centre - with the Green Exercise Partnership (Forestry Commission Scotland /Scottish Natural Heritage /NHS collaboration) & the NHS Greater Glasgow & Clyde	
Other Authority Best Practice	The other authorities to which this would relate include: • Cultivating Communities: A Growing Challenge. (An allotments strategy for the City of Edinburgh 2010-2015 • Belfast Outdoors – Growing Communities: A Citywide Strategy for Belfast 2012-2022 • Brighton and Hove Allotments Strategy 2014-2024	The content of other authorities' successful strategic actions have the potential to positively influence the outcomes of the EDC LTS and should be taken into account where appropriate.
Local (East Dunbartonshire Council)		
East Dunbartonshire Community Planning Partnership Local Outcome Improvement Plan (LOIP)	The LOIP reiterates the strategic direct, priorities and outcomes for East Dunbartonshire Council that will be delivered in partnership with the Community Planning Partners. It sets a vision for East Dunbartonshire *'Working together to achieve the best with the people of East Dunbartonshire.'* The LOIP also hosts a number of Local Outcomes and Guiding Principles for the Community Planning Partners to adhere to and strive for.	The most relevant elements of the LOIP which will help to drive forward the LTS are throughout East Dunbartonshire, include: - Local Outcome 5: Health and Wellbeing – *Our people and communities enjoy increased physical and mental health and wellbeing.* - Guiding Principle 1: Planning for Place *We will target resources where they are most needed to reduce disadvantage caused by socio-economic inequality.* - Guiding Principle 2: Sustainability - *We will create the conditions for a better quality of life for East Dunbartonshire residents, by recognising the importance of the quality of our built, natural and historic environment in improving the health and*

		wellbeing of our communities. Our environments must also support sustainable economic growth in our communities. We will protect and enhance our local natural environment, build resilience to a changing climate, use natural resources prudently and consider the long term implications of our decisions for present and future generations.
Locality Plans	The Locality Plans respond to a series of Place consultation and community engagement events in each of East Dunbartonshire Council's areas of multiple deprivation to identify the needs of the local community. Overall the Plans will prioritise an approach to improving the outcomes for children, young people, families and the adult population within each area of deprivation. The Locality Plans respond to the requirements of the Community Empowerment (Scotland) Act 2015 and will be a distinctive local expression of the Vision, Outcomes and Guiding Principles of the emerging Local Outcome Improvement Plan (LOIP).	Although not exclusively, the Local Transport Strategy will aim to increase provision and access to food growing opportunities in areas identified as being socially-economically disadvantaged in line with the areas targeted in the Locality Plans. The Locality Plans and Local Transport Strategy should complement each other where the localities of Auchinairn, Hillhead and Harestanes, Twechar and Lennoxtown are focussed on.
Local Development Plan 2017 – 2022	The LDP for East Dunbartonshire sets the framework for the growth and development of East Dunbartonshire up to 2022 and beyond and establishes a presumption in favour of development that contributes to sustainable development as defined in Scottish Planning Policy.	Outlined within the proposed Local Development Plan (LDP) is support for new and/or improved community facilities and open space. In particular, Policy 7: Community Facilities and Open Space support provision within the green belt of a compatible scale and character with the landscape such as growing spaces. The Plan also states that more information on growing spaces will be outlined in a Community Growing Space Strategy (now referred to as the Local Transport Strategy) and Green Infrastructure and Green Network Planning Guidance. In addition, there is reference to King George V Park, Etive Park, Ashburn Gardens and Craigfoot Field as opportunities for further consideration as growing spaces as proposed in EDC's Open Space Strategy.
Local Development Plan – Developer	The draft LDP Developer Contributions Supplementary Guidance provides detail on the developer contributions that will be sought in determining relevant planning applications. In terms of open	Monies must be spent on projects relevant to the nature by which the contribution was sought and all other necessary requirements of Scottish Government Circular 3/2012: Planning

Contributions Supplementary Guidance 2017	space provision the following contribution requirements for residential developments are set out as: • Play Space- £730 per unit • Open Space of Local Importance- £180 per unit • Open Space/ Green Network of Neighbourhood Importance- £310 per unit • Open Space/ Green Network of Regional/ Strategic Importance- £310 per unit (sites of over 50 dwellings only)	Obligations and Good Neighbour Agreements so there is potential scope for this to apply to food growing projects.
Sustainability and Climate Change Framework 2016	The SCCF is intended as a foundation for considering how Council policies, programmes, plans and strategies can contribute to the delivery of the Council's main sustainability priorities: • Zero carbon: reducing carbon emissions • Maximising resilience to the impacts of climate change • Zero waste: reducing material use and waste generation • Reversing biodiversity decline • Sustainable materials • Maximising opportunities to promote health and wellbeing • Supporting fairness and reducing inequality locally and globally • Promoting community empowerment • Supporting local businesses.	Of these main sustainability priorities, the Local Transport Strategy is likely to contribute towards *zero waste, reversing biodiversity decline, sustainable materials, maximising opportunities to promote health and wellbeing, supporting fairness and reducing inequality locally and globally* and *promoting community empowerment.*
Community Asset Transfer Policy	The CAT Policy intends to define a set of rules and a procedure for dealing with community asset transfer requests under part 5 of the Community Empowerment (Scotland) Act 2015 taking into account the requirements set out within the Asset Transfer (Procedure)(Scotland) Regulations 2016 and associated guidance that came into effect 23rd January 2017. Whilst the CAT Policy will demonstrate some links to East Dunbartonshire's Council Corporate Asset Management Plan (CAMP), the Policy will not be directly governed by existing procedures within the CAMP as it will	As the Local Transport Strategy is likely to encourage community empowerment to take establish and take on the management of food growing initiatives, the Community Asset Transfer Policy will support community groups to achieve this.

	set out its own specific procedure related to the transfer of Council owned assets to community groups.	
Open Space Strategy 2015-2020	The East Dunbartonshire Open Space Strategy (2015 – 2020) replaced the East Dunbartonshire Greenspace Audit and Strategy 2004. It sets the framework for current and future open space provision in the Council area, meeting the requirement of Scottish Planning Policy for local authorities to prepare an Open Space Audit and Strategy. It also contributes to the development of the Central Scotland Green Network, promoted in the National Planning Framework 3. The Strategy will be reviewed and updated every 5 years.	The Open Space Strategy (2015 – 2020) provides the Council's Open Space Planning team with a viable and enforceable tool to define open space requirements and establish requirements for new open space from development proposals together with the scale and nature of any planning obligations. The OSS aspires for local access to allotments and community growing spaces, recognising them as a key open space provision in East Dunbartonshire. The Strategy also identifies existing allotment sites and indicates sites that would be potentially feasible as allotments or community growing spaces in the future with development. These should be considered in the development of the Local Transport Strategy.
Green Network Strategy 2017-2022	The purpose of the Green Network Strategy (GNS) is to define the existing strategic green network in East Dunbartonshire using GIS mapping analysis to identify opportunities for the enhancement of the existing green network in both urban and rural locations. The opportunities mapping methodology will guide the identification of areas that are eligible for the expansion and/or enhancement of the green network in order to improve habitat connectivity, increase active travel provision and enhance access to open spaces, as well as health and wellbeing benefits and opportunities for adaptation to the effects of climate change.	The Green Network Strategy provides the Council with a viable and enforceable tool to define green network opportunities and will establish requirements for new green network open opportunities from development proposals together with the scale and nature of any planning obligations. The Local Transport Strategy will add to the beneficial elements of the Green Network Strategy by encapsulating the role of access to the outdoors and local environment for enhanced biodiversity value, outdoor provision and health and wellbeing.
Local Biodiversity Action Plan 2017-2021	The Local Biodiversity Action Plan (LBAP) 2016 – 2020 takes a strategic approach to protecting biodiversity across the East Dunbartonshire Council-wide area, including Mugdock Country Park (Stirling Council and the Joint Committee for the Park were involved in issues related to the Park). The LBAP recognises the importance of biodiversity at both a national and a local level. The production of a new LBAP replaced the Dunbartonshire Biodiversity Action Plan 2013 (East Dunbartonshire and West	The Local Biodiversity Action Plan provides the Council with a viable and enforceable tool to protect and enhance biodiversity throughout East Dunbartonshire and will establish requirements for biodiversity enhancements and mitigation measures from development proposals together with the scale and nature of any planning obligations. Local food growing can contribute to improving the range of biodiversity at a local level and will contribute to the overall aims of the LBAP. The Local Transport

	Dunbartonshire) for an updated, co-ordinated and targeted approach to the protection and enhancement of biodiversity. An ecosystem approach was taken in the development of the LBAP, focussing on Urban, Rural, Woodland and Freshwater ecosystems. Each Ecosystem Plan has its own set of objectives and provides information on associated priority habitats and lists the priority species. The actions within the plan tend to take a habitat focused approach to conserving biodiversity but some species that need an additional helping hand or that we need to gather further survey information for may also have specific actions.	Strategy should also consider the objectives and actions in the LBAP in order to align with it.
Active Travel Strategy 2015-2020	This is the first Active Travel Strategy (ATS) for East Dunbartonshire. The ATS supplements the current Local Transport Strategy (LTS) 2013-2017 and sets a framework and evidence base for proposed programmes of active travel projects in East Dunbartonshire. The ATS is a strategy for increasing participation in active travel in East Dunbartonshire spanning five years and will complement and deliver on transport objectives and interventions within the current Local Transport Strategy and feed into the next LTS. The strategy sets out an action plan, accompanied by a map of proposed enhancements, outlining a range of coordinated projects which deliver multiple benefits and value for money for the area.	In support of the Active Travel Strategy, the Local Transport Strategy will aim to identify sites that will support active travel or sustainable modes of transport for access giving communities better options to participate in food growing activities without the need for private car use.

Appendix B – Consultation Authority Responses to the Scoping Report

HISTORIC ENVIRONMENT SCOTLAND		
ISSUE	**COMMENT**	**HOW HAS THIS BEEN ADDRESSED IN THE ASSESSMENT?**
Scope of Assessment and Level of Detail	We understand that the Local Transport Strategy will identify suitable land for food growing provisions, and increase, support and encourage community food growing. We note that the historic environment has been scoped into the assessment. On the basis of the information provided, we are content with this approach and are satisfied with the scope and level of detail proposed for the assessment.	Noted
Consultation Period for the Environmental Report	We are content with the minimum six week period which you propose for consultation on the draft Strategy and the Environmental Report. Please note that, for administrative purposes, we consider that the consultation period commences on receipt of the relevant documents by the SEA Gateway.	Noted
SNH		
ISSUE	**COMMENT**	**HOW HAS THIS BEEN ADDRESSED IN THE ASSESSMENT?**
Scope of Assessment and Level of Detail	Subject to the specific comments below, we are content with the scope and level of detail proposed for the environmental report.	Noted
Table 1: Proposed Environmental Baseline Data	*European protected species* Please note that badgers and water voles are not European protected species - Badgers are protected under the Protection of Badgers Act 1992 (as amended) and water voles are protected under the Wildlife and Countryside Action 1981 (as amended). For further information on protected species, please see our website - http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/which-and-how/.	Noted
Table 2: Environmental Issues	As highlighted in our screening response, the provision of additional land for allotments and other types of food growing could have negative impacts on biodiversity (e.g. through the loss of existing habitats of biodiversity value). We welcome the clarification in Table 2 that the Local Transport Strategy (LTS) will	Noted

	seek to enhance sites with little existing biodiversity and habitat value without compromising habitat links and connections to the wider green network.	
Table 5: Proposed SEA Objectives, Assessment Questions and Indicators	*Biodiversity, Flora and Fauna* We support the draft indicators but recommend that an additional indicator is used to assess the LTS: • Number of biodiversity assets (see Table 1) affected (positively and/or negatively) by the development of community growing assets.	Indicator incorporated into the monitoring framework for the LTS.
Appendix B: Fit for Purpose Assessment Matrix and Criteria	We welcome the inclusion of the assessment matrix and the criteria for biodiversity but recommend that impacts on non-designated habitats of value are also considered e.g. ancient woodland (identified on the Scottish Ancient Woodland Inventory) and native woodland (identified on the Native Woodland Survey of Scotland).	The impacts to ancient and/or native woodland has been reflected in the updated fit for purpose assessment matrix, and although the assessments of potential sites have not been checked retrospectively to determine whether their use would impact such assets, any other additional sites assessed against this matrix will consider it. Further site level assessments will also be required as stated in the LTS for sites taken forward and will consider these potential assets/constraints. Ancient woodland in East Dunbartonshire has been

		included in the baseline data tables.
Consultation Period for the Environmental Report	We note a minimum period of six to eight weeks is proposed for consultation on the Environmental Report and we are content with this timescale.	Noted.
SEPA		
ISSUE	**COMMENT**	**HOW HAS THIS BEEN ADDRESSED IN THE ASSESSMENT?**
Comments on the Scoping Report	Our comments regarding Appendix B are in Sections 6.12 and 6.13 below. Our concerns relate to potential pollution of the water environment from selection of sites. Additionally we consider that development within flood risk areas should be avoided and that this should be taken into account in assessing sites.	Noted and amendments made to the 'Fit for Purpose' assessment criteria and any proposals within the flood risk area will be identified and suggested alterations/ mitigation proposed or alternatives identified to avoid flood risk. Flood risk under Climatic Factors is also be part of the stage 2 site assessments.
1.1 Relationship with other Plans, Policies and Strategies (PPS)	Some of the PPS included have themselves been subject to SEA. Where this is the case you may find it useful to prepare a summary of the key SEA findings that may be relevant to the Local Transport Strategy. This may assist you with data sources and environmental baseline information and also ensure the current SEA picks up environmental issues or mitigation actions which may have been identified elsewhere.	A review of PPS which have been subject to SEA was undertaken and lessons learned or elements taken forward into the LTS assessment.

2.1	SEPA holds significant amounts of environmental data which may be of interest to you in preparing the environmental baseline, identifying environmental problems, and summarising the likely changes to the environment in the absence of the PPS, all of which are required for the assessment. Many of these data are now readily available on SEPA's website.	Noted
2.2	Additional local information may also be available from our Access to Information unit at our Corporate Office (Telephone 01786 457700 or email dataenquiries@sepa.org.uk).	Noted
2.3	Other sources of data for issues that fall within SEPA's remit are referenced in our SEA topic guidance notes for air, soil, water, material assets and human health.	Noted
3.1 Environmental Problems	We consider that the environmental problems described generally highlight the main issues of relevance for the SEA topics within our remit.	Noted
4.1 Alternatives	We note that alternatives are still being considered. Any reasonable alternatives identified during the preparation of the plan should be assessed as part of the SEA process and the findings of the assessment should inform the choice of the preferred option. This should be documented in the Environmental Report.	Noted
5,1 Scoping in / out of environmental Topics	We agree that in this instance all environmental topics with the exception of Air Quality should be scoped into the assessment. We noted in our screening response that significant effects on local air quality are not likely and therefore this topic could be scoped out.	Noted
6.1	Including a commentary section within the matrices in order to state, where necessary, the reasons for the effects cited and the score given helps to fully explain the rationale behind the assessment results. This allows the Responsible Authority to be transparent and also allows the reader to understand the rationale behind the scores given.	Noted
6.2	Where it is expected that other plans, programmes or strategies are better placed to undertake more detailed assessment of environmental effects this should be clearly set out in the Environmental Report.	Noted
6.3	We would expect all aspects of the PPS which could have significant effects to be assessed.	Noted
6.4	We support the use of SEA objectives as assessment tools as they allow a systematic, rigorous and consistent framework with which to assess environmental effects.	Noted
6.5	When it comes to setting out the results of the assessment in the Environmental Report please provide enough information to clearly justify the reasons for each of the assessments presented. It would also be helpful to set out assumptions that are made during the assessment and difficulties and limitations encountered.	Noted

<table>
<tr>
<td>6.6</td>
<td>It is helpful if the assessment matrix directly links the assessment result with proposed mitigation measures such as in the example below:
<table>
<tr><th>SEA ISSUES - CHECKLIST QUESTION</th><th>Yes or No</th><th>Effect</th><th>COMMENT and OPPORTUNITIES TO MITIGATE OR IMPROVE</th></tr>
<tr><td>Is the allocation at risk from fluvial or coastal flooding?</td><td>Y</td><td>Negative</td><td>Part of site found to be at risk now removed from allocation.</td></tr>
<tr><td>Could the allocation have a physical impact on existing watercourses?</td><td>Y</td><td>Negative</td><td>Site dissected by watercourse. Developer Requirements includes statement "watercourse to be integrated as positive feature of the development. No culverting."</td></tr>
<tr><td>Can the allocation currently be connected to the public sewerage system?</td><td>Y</td><td>Positive</td><td>Developer Requirement includes statement "connect to public sewer"</td></tr>
</table>
</td>
<td>Noted – Proposed SEA suggested alterations and / or mitigation measures integrated into the assessment tables to link with the assessment results.</td>
</tr>
<tr>
<td>6.8 Design of the Assessment Matrices</td>
<td>We are content with the proposed detailed assessment matrix and particularly welcome the commentary box to fully explain the rationale behind the assessment results. We also welcome the link between effects and mitigation / enhancement measures in the proposed assessment framework and the consideration of mitigation of impacts.</td>
<td>Noted</td>
</tr>
<tr>
<td>6.9 Comments on wording of proposed SEA Objectives</td>
<td>We would recommend that the wording of the following SEA objective(s) be revised as follows:

Soil and Geology should refer to carbon rich soils as well as peatland. We note that one of the questions refers to the protection of habitats and species including Invasive Non-Native Species. We do not consider that this is appropriate and should be amended.
Water quality should refer to the water environment not just to water bodies.</td>
<td>In addition to peatland, carbon rich soils were included within the criteria question for Soil and Geology environmental factor.

Error – Reference to Invasive Non-native</td>
</tr>
</table>

		species has been removed. Water Quality objective was altered to 'To prevent deterioration and, where possible, enhance the water environment.
6.10	When it comes to assessment of the effects of allocations or sites we advocate a rigorous methodology which clearly assesses potential effects on all environmental topics. Our experience in relation to assessment of allocations is that it can be a much easier and useful exercise for the plan-maker if the assessment is made against a range of related questions, rather than directly against the environmental topics. This allows a very practical assessment to take place which clearly highlights the environmental benefits and costs of each individual allocation. As an example, assessing the allocation against the question "*Can the allocation connect to public sewage infrastructure?*" gives a clear practical view on how this allocation is likely to affect the water environment.	Noted
6.11	We would draw your attention to the joint SEA and development plan site assessment proforma which sets out the issues which we require to be addressed in more detail.	Noted
6.12	We note that Section g of the pre-site assessment referring to Water Quality and Flooding shows that a score of 3/5 will be the minimum score acceptable. The description of this score indicates that sites could potentially lead to impacts on the water body from surface water run off and have an impact on water quality. SEPA consider this to be unacceptable. SUDs are a requirement under The Water Environment (Controlled Activities)(Scotland) Regulations 2011 (as amended) (CAR). Suitable pollution control measures should be employed wherever there is an identifiable risk to the water environment. This should give particular consideration to contaminated surface water run off arising from earthworks, roads, drainage, compounds and any other associated infrastructure.	The fit for purpose matrix has been updated to include mitigation relating to the need for pollution control measures for identified risks to the water environment. In addition, the minimum score has been altered to 4/5, although the sites assessed and included in the LTS have not been retrospectively assessed.

		There will be further opportunities for site investigation when potential allotment sites are reviewed for their suitability by the Council or community groups note interest in using other sites for community growing. This matrix will also be used as the initial fit for purpose assessment for any future potential sites where there is interest. All potential sites taken forward into the Strategy have undergone a stage 2 site assessments, incorporating the water environment and flood risk through climatic factors.
6.13	Additionally a score of 4/5 indicates that there is the potential to have an impact on groundwater and the water table. SEPA consider this to be unacceptable. Suitable pollution control measures should be employed wherever there is an identifiable risk to the water environment. This includes groundwater (which is 'the water table').	As above.
7.1	We would encourage you to use the assessment as a way to improve the environmental performance of individual aspects of the final option; hence we support proposals for enhancement of positive effects as well as mitigation of negative effects.	Noted
7.2	It is useful to show the link between potential effects and proposed mitigation / enhancement measures in the assessment framework.	Noted

<table>
<tr><td>7.3</td><td>We would encourage you to be very clear in the Environmental Report about mitigation measures which are proposed as a result of the assessment. These should follow the mitigation hierarchy (avoid, reduce, remedy or compensate).</td><td>Noted</td></tr>
<tr><td>7.4</td><td>One of the most important ways to mitigate significant environmental effects identified through the assessment is to make changes to the plan itself so that significant effects are avoided. The Environmental Report should therefore identify any changes made to the plan as a result of the SEA.</td><td>Noted</td></tr>
<tr><td>7.5</td><td>Where the mitigation proposed does not relate to modification to the plan itself then it would be extremely helpful to set out the proposed mitigation measures in a way that clearly identifies: (1) the measures required, (2) when they would be required and (3) who will be required to implement them. The inclusion of a summary table in the Environmental Report such as that presented below will help to track progress on mitigation through the monitoring process.
<table>
<tr><th>Issue / Impact Identified in ER</th><th>Mitigation Measure</th><th>Lead Authority</th><th>Proposed Timescale</th></tr>
<tr><td>Insert effect recorded in ER</td><td>Insert mitigation measure to address effect</td><td>Insert as appropriate</td><td>Insert as appropriate</td></tr>
<tr><td>etc</td><td>etc</td><td>etc</td><td>etc</td></tr>
</table>
</td><td>Noted</td></tr>
<tr><td>8.1 Monitoring</td><td>Although not specifically required at this stage, monitoring is a requirement of the Act and early consideration should be given to a monitoring approach particularly in the choice of indicators. It would be helpful in the Environmental Report included a description of the measures envisaged to monitor the significant environmental effects of the plan.</td><td>Noted.</td></tr>
<tr><td>9.1 Consultation Period</td><td>We are satisfied with the proposal for a six to eight week consultation period for the Environmental Report.</td><td>Noted.</td></tr>
<tr><td>10.1 Outcomes of the Scoping exercise</td><td>We would find it helpful if the Environmental Report included a summary of the scoping outcomes and how comments from the Consultation Authorities were taken into account.</td><td>Noted – Scoping comments and ER/Strategy amendments noted within this Appendix.</td></tr>
</table>

Appendix C – SEA Assessment Criteria and Questions

Environmental Factor	SEA Objective	SEA Criteria – will the vision/objective/proposal in the LTS…?
Population and Human Health	1. To improve human health and community wellbeing.	Demonstrate the benefits of a healthy natural and historical environment on the health and wellbeing of communities?
		Promote a sustainable environment?
		Ensure a safe environment for community food growing and recreational purposes?
		Contribute to reducing social, economic and environmental deprivation in East Dunbartonshire?
		Encourage active travel, outdoor leisure and ensure access to community food growing provision?
		Encourage local communities/volunteers to become involved in community food growing based projects (including Community-led/managed sites)?
Cultural Heritage	2. To protect, conserve, and where appropriate enhance the historic environment	Continue to protect and conserve cultural heritage assets?
Biodiversity Flora and Fauna	3. To protect, enhance, create and, where necessary, restore biodiversity and encourage habitat connectivity.	Promote the importance of biodiversity and the natural environment for local communities and health and wellbeing in East Dunbartonshire?
		Seek to reduce the negative impact on valued biodiversity including non-protected and protected species?
		Ensure no/minimal impact on important habitat fragmentation?
		Encourage biodiversity-friendly practices?
Soil and Geology	4. To maintain or improve soil quality, prevent any further degradation of soils and conserve recognised geodiversity assets.	Protect and improve areas of peatland and carbon rich soils?
		Seek to prevent and improve soil degradation and erosion?
		Result in improvements or remediation to promote the community use of vacant, derelict and contaminated land?
		Protect habitats and species that have Protected Species status?

Landscape	5. To protect and, where appropriate, restore landscape character, local distinctiveness and scenic value.	Promote and enhance local distinctiveness and scenic value?
		Protect and enhance landscape designations (e.g. the Campsie Fells, Local Landscape Areas, green belt)?
Water Quality	6. To prevent deterioration and, where possible, enhance the water environment.	Seek to reduce any impacts on the water environment and the ecological status of water bodies in East Dunbartonshire?
Climatic Factors	7. To contribute towards the reduction of Scottish greenhouse gas outputs in line with Government targets in order to reduce or prevent the overall effects of climate change including those related to flood risk.	Promote a change in culture and behaviour to ensure that the local communities are aware of the issues associated with climate change?
		Include mitigation and adaptation measures in light of a changing climate and local environment?
		Seek to protect, create or enhance natural resources for flood alleviation and carbon capture?
Material Assets	8. To promote the sustainable use of community assets in East Dunbartonshire.	Result in improvements or remediation of contaminated land to promote the community use of vacant and derelict land?
		Support the use of the existing sustainable transport network specifically active travel routes?
		Protect and encourage access to public open spaces for recreation and community based activities?
		Support the implementation of low carbon technologies and the use of sustainable materials through design concepts?

ASSESSMENT TABLE KEY			
+ +	Major Positive	✓	SEA Preferred Option
+	Minor Positive		
0	Neutral	✓	LTS Preferred Alternative Option
X	No Significant Effect		
-	Minor Negative		
- -	Major Negative		
?	Uncertain		

Area Wide

National and Regional Transport Network

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 1 Alternative 1 ✓	+/?	?	?	?	?	?	+/?	+/?	+/?	✓
	Proposed Option: Contribute to the development of national and regional transport strategies and legislation									
	Assessment Commentary: It is anticipated that regional and national strategies, including the National Transport Strategy, Transport (Scotland) Bill, Strategic Transport Projects Review 2 and Regional Transport Strategy, are likely to collectively contribute to all of the Transport Planning Objectives. At a local level, positive impacts are likely to be associated with **Population and Human Health, Air Quality, Climatic Factors and Material Assets** in terms of better access, an improved transport network and contributions to smarter travel options to reduce poor air quality and impacts associated with climate change. However, such strategies may not encourage more sustainable transport options and therefore impacts to these environmental factors may be									

	negative. At this stage, the impacts to the other environmental factors is unknown until more details of the implications of the regional and national strategies is known. There is no reasonable alternative to this option. The strategies and legislation will be produced and failure for the Council to contribute and monitor the implications could be detrimental to the Council in the future.	
Option Assessment		
Option 2 Alternative 1 ✓	**Proposed Option: Continue to support transport improvements that benefit East Dunbartonshire by improving the connectivity of the City Region**	✓
	Assessment Commentary: Whilst this option has the potential to generate multiple benefits for East Dunbartonshire residents and stimulate economic growth in central Scotland generally and encourage journey time savings and increase the competitiveness of the region more widely with knock on benefits for local economies, the option is related to areas out with the EDC boundary and will focus on continual support of programmed options. Therefore it has been determined that this option will not require to be assessed at this stage and there are no reasonable alternatives.	

General

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 3 Alternative 1 ✓	?/+/+ +	?	?	?	?	?	?/+/+ +	?/+/+ +	?/+/+ +	✓
	Proposed Option: Ensure that transport and travel planning carried out by the Council is in line with the Local Transport Strategy's Transport Planning Objectives									
	Assessment Commentary: It is intended that this approach will ensure that all future transport and travel planning will contribute to the delivery of the six Transport Planning Objectives and therefore has the potential to present a range of positive impacts, primarily in relation to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. However the significance of the effects to these environmental factors, as well as the others, is dependent on the initiatives taken forward.									
Option 3 Alternative 2	+	X	X	X	X	X	+	+	+	
	Proposed Option: Deliver a pool bike scheme for Council employees									
	Assessment Commentary: A pool bike scheme for employees will enable employees to be able to access other Council offices, carry out site visits, attend meeting etc. without having to rely on personal vehicle use, pool car use or public transport. This has the potential to result in minor positive impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets** due to the following predicted impacts: • Potential improvements to health and wellbeing due to access to bikes for exercise and access to the wider environment; • A reduction in emissions from cars resulting in improvements to air quality, especially in AQMAs, which in turn demonstrates positive effects for the overall impacts of climate change at a local level; and, • A shift in behaviour towards more sustainable modes of transport. This could impact on personal lives as well as within the work culture.									

Active Travel – Walking and Cycling

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 4 Alternative 1 ✓	+	X	X	X	X	X	?/+	?/+	?/+	✓
	Proposed Option: Provision of low level cycle signals at traffic signals at carriageway crossings where appropriate									
	Assessment Commentary: Implementing low level cycle signals at traffic signals at carriageway crossings will primarily benefit cyclists as well as pedestrians within East Dunbartonshire by contributing to a safer environment. These signals will give cyclists priority on the roads which will help to integrate cycling infrastructure with other road-based infrastructure. This is likely to encourage greater participation in cycling as a means of active travel, demonstrating minor positive impacts to **Population and Human Health**. There is the potential that this option could result in positive impacts to **Air Quality, Climatic Factors and Material Assets** in terms of the potential outcomes of this in promoting a more sustainable transport network including less frequent car use.									
Option 4 Alternative 2	+	X	X	X	X	X	?/+	?/+	?/+	
	Proposed Option: Implement toucan crossings at all signalised junctions or crossing where width allows									
	Assessment Commentary: As above commentary for Option 17 Alternative 1.									
Option Assessment										
Option 5 Alternative 1 ✓	+	X	X	X	X	X	?/+	?/+	?/+	✓
	Proposed Option: Provision of Advanced Stop Lines (ASLs) with lead in Cycle Lanes at signal controlled junctions where appropriate									
	Assessment Commentary: Through the provision of Advanced Stop Lines (ASLs) and lead in cycle lanes at new control junctions, it will primarily benefit cyclists as well as pedestrians within East Dunbartonshire by contributing to a safer and healthier environment. These proposed improvements will provide advantages for cyclists in the form of a visible and clear route to bypass queuing traffic and provide a safer positioning point for cyclists turning right at junctions. It will also give cyclists priority on the roads which will help to									

	integrate cycling infrastructure with other road-based infrastructure. This is likely to encourage greater participation in cycling as a means of active travel, demonstrating minor positive impacts to **Population and Human Health**. There is also the potential that this option could result in positive impacts to **Air Quality, Climatic Factors and Material Assets** in terms of the potential outcomes of this in promoting a more sustainable transport network including less frequent car use.									
Option 5 Alternative 2	X	X	X	X	X	X	X	X	X	
	Proposed Option: Do minimum									
	Assessment Commentary: Through this proposed option, it will essentially retain the current business as usual for junction development going forward. This option will not be in line with encouraging active travel alternatives, healthy habits and outdoor leisure and is likely to encourage additional vehicular travel. As a result, this option would result in a missed opportunity to encourage more sustainable travel options but the effects are likely to be unchanged.									
Option Assessment										
Options 6 Alternative 1 ✓	**Proposed Options: Deliver the Active Travel Strategy**									✓
	Assessment Commentary: Each of these options have been assessed as part of the SEA for East Dunbartonshire Council's Active Travel Strategy and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.									
	Proposed Mitigation: Mitigation for these options is included in the Environmental Report for the Active Travel Strategy.									

Public Transport

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 7 Alternative 1	+/+ +	X	X	X	X	X	+	+	+/-	✓
	Proposed Option: Continue to deliver bus stop and shelter improvements across East Dunbartonshire in partnership with SPT									
	Assessment Commentary:									

✓	Bus stop and shelter improvements, in general, will contribute to local bus infrastructure enhancements on a medium to long term basis with direct positive and potentially significantly positive impacts to **Population and Human Health** as it aims to provide valuable assistance and improvements for the overall passenger experience. This is likely to encourage greater use of bus travel in an area where bus patronage is lower than the national averages, particularly in more rural locations or in areas where access to rail stations are car is limited. This is likely to improve the effectiveness and functionality of bus travel as well as the attractiveness as a sustainable travel mode. There is also likely to be secondary positive impacts on **Climatic Factors, Air Quality and Material Assets** in terms of encouraging a modal shift in transportation to a more sustainable network and support sustainable travel agendas in its role towards reducing air pollution and improving air quality. Whilst the proposed improvement techniques are relatively small-scale there may be negative impacts to **Material Assets** in terms of waste and construction impacts and there may be minor short-term disruptions to routes and use of bus stops and shelters.									
	Proposed Mitigation: • Where disruption to routes and bus stops/shelters occurs arrangements should be made to provide alternative infrastructure in the short-term • Good practice guidance should be followed relating to construction dust and waste management									
Option 7 Alternative 2	**+/0**	X	X	X	X	X	X	X	X	
	Proposed Option: Continue to provide essential maintenance and cleaning on bus infrastructure.									
	Assessment Commentary: **T**his option would be carried out as part of an on-going agreement between East Dunbartonshire Council and SPT at a regional and local level which will ensure that bus infrastructure remains at a reasonable standard to ensure that infrastructure does not deteriorate and discourage the use of buses in East Dunbartonshire. However, the benefits to local communities (**Population and Human Health**) is only likely to be minor positive or neutral in nature as the option limits the possibility of improvements which can either discourage or prevent further encouragement of bus patronage. This would also not promote sustainable transport modes in the way improvements to bus stops and shelters would.									
Option Assessment										
Option 8 Alternative 1 ✓	**+/+ +**	X	X	X	X	X	**+/+ +**	**+**	**+**	✓
	Proposed Option: Deployment of Real Time Passenger Information (RTPI) systems across East Dunbartonshire									
	Assessment Commentary: The deployment of Real Time Passenger Information (RTPI) across the area at bus stops and shelters is anticipated to promote bus travel as an attractive sustainable mode of transport which in turn is likely to promote a realistic alternative to private car use. As RTPI will provide enhanced reporting data and bus performances there are minor positive impacts, with the potential									

	for significant positive impacts, to **Population and Human Health** as buses are likely to become more reliable and each community in East Dunbartonshire will benefit from this intervention. In addition, this option may lead to secondary minor positive impacts to **Air Quality, Climatic Factors and Material Assets** due to a modal shift towards a more sustainable network, reducing traffic and associated emissions and contributing to local climate change and air quality agendas.									
Option 8 Alternative 2	+	X	X	X	X	X	+/+ +	+	+	
	Proposed Option: Deliver Real Time Passenger Information on the A81 and A803 corridors **Assessment Commentary:** Similarly to the previous option this alternative is likely to result in minor positive impacts to **Population and Human Health** by promoting a more reliable and attractive network of sustainable bus travel but with particular benefits to those communities that utilise both the A81 and A803 for leisure and commuting purposes. This is also likely to result in a more reliable bus network, promoting a change in less car-based travel and reducing associated pollutants demonstrating positive impacts to **Air Quality, Climatic Factors and Material Assets**. There may also be potential significant effects to **Air Quality** as greater bus use and less car use will help to reduce the risk of poor air quality along these routes which both have a designated AQMA at Canniesburn Toll and Bishopbriggs Cross. Whilst the delivery of the RTPI system on these two corridors will provide benefits to some of the local communities in Milngavie, Bearsden and Bishopbriggs with some benefits environmentally, this option is limited in that it fails to provide a uniform, reliable service across the whole of East Dunbartonshire; several key routes and local communities will not benefit from increased information provision.									
Option Assessment										
Option 9 Alternative 1 ✓	+/+ +	X	X	X	X	X	?/+	?/+	?/+	✓
	Proposed Option: Support greater integration between bus and rail This includes: - identifying potential locations where synchronisation of bus and rail timetables is feasible - promote existing integrated ticketing options such as the ZoneCard									

	Assessment Commentary: In general it is anticipated that this option will promote more seamless transfers between bus and rail transportation which is likely to improve overall passenger experience, inducing a modal shift in transport to a more sustainable network and encouraging greater public transport use with improved connectivity which is likely to offer minor positive benefits to **Population and Human Health.** In particular options to introduce ZoneCards will give people better access within and outwith East Dunbartonshire. Whilst this is also likely to have a minor positive impact on **Climatic Factors, Air Quality and Material Assets** in terms of encouraging reduced vehicular traffic, emission and contributions to a more sustainable network within East Dunbartonshire the full nature of the effects are unknown at this stage as the nature of the action is such that it will be externally managed and facilitated by transport groups such as Transport Scotland and SPT. It is considered that there are no reasonable alternatives to this option as timetabling of rail and bus services are the responsibility of private commercial operators. Therefore the Council has limited power to influence the option directly but it can contribute to support and highlight the benefits of this option.									
Option Assessment										
Option 10 Alternative 1	**+/+ +**	**?**	**?**	**?**	**?**	**?**	**+/?**	**+/?**	**+/?**	✓
	Proposed Option: Work in partnership with the third sector and external organisations to develop options for improving Community Transport in East Dunbartonshire									
	Assessment Commentary: A Community Transport Strategy will give East Dunbartonshire's residents better access to vital services and leisure facilities, for example, presenting positive impacts to **Population and Human Health** with the potential for significant effects. It is likely that this option would result in greater use of sustainable transport methods, such as bus and train travel, contributing to positive effects on **Air Quality, Climatic Factors and Material Assets**. However, details of proposals contained in the Community Transport Strategy to determine the full extent of the effects on the other environmental effects, and to determine if there are any other impacts in relating to air quality, climatic factors and the transport network.									
Option 10 Alternative 2	**0**	**?**	**?**	**?**	**?**	**?**	**0**	**0**	**0**	
	Proposed Option: Maintain current level of community transport in the area									
	Assessment Commentary: There is currently a small offering of community transport opportunities in East Dunbartonshire; however the current options are limited and offer little scope for improvements. Compared to Alternative 1, it is likely that this option will not increase benefits to communities and the effects will be neither negative nor positive on the current environmental baseline.									
Option Assessment										
	?	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	

Option 11 Alternative 1	**Proposed Option: Establish an East Dunbartonshire Travel Survey**									✓
	Assessment Commentary: This option would provide the Council and transport operators with more up to date data in order to inform future improvements and Strategies relating to transport. At this stage the effects to each factor are unknown but the action will support an understanding of the direction in which new opportunities and strategies should take in response to need and demand.									
Option 11 Alternative 2	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	
	Proposed Option: Continue to use Scottish Household Survey data									
	Assessment Commentary: The SHS data is a useful tool for the Council, however, the quality and quantity of the data varies from year to year. This means that the results can be of varying use to the Council and can fail to capture accurate behaviours of the residents of East Dunbartonshire. Therefore the opportunities to improve the network in response to need and demand is likely to be limited. The effects to each environmental factor are unknown at this stage.									
Option Assessment										
Option 12 Alternative 1	**+/+ +**	X	X	X	X	X	X	X	X	✓
	Proposed Option: Work with stakeholders to improve the accessibility of healthcare services									
	Assessment Commentary: The main benefits of this option will be to **Population and Human Health** in terms of improving access to healthcare services to reduce the reliance on car journeys. This could present both minor and significant positive effects to health and wellbeing overall.									
Option 12 Alternative 2	X	X	X	X	X	X	X	X	X	
	Proposed Option: Do minimum									
	Assessment Commentary: Doing minimum and not improving accessibility of healthcare services by continuing with existing options will have no impact on the current environmental baseline.									
Option Assessment										
Option 13 Alternative 1	**+**	X	X	X	X	X	**+**	**+**	**+**	✓
	Proposed Option: Maintain a close relationship with SPT and bus operators to continue to encourage the provision of local bus services in East Dunbartonshire									

	Assessment Commentary: It is anticipated that this option will result in a more sustainable transport network in East Dunbartonshire with greater access to bus travel options, resulting in positive impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. Specifically, this option has the potential to encourage greater uptake of bus travel to reduce a reliance on car use which will help to reduce poor air quality; this is particularly important in AQMAs. This would also improve connectivity and linkages between towns and villages, particularly in rural locations, and to Glasgow.									
Option 13 Alternative 2	**?/+**	X	X	X	X	X	**?/+**	**?/+**	**?/+**	
	Proposed Option: Rely on the commercial market to provide services as they deem acceptable									
	Assessment Commentary: Whilst this option has the potential to present similar effects as those described in Alternative 1, there is a level of uncertainty as to the full nature of the effects as this option would be out with the control of the Council.									

Roads

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 14 Alternative 1 ✓	+	X	X	X	X	X	+	+	+	✓
	Proposed Option: Investigate the feasibility of introducing a Car Club in East Dunbartonshire. A car club is a membership based scheme that provides members access to a pool of vehicles that can be accessed on a pay as you go system. These vehicles can be accessed at any time and are available from dedicated spaces near to residential and employment areas.									
	Assessment Commentary: The introduction of a Car Club in East Dunbartonshire is likely to have minor positive impacts on **Population and Human Health, Air Quality, Climatic Factors and Material Assets** including the following: • Greater encouragement of more sustainable travel habits particularly for more infrequent car users; • Promotion of an overall more sustainable network in East Dunbartonshire by highlighting the benefits of a realistic mode of transport to replace car use; • Potential decrease in personal car ownership;									

	• A reduction in shorter and unnecessary car journeys and total number of cars on the road. This can reduce overall traffic and congestion and reduce the impact on air quality. This will be particularly beneficial in areas such as Bearsden and Bishopbriggs where Air Quality Management Areas (AQMA) has been designated; and, • Potential opportunities for Council workers to utilise the Car Club during working hours and public use during evening hours to maximise utilisation of the scheme.									
Option 14 Alternative 2	**?**	X	X	X	X	X	**?**	**?**	**?**	
	Proposed Option: Increase Council pool car provision **Assessment Commentary:** The overall nature of the effects of this alternative are unknown as they are dependent on factors such as pool car usage, availability of pool cars out with Council operating hours and the type of pool car provision provided, although it has been determined that the environmental factors likely to be impacted are **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. Although the use of pool cars as an alternative to private car usage has the potential to cut down the number of individual cars on the roads, including benefits to reduced traffic levels, congestion and emissions levels, as use of pool cars will encourage car-sharing there are assumptions made that the use of pool cars will be by multiple people for each journey and the overall positive impact is likely to be benefited by the use of electric cars rather than traditional petrol/diesel vehicles. In addition, use of the pool cars is likely to be restricted to work-related journeys, requiring workers still to travel to work either by private car use or public transport.									
Option 14 Alternative 3	**+/0**	X	X	X	X	X	**+/0**	**+/0**	**+/0**	
	Proposed Option: Increase bus service provision in the evenings **Assessment Commentary:** Whilst there is the potential that this alternative option will present minor positive impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets** in terms of contributing to potential increased connectivity for local communities and better access to other settlements in East Dunbartonshire, and potentially cross-boundary to places such as neighbouring Glasgow. If successful, increased evening provision will contribute to a more sustainable transport network within the local area and to a reduction in emissions and reducing the negative effects of car travel on climate change. However, there are some limitations to this alternative which could also neutralise the environmental effects on these factors. The current commercial bus market supports bus journeys in settlements where there is demand. However, East Dunbartonshire has relatively low bus patronage and evening provision may not suit the demand and also will not contribute to a more sustainable network throughout the day with overall benefits.									
Option Assessment										
Option 15	**+**	X	X	X	X	X	**+**	**+**	X	

Alternative 1 ✓	**Proposed Option: Deliver an annual programme of work to reduce vehicle idling and monitor vehicle emissions** **Assessment Commentary:** It is considered that ensuring that there is adequate enforcement against vehicle idling throughout the whole of East Dunbartonshire will present minor positive impacts to **Population and Human Health, Air Quality and Climatic Factors** including the following impacts: • Better understanding of the negative impacts associated with vehicle idling including the role it plays in air quality pollution, the localised climate change impacts and poor health; • A potential deterrent for non-domestic vehicles to idle, such as buses, taxis and deliveries, due to patrols and financial penalties; this could be particularly beneficial in town centres, areas of high population and near schools/nurseries; and, • Potential reduction in emissions that contribute to poor air quality, particularly in AQMAs and near schools which in turn can contribute towards a reduction in air pollution related illnesses such as respiratory disease and asthma, for example, and overall improvements to health and wellbeing at a local level as part of a more pleasant environment. It is considered that there are no reasonable alternatives as monitoring is current practice and will continue regardless of whether a new option is implemented or not.	✓

Option Assessment										
Option 16 Alternative 1 ✓	+	X	X	X	X	X	+	+ +	X	✓
	Proposed Option: Improve the efficiency of the Council's fleet **Assessment Commentary:** The options includes the following measures: • Continue to operate a 3-5 year vehicle lease replacement programme with minimum Euro 6 engine standards. • Increase the size of the Council's electric vehicle fleet with enhanced capacity for electric vehicle charging points. Through the implementation of these measures it will ensure that the Council's vehicle fleet are high quality, efficient and low emitting vehicles. Increased availability and infrastructure to support electric vehicles offers zero emissions vehicles for short journeys. Overall this options will provide positive impacts on **Population and Human Health, Air Quality and Climatic Factors** through a reduction in aggregate carbon emissions from Council vehicular travel, improved air quality with a particular relevance at peak times and in existing AQMA's or areas with high congestion issues and reduce risks to health by improving community wellbeing and reducing traffic levels and related emissions.									
Option 16	X	X	X	X	X	X	-	-	X	

Alternative 2	**Proposed Option: Replace Council fleet when vehicles fail standard tests.** **Assessment Commentary:** This approach will ensure that fleet vehicles are replaced when they are assessed to be failing standard testing. Through this option there is a risk of higher carbon emissions and less fuel efficient vehicles being used within the Council fleet, and therefore there may be a potential increased risk of negative impacts to **Air Quality and Climatic Factors**. Older and inefficient vehicles use more fuel and have higher average costs related to their running maintenance programmes.									
Option Assessment										
Option 17 Alternative 1 ✓	+	X	X	X	X	X	+	+	X	✓
	Proposed Option: Supply fuel efficient driver training **Assessment Commentary:** This option would be focussed on the provision of fuel efficient driving training sessions for all appropriate Council employees. The training will ensure that Council drivers are aware of potential cost savings, environmental benefit of efficient driving of council vehicles. Benefits include: • Typical annual savings of £200-250 for a car driver (more for a van). • Reduced likelihood of accidents • Reduced wear and tear on tyres, brakes and clutches • Reduced carbon emissions Through the anticipated benefits (listed above) it is likely to result in positive impacts in relation to **Population and Human Health, Air Quality and Climatic Factors** through reduced carbon emissions, fuel consumption and risk of accidents.									
Option 17 Alternative 2	+	X	X	X	X	X	–	–	X	
	Proposed Option: Continue only with current testing procedures **Assessment Commentary:** This option provides assurance that all Council drivers meet the required standards through examination in terms of safety but it will not educate drivers on fuel efficient driving. This would be a missed opportunity and has the potential to result in negative impacts to **Air Quality and Climatic Factors**.									
Option Assessment										
Option 18 Alternative 1 ✓	+	X	X	X	X	X	+ +	+ +	X	✓
	Proposed Option: Build on the Council's ECO Stars fleet recognition scheme **Assessment Commentary:**									

	ECO Stars encourages and helps operators of HGVs, buses, coaches, vans and taxis to run fleets in the most efficient and environmentally friendly way. The scheme provides recognition for best operational practices, and guidance for making improvements. The ultimate aim is to reduce fuel consumption which naturally leads to fewer vehicle emissions and has the added benefit of saving operators money. The scheme also provides incentives to commercial firms operating polluting vehicles in East Dunbartonshire to invest in cleaner engines, driver training, telematics systems to optimise performance and minimise mileage. The accreditation scheme offers positive publicity for commercial firms and potential cost savings and lower emissions and cleaner air in the communities the firms operate in. This option is likely to result in positive impacts in relation to **Population and Human Health, Air Quality and Climatic Factors** through reduced carbon emissions, fuel consumption and reduced risk to air quality through impacts from the Council managed fleet as well as commercial vehicles operating within East Dunbartonshire. This option will ensure that the Council embraces the scheme and will show the Council leading by example in utilising vehicles with optimum engine standards.									
Option 18 Alternative 2	+	X	X	X	X	X	+/-	+/-	X	
	Proposed Option: Do minimum – continue to carry out the current committed transport schemes and projects but not focus on commercial firms emissions									
	Assessment Commentary: This option is likely to present similar impacts to those described in the assessment for Alternative 1. However, continuing without a focus on commercial emissions is likely to reduce the significant nature of the positive effects for **Air Quality and Climatic Factors** with the potential to result in negative impacts depending on the overall emissions rates of commercial firms in East Dunbartonshire.									
Option Assessment										
Option 19 Alternative 1 ✓	+	X	X	X	X	X	+	+	+	✓
	Proposed Option: Promote the use of Car Share schemes operating in East Dunbartonshire									
	Assessment Commentary: Promoting Car Share schemes in East Dunbartonshire is likely to have minor positive impacts on **Population and Human Health, Air Quality, Climatic Factors and Material Assets** including the following: • Greater encouragement of more sustainable travel habits; • Promotion of an overall more sustainable network in East Dunbartonshire by highlighting the benefits of car share options; • A reduction in the total number of cars on the road. This can reduce overall traffic and congestion and reduce the impact on air quality. This will be particularly beneficial in areas such as Bearsden and Bishopbriggs where Air Quality Management Areas (AQMA) has been designated; and,									

	• Potential opportunities for better access to areas of employment where little or no public transport provision is available.									
Option 19 Alternative 2	**+/0**	X	X	X	X	X	**+/0**	**+/0**	**+/0**	
	Proposed Option: Deliver an East Dunbartonshire Car Share scheme									
	Assessment Commentary: Whilst this option has the potential to present similar positive benefits to Alternative 1, a significant amount of investment will be required to set this scheme up. Furthermore, the majority of East Dunbartonshire residents commute out of East Dunbartonshire therefore the effects may only be neutral as uptake of the scheme might be low compared to a regional one.									
Option Assessment										
Option 20 Alternative 1 ✓	**+**	X	X	X	X	X	X	X	**+**	✓
	Proposed Option: Maintain footways and roads to a high standard in line with the Road Asset Management Plan									
	Assessment Commentary: In general, it is anticipated that this option will have minimal effects on the local environment. However this option will present minor positive impacts for **Population and Human Health and Material Assets** in terms of ensuring that the road network within East Dunbartonshire is safe for use and maintained to a standard that does not reduce the functionality of the existing transport network. The Road Asset Management Plan (RAMP) will contribute to further management of a safe and usable road network across East Dunbartonshire. This is a statutory requirement and it is therefore considered that there are no reasonable alternatives.									
Option Assessment										
Option 21 Alternative 1 ✓	**+**	X	X	X	X	X	X	X	X	✓
	Proposed Option: Plan and deliver an effective annual Winter Service Policy									
	Assessment Commentary: The impacts of this option will primarily relate to **Population and Human Health.** As the Winter Service Policy will help to prevent snow and ice, or the consequences of any other adverse weather condition, endangering the safe passage of vehicular and pedestrian traffic in East Dunbartonshire, it is likely to provide benefits in terms of health and safety and maintain connectivity across our boundaries and between communities. This could have economic implications too in relation to business operations and ability access to employment.									
Option 21 Alternative 2	**+**	X	X	X	X	X	X	X	X	
	Proposed Option: Carry out a pothole blitz									
	Assessment Commentary:									

	Carrying a 'Pothole Blitz' will ensure that all reported potholes are removed in a systematic approach through a dedicated programme. The concentrated nature of operation will ensure economies of scale are delivered. This will have a minor positive impact on **Population and Human Health** by contributing to a safer road network whereby incidents such as car damage are reduced.	

Option Assessment

Option 22 Alternative 1 ✓	+	X	X	X	X	X	X	X	X	✓
	Proposed Option: Promote road safety through schools Encouraging young people to become Junior Road Safety Officers (JRSO)									
	Assessment Commentary: Promoting road safety in schools as part of Junior Road Safety Officer (JRSO) Projects will directly benefit **Population and Human Health** with a particular focus on younger people by giving them the knowledge and understanding of good practice associated with walking and cycling which is also likely to encourage safe behaviour.									
Option 22 Alternative 2	?/+	X	X	X	X	X	X	X	X	
	Proposed Option: Provide signage near schools warning drivers of children crossing									
	Assessment Commentary: This alternative option would provide visual warnings to drivers to consider road safety and take consideration of children that might be in the vicinity. This will be particularly important in areas where there are schools. However, this option is reliant on responsible driving and fails to educate young people of road safety, reducing the potential for positive impacts for **Population and Human Health**.									

Option Assessment

Option 23 Alternative 1 ✓	+	X	X	X	X	X	+/+ +	+/+ +	+	✓
	Proposed Option: Identify suitable locations and roll out Urban Traffic Control systems to improve traffic management									
	Assessment Commentary: The roll out of Urban Traffic Control Systems, where appropriate, will have a direct influence on traffic flow which in turn will directly positively impact on **Air Quality, Climatic Factors, Material Assets and Population and Human Health** in terms of reducing congestion and associated emissions which contribute to urban heating and poor air quality, especially in areas such as Bishopbriggs and Bearsden where an AQMA is designated, improving journey times and contributing to efficient transport networks. Such systems can also help to detect incidents which can increase safety on the roads and further ensure that the transport network operates with minimum issues. For bus travel, this option will help to give buses priority on the road which will help to improve bus journey times and increase the attractiveness of bus as a sustainable mode of transport.									

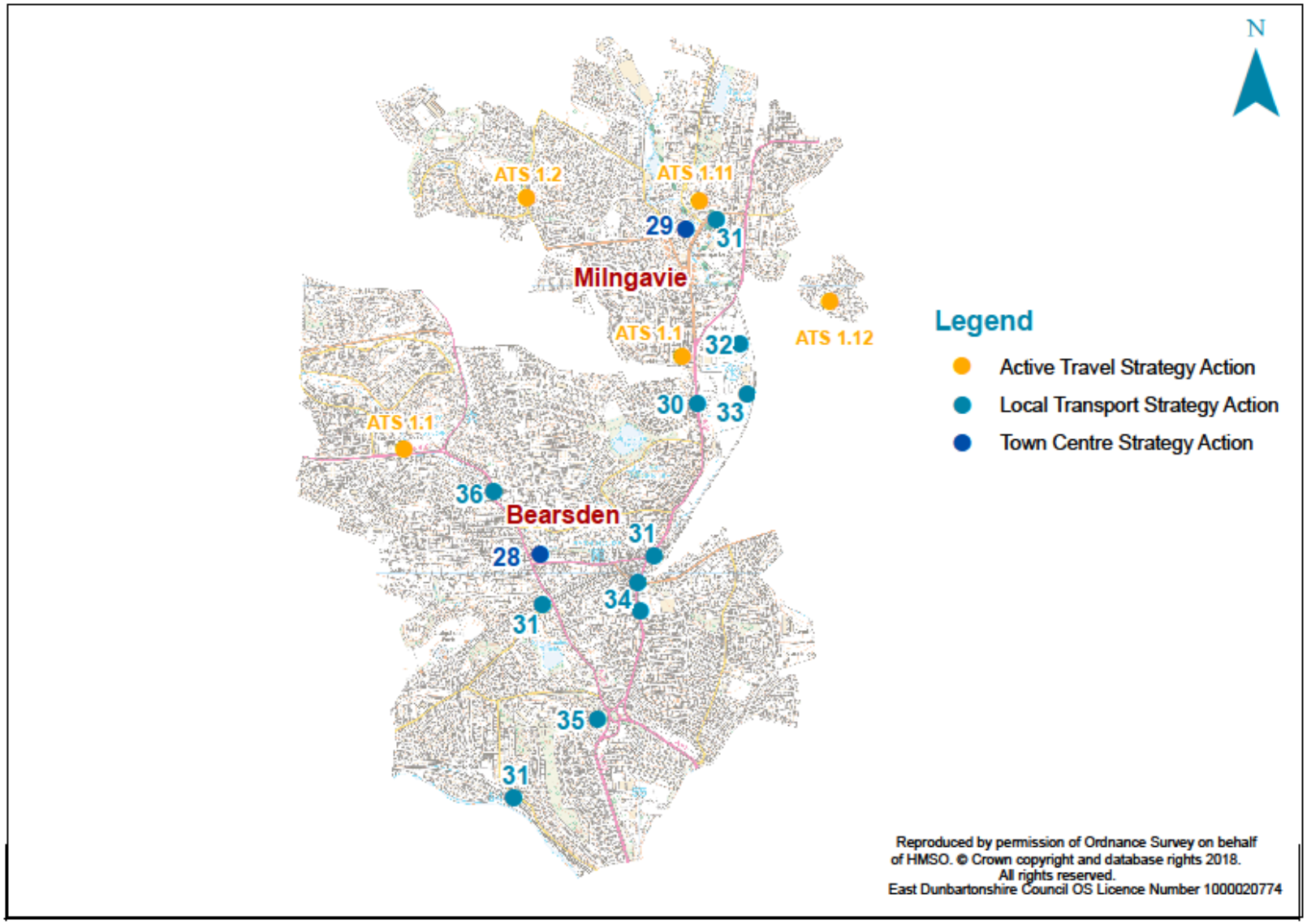
Option 23 Alternative 2	+	X	X	X	X	X	+	+	+	
	Proposed Option: Implement MOVA systems at individual junctions across the authority area									
	Assessment Commentary: Whilst this alternative is likely to present some minor positive impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets** in terms of increasing traffic flow at individual junctions in East Dunbartonshire, where appropriate, which can contribute to a more efficient transport network, the option does not respond to wider traffic patterns unlike alternative 1 which reduces opportunities to improve traffic flow particularly at pressure points which can limit the positive nature of the impacts.									
Option Assessment										
Option 24 Alternative 1 ✓	+/+ +	?/-	?/-	?/-	+	?/-	+/+ +	+/+ +	+/-	✓
	Proposed Option: Implement appropriate measures for reducing vehicle speeds to enhance the appeal of sustainable travel These measures can include: • Carriageway marking • Localised road narrowing, • Place making initiatives to town centre environments e.g. public realm improvements • 20 mph speed limits									
	Assessment Commentary: There are likely to be a number of minor positive impacts across the East Dunbartonshire Council-wide area as a result of delivering this option for **Population and Human Health, Landscape, Air Quality, Climatic Factors and Material Assets**, such as the following: • Carriageway marking and localised narrowing would help to naturally discourage speeding which could be particularly beneficial for improving safety for pedestrians, especially in busier town environments or where path provision is not as well integrated into the road network. Improved safety for pedestrians and cyclists could also contribute to an increase in active travel participation as an alternative to car travel. • Provision of appropriate street furniture, street lighting and cycling facilities in town centres and to/from new developments will help to contribute to a shift towards a more sustainable transport network with appropriate provision and infrastructure available to enable individuals to participate more regularly in active travel. These place making initiatives are also likely to have a direct influence on creating a more pleasant and visually appealing environment, especially for local, shorter journeys. This can have secondary positive impacts to tourism, active travel participation and economic growth. • As this option is anticipated to encourage greater active travel participation and a shift towards a more sustainable transport network, the option is likely to demonstrate a commitment to reducing localised air and noise pollution									

	associated with vehicular transport and idling especially in town centre locations and near to East Dunbartonshire's two AQMA (Bishopbriggs and Bearsden Cross). This will also promote a change in culture and behaviour to address the risks of climate change at a local level including the urban heat island effect, increased risk of pluvial and fluvial flooding and air pollution which could be significantly beneficial. Although this option has the potential to result in positive environmental benefits there is also the possibility of negative impacts to arise as a result. Further information will be required to determine the full nature of the impacts, but there is the potential that alterations to the width of carriageways will require changes to the existing infrastructure which has the potential to create construction waste, remove and/or disrupt habitats and species, increase the risk of habitat fragmentation, disturb valued soil assets such as peat and impact on water due to pollution run off in the process. Impacts in Conservation Areas or near cultural heritage assets should also be considered.									
	Proposed Mitigation: Assessments relating to biodiversity, water quality and soil should be carried out to determine if measures will impact on any designations or valued assets. Good practice guidance should also be followed in relation to reducing construction waste, reusing or recycling waste wherever possible. Provision of alternative routes would also help to minimise any impacts due to changes as the work is implemented. All measures should also take account of any cultural designations, such as Listed Buildings, Townscape Protection Areas and Conservation Areas, in terms of ensuring that they are sensitive to the setting.									
Option 24 Alternative 2	**+**	X	X	X	X	X	**+/-**	**+/-**	X	
	Proposed Option: Introduce 20 mph zones along the majority of the A81 and A803 corridors.									
	Assessment Commentary: This approach would contribute to slowing down traffic and help to reduce noise pollution, contributing towards minor positive impacts to **Air Quality and Climatic Factors.** In addition, reduced speeds along these main corridors would help to improve safety and redress the balance of priority for different road users as well as improve the pedestrian environment in town centres with positive impacts to **Population and Human Health.** However, the benefits of 20mph zones along the A81 and A803 have the potential to be counter-productive in comparison to the benefits of reduced speed limits in residential, town centre and school zones as this may increase traffic congestion, especially at pinch points and peak times, and increase journey times. This could reduce the positive nature of the effects to **Air Quality and Climatic Factors** or even have a negative impact due to potential increased pollution.									

Parking

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	SEA Preferred Option
Option Assessment										
Option 25 Alternative 1 ✓	+/+ +	X	X	X	X	X	+	+	+	✓
	Proposed Option: Produce a Parking Strategy for East Dunbartonshire									
	Assessment Commentary: A Parking Strategy for East Dunbartonshire at key locations such as town centres, railway stations, residential areas and near schools has the potential to encourage more people to travel sustainably as parking options will be limited, encouraging a shift away from driving; this has the potential to result in positive impacts to **Material Assets, Population and Human Health, Air Quality and Climatic Factors** in terms of reduce localised air quality issues to improve health and reduce the effects on climate change, particularly in more vulnerable areas such as schools and AQMAs, and encouraging a more sustainable transport network. In general, this option will result in better parking options to create safer environments for all road users, therefore presenting opportunities to result in significant positive impacts to **Population and Human Health.**									
Option 25 Alternative 2	?	?	?	?	?	?	?	?	?	
	Proposed Option: Continue to make decisions on an ad-hoc basis in line with current practice									
	Assessment Commentary: Unlike Alternative 2, this option will not ensure consistency in improving parking options in East Dunbartonshire. Therefore it is difficult to determine the likely effects on the area as a whole. The extent of effects are uncertain at this stage due to a potentially piecemeal approach to parking improvements.									
Option Assessment										
Option 26 Alternative 1 ✓	+/+ +	?	?	?	?	?	+/+ +	+/+ +	+/+ +	✓
	Proposed Option: Increase the availability of electric vehicle charging infrastructure									
	Assessment Commentary: The number of electric vehicles is expected to increase in the coming decades. Assessing the current infrastructure and ways to improve it can help build a platform for future growths expected in this market and ensuring an adequate number of EV charging points are available to ED residents. This will present minor positive impacts to **Material Assets, Population and Human Health, Climatic Factors and Air Quality,** with the potential for significant impacts, including: • A modal shift towards sustainable transport options. Development of the necessary infrastructure throughout East Dunbartonshire is more likely to encourage a change from fuel-powered vehicles to electric.									

	• Greater access to electric vehicle and related infrastructure has the potential to improve localised air quality particularly in areas of high pollutant levels such as Bearsden Cross and Bishopbriggs, which in turn will contribute to reducing the negative effects of climate change at a local level. This has secondary positive impacts to health and wellbeing. At this stage in the assessment, the nature of the impacts on the other environmental factors is unknown. This will be dependent on the type and number of infrastructure changes required as well as their location. Factors such as proximity to water bodies, cultural assets, soil assets and natural designations will need to be considered.	
Option 26 Alternative 2	**0/+** | X | X | X | X | X | **+** | **+** | **0/+** **Proposed Option: Maintain the current Electric Vehicle charging infrastructure** **Assessment Commentary:** In comparison to Alternative 1, this option is less likely to result in benefits to the environment to the same extent. While maintaining the current infrastructure allows for it to be kept in good working order and keeping up with the latest technology; it fails to take in to account predicted future rises in electric vehicle ownership. This could mean in future that the infrastructure in public spaces is unable to cope with the rise in demand for electric vehicle charging, especially for those who cannot access charging points within their own homes. Therefore positive impacts to **Air Quality and Climatic Factors** are likely to be minor and impacts to **Population and Human Heath and Material Assets** neutral.	


N
ATS 1.2
ATS 1.11
29
31
Milngavie
ATS 1.1
32
ATS 1.12
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33
ATS 1.1
36
Bearsden
31
28
34
31
35
31
Legend
Active Travel Strategy Action
Local Transport Strategy Action
Town Centre Strategy Action
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27. Active Travel Strategy Actions

These actions will be delivered in line with the approach set out in East Dunbartonshire's Active Travel Strategy 2015 – 2020. Each of these options have been assessed as part of the SEA for East Dunbartonshire Council's Active Travel Strategy and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

28. Bearsden Town Centre Strategy Actions

These actions will be delivered in line with the approach set out in the Bearsden Town Centre Strategy. It was determined as part of the Screening for the Town Centre Strategy that effects were unlikely to be significant and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

29. Milngavie Town Centre Strategy Actions

These actions will be delivered in line with the approach set out in the Milngavie Town Centre Strategy. It was determined as part of the Screening for the Town Centre Strategy that effects were unlikely to be significant and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

Public Transport

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 30 Alternative 1 ✓	**Proposed Option: Deliver an A81 Quality Bus Corridor** **Assessment Commentary:** This option was assessed as part of the environmental assessment of the A81 Route Corridor Study and, as the environmental baseline has not changed significantly, it has been determined that this option will not be subject to an assessment at this stage in order to reduce duplication of assessments.									✓
Option 30	+	?	?	?	?	-	+	+	+/-	
	Proposed Option: Bus park and ride on a site alongside the A81									

Alternative 2	**Assessment Commentary:** Creating a bus park and ride alongside the A81 in Bearsden will provide a means to reduce traffic levels around Bearsden and into Glasgow, potential congestion and associated emissions due to the introduction of a more sustainable mode of transport. In addition, a park and ride facility in Bearsden will help to fill the existing gap in terms of access to public transport provision in relation to the current residential properties and planned development at Kilmardinny near Mosshead Road. This has the potential to reduce existing traffic levels along the A81, especially following an influx of people in relation to the Kilmardinny development, and will help to reduce air pollution and emissions levels. Overall, it is anticipated that this proposal would present minor positive environmental effects for **Population and Human Health, Material Assets, Climatic Factors and Air Quality**. However, this option will require new or changes to infrastructure within a primarily residential area which can disrupt current transport links and significant increase the risk of construction waste, construction traffic and surface-water run-off and release of pollutions to waterbodies and the air, presenting potential negative effects for **Material Assets and Water Quality**.	

Option Assessment

Option 31 Alternative 1 ✓	**+/-**	**-**	X	X	**-**	X	**-/+**	**-/+/- -**	**-/+**
	Proposed Option: Investigate the design and implementation requirements of parking options at rail stations on the A81 corridor The 2015 and 2018 A81 route corridor studies have included a number of options for increasing parking at rail stations including: - Decking at Milngavie station - Decking at Westerton station - Decking at Bearsden station - Provision of additional parking for Hillfoot station at south Kilmardinny								
	Assessment Commentary: The full nature of effects are likely to be dependent on the chosen location for parking both on and off-site. However, there are likely to be negative impacts to **Cultural Heritage, Landscape, Air Quality and Climatic Factors** in terms of the following effects: • Potential detraction from the adjacent Conservation Area status and Townscape Protection Area which is within close proximity of Milngavie railway station car park and the Old Bearsden Conservation Area in which the Bearsden railway station is located due to the visual impact of decking in the town centre area; • Encouragement of car use to access the train station for onward travel, resulting in an increase of localised emissions in all locations and contributing to localised effects of climate change; • Discouragement of the use of core paths nearby both the Bearsden and Westerton stations;								

	Furthermore, the impacts to Hillfoot station may present both positive and negative effects; this option will encourage use of train for onward travel by helping to encourage connectivity for **Population and Human Health**, particularly where parking provision was an issue restricting use previously, this option is likely to increase private vehicle use, further contributing to poor **Air Quality** locally and increasing the negative effects for **Climatic Factors**. Furthermore, the site is located within a flood risk area, which may result in significant effects to **Climatic Factors** by increasing the risks for future flooding in this area, with secondary impacts to train service efficiencies. The impacts to air quality and flood risks has the potential for secondary health-related impacts for **Population and Human Health** as there will be an enhanced risk of exposure to transport emissions. Although the proposed option will promote changes to the current transport network to some extent in terms of encouraging sustainable options for onward travel, the option does not entirely promote sustainable transport networks. There may also be negative impacts to **Material Assets** in terms of construction waste. However, there is the potential to present positive impacts for **Population and Human Health and Material Assets** in relation to all locations by enhancing connectivity for people to access essential services, employment and leisure opportunities, particularly where parking was a constraints for using the rail network for onward travel. However, the mentioned impacts to air quality has the potential to affect health negatively as a result of emissions in the air, particularly for vulnerable people.	
	Proposed Mitigation: Some of the negative impacts of this option are out with EDC's control at this stage and proposed mitigation would include alternative options such as Alternative 2 below. However other mitigation could include: • Implementation of construction management plans • Good practice guidance (e.g. construction dust management) • Provision of alternative routes during construction phases	
Option 31 Alternative 2	**+/+ +** | **-** | X | X | X | X | **+** | **+** | **+**	✓
	Proposed Option: Extension of segregated Bears Way cycleway (phases 2 and 3)	
	Assessment Commentary: The proposal to extend phase 1 of the Bearsway from Hillfoot to Kessington and Kessington to Garscube will contribute to encouraging greater use of cycling as a means of active travel for both leisure and commuting into Glasgow. This will be beneficial for **Population and Human Health**, with the potential for significant effects, as it will give people the opportunity to utilise a safer environment for active travel as well as to benefit from the health benefits of cycling. In addition, the Bearsway has the potential to contribute to a shift towards a more sustainable transport network which in turn can be used as an alternative to vehicle use, reducing local emissions and helping to improve air quality and limiting the negative impacts associated for climate change. This will present minor positive impacts to **Air Quality, Climatic Factors and Material Assets**.	

	However, part of the route for Phase 2 passes through a conservation area. Although the proposal will not involve significant changes to the existing road network, there is the potential that the proposal will impact on this asset by detracting from its value with minor negative impacts to **Climatic Factors**.									
Option Assessment										
Option 32 Alternative 1 ✓	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	✓
	Proposed Option: Undertake a study in line with Scottish Transport Appraisal Guidance on the A81 Corridor to assess options for enabling a shift to sustainable transport, including options for improving performance of the Milngavie railway line									
	Assessment Commentary: At this stage in the assessment the effects on each environmental factor is uncertain until the study findings have been reported and analysed.									
Option 32 Alternative 2	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	
	Proposed Option: Await the outcome of the work being taken forward by the ScotRail Alliance									
	Assessment Commentary: At this stage in the assessment the effects on each environmental factor is uncertain until the study findings have been reported and analysed.									
Option Assessment										
Option 33 Alternative 1 ✓	**+**	**-**	**?**	**?**	**+**	**-**	**+/-**	**+/-**	**+/-**	✓
	Proposed Option: Continue to safeguard land in the emerging Local Development Plan 2 for a potential rail station at Allander including land for an associated park and ride facility									
	Assessment Commentary: The safeguarding of land for a new rail station at Allander with a park and ride facility would ensure that a commitment to preserving an opportunity for a new sustainable transport facility is made, with the potential to improve public transport access in order to reduce the proportion of journeys made by private vehicle. Therefore it is anticipated that the effects of this option will be minor positive for **Population and Human Health, Air Quality, Climatic Factors and Material Assets** in terms of a shift towards a more sustainable transport network, reduced car journeys and associated emissions and better connectivity. However the location of the land sits within the Antonine Wall World Heritage Site Buffer Zone; the impacts of a new rail station and P&R facility in this situation might result in negative impacts to **Cultural Heritage** and therefore consideration will need to be given to the value of this designation. Furthermore, the site is within medium risk flood risk area; impacts of creating the facilities on drainage and wider flood risks should be considered as there may be the potential for minor negative impacts to **Water Quality and Climatic Factors**. The development of such facilities also has the potential to result in negative									

	impacts to **Material Assets** in terms of requiring infrastructure changes which may disrupt the existing network and result in construction waste. In terms of **Air Quality**, whilst there could be positive impacts there is the potential that there could be increased traffic in the local area especially at peak times which could exacerbate issues of poor air quality. The development of a new station could encourage options for remediation of contaminated land, therefore presenting positive impacts to **Soil and Geology**.	
	Proposed Mitigation: • Adverse effects on the character and quality of conservation areas will be avoided or reduced by improving the quality, design and appropriateness of street furniture, lighting, road signs, safety features, public transport facilities (bus stops) and by reducing street clutter. • Ensure that all new transport interventions and transport improvement works involving construction activities adhere to appropriate environmental protection standards, good codes of practice, construction principles and design guides to ensure that the correct measures are implemented to prevent the pollution of surface water and groundwater. • Ensure all new transport interventions and transport improvement works will implement appropriate measures to minimise pollution from surface water runoff e.g. oil separators and silt traps. • Where disruption to routes and bus stops/shelters occurs arrangements should be made to provide alternative infrastructure in the short-term • Good practice guidance should be followed relating to construction dust management and waste management	
Option 33 Alternative 2	X X X X X X - - X	
	Proposed Option: Remove safeguarding of the land	
	Assessment Commentary: This option would prevent any opportunities to provide a new sustainable transport option in Bearsden. Therefore there is likely to be no effects to most of the environmental factors. However, there may be an increased risk of negative effects in terms of **Air Quality and Climatic Factors** as sustainable travel options will be reduced and it is likely that there will be more emphasis on private vehicle travel.	

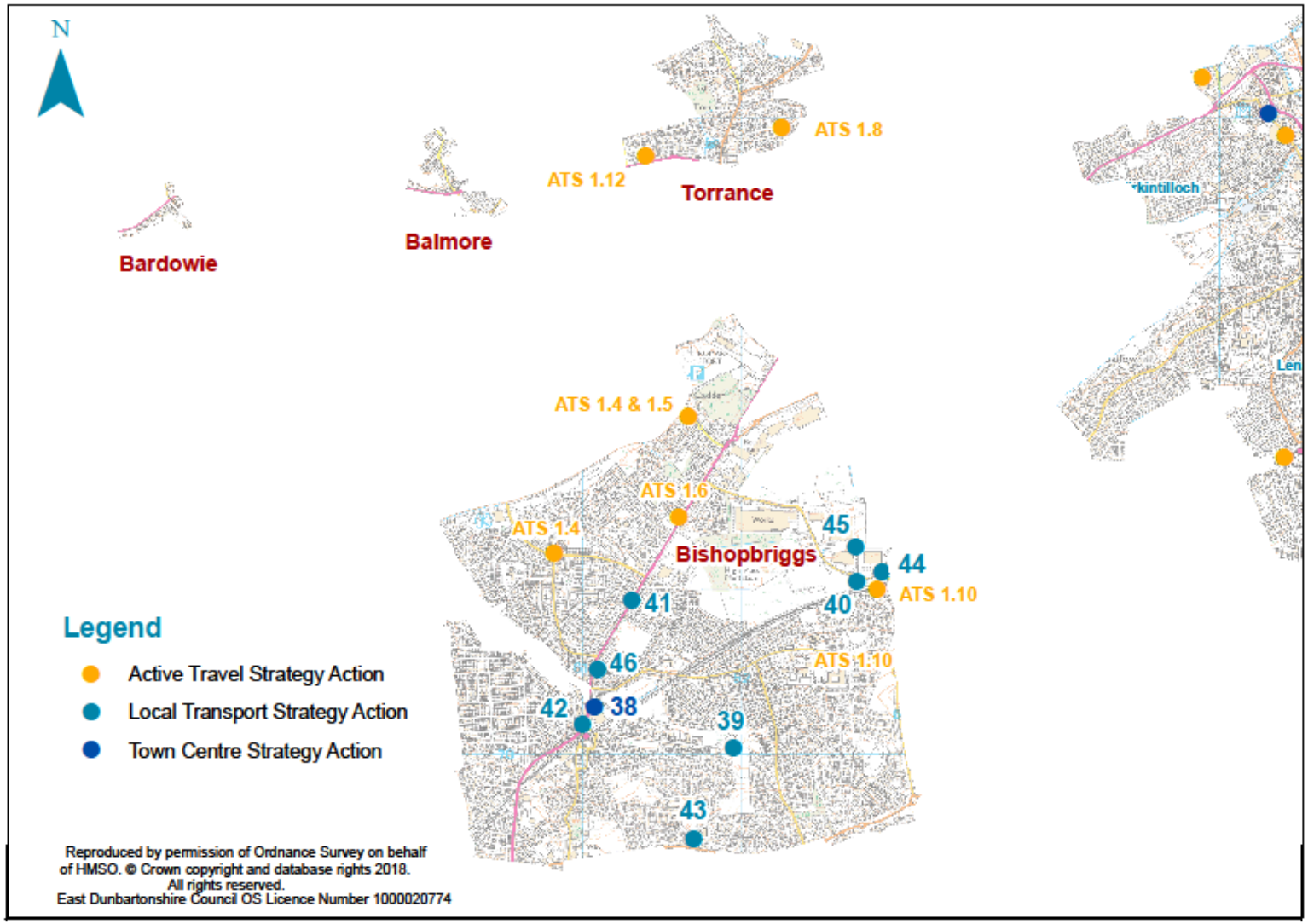
Roads

Option Assessment		
Option 34	**Proposed Option: Deliver junction improvements on the A81**	

Alternative 1 ✓	Improve the operation of the junctions at: • A81 Milngavie Road/B8049 Boclair Road/B8049 Roman Road • ASDA Bearsden/A81 Milngavie Road/West Chapelton Avenue	✓
	Assessment Commentary: This option was assessed as part of the environmental assessment of the A81 Route Corridor Study and, as the environmental baseline has not changed significantly, it has been determined that this option will not be subject to an assessment at this stage in order to reduce duplication of assessments. As this option has been committed to through another study it is considered that there is no reasonable alternative.	
Option Assessment		

Option 35 Alternative 1 ✓	**+**	X	X	X	X	X	**+/+ +**	**+**	**+/-**	✓
	Proposed Option: Improve Canniesburn Toll for all road users									
	Assessment Commentary: In order to address current traffic build up at Canniesburn Toll, especially at peak times, this option involving the implementation of adaptive signal control with enhanced pedestrian and cycling provision as well as potential reallocation of crossings would have a direct positive impact on **Climatic Factors, Air Quality, Material Assets and Population and Human Health**. Improvements to the pedestrian environment will help to dispel barriers to walking and cycling therefore increase active travel participation and would also help to reduce congestion, journey times are likely to be reduced, the overall efficiency of the road network improvements and the associated impacts of idling and traffic on air quality improved. This could be particularly beneficial as this area in Bearsden is designated as an Air Quality Management Area (AQMA); improvements to localised air quality as a result of this option has the potential to result in significant positive effects for **Air Quality**. Additional benefits of delivering this option include improved access and parking for nearby businesses. However, there is scope within the option to improve the function of the roundabout at Canniesburn Toll; this has the potential to result in negative impacts to **Material Assets** in terms of requiring infrastructure changes which may disrupt the existing network and result in construction waste.									
	Proposed Mitigation: • Where disruption to routes and bus stops/shelters occurs arrangements should be made to provide alternative infrastructure in the short-term • Good practice guidance should be followed relating to construction dust management and waste management									
Option 35 Alternative 2	**+/-**	X	X	X	X	X	X	X	**+/-**	
	Proposed Option: Re-design roundabout at Canniesburn Toll									
	Assessment Commentary:									

	Although final designs of the roundabout at Canniesburn Toll are not finalised, discussions of the design include: • part signalising of the roundabout • removal of pedestrian path round the outside of the roundabout • redesign the area outside the front of the shops (no clear design decided yet for this, possible options include a bypass road directly outside the row of shops. This option has the potential to result in minor positive impacts to both **Population and Human Health and Material Assets** as it will provide positive infrastructure changes to help improve connectivity throughout Bearsden and wider to Glasgow in a way that encourages safe travel. However, there is also the potential for minor negative to **Population and Human Health** in terms of possible fragmentation of the existing paths for walking and cycling. There may also be short-term disruption for local businesses.	
Option Assessment		
Option 36 Alternative 1 ✓	**Proposed Option: Continue to monitor air quality in Bearsden and deliver actions for improving local air quality in line with obligations for an Air Quality Management Area**	✓
	Assessment Commentary: The monitoring of air quality in designated AQMAs in East Dunbartonshire is a statutory requirement. The most recent Bishopbriggs Air Quality Management Plan has previously been subject to SEA (Screening) where it was determined that the Plan was unlikely to result in significant positive or negative environmental impacts. Therefore this option will not be subject to SEA at this stage and consequently, there are no reasonable alternatives.	


N
Bardowie
Balmore
ATS 1.12
Torrance
ATS 1.8
ATS 1.4 & 1.5
ATS 1.6
ATS 1.4
Bishopbriggs
45
44
ATS 1.10
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41
46
ATS 1.10
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Legend
Active Travel Strategy Action
Local Transport Strategy Action
Town Centre Strategy Action
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Active Travel – Walking and Cycling

37. Active Travel Strategy Actions

Each of these options have been assessed as part of the SEA for East Dunbartonshire Council's Active Travel Strategy and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

38. Bishopbriggs Town Centre Strategy Actions

These actions will be delivered in line with the approach set out in the Bishopbriggs Town Centre Strategy. It was determined as part of the Screening for the Town Centre Strategy that effects were unlikely to be significant and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									
	Population and Human Health	Cultural Heritage	Biodiversity Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	SEA Preferred Option
Option Assessment										
Option 39 Alternative 1 ✓	+	X	X	X	X	X	+	+	+	✓
	Proposed Option: Deliver improvements to the Bishopbriggs path network									
	Assessment Commentary: Improving the path network throughout Bishopbriggs will help to improve connectivity to existing paths and networks and greenspaces and the wider natural environment. In turn this has the potential to encourage active travel and allow for easier travel in town. This will present direct positive impacts to **Population and Human Health, and Material Assets** with the potential for secondary benefits to **Air Quality and Climatic Factors** in terms of the potential promoting active travel has on reduce associated emissions.									
Option 39 Alternative 2	0	X	0	X	X	X	X	X	X	
	Proposed Option: Maintain current core path network									
	Assessment Commentary:									

	While maintenance of the current path network ensures they are at kept at a consistent standard, it fails to build on their connections to the wider active travel links throughout Bishopbriggs. Therefore effects to **Population and Human Health, and Biodiversity, Flora and Fauna** are likely to be neutral due to limitations of expanding the existing network.	

Public Transport

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 40 Alternative 1 ✓	**Proposed Option: Investigate the feasibility of a Bus Park and Ride adjacent to Westerhill Road and rail line** **Assessment Commentary:** This option was assessed as part of the environmental assessment of the A803 Route Corridor Study and, as the environmental baseline has not changed significantly, it has been determined that this option will not be subject to an assessment at this stage in order to reduce duplication of assessments.									✓
Option 40 Alternative 2	+	X	X	X	X	X	+	+	+/-	
	Proposed Option: Bus Park and Ride in the vicinity of the B757/KLR **Assessment Commentary:** Creating a bus park and ride in the vicinity of the B757/KLR will provide a means to reduce traffic levels around the A803/806 and into Glasgow although not directly situated in the Bishopbriggs, Torrance, Balmore and Bardowie area. There is the potential to reduce congestion and associated emissions due to the introduction of a more sustainable mode of transport. Overall, it is anticipated that this proposal would present minor positive environmental effects for **Population and Human Health, Material Assets, Climatic Factors and Air Quality**. However, this option will require new or changes to infrastructure within the area which can disrupt current transport links and significant increase the risk of construction waste, construction traffic and surface-water run-off and release of pollutions to waterbodies and the air, presenting potential negative effects for **Material Assets**.									
Option Assessment										
Option 41 Alternative 1	**Proposed Option: Deliver an A803 Quality Bus Corridor** **Assessment Commentary:**									✓

✓	This option was assessed as part of the environmental assessment of the A803 Route Corridor Study and, as the environmental baseline has not changed significantly, it has been determined that this option will not be subject to an assessment at this stage in order to reduce duplication of assessments.									
Option 41 Alternative 2	**+/+ +**	X	X	X	X	X	**+**	**+**	**+/-**	
	Proposed Option: Continue to develop bus infrastructure through reliance on annual SPT capital programme for stop and shelter improvements									
	Assessment Commentary: Bus stop and shelter improvements, in general, will contribute to local bus infrastructure enhancements on a medium to long term basis with direct positive and potentially significantly positive impacts to **Population and Human Health** as it aims to provide valuable assistance and improvements for the overall passenger experience. This is likely to encourage greater use of bus travel in an area where bus patronage is lower than the national averages, particularly in more rural locations or in areas where access to rail stations is limited. These improvements are likely to improve the effectiveness and functionality of bus travel as well as improve its attractiveness as a sustainable travel mode. There is also likely to be secondary positive impacts on **Climatic Factors, Air Quality and Material Assets** in terms of encouraging a modal shift in transportation to a more sustainable network and support sustainable travel agendas in its role towards reduction air pollution and improving air quality. Whilst the proposed improvement techniques are relatively small-scale there may be negative impacts to **Material Assets** in terms of waste and construction impacts and there may be minor short-term disruptions to routes and use of bus stops and shelters.									
Option Assessment										
Option 42 Alternative 1 ✓	**+**	X	X	X	X	X	**+**	**+**	**+**	✓
	Proposed Option: Deliver an integrated transport hub in Bishopbriggs town centre									
	Assessment Commentary: An Integrated Transport Hub and associate public realm works (as part of the Bishopbriggs Town Centre Strategy) in Bishopbriggs Town Centre will enable local residents to have better access to multi-modal transport options. This will likely result in positive impacts to **Population and Human Health** by providing better opportunities for people to access their local town centre and use a range of transport options for further travel, for example into Glasgow. This will encourage sustainable travel and improve connectivity, resulting in minor positive impacts to **Material Assets**. Furthermore, this option has the potential to reduce car journeys through Bishopbriggs Town Centre with benefits to **Air Quality and Climatic Factors** by reducing associated emissions. This will have longer-term benefits for the overall air pollution levels at Bishopbriggs Cross which is currently designated as an Air Quality Management Area (AQMA). It is unlikely that this option will have any impacts on the other environmental factors.									

Option 42 Alternative 2	**+**	**?/-**	**?/-**	**?/-**	**X**	**?/-**	**+/-**	**+/-**	**+/-**	
	Proposed Option: Segregated cycleway on A803									
	Assessment Commentary: Creating a segregated cycleway along the A803 that runs through Bishopbriggs is likely to present a range of different positive environmental impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets** including the following effects: • A modal shift towards a more sustainable transport network through the promotion of cycling which is likely to contribute towards a reduction in car-relation emissions which can reduce the resulting negative impacts to air pollution and climate change. This is particularly beneficial as an AQMA has been designated in Bishopbriggs Cross; • A safer environment for cyclists as the cycleway will be segregated from traffic along this busy route that connects Glasgow to Bishopbriggs and the rest of East Dunbartonshire; • Contributions towards improving health and wellbeing inequalities if rates of cycling increase due to the role of active travel for improving both mental and physical health including cardio-vascular illnesses and stress; • Better connectivity between Strathkelvin Retail Park, Bishopbriggs Town Centre and Bishopbriggs Rail Station; and, • A segregated cycleway has the potential to reduce speeding due to a reduction in the road width. Whilst this option will generate positive benefits for the local community and environment, there are also a number of direct or secondary negative impacts that may result for **Cultural Heritage, Biodiversity, Flora and Fauna, Soil and Geology, Water Quality, Air Quality, Climatic Factors and Material Assets** including the following: • Although the work likely to be required to create a segregated cycleway along the A803 will be minimum in terms of scale of construction, there is the potential that any intervention of the existing road network could increase the risk of congestion along the A803 which in turn can enhance the risk of traffic emissions and poor air quality at a localised level; • Rookery Plantation LNCS for biodiversity is located to the west of the A803 – consideration will need to be given to the impact of creating a segregated cycleway on biodiversity value; and, • There may also be secondary impacts of construction on soil erosion and surface-water run-off on the surrounding green belt environment.									
Option Assessment										
Option 43 Alternative 1	**+/+ +**	**X**	**X**	**X**	**X**	**X**	**+/+ +**	**+/+ +**	**+/+ +**	✓
	Proposed Option: Deliver a bus hub in Auchinairn									
	Assessment Commentary:									

✓	It is anticipated that this option would present overall positive environmental impacts for the local communities, air quality and climate change benefits. In particular, the proposed option may present minor positive effects to **Population and Human Health, Air Quality, Material Assets and Climatic Factors**, with the potential for significant effects, as it would actively enhance integrated travel networks between cycling, walking and bus use. This will provide more opportunities for locals to travel within East Dunbartonshire. It will also specifically benefit those who are socially excluded or don't have regular access to a car. Furthermore, this proposal is likely to encourage a modal shift in transport to a more sustainable network within Auchinairn and Bishopbriggs, in particular, and the improved bus use will help to reduce emissions and air pollution, and reduce the negative impacts of transport on climate change.									
Option 43 Alternative 2	**+**	X	X	X	X	X	**+**	**+**	**+**	
	Proposed Option: Implement RTPI in Bishopbriggs and Lenzie alone									
	Assessment Commentary: Similarly to Area Wide Option 2 Alternative 1, this alternative option has the potential to present positive impacts to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**. However, effects are more likely to be minor in comparison to those effects described in the assessment of Area Wide Option 2 Alternative 1. While greater real time information in our town centres will have multiple benefits, to only have these units in the town centres reduces the benefits for the wider population of East Dunbartonshire.									
Option Assessment										
Option 44 Alternative 1 ✓	**+**	X	**-/- -**	**?**	X	X	**+/-**	**+/-**	**+/-**	✓
	Proposed Option: Continue to safeguard land in the emerging Local Development Plan 2 for a potential rail station at Westerhill including land for an associated park and ride facility									
	Assessment Commentary: The safeguarding of land for a new rail station at Westerhill with a park and ride facility would ensure that a commitment to preserving an opportunity for a new sustainable transport facility is made, with the potential to improve public transport access in order to reduce the proportion of journeys made by private vehicle. Therefore it is anticipated that the effects of this option will be minor positive for **Population and Human Health, Air Quality, Climatic Factors and Material Assets** in terms of a shift towards a more sustainable transport network, reduced car journeys and associated emissions and better connectivity. However the development of such facilities also has the potential to result in negative impacts to **Material Assets** in terms of requiring infrastructure changes which may disrupt the existing network and result in construction waste.									

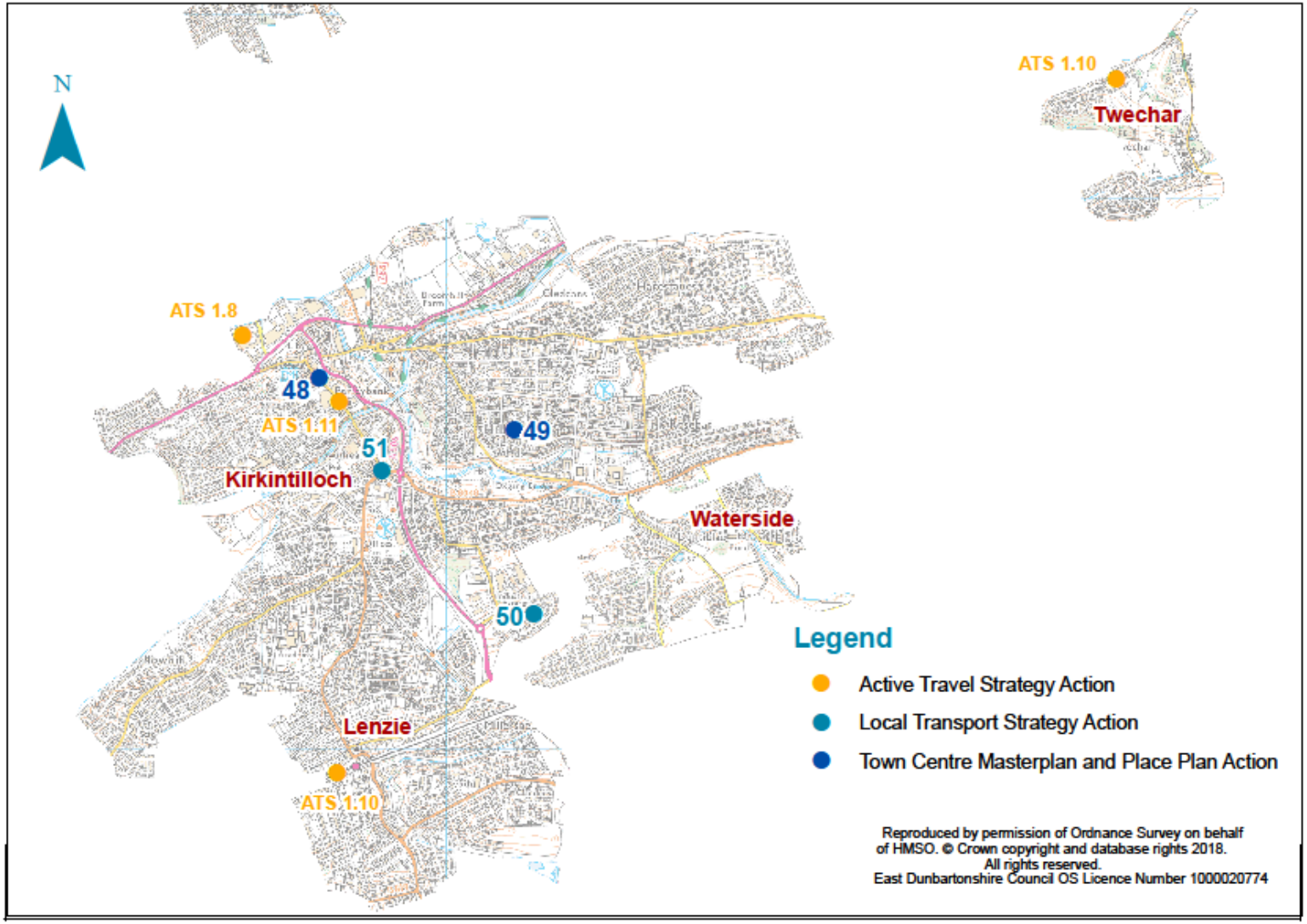
	In terms of **Air Quality**, whilst there could be positive impacts there is the potential that there could be increased traffic in the local area especially at peak times which could exacerbate issues of poor air quality. This could exacerbate existing air quality issues is Bishopbriggs as the Cross is designated as an AQMA. The development of a new station would also impact on the Local Nature Conservation Site (LNCS) at Cadder Yard adjacent to the proposed location. This would be adversely impact on this designation with the potential for significant negative impacts to **Biodiversity, Flora and Fauna** depending on the scale of the station and park and ride facility. There is also likely to be increased traffic and footfall in the area as people utilise the facilities which could further impact on the designation.	
	Proposed Mitigation: • Adverse effects on the character and quality of conservation areas will be avoided or reduced by improving the quality, design and appropriateness of street furniture, lighting, road signs, safety features, public transport facilities (bus stops) and by reducing street clutter. • Ensure that all new transport interventions and transport improvement works involving construction activities adhere to appropriate environmental protection standards, good codes of practice, construction principles and design guides to ensure that the correct measures are implemented to prevent the pollution of surface water and groundwater. • Ensure all new transport interventions and transport improvement works will implement appropriate measures to minimise pollution from surface water runoff e.g. oil separators and silt traps. • Where disruption to routes and bus stops/shelters occurs arrangements should be made to provide alternative infrastructure in the short-term • Good practice guidance should be followed relating to construction dust management and waste management	

Option 44 Alternative 2	X	X	X	X	X	X	-	-	X	
	Proposed Option: Remove safeguarding of the land									
	Assessment Commentary: This option would prevent any opportunities to provide a new sustainable transport option in Bearsden. Therefore there is likely to be no effects to most of the environmental factors. However, there may be an increased risk of negative effects in terms of **Air Quality and Climatic Factors** as sustainable travel options will be reduced and it is likely that there will be more emphasis on private vehicle travel.									

Roads

	SEA ENVIRONMENTAL FACTORS	

Options and Alternatives	Population and Human Health	Cultural Heritage	Biodiversity Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	SEA Preferred Option
Option Assessment										
Option 45 Alternative 1 ✓	?	?	?	?	?	?	?	?	?	✓
	Proposed Option: Work on developing a Glasgow City Region City Deal project for East Dunbartonshire									
	Assessment Commentary: At this stage, the likely effects on each of the environmental factors cannot be determined. Further details of the project, which have not been finalised, would be required to fully assess this option. There are no reasonable alternatives at this stage.									
Option Assessment										
Option 46 Alternative 1 ✓	**Proposed Option: Continue to monitor air quality in Bishopbriggs and deliver actions for improving local air quality in line with obligations for an Air Quality Management Area**									✓
	Assessment Commentary: The monitoring of air quality in designated AQMAs in East Dunbartonshire is a statutory requirement. The updated Bearsden Air Quality Management Plan (2017) has previously been subject to SEA (Screening) where it was determined that the Plan was unlikely to result in significant positive or negative environmental impacts. Therefore this option will not be subject to a SEA at this stage and consequently, there are no reasonable alternatives.									


N
ATS 1.10
Twechar
ATS 1.8
48
ATS 1.11
51
Kirkintilloch
49
Waterside
50
Lenzie
ATS 1.10
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Active Travel – Walking and Cycling

47. Active Travel Strategy Actions

These actions will be delivered in line with the approach set out in the Active Travel Strategy 2015 – 2020. Each of these options have been assessed as part of the SEA for East Dunbartonshire Council's Active Travel Strategy and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

48. Kirkintilloch Town Centre Masterplan Actions

These actions will be delivered in line with the approach set out in the Kirkintilloch Town Centre Strategy. It was determined as part of the Screening for the Town Centre Strategy that effects were unlikely to be significant and therefore it has been determined that they will not be assessed as part of the LTS to avoid duplication.

49. Draft Hillhead and Harestanes Place Plan Actions

<table>
<tr><th rowspan="2">Options and Alternatives</th><th colspan="9">SEA ENVIRONMENTAL FACTORS</th><th rowspan="2">SEA Preferred Option</th></tr>
<tr><th>Population and Human Health</th><th>Cultural Heritage</th><th>Biodiversity, Flora and Fauna</th><th>Soil and Geology</th><th>Landscape</th><th>Water Quality</th><th>Air Quality</th><th>Climatic Factors</th><th>Material Assets</th></tr>
<tr><td colspan="11">Option Assessment</td></tr>
<tr><td rowspan="3">Alternative 1
✓</td><td>?</td><td>?</td><td>?</td><td>?</td><td>?</td><td>?</td><td>?</td><td>?</td><td>?</td><td rowspan="3">✓</td></tr>
<tr><td colspan="9">Proposed Option: Conduct analysis and feasibility work which looks specifically at barriers or perceived barriers at the canal path network identified in Place Standard exercise, e.g. not being able to walk at night, poorly maintained paths, cycling unsafe for children etc.</td></tr>
<tr><td colspan="9">Assessment Commentary:
At this stage in the assessment, the nature of the impacts on the other environmental factors is unknown. This will be dependent on the outcome of the analysis and feasibility work associated with this option.
As these actions will be delivered in line with the approach set out in the Draft Hillhead and Harestanes Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.</td></tr>
<tr><td colspan="11">Option Assessment</td></tr>
</table>

Alternative 1 ✓	+/+ +	X	X	X	X	X	+/+ +	+/+ +	+/+ +	✓
	Proposed Option: Through the development of local access and active travel projects, for example as part of the Kirkintilloch Town Centre Masterplan or ED Loop, ensure connections and linkages to neighbourhoods such as HHHS are considered.									
	Assessment Commentary: This option is likely to present positive effects to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**, with the potential for significant effects, in terms of its potential to promote active travel, move towards a more sustainable transport network and improve connectivity. As these actions will be delivered in line with the approach set out in the Draft Hillhead and Harestanes Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.									
Option Assessment										
Alternative 1 ✓	+/+ +	?	?	?	?	?	+/+ +	+/+ +	+/+ +	✓
	Proposed Option: Explore opportunities for a new cycle and walking path from Banks Road to Tintock Tunnel									
	Assessment Commentary: This option is likely to present positive effects to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**, with the potential for significant effects, in terms of its potential to promote active travel, move towards a more sustainable transport network and improve connectivity. However impacts to the other environmental factors would need to be determined when opportunities, including routes, are known. As these actions will be delivered in line with the approach set out in the Draft Hillhead and Harestanes Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.									
Option Assessment										
Alternative 1 ✓	+	X	-	X	X	X	?/-	?/-	+	✓
	Proposed Option: Update paths at Merkland Local Nature Reserve and extension of car park									
	Assessment Commentary: This option is likely to present positive effects to **Population and Human Health and Material Assets** in terms of its potential to encourage accessibility to the Nature Reserve and improved linkages. However there may be negative impacts to **Biodiversity, Flora and Fauna** as Merkland Local Nature Reserve (LNR) is both a LNR and Local Nature Conservation Site									

	(LNCS). Updating paths is likely to increase footfall and access to the site which has the potential disturb any species and potentially result in negative impacts to habitat value. Furthermore, extending the car park has the potential to result in negative impacts to **Air Quality and Climatic Factors** as this may encourage people to drive more often to the LNR which could increase emissions locally. As these actions will be delivered in line with the approach set out in the Draft Hillhead and Harestanes Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.	
	Proposed Mitigation: Given that the site is a LNR and LNCS, biodiversity surveys should be carried out where appropriate and disturbance should be avoided wherever possible by carrying out works out with breeding seasons. The materials used for the path upgrade should be considerate of the surrounding environment. Any changes to the path and car park should also aim to retain features of ecological value within the design of the intervention. The highest priorities for protection are ponds, riparian habitats, wetland areas, woodland areas (particularly ancient woodland), important hedgerows, railway, and veteran trees. However, consideration should also be given to the scrub, mature trees, hedgerows, stone walls and grass verges.	

Public Transport

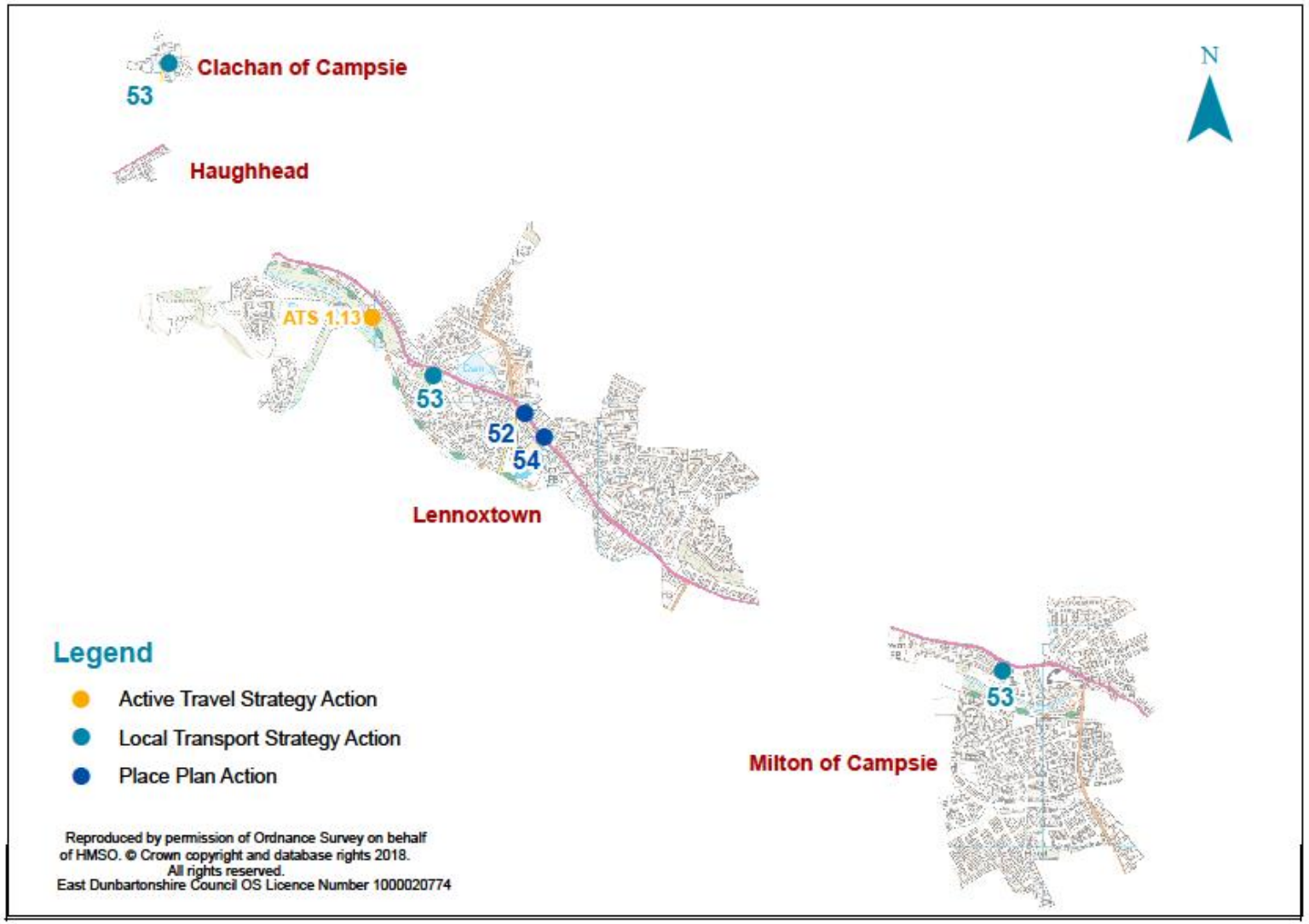
Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 50 Alternative 1 ✓	**Proposed Option: Continue to work with SPT to investigate ways of improving bus provision between Kirkintilloch, Lenzie and Woodilee** **Assessment Commentary:** This option was assessed as part of the environmental assessment of the A803 Route Corridor Study and, as the environmental baseline and action have not changed significantly, this option has been screened out and the assessment will not be duplicated at this stage.									✓
Option 50	?/+	X	X	X	X	X	?/+	?/+	?/+	

Alternative 2	**Proposed Option: Do nothing and allow the deregulated bus market to provide services on a commercial basis**	
	Assessment Commentary: Whilst the deregulated bus market currently does not provide bus services along the Kirkintilloch Link Road (KLR) between Lenzie and Kirkintilloch with access to other locations in East Dunbartonshire and out with, for example Glasgow, there is the potential that implementation of such services will present some minor positive impacts. Whilst the full nature of the effects is unclear at this stage and will be dependent on factors such as the routes provided, compliance with the bus market, frequency of services and uptake, minor positive impacts may result for **Population and Human Health, Air Quality, Climatic Factors and Material Assets** due to the following: • Better provision for local residents to utilise public transport and therefore travel to other locations; • Potential reductions in car use and associated emissions with benefits to localised air quality and effects of climate change; and, • A shift towards more sustainable modes of transport.	

Town Improvements

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 51 Alternative 1 ✓	+/+ +	X	X	X	X	X	?	?	+/+ +	✓
	Proposed Option: Improve the layout and associated transport infrastructure in Kirkintilloch Town Centre through a refresh of the Kirkintilloch Town Centre Masterplan									
	Assessment Commentary: This initiative will be facilitated by EDC but will be community led as community groups will work directly with the consultant throughout this process. The main transport impacts this initiative will have is to address the main Townhead junction in order for it to cope better with the volume of traffic currently passing through it. This has the potential to pose benefits to **Population and Human Health** in terms of improved safety from traffic and potential speeding. There is also scope to investigate improved connectivity between cycle routes. This has the potential to promote a change in transport modes with benefits to **Material Assets** whilst also encouraging active travel with benefits to health and wellbeing. The nature of the									

	impacts on **Air Quality and Climatic Factors** will be dependent on the outcomes of this consultation exercise with community groups. This option is being facilitated by the regeneration team within the Council and funding is already in place to recruit a consultant and, therefore, there is no reasonable alternative.	


Clachan of Campsie
53
Haughhead
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Lennoxtown
Legend
Active Travel Strategy Action
Local Transport Strategy Action
Place Plan Action
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Milton of Campsie
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Active Travel – Walking and Cycling

52. Lennoxtown Place Plan Actions

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Alternative 1 ✓	?	?	?	?	?	?	?	?	?	✓
	Proposed Option: As part of the public realm feasibility, look at options to create better and additional pedestrian crossing opportunities along the main street									
	Assessment Commentary: At this stage in the assessment the effects are unknown without a feasibility study being undertaken. As these actions will be delivered in line with the approach set out in the Lennoxtown Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.									
Option Assessment										
Alternative 1 ✓	+/+ +	X	X	X	X	X	+/+ +	+/+ +	+/+ +	✓
	Proposed Option: Create a link between the Strathkelvin Railway Path and the village centre via Station Road									
	Assessment Commentary: This option is likely to present positive effects to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**, with the potential for significant effects, in terms of its potential to promote active travel, move towards a more sustainable transport network and improve connectivity. As these actions will be delivered in line with the approach set out in the Lennoxtown Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.									
Option Assessment										
	+/+ +	?	?	?	?	?	+/+ +	+/+ +	+/+ +	

Alternative 1 ✓	**Proposed Option: Create a foot link in the High Church area to support additional walking choices from east to west** **Assessment Commentary:** This option is likely to present positive effects to **Population and Human Health, Air Quality, Climatic Factors and Material Assets**, with the potential for significant effects, in terms of its potential to promote active travel, move towards a more sustainable transport network and improve connectivity. However impacts to the other environmental factors would need to be determined when opportunities, including routes, are known. As these actions will be delivered in line with the approach set out in the Lennoxtown Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.	✓

Option Assessment

Alternative 1 ✓	+/+ +	X	X	X	X	X	X	X	X	✓

Proposed Option: Create more consistent pedestrian signage that will help to move around Main Street and to the wider path network

Assessment Commentary:
This option is anticipated to increase awareness of the path network in Lennoxtown therefore encouraging better connectivity and linkages. This is likely to be positive for **Population and Human Health**, with the potential for significant impacts, as people are more likely to have the knowledge and want to utilise the path network in order to have better access to the wider environment.

As these actions will be delivered in line with the approach set out in the Lennoxtown Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.

Option Assessment

Alternative 1 ✓	+	X	X	X	X	X	+	+	+	✓

Proposed Option: Market and promote the village as part of existing and future cycle and active travel routes around East Dunbartonshire

Assessment Commentary:
This option has the potential to encourage greater participation in active travel, which could encourage a modal shift in transport to more sustainable methods, therefore presenting positive impacts to **Population and Human Health and Material Assets**. This has the potential to result in secondary positive impacts to **Air Quality and Climatic Factors** as this could encourage less reliance on cars and reduce emissions levels locally.

	As these actions will be delivered in line with the approach set out in the Lennoxtown Place Plan and the actions have been established through community consultation there are no reasonable alternatives. The Place Plan and Local Outcomes Improvement Plan have been subject to SEA.	

Public Transport

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and Human Health	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	
Option Assessment										
Option 53 Alternative 1 ✓	+	X	X	X	X	X	+	+	+	✓
	Proposed Option: Work with operators and SPT to ensure continuation of express services from Campsie Glen to Glasgow									
	Assessment Commentary: Ensuring the continuation of this bus service will be beneficial for local people, giving them greater access to Glasgow for both commuting and leisure purposes and in turn will help to meet air quality improvement agendas at a local level, encourage greater use of public transport as a more sustainable option and reduce emissions. As the powers for provision of bus services, commercial or subsidised, generally lie with operators and SPT, the Council is unlikely to be able to provide an alternative service, should this be withdrawn. Therefore it is considered that there are no reasonable alternatives.									

Roads

54. Lennoxtown Place Plan Actions

Options and Alternatives	SEA ENVIRONMENTAL FACTORS									SEA Preferred Option
	Population and	Cultural Heritage	Biodiversity, Flora and Fauna	Soil and Geology	Landscape	Water Quality	Air Quality	Climatic Factors	Material Assets	

	Human Health									
Option Assessment										
Alternative 1 ✓	?	?	?	?	?	?	?	?	?	✓
	Proposed Option: Commission feasibility work to develop options for public realm improvements in the area identified in the Charrette process. This includes: new multi-functional village space; traffic calming measures; reconfigurations and enhancements to street layout; and street furniture upgrades throughout the Main Street area									
	Assessment Commentary: This action will be delivered in line with the approach set out in the Lennoxtown Place Plan. At this stage the effects are uncertain until the feasibility work has been carried out. It is considered that there are no reasonable alternatives to this option. Work is ongoing to deliver improvements that were identified as part of the Lennoxtown Charrette and Place Plan process.									
Option Assessment										
Alternative 1 ✓	?	?	?	?	?	?	?	?	?	✓
	Proposed Option: Carry out roads and footway audits in partnership with the local community to help identify any potential future upgrade works									
	Assessment Commentary: This action will be delivered in line with the approach set out in the Lennoxtown Place Plan. Whilst the audit is likely to improve path and road networks making them more usable and safer, at this stage the effects are uncertain until the feasibility work has been carried out. It is considered that there are no reasonable alternatives to this option. Work is ongoing to deliver improvements that were identified as part of the Lennoxtown Charrette and Place Plan process.									