

Consultative Draft

East Lothian Climate Change Strategy 2019–2024

East Lothian
Council



TACKLING CLIMATE CHANGE TOGETHER

“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

John Muir 1838–1914, pioneer of nature conservation,
born in Dunbar and inspired by its natural environment

Consultative Draft East Lothian Climate Change Strategy 2019–2024

Executive Summary

Climate Change: Background and Policy Context

Climate change is very much in the public eye at present. People across the world are considering the implications of decisions and lifestyle choices on the increasing carbon emissions which contribute to global warming. We can all play our part in contributing to the national and international efforts to reduce carbon emissions, with the social, economic and environmental implications this will have.

The Climate Change (Scotland) Act 2009 helped to establish Scotland as a world leader in tackling climate change, introducing ambitious targets and legislation to reduce Scotland's emissions by at least 80% by 2050. The Act places specific duties on public bodies in Scotland with respect to climate change. This Climate Change Strategy sets out how East Lothian Council will address the duties of public bodies under the Act, which are:

- To contribute to the delivery of the carbon emission reduction targets set out in the Act;
- To help deliver Scotland's Climate Change Adaptation programme; and
- To act in the way it considers is most sustainable.

As a public body, East Lothian Council is expected to lead by example in reducing greenhouse gas emissions, and to successfully deliver the Scottish Government's Climate Change Plan 2018–2032 locally by influencing and enabling positive behaviours, driving change, and acting as an exemplar of climate action and low carbon innovation in the transition to a growing, sustainable and inclusive low carbon economy.

Scotland's climate is already changing and we have to respond to the challenges this is causing and the opportunities this brings. In future years it is predicted that temperatures will rise, winter rainfall will increase whilst summer rainfall decreases, and heatwaves, droughts, storms and floods will become more frequent. This will have a major impact on East Lothian's communities, businesses, infrastructure and natural environment.

Purpose and Strategic Vision of the East Lothian Climate Change Strategy

This Climate Change Strategy covers two major aspects of climate change:

- **Climate Change Mitigation:** this section of the Strategy sets out how we will reduce our carbon emissions to meet the challenging targets set out in the Climate Change (Scotland) Act 2009 and help to mitigate against further global temperature rise; and
- **Climate Change Adaptation:** climate change is already impacting upon us, and this section sets out how we will adapt to and prepare for future changes in our climate. This will help to reduce inequalities, and enable our communities and businesses to be more resilient for the future.

This Draft Climate Change Strategy sets out how East Lothian Council will tackle climate change locally in East Lothian, and how it will work in partnership to ensure that East Lothian can play its full part in the national and international efforts to reduce carbon emissions. The Strategy will contribute to raising awareness of climate change challenges

and opportunities in East Lothian. It also sets out the priorities and actions for the Council and the wider East Lothian community to mitigate against and reduce the impacts of climate change and the inequalities that can result, and to act sustainably.

Taking account of the policy context, the key climate change challenges for East Lothian, and the local context and feedback from local people, communities, businesses and organisations, the strategic **Vision** for the Climate Change Strategy is:

‘We will work in partnership to achieve an even more prosperous, fair and sustainable East Lothian, with flourishing low carbon communities and a thriving low carbon economy, contributing to national and international efforts to reduce carbon emissions.’

The Strategy brings together a wide range of plans and strategies across the Council into one place, enabling a co-ordinated Action Plan for mitigating against and adapting to climate change.

The **purpose** of the Climate Change Strategy is:

- To set out a coordinated approach, framework, outcomes, priorities and action plan for the implementation of climate change mitigation and adaptation across East Lothian;
- To enable East Lothian Council to continue to meet its statutory climate change obligations;
- To contribute to the development of a sustainable, resource efficient and equitable East Lothian, with a thriving low carbon economy, a healthy and diverse natural environment, and flourishing low carbon communities that are resilient to the effects of future climate change; and
- To enable East Lothian to play its full part in the national and international efforts to reduce carbon emissions and tackle global warming.

The Strategy will also contribute to:

- Reducing Inequalities
- Improving Health and Wellbeing
- Contributing to a Thriving Local Economy
- Education, Awareness-raising and Behaviour Change
- Ensuring Cost-effective Action

The Strategy sets out what national bodies, local organisations, communities and groups are already progressing around the county to encourage a low carbon and more sustainable East Lothian, and the Council’s role in helping our communities and businesses to adapt to climate change impacts and encourage the move towards a low carbon East Lothian.

Developing the Strategy

The Draft Strategy has been informed and shaped by feedback and information gathered from the public during an initial consultation on the development of the Strategy. It was also developed in partnership with the Climate Change Planning and Monitoring Group and key stakeholder organisations. This informed the identification of the key issues and challenges, and the setting of the key outcomes for the Draft Strategy.

Outcomes of the Climate Change Strategy

The following Outcomes have been identified to guide activity and to promote and set out how the Council, and the wider East Lothian community, will achieve this vision:

Outcome 1: A Low Carbon and Sustainable Council.

East Lothian Council will reduce its overall carbon emissions from the Council's own estate and operations by 2.5% per year relative to population size, over the 5 year period of the Climate Change Strategy.

Outcome 2: A Resource Efficient and Sustainable East Lothian.

Sustainable East Lothian will be a place of social equity underpinned by sustainability; working towards a zero waste East Lothian, and a low carbon and energy efficient county; ensuring the next generation has the resources they need to thrive.

Outcome 3: Active Travel and Sustainable Transport are used for Everyday Journeys.

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

Outcome 4: A Place Encouraging a Low Carbon Lifestyle.

East Lothian will be a place which encourages the transition to a low carbon lifestyle and reduces inequalities in our communities, by promoting green networks, active travel and outdoor play, local food growing, local amenities, and community meeting places, where everyone is connected to the outdoors and nature thrives.

Outcome 5: A Low Carbon and Sustainable Economy.

East Lothian will have a sustainable and digitally-connected local economy, with thriving, low carbon and sustainable businesses, at the heart of vibrant local communities, contributing towards a sustainable, fair and equitable East Lothian.

Outcome 6: A Healthy and Resilient Natural Environment.

East Lothian will have healthy, diverse natural ecosystems that support biodiversity and the wellbeing of our communities, functioning to off-set carbon emissions, acting as a key force in adapting to climate change, and resilient to changes in climatic conditions.

Outcome 7: A Well-Adapted East Lothian.

East Lothian's natural environment, buildings, infrastructure and society will be adapted to the effects of climate change, and its communities will be resilient to further changes in the future.

Outcome 1 sets out how the Council will lead by example by reducing carbon emissions and by acting sustainably. The Strategy sets out the proposal that the Council will reduce its overall carbon emissions from its own estate and operations by 2.5% per year relative to population size, over the five year period of the Strategy.

The Strategy details how the Council has already reduced its annual carbon emissions by 17% over the past 4 years, and is making good progress in respect of emissions reduction, despite significant population growth. However, it is important to note that this current dataset is incomplete as it does not yet include the emissions associated with the Council's Transport Fleet, due to incomplete recording of fleet data. A new system for more accurately recording fleet data will enable the Council to include the full dataset in 2018/19 and set a new baseline for future reporting of the Council's carbon emissions.

During the period of the Strategy, the Council will set specific emissions reduction targets for aspects of the Council's estate, management and operations, and will undertake detailed future carbon emissions projections to inform the setting of accurate future targets. These

proposals, including the analysis of the full dataset, incorporating fleet data to establish a new baseline measurement in 2018/19, are reflected within the Action Plan. This will improve the extent and integrity of the data collected.

Outcomes 2 to 6 set out how the Council will work in partnership with local communities, businesses, organisations and individuals to mitigate against climate change and achieve a low carbon and sustainable East Lothian. These outcomes address the infrastructure, place-making, resource management, behaviour and lifestyle changes needed to achieve a low carbon county and a thriving low carbon economy.

Outcome 7 sets out how the Council and the wider East Lothian community can adapt to climate change and further anticipated climatic events. It sets out how the Council will lead by example in preparing for and managing climate change impacts, and will work in partnership to develop resilient communities, ensure businesses are prepared, and help ensure our natural environment can help us adapt to climate change.

The Action Plan underpins these outcomes. The Action Plan seeks to deliver local actions and target resources over the five-year period of the Strategy, and looks ahead to the longer-term actions that will also be required. The Action Plan will be reviewed and updated annually.

The Strategy also includes the flexibility to amend the targets for carbon emissions reduction in response to anticipated legislative changes over the five year period of the Strategy. The Action Plan reflects this by setting actions for the short, medium and long term, and by building in flexibility in target setting.

The Council will work in partnership with our local communities, businesses, organisations and individuals to achieve these outcomes, as no one organisation can do this alone. We need to work together to address this global challenge across all aspects of our society.

Comments on the Draft East Lothian Climate Change Strategy

The purpose of this Consultative Draft East Lothian Climate Change Strategy is to provide a further opportunity for feedback prior to publication of the final document. Comments, views and suggestions are invited on the Draft Strategy, including its proposed priority outcomes and actions to tackle climate change across the county. In particular:

- Have we captured the key issues and challenges that we face across the county?
- Have we set out appropriate priority outcomes?
- Are the actions we propose to take considered to be appropriate?

A Consultation Questionnaire is available online at eastlothianconsultations.co.uk to help you respond, although you do not have to use the questionnaire to respond if you do not wish to do so. Comments are invited IN WRITING by 5pm on Monday 22nd July 2019.

How to Comment

In developing the Consultative Draft East Lothian Climate Change Strategy 2019–24, we have consulted extensively with local people and other partners and stakeholders. This draft document reflects what we have already heard and considered.

The purpose of this Consultative Draft East Lothian Climate Change Strategy is to provide a further opportunity for you to give feedback prior to publication of the final document. We are inviting comments, views and suggestions on our Draft Strategy, including its proposed priority outcomes and actions to tackle climate change across the county. In particular:

- Have we captured the key issues and challenges that we face across the county?
- Have we set out appropriate priority outcomes?
- Are the actions we propose to take considered to be appropriate?

A Consultation Questionnaire is attached at the Appendix to this report to help you respond and this is also available online at eastlothianconsultations.co.uk although you do not have to use this questionnaire to respond if you do not wish to do so.

Comments and suggestions are invited **IN WRITING by 5pm on Monday 22nd July 2019.**

By post to: Sustainable Energy and Climate Change Officer, Strategic Investment and Economic Development, East Lothian Council, John Muir House, Brewery Park, Haddington, East Lothian, EH41 3HA

By email to: climatechange@eastlothian.gov.uk

By using our online form via our website: eastlothianconsultations.co.uk

Contents

1. Introduction

- 1.1 What is Climate Change?
- 1.2 What can we do to reduce Climate Change?
- 1.3 Why do we need a Climate Change Strategy?
- 1.4 Purpose of the East Lothian Climate Change Strategy
- 1.5 Vision of the East Lothian Climate Change Strategy
- 1.6 Outcomes of the Climate Change Strategy

2. Development of the Strategy

- 2.1 Public Consultation and Engagement
- 2.2 Climate Change Planning and Monitoring Group
- 2.3 Key Stakeholder Organisations
- 2.4 Impact Assessments
- 2.5 Research and Data Analysis

3. International, National and Local Policy Context

- 3.1 The International Context: Reducing Global Warming
- 3.2 The National Policy Context: Scotland's World-leading Climate Change Legislation
- 3.3 The Local Policy Context: addressing Climate Change in East Lothian

4. Context: East Lothian

- 4.1 Location, Landscape and Land Use Context
- 4.2 Settlements
- 4.3 Population Context
- 4.4 Transport
- 4.5 Energy
- 4.6 Economy

5. Context: Climate Change Mitigation in East Lothian

- 5.1 National Context: Scotland-wide carbon emissions reductions
- 5.2 The role of Local Authorities and reporting of carbon emissions
- 5.3 East Lothian's carbon emissions

6. Context: Climate Change Adaptation in East Lothian

- 6.1 Scotland's changing climate
- 6.2 What does climate change adaptation involve?
- 6.3 Future climate impacts in East Lothian: the challenges and opportunities
- 6.4 The role of public bodies

7. Outcome 1: A Low Carbon and Sustainable Council

- 7.1 East Lothian Council's Carbon Emissions Reduction Target 2019–24
- 7.2 Key Objectives to achieve Outcome 1
- 7.3 Key Challenges
- 7.4 East Lothian Council's carbon footprint
- 7.5 How has the Council already achieved carbon emissions reductions?
- 7.6 How will the Council meet its carbon emissions reduction target?
- 7.7 Embedding carbon management and sustainability into policies and practices across Service Areas

8. Outcome 2: A Resource Efficient and Sustainable East Lothian

- 8.1 Key Objectives to achieve Outcome 2

- 8.2 Key Challenges
- 8.3 Why is resource efficiency important to climate change?
- 8.4 The National Context
- 8.5 The East Lothian Context
 - 8.5.1 Energy
 - 8.5.2 Waste and Recycling

9. Outcome 3: Active Travel and Sustainable Transport are used for Everyday Journeys

- 9.1 Key Objectives to achieve Outcome 3
- 9.2 Key Challenges
- 9.3 The National Context
- 9.4 The East Lothian Context
 - 9.4.1 Path and active travel networks and sustainable transport connectivity
 - 9.4.2 Benefitting East Lothian's economy
 - 9.4.3 Role of the Planning System
 - 9.4.4 Improving Air Quality

10. Outcome 4: A Place Encouraging a Low Carbon Lifestyle

- 10.1 Key Objectives to achieve Outcome 4
- 10.2 Key Challenges
- 10.3 The International and National Context
- 10.4 The East Lothian Context

11. Outcome 5: A Low Carbon and Sustainable Economy

- 11.1 Key Objectives to achieve Outcome 5
- 11.2 Key Challenges
- 11.3 The National Context
- 11.4 The East Lothian Context

12. Outcome 6: A Healthy and Resilient Natural Environment

- 12.1 Key Objectives to achieve Outcome 6
- 12.2 Key Challenges
- 12.3 The importance of a healthy natural environment: carbon capture and carbon storage
- 12.4 The National Context
- 12.5 The East Lothian Context

13. Outcome 7: A Well-Adapted East Lothian

- 13.1 Key Objectives to achieve Outcome 7
- 13.2 Key Challenges
- 13.3 East Lothian's Climate Risks
- 13.4 A Well-Adapted Council
- 13.5 A Well-Adapted East Lothian
 - 13.5.1 Flood Risk Management
 - 13.5.2 Adapting Buildings and Infrastructure
 - 13.5.3 Adapting Society: Developing Resilient Communities
 - 13.5.4 The Role of the Natural Environment in Climate Change Adaptation

14. Monitoring and Evaluation Framework

15. Action Plan

Appendix: Consultation Questionnaire

1. Introduction

1.1 What is Climate Change?

There is good scientific evidence to show that the Earth's climate is changing because of emissions of 'greenhouse gases' resulting from human activity. The majority of emissions derive from our demand for energy. The largest contributor to greenhouse gas emissions is carbon dioxide (CO₂), which is emitted when fossil fuels are burnt to meet those energy demands. Increasing quantities of carbon dioxide contribute to the 'greenhouse effect', causing global temperature rise and changes to the Earth's climate.

Climate change impacts upon all aspects of life, increasing risks to the natural environment, food security, water availability, infrastructure and human health.

1.2 What can we do to reduce Climate Change?

We burn fossil fuels, causing carbon emissions, when we drive petrol or diesel cars, power and heat our homes and businesses with fuel derived from coal, gas or oil. Emissions also result from industrial processes and agriculture.

Shifting these carbon-reliant patterns in our lifestyles and economy towards different modes, such as driving electric cars, walking, cycling, working locally, better insulating our homes and businesses for 'energy efficiency', growing food locally and relying more on renewable energy sources (such as wind, solar or tidal power) will reduce the amount of carbon emissions released into the Earth's atmosphere. This is known as moving towards a 'low carbon lifestyle' and a 'low carbon economy' – or, better still, towards 'zero carbon'. This will reduce global warming and the effects of climate change.

Crucially, if greenhouse gas emissions are reduced quickly, the extent of climate change will be reduced. However, if carbon emissions continue at current rates, the implications of climate change become even more severe, with greater risk to life on Earth.

1.3 Why do we need a Climate Change Strategy?

The Climate Change (Scotland) Act 2009¹ sets a target for Scotland of 80% reduction in carbon emissions by 2050. As a public body, East Lothian Council is expected to lead by example in reducing emissions, and to deliver the Scottish Government's Climate Change Plan² at a **local level**. The Council is required to influence and enable positive behaviours, drive change, and act as an exemplar of climate action and low carbon innovation in the transition to a sustainable and inclusive low carbon economy.

Scotland's climate is already changing and we have to respond to the challenges this is causing and the opportunities this brings. In future years it is predicted that temperatures will rise, winter rainfall will increase whilst summer rainfall decreases and heatwaves, droughts, storms and floods will become more frequent. This will have a major impact on East Lothian's communities, businesses, infrastructure and natural environment.

Global warming

Increased levels of 'greenhouse gases' building up in the atmosphere, including carbon dioxide, nitrous oxide, water vapour and methane, prevent heat escaping from the Earth into space.

This intensifies the so-called 'greenhouse effect', causing global temperatures to rise, resulting in climate change and instability.

¹ <https://www.legislation.gov.uk/asp/2009/12/contents>

² <https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/>

This Climate Change Strategy covers these two major aspects of climate change:

- Climate Change Mitigation: this section of the Strategy sets out how we will reduce our carbon emissions to meet the challenging targets set out in the Climate Change (Scotland) Act 2009 and help to mitigate against further global temperature rise; and
- Climate Change Adaptation: climate change is already impacting upon us, and this section sets out how we will adapt to and prepare for future changes in our climate.

Climate Change Mitigation means the actions we can all take to reduce our carbon emissions, which will help to reduce global warming and the serious effects this will have on the environment, society and the economy.

Climate Change Adaptation is how our communities can adapt to extreme weather events and a climate that is already changing as a result of global warming. This will help to reduce inequalities, and enable our communities to be more resilient for the future.

1.4 Purpose of the East Lothian Climate Change Strategy

This Climate Change Strategy sets out how East Lothian Council will tackle climate change, and how it will work in partnership with our local communities, businesses, organisations and individuals to ensure that East Lothian can play its full part in the national and international efforts to reduce carbon emissions.

The Council has set out this Strategy to ensure compliance with the Public Bodies' Duties in the Climate Change (Scotland) Act 2009. The Council will also work with its partners in the East Lothian Partnership to help achieve a reduction in carbon emissions, and improve sustainability and equality, across East Lothian.

The Strategy will contribute to raising awareness of climate change challenges in East Lothian. It also sets out the priorities and actions for the Council and the wider East Lothian community to mitigate against and reduce the impacts of climate change and the inequalities that can result, and promote resilient communities.

It brings together a wide range of plans and strategies across the Council into one place, enabling a co-ordinated action plan for mitigating against and adapting to climate change.

The purpose of the Strategy is:

- To set out a coordinated approach, framework, outcomes, priorities and action plan for the implementation of climate change mitigation and adaptation across East Lothian;
- To enable East Lothian Council to continue to meet its statutory climate change obligations;
- To contribute to the development of a sustainable, resource efficient and equitable East Lothian, with a thriving low carbon economy, a healthy and diverse natural environment, and flourishing low carbon communities that are resilient to the effects of future climate change; and
- To enable East Lothian to play its full part in the national and international efforts to reduce carbon emissions and tackle global warming.

The Strategy will also contribute to:

- Reducing Inequalities
- Improving Health and Wellbeing
- Contributing to a Thriving Local Economy
- Education, Awareness-raising and Behaviour Change
- Ensuring Cost-effective Action

The Strategy sets out a **Vision**, targeted **Outcomes** and **Actions** for climate change mitigation and adaptation across East Lothian over a five year period, supporting national and local priority outcomes, and leading to long-term leadership and governance.

The **Action Plan** seeks to deliver local actions and target resources over the five-year period of the Strategy, and looks ahead to the longer-term actions that will also be required. The action plan will be reviewed and updated annually. Updates will be reported through the Members' Library Service.

1.5 Vision of the East Lothian Climate Change Strategy

The Vision of the East Lothian Climate Change Strategy is:

We will work in partnership to achieve an even more prosperous, fair and sustainable East Lothian, with flourishing low carbon communities and a thriving low carbon economy, contributing to national and international efforts to reduce carbon emissions.

1.6 Outcomes of the Climate Change Strategy

The East Lothian Climate Change Strategy promotes and sets out how East Lothian Council, and the wider East Lothian community, will achieve the following Outcomes:

Outcome 1: A Low Carbon and Sustainable Council

Outcome 2: A Resource Efficient and Sustainable East Lothian

Outcome 3: Active Travel and Sustainable Transport are used for Everyday Journeys

Outcome 4: A Place Encouraging a Low Carbon Lifestyle

Outcome 5: A Low Carbon and Sustainable Economy

Outcome 6: A Healthy and Resilient Natural Environment

Outcome 7: A Well-Adapted East Lothian

2. Development of the Strategy

The Strategy was informed by feedback and information gathered from the public during an initial consultation to inform the development of the Strategy. It was also developed in partnership with the Climate Change Planning and Monitoring Group and key stakeholder organisations, and was informed by impact assessments, research and data analysis.

2.1 Public Consultation and Engagement

East Lothian Council is committed to ensuring that local communities and other key stakeholders continue to have a genuine role in developing the Strategy and Action Plan, to ensure the Strategy reflects local issues and aspirations. A key aim of the Strategy is to encourage and facilitate behaviour change to mitigate against climate change amongst an aware and engaged population.

Awareness-raising and public engagement were key aspects of the development of this Strategy, as the Council will be able to achieve more by working in partnership with communities, organisations, businesses and individuals.

An initial public consultation took place to inform the development of the Climate Change Strategy and Action Plan. The consultation consisted of public drop-in events, an online public consultation, and the option to email comments / feedback.

- Respondents provided information, feedback, local views and ideas from across East Lothian on how the Council and our communities can work together to tackle climate change.
- Comments were received on a wide range of topics, including planning, housing, renewable energy, local food growing, transport, biodiversity, greenspaces, waste recycling, business and the local economy.
- The information obtained was considered, analysed and used to inform the Strategy and Action Plan.

Figure 1: Drop-in event during the initial public consultation on developing the Climate Change Strategy



During the consultation, people also told us they would like to see:

- Details of the public consultation process, including all consultation responses, are given in the Consultation and Engagement document (Supporting Document 1). The Strategy has been written to reflect these views as closely as possible.

Figure 2: Suggestions for the Vision of the Climate Change Strategy received during the public consultation drop-in events



The Council's Climate Change Planning and Monitoring Group (CCPMG) oversees the Council's proposals and measures to reduce its carbon emissions and respond to climate change. The role and remit of the CCPMG is set out in Appendix 1. The CCPMG plays a critical role in driving and co-ordinating the work of the Council to meet key objectives under the Climate Change (Scotland) Act 2009 and ensures compliance with the Public Bodies' Climate Change Duties. The CCPMG will monitor and evaluate implementation of the Strategy and ensure links with other key strategic planning structures as appropriate.

Working in partnership with other organisations and developing a network will increase the capacity of the Council, and the wider East Lothian community, to mitigate against and

adapt to climate change. Several local organisations have already successfully implemented local projects and initiatives that reduce carbon emissions, encourage a low carbon lifestyle and low carbon, circular economy, improve sustainability, and assist adaptation to climate change.

The Council will continue to work with our partners in the East Lothian Partnership to emphasise the need for us all to work in partnership and align our policies to reduce carbon emissions and mitigate against climate change across East Lothian. All public bodies have duties under the Climate Change (Scotland) Act. A list of key stakeholders and potential partners is given in Appendix 2.

2.4 Impact Assessments

Research has been undertaken to understand the potential impacts of this Draft Climate Change Strategy on equalities and the environment. The Draft Strategy has been through an Integrated Impact Assessment process and Strategic Environmental Assessment Pre-Screening. These are set out in Supporting Documents 2 and 3.

- **Integrated Impact Assessment** (Supporting Document 2): The Draft Climate Change Strategy has been through the Council's Integrated Impact Assessment (IIA) process, which seeks to identify any impacts of strategies or policies on Equality, Human Rights and Sustainability, and identify how these will be addressed and mitigated.
 - The IIA process identified positive potential impacts on Equalities, through addressing fuel poverty and climate related impacts on our communities, which would otherwise disproportionately impact the most vulnerable in our society: 'Climate Justice' is about tackling these issues and reducing these inequalities.
 - Positive impacts were also identified in respect of the environment and sustainability through measures identified to mitigate against climate change.
- **Strategic Environmental Assessment Pre-Screening** (Supporting Document 3): The Draft Climate Change Strategy has been through the Strategic Environmental Assessment (SEA) Pre-Screening process. The Pre-Screening Notification was submitted to the Scottish Government's SEA Gateway and no concerns were raised by the SEA Consultation Authorities.

2.5 Research and Data Analysis

Building knowledge through research, data collection and monitoring is key to understanding the issues and opportunities. By learning from other successful initiatives, promoting education and training in this relatively new area, and working in partnership, the Council and local communities, businesses, organisations and individual householders will be better equipped to take action.

The following areas of research were undertaken to inform the Strategy:

- The policy and legal drivers for mitigating against and adapting to climate change;
- Identifying and working with key stakeholders to identify climate change mitigation measures already underway, and the opportunities for developing and extending these;
- Identifying baseline levels and researching measures to reduce the carbon footprint of the Council's assets and processes;
- Increasing knowledge and understanding of the impacts of climate change, both past trends and future projections for East Lothian, on our communities, assets, services and priorities, and the measures necessary to reduce these impacts.

3. International, National and Local Policy Context

3.1 The International Context: Reducing Global Warming

The threats arising from climate change have been recognised around the world for decades, but only in recent years has the international community come together with legally binding commitments to reduce global temperature rise.

- **The Paris Agreement:** The international climate conference (COP21) held in Paris in December 2015 was a significant milestone. 195 countries including the UK signed up to the world's first legally binding global climate deal, known as the Paris Agreement³, which set out a global action plan to keep global temperature rise to below 2°C above pre-industrial levels, aiming to keep the rise to below 1.5°C. The Paris Agreement set ambitious targets for these countries to reduce their carbon emissions and support developing countries towards a lower carbon future.
- **The IPCC Report:** In October 2018 the Intergovernmental Panel on Climate Change (IPCC) issued a special report⁴ that received international publicity. The report emphasised the need to keep the rise in global temperatures to **under 1.5°C** above pre-industrial levels, rather than 2°C, by reducing greenhouse gas emissions, in order to minimise detrimental impacts on society, human health and wellbeing, the economy, world food production and the natural environment, across the globe.

The IPCC report stated that achieving this will require **“rapid, far-reaching and unprecedented changes in all aspects of society”**. This means changes to our energy systems, the way we manage land, our lifestyles, and the way we move around and use transport.

This theme of rapid and far-reaching changes to the way we live and work, in order to contribute to a global goal, is a key theme of East Lothian's Climate Change Strategy. None of us can achieve this on our own; but together we can make a difference.

3.2 The National Policy Context: Scotland's World-leading Climate Change Legislation

Scotland has world-leading climate change legislation, with ambitious targets to reduce the greenhouse gas emissions that cause global warming.

“We are the only country in the world with statutory annual greenhouse gas reduction targets, and we've set an ambitious target to become carbon neutral by 2050”

The Scottish Government's Programme for Scotland 2018-19: 'Delivering for Today, Investing for Tomorrow'

- **The Climate Change (Scotland) Act 2009⁵:** The Act sets greenhouse gas **emissions reduction targets of 42% by 2020 and 80% by 2050**. Scotland's emissions have already almost halved since 1990. Since 2009, sustained progress has been made against targets set out in the Act⁶. It is anticipated that reducing greenhouse gas emissions and transitioning to a low carbon economy will help create a more

³ https://ec.europa.eu/clima/policies/international/negotiations/paris_en

⁴ Intergovernmental Panel on Climate Change Special Report on Global Warming of 1.5°C (full citation in Reference List) <https://www.ipcc.ch/sr15/>

⁵ <https://www.legislation.gov.uk/asp/2009/12/contents>

⁶ Committee on Climate Change national reports <https://www.theccc.org.uk/publications/>

successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth⁷.

- **Public Bodies' Climate Change Duties:** To enable the ambitious emissions reduction targets set out under the Climate Change (Scotland) Act 2009 to be met, the Scottish Government expects that local authorities will **lead by example**.

The Climate Change Act sets out the Duties of Public Bodies in relation to climate change:

- To contribute to the delivery of the carbon emission reduction targets set out in the Act;
- To help deliver Scotland's Climate Change Adaptation programme; and
- To act in the way it considers is most sustainable.

The Act also sets targets for:

- Energy efficiency, including promoting energy from renewable sources;
- Waste reduction and recycling.

Under the Climate Change (Scotland) Act 2009, as a public body East Lothian Council is expected to lead by example in reducing carbon emissions, contributing to climate change adaptation and acting sustainably.

- **Climate Change (Emission Reduction Targets) (Scotland) Bill:** A more ambitious climate change target for Scotland is set out in the Climate Change (Emission Reduction Targets) (Scotland) Bill, which is currently progressing through the Scottish Parliament. Amendments to the Climate Change Bill have been lodged to set a target of net-zero greenhouse gas emissions by 2045 at the latest, and increasing the levels of the 2030 and 2040 targets to 70% and 90% emissions reductions respectively. This would mean that Scotland would have the most stringent statutory climate change targets in the world.⁸
- **The Scottish Government's Climate Change Plan 2018–2032:** The Scottish Government's Climate Change Plan⁹ details the path Scotland will take to achieve the carbon emissions targets set out in the Act, specifically a reduction of 66% in carbon emissions by 2032, relative to baseline levels from 1990. The Plan sets out:
 - A clear expectation that Scotland's public bodies will lead by example in combatting climate change and make a valuable contribution towards achieving emissions reduction targets;
 - A path to a low carbon economy, while helping to deliver sustainable economic growth and secure the wider benefits to a greener, healthier and fairer Scotland in 2032.

The Scottish Government's Climate Change Plan promotes **partnership working** between local authorities, local communities and other key stakeholders. Partnership projects promoted by the Climate Change Plan are projects which:

- encourage communities to walk, cycle and use low carbon transport;
- assist communities to reduce, reuse and recycle their waste;
- increase the energy efficiency of homes and community buildings;

⁷ The Scottish Government's Purpose <https://www2.gov.scot/About/Performance/scotPerforms/purpose>

⁸ <https://www.gov.scot/news/climate-change-action-1/>

⁹ <https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/>

- produce food locally; and
- enhance greenspaces and green networks in and around our communities.

The Climate Change Plan also recognises the economic opportunities that are likely to arise, the potential of renewable energy resources and opportunities to restore biodiversity and ecosystems to assist with carbon capture and storage. The Plan seeks to achieve:

- energy efficiency and reduced carbon emissions from residential and non-domestic buildings
- improved air quality in urban areas
- increased walking, cycling and use of sustainable transport
- reduction of waste and moving towards a circular economy.

The Climate Change Plan highlights the significant roles of the planning system and building standards in providing a framework to support and encourage low carbon lifestyles and the transition needed to achieve decarbonisation – determining the location of new development; ensuring buildings are more energy efficient; promoting renewable energy development in the right places; and ensuring new developments contain infrastructure to encourage behaviour change and reduce carbon emissions. Green networks, greenspaces and woodland creation all support and encourage healthy, active, outdoor lifestyles and provide important roles in carbon reduction and carbon storage.

Each of these aspects is set out in this Climate Change Strategy to show how East Lothian Council will lead the way to a low carbon and sustainable East Lothian that makes its full contribution to national and international emissions reduction and sustainability goals. The Council will continue to work with its partners and other public bodies, including those in the East Lothian Partnership, to improve outcomes for local people and work together to tackle climate change in East Lothian.

Scottish Government National Outcomes

The East Lothian Climate Change Strategy will enable East Lothian to contribute to the following National Outcomes in particular:

- *‘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’*

The Strategy will also contribute towards a ‘Greener Scotland’, the Scottish Government’s ‘Greener’ Strategic Objective under **Scotland’s National Performance Framework (NPF)**:

“To improve Scotland’s natural and built environment and the sustainable use and enjoyment of it and facilitate the transition to a low carbon economy”.

Sustainable Development

Scotland’s NPF outcomes provide context for embedding the **United Nations Sustainable Development Goals** into local policy.

These goals, also known as the 17 Global Goals¹⁰ and the targets which underpin them, “aim to tackle key systematic barriers to sustainable development such as inequality, unsustainable consumption and production patterns, inadequate infrastructure and lack of decent employment.”¹¹

Figure 3: The Global Goals for Sustainable Development (source: www.globalgoals.org)



East Lothian’s Climate Change Strategy is guided by the need to embed the UN Sustainable Development Goals at local level, to show how East Lothian Council will contribute to the five broad principles of **sustainability**¹², which are to:

- live within environmental limits; and
- ensure a strong, healthy and just society

and to do so by means of:

- a sustainable economy;
- promotion of good governance; and
- responsible use of sound science.

The Climate Change Strategy will contribute towards addressing at local level the following **UN Sustainable Development Goals (SDGs)** in particular:

- SDG 10: Reduced Inequalities
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action
- SDG 14: Life below Water
- SDG 15: Life on Land

¹⁰ www.globalgoals.org

¹¹ ‘The New Global Goals: Scottish Government Background Note’, available on the Scottish Government’s Consultation Hub: https://consult.gov.scot/international-development-team/meeting-global-challenges/supporting_documents/The%20New%20Global%20Goals%20%20SG%20Background%20Note%20.pdf
Scotland’s Global Goals: <https://globalgoals.scot/scotlands-goals/>

¹² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/323193/Guiding_principles_for_SD.pdf

Climate Ready Scotland: Scottish Climate Change Adaptation Programme

The Scottish Government has set out a programme of adaptation to climate change for Scotland, called 'Climate Ready Scotland: Scottish Climate Change Adaptation Programme'¹³, under Section 53 of the Climate Change (Scotland) Act 2009. This sets out objectives for adapting to climate change, and the proposals and policies to achieve this. Our climate affects many aspects of our lives and our economy, including our health, water supplies, our road and rail services, energy demands and tourism. The Adaptation Programme states that adapting to these changes "depends on organisations, businesses, communities and individuals understanding the impacts of the changing climate and taking action to prepare for its effects".

The Overarching Aim of the Scottish Climate Change Adaptation Programme is:

"To increase the resilience of Scotland's people, environment and economy to the impacts of a changing climate"

Three interconnected Themes have been identified, which will contribute to the following Outcomes of the Climate Change Adaptation Programme:

- **Climate Ready Natural Environment:** A Scotland with a productive, healthy and diverse natural environment which is able to adapt to change.
- **Climate Ready Buildings and Infrastructure Networks:** A Scotland with well-managed, resilient infrastructure and buildings providing access to the amenities and services we need.
- **Climate Ready Society:** A Scotland with strong, healthy, resilient communities which are well informed and prepared for a changing climate.

These themes and outcomes form the basis of East Lothian's Climate Adaptation Programme as set out in this Strategy to ensure East Lothian is well adapted to the impacts of climate change.

3.3 The Local Policy Context: addressing Climate Change in East Lothian

The Statement of Intent of the **East Lothian Plan 2017–27** is:

'We will work in partnership to achieve an even more prosperous, safe and sustainable East Lothian, with a dynamic and thriving economy that enables our people and communities to flourish'

The East Lothian Plan specifies three key themes that will contribute towards achieving this vision. Climate change mitigation, adaptation and improving sustainability will contribute significantly to achieving the outcomes of Theme 2 of the East Lothian Plan, 'Community-minded'; specifically:

- Outcome 2.1: *'East Lothian has strong resilient communities where people respect and support each other'*
- Outcome 2.2: *'East Lothian people can live affordably and contribute to a thriving community life in a high-quality environment'*.

¹³ <http://www.gov.scot/Publications/2014/05/4669/downloads>

In the **East Lothian Council Plan 2017–2022** there is a specific focus on how best the Council can contribute to the Scottish Government’s climate change targets. The Plan states:

‘The Council will focus on how best we can contribute to the Scottish Government’s ambitious climate change targets. Over the course of this plan, the Council will develop a Sustainable Energy and Climate Action Plan, which will give strategic direction to continuous improvement in relation to energy efficiency, climate adaption and sustainable transport.’

The East Lothian Council Plan also highlights the importance of working in partnership to achieve these targets:

‘We cannot meet these targets alone and will work with our community planning partners and the private sector to implement low carbon plans and projects across housing, communities and the public and private sector.’

Mitigating against and adapting to climate change and embedding sustainability are key commitments in the Council Plan under the theme of ‘Growing our Communities’. The Council Plan includes an Action under the theme of ‘Growing our Communities’ to:

‘Work closely with partners to meet our commitment to Climate Change targets, embedding sustainability principles into decision making and translating them into tangible actions, protecting and enhancing open spaces and habitats.’

The key legislative, national and local policy drivers relevant to the East Lothian Climate Change Strategy are set out in Appendix 3.

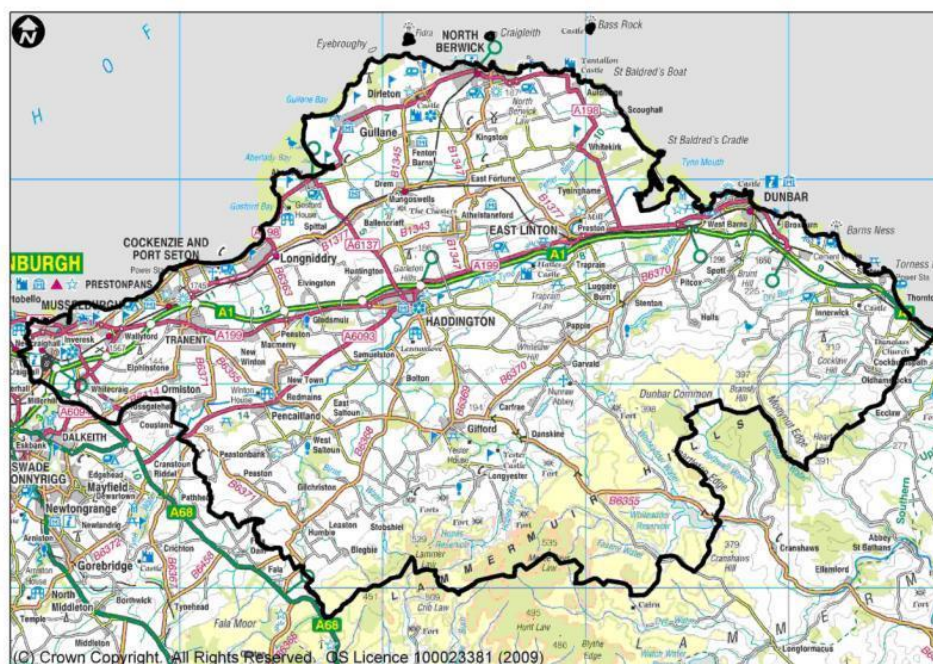
4. Context: East Lothian

4.1 Location, Landscape and Land Use Context

East Lothian is located on the southern coast of the Firth of Forth. The county borders the City of Edinburgh, Midlothian and the Scottish Borders, and is part of the Edinburgh city region, located to the east of Edinburgh's suburban edge. The county offers a good quality of life, with attractive countryside, vibrant towns, good quality housing and schools. East Lothian residents have generally high levels of health, employment and general affluence relative to the national average.

East Lothian covers approximately 270 square miles in area, and includes 43 miles of coastline, some of the best quality arable farmland in Scotland, woodlands particularly in the rolling foothills in the southern half of the county, rising up to the Lammermuir Hills, which are predominantly heather moorland and grouse moor. The county's fertile farmland produces high quality arable crops; agriculture is the dominant land use in the county today.

Map 1: East Lothian Administrative Area



The Firth of Forth Coast in East Lothian is internationally designated, with significant natural habitats for protected species and biodiversity of national and international significance, including Aberlady Bay and the Tyne Estuary at John Muir Country Park. East Lothian has many Sites of Special Scientific Interest (SSSIs), Local Nature Conservation Sites, a network of Local Biodiversity Sites and other areas of natural and cultural heritage value. The attractive coastal landscape and beaches provide important leisure and recreational amenity as well as attracting visitors.

4.2 Settlements

East Lothian has six main towns: the market town of Haddington, which is the administrative centre of the county; Musselburgh, East Lothian's largest town, located in the west of the county adjacent to Edinburgh; Tranent; Prestonpans; North Berwick and

Dunbar. There are also many smaller settlements with their own individual character located around the county, from the coastal communities including Cockenzie, Port Seton and Aberlady, to the Lammermuir villages of Garvald, Stenton and Oldhamstocks. More than half of East Lothian's population is located in the western part of East Lothian.

The Scottish Index of Multiple Deprivation 2016 (SIMD) shows that East Lothian has lower levels of deprivation than most local authority areas in Scotland. However, there are small areas predominantly in the west of the county (Prestonpans, Tranent and Elphinstone) that fall within the most deprived 20% of areas in Scotland.

4.3 Population Context

East Lothian has a population of 104,840¹⁴. There has been a 9.7% increase over the last ten years compared to 4.9% growth across Scotland. This is the third largest increase nationally, behind the City of Edinburgh and Midlothian. The population is projected to increase further by 8.6% from 2016–26, compared with 3.2% across Scotland¹⁵. This is the second highest projected population increase nationally.

Forming an integral part of the Council's growth agenda, an additional 10,050 new homes are anticipated to be built in the county by 2024¹⁶. Development of the new town of Blindwells is underway in East Lothian, and significant expansion is underway at Wallyford, Craighall / Musselburgh and Dunbar. Population growth will significantly increase the need and demand for housing, as well as infrastructure, amenities and services i.e. education, roads, rail, public transport, health and social care and community services.

4.4 Transport

The major east coast transport corridor of the A1 Trunk Road and East Coast Main railway Line pass through East Lothian and act as major passenger and freight arteries for national, regional and local traffic. A railway branch line connects to North Berwick.

The west of the county is currently the most accessible, with road, rail and public transport connectivity to the wider city region. However, there is an underlying problem of limited capacity in transport infrastructure and services. Road network capacity in particular is already an issue, especially in the west of the county.

These factors are particularly relevant because travel demand is expected to increase in the coming years, issues that will exist without factoring in the impacts of the anticipated growth.

The county's Core Paths network consists of designated National Cycle Routes, strategic active travel routes and rural recreational paths. The John Muir Way coast-to-coast path runs through the county and the terminus of the route is at Dunbar, at the birthplace of John Muir, the visionary nature conservation pioneer and founder of America's National Parks.

¹⁴ <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2017>

¹⁵ <https://www.nrscotland.gov.uk/files//statistics/population-projections/sub-national-pp-16/pop-proj-principal-2016-tab-publication.pdf>

¹⁶ https://www.eastlothian.gov.uk/downloads/download/13023/local_development_plan_2018

4.5 Energy

Major electricity and gas distribution networks cross East Lothian. East Lothian's strategic coastal location has made it an ideal location for onshore power generation and grid connectivity. Cockenzie Power Station operated from 1967 until 2013, when it was decommissioned as part of the Scottish Government's drive towards low carbon energy sources. Torness Nuclear Power Station is located east of Dunbar in a coastal locality.

Nationally significant wind farms have been constructed in the Lammermuir Hills in recent years, particularly Crystal Rig and Aikengall wind farms.

New Energy From Waste plants have recently been constructed at Oxwellmains near Dunbar and at Millerhill in Midlothian. There may be potential for heat networks to develop within East Lothian and also to be extended into the area, particularly at Craighall and Oxwellmains (adjacent to the new Energy From Waste plants), and potentially at Cockenzie and Blindwells new town.

Other renewable energy projects have taken place, including hydro schemes, and there are consents for solar energy parks within East Lothian but none have yet been implemented.

Locations on East Lothian's coastline could provide future on-shore grid connections to new off-shore renewable energy projects off the east coast of Scotland. This will need to be balanced with land use requirement for providing local employment.

4.6 Economy

East Lothian's economy was historically built on coal mining, fishing, agriculture and manufacturing. Today, East Lothian's local economy is diversifying, with a relatively high proportion of small to medium enterprises. A high proportion of East Lothian's working age population commutes outwith the area daily to employment in Edinburgh.

However, Queen Margaret University, located on the outskirts of Musselburgh, is an economic asset with associated economic development opportunities emerging.

Tourism and food and drink are thriving sectors of East Lothian's economy, assisted by the county's proximity to Edinburgh. Golf is another major economic sector, with the county boasting world-class golf courses. Heavy industry in East Lothian includes the cement works located at the limestone quarry to the east of Dunbar.



Figure 4: View across East Lothian from Lammer Law

Photo by D. Priddle

5. Context: Climate Change Mitigation in East Lothian

Climate Change Mitigation means the actions we can all take to reduce our carbon emissions, which will help to reduce global warming and the serious effects this will have on the environment, society and the economy.

5.1 National Context: Scotland-wide carbon emissions reductions

Scotland has met its annual carbon reduction targets to date and has already reduced its greenhouse gas emissions significantly, continually out-performing the rest of the UK in emissions reduction¹⁷. However, although there have been significant carbon reductions in Scotland's energy and waste sectors, a lack of progress has been seen in other sectors, particularly transport, agriculture, forestry and land use¹⁸.

The most recent greenhouse gas emissions reduction figures available show that the largest source of emissions in Scotland was from Transport (including International Aviation and Shipping) (37.3% of Scotland's total emissions; 14.4 MtCO_{2e}), followed by Agriculture and Related Land Use (26.1% of total emissions; 10.0 MtCO_{2e}) and Business and Industrial Process (22.2% of total emissions; 8.6 MtCO_{2e})¹⁹.

5.2 The role of Local Authorities and reporting of carbon emissions

Local authorities' climate change duties under the Climate Change (Scotland) Act 2009 are subject to a transparent process of data recording and monitoring by the Scottish Government. In 2007, all Scottish local authorities signed the **Climate Change Declaration**²⁰ to agree to work towards climate change mitigation and adaptation, and commit to take action to reduce corporate carbon emissions.

The Climate Change Declaration has now been superseded by **Public Bodies' Climate Change Duties Reporting** annually to the Scottish Government, which is coordinated by the Sustainable Scotland Network (SSN). The first Climate Change Reporting year was 2013/14, and reporting has been mandatory since 2014/15. The annual Climate Change Reporting records of all Scottish local authorities, including East Lothian Council, are publicly available on SSN's website²¹.

5.3 East Lothian's carbon emissions

The UK's carbon emissions statistics are published annually by the UK Government Department of Energy and Climate Change²² although with a two-year lag in the data. The data is per capita (i.e. adjusted for population size).

The per capita carbon emissions in East Lothian that are **within the scope of influence of East Lothian Council** (i.e. excluding emissions associated with large industrial installations, diesel railways and land use/land use change) are shown in Figure 5. This includes East Lothian's emissions from:

¹⁷ <https://www.theccc.org.uk/publication/reducing-emissions-in-scotland-2018-progress-report-to-parliament/>

¹⁸ <https://www.theccc.org.uk/publication/reducing-emissions-in-scotland-2018-progress-report-to-parliament/>

¹⁹ <https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2016/pages/3/>

²⁰ <https://www.webarchive.org.uk/wayback/archive/20170701234938/http://www.gov.scot/Topics/Environment/climatechange/howyoucanhelp/publicbodies/publicsector-1>

²¹ SSN Climate Change Reporting: All public bodies' reports: <https://sustainablesotlandnetwork.org/reports> ; East Lothian Council's Climate Change Reports: <https://sustainablesotlandnetwork.org/reports/east-lothian-council>

²² UK emissions statistics <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016>

- Industry and Commercial Electricity, Gas and Other Fuels;
- Agriculture;
- Domestic Electricity, Gas and Other Fuels;
- Road Transport (A roads and minor roads).

Figure 5: UK Local Authority Carbon Dioxide Emissions Estimates 2005–2016 (kt CO₂) within the scope of local authorities: Comparison of East Lothian emissions and Scotland-wide emissions (per capita):

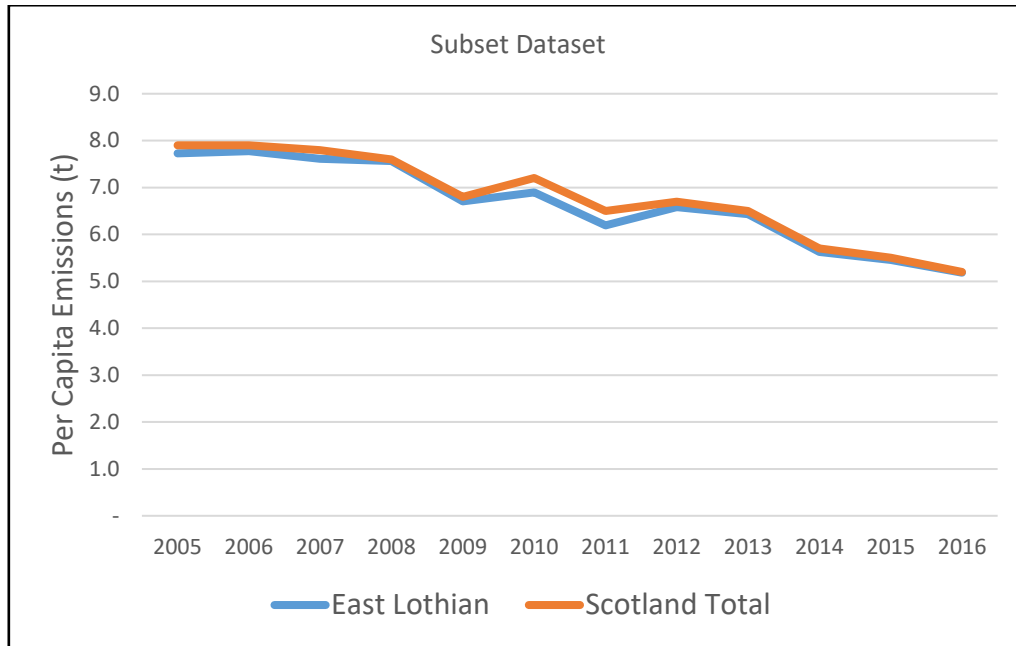
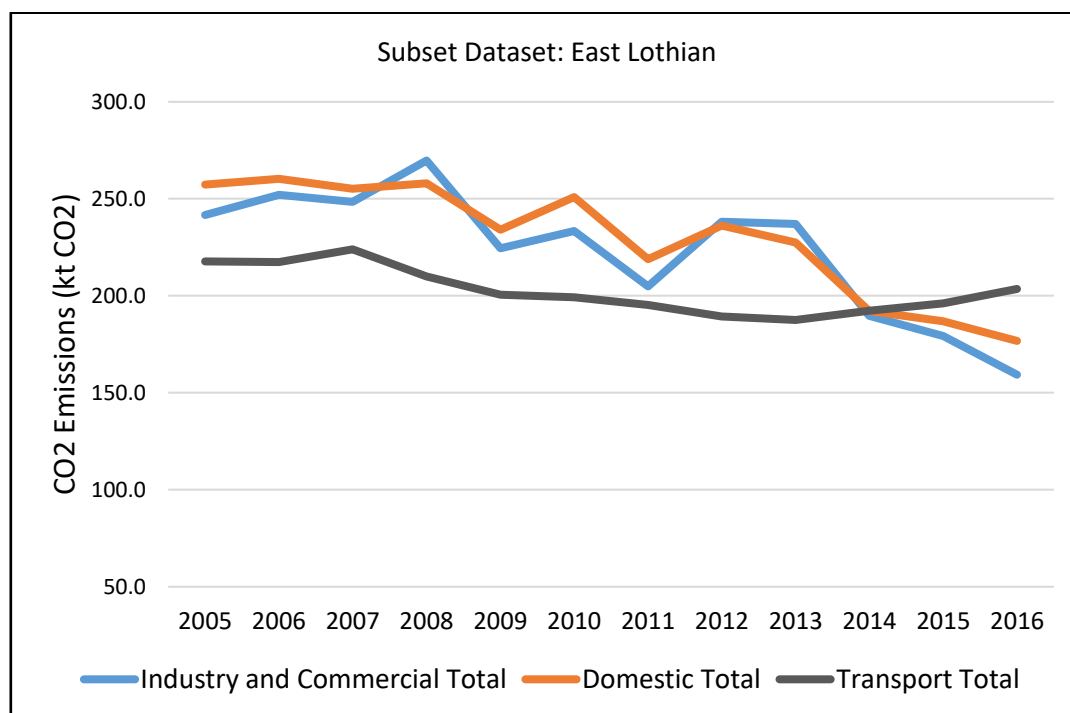


Figure 5 shows that East Lothian’s carbon emissions within the scope of local authorities follow the Scotland-wide trend of a steady decrease, and are slightly below the Scottish average. Between 2005 and 2016, East Lothian’s per person emissions reduced by 32%.

The majority of these emission reductions for East Lothian were associated with reduced electricity consumption by industry and commercial businesses, but there has also been a reduction in domestic energy emissions, as shown in Figure 6.

Figure 6: UK Local Authority Carbon Dioxide Emissions Estimates 2005–2016 for East Lothian (kt CO₂), showing total emissions for the Industry and Commercial, Domestic and Transport sectors:



Until 2013, emissions associated with transport in East Lothian showed a steady reduction, however this figure is now increasing (Figure 6). East Lothian has a relatively high proportion of carbon emissions from transport, which may be due to the increasing use of cars in particular. Car ownership levels in East Lothian are above the national average, reflecting the rural nature of much of the county and the resulting car dependency that this creates. East Lothian is also a relatively affluent county, with a third of households having access to more than one car²³.

There is a need to address these issues in East Lothian in order to further reduce carbon emissions and continue to meet the ambitious Scottish Government targets. In particular, the increasing levels of emissions from transport in East Lothian is a concern and significant modal shift is necessary in the transport sector, as well as continuous improvements in emissions reductions in other sectors.

²³ Scottish Household Statistics 2016 (as referenced in East Lothian Local Transport Strategy 2018-2024)

6. Context: Climate Change Adaptation in East Lothian

Reducing carbon emissions urgently will help to mitigate against the global impacts of rising global temperatures. However, the climate is already changing as a result of global warming, and impacts are already affecting our natural environment, buildings and infrastructure, and our society. 'Climate Change Adaptation' is how we can prepare for and adapt to extreme weather events and become more resilient in the face of a changing climate. This will help to reduce inequalities, and enable our communities to be more resilient for the future.

6.1 Scotland's changing climate

In Scotland over the last century temperatures have increased, sea levels have risen and rainfall patterns have changed, with increased seasonality, flooding and more heavy downpours. We have also been impacted by extreme weather events, most recently the so-called 'Beast from the East' heavy snowfall event in 2018. Changes in climate are projected to continue and intensify over the coming decades²⁴.

These changes in climate are already impacting people and places across Scotland. We can expect future changes in our climate to be far greater than anything in the past. This will create a wide range of threats and opportunities to Scotland's environment, infrastructure, economy and people. Climate Change Adaptation is about adjusting to these impacts of climate change, to reduce the negative impacts and exploit any opportunities. By planning and preparing for change now, and by taking early action, we will be able to take advantage of any opportunities, increase resilience and reduce risks²⁵.

6.2 What does climate change adaptation involve?

Climate Change Adaptation focuses on enabling our economy, environment and society to increase resilience to the unavoidable impacts of climate change. It means making changes to the way we design, manage and use land, buildings, services and infrastructure.

Climate Change Adaptation in East Lothian will involve:

- Understanding what the future climate impacts will be in East Lothian: **The challenges and opportunities**
- Identifying what can be done to prepare for and reduce the impacts of future climatic events: **Taking action to address these impacts**

The challenges of a changing climate are already impacting on East Lothian and our communities. Without taking action to adapt to this, there will be negative impacts on the running of East Lothian Council and the services it provides, and on East Lothian's businesses, communities and natural environment.

We need to continue to understand and manage these risks and work together with other organisations, to ensure that land, buildings, services and infrastructure continue to function and that East Lothian is resilient to unexpected weather events. No one organisation can address this in isolation. Success will depend on accepting responsibility and working in partnership.

²⁴ Met Office UK Climate Projections (Nov 2018): <https://www.metoffice.gov.uk/research/collaboration/ukcp>

²⁵ Based on information provided by Adaptation Scotland <https://www.adaptationscotland.org.uk/>

6.3 Future climate impacts in East Lothian: the challenges and opportunities

According to the UKCP09 Climate Projections²⁶, by 2050 in East Lothian we will experience:

- **Warmer, Drier Summers:** up to 3°C warmer, with around 10% less rainfall, bringing the potential for extended periods of drought;
- **Milder, Wetter Winters:** around 2°C warmer, with up to 20% more rainfall, increasing the risks of storms and flooding; up to 95% reduction in snowfall;
- **Rising Sea Levels:** Sea levels around East Lothian's coast are projected to rise by between 4–35cm by 2050; increased frequency of storm surges could lead to more widespread coastal flooding;
- **Severe Weather Events:** The predicted trend is for greater frequency and intensity of extreme events, including storms and floods, as well as heatwaves and droughts;
- **Growing Season:** Our growing season is projected to become longer by between 20 and 60 days by 2080, presenting both opportunities and threats.

Based on these climate projections we expect to see both positive and negative impacts on the environment, infrastructure and communities of East Lothian. The risks and opportunities for East Lothian associated with a warmer and wetter climate²⁷ are set out in Appendix 4.

6.4 The role of public bodies

The Climate Change (Scotland) Act 2009 specifies that public bodies must, in exercising their functions, act in the way best calculated to deliver any statutory adaptation programme. East Lothian Council, as the lead for community planning, has a role in delivering climate change adaptation across East Lothian. The Council also has to prepare its own buildings, infrastructure and the services it provides for future climate change impacts and ensure business continuity in the face of extreme weather events.

The Scottish Climate Change Adaptation Programme²⁸ states that public bodies have a key role in building a resilient Scotland, which is prepared for the challenges of the changing climate.

With a coastline of 43 miles, the threat of coastal flooding must be addressed in East Lothian.

Low-lying areas below 5 metres above sea level are considered to be the main areas of risk.

A study carried out for the Scottish Executive in 2002 estimated that 6,099 (15.4%) of properties in East Lothian were within the coastal 'at risk' zone (the highest rate in Scotland).



Dunbar Harbour

²⁶ UK Probabilistic Projections of Climate Change over Land for the 25km Grid Box with the ID: 808 within a high emissions scenario

²⁷ Based on information provided by Adaptation Scotland <https://www.adaptationscotland.org.uk/>

²⁸ <http://www.gov.scot/Publications/2014/05/4669/downloads>

Strategy

Outcome	Description of Outcome	What will this Outcome address?
Outcome 1	A Low Carbon and Sustainable Council	CLIMATE CHANGE MITIGATION: How East Lothian Council will lead by example by reducing carbon emissions and acting sustainably
Outcome 2	A Resource Efficient and Sustainable East Lothian	CLIMATE CHANGE MITIGATION: How East Lothian Council will work in partnership with our local communities, businesses, groups, organisations and individuals to achieve a low carbon and sustainable East Lothian
Outcome 3	Active Travel and Sustainable Transport are used for Everyday Journeys	
Outcome 4	A Place Encouraging a Low Carbon Lifestyle	
Outcome 5	A Low Carbon and Sustainable Economy	
Outcome 6	A Healthy and Resilient Natural Environment	
Outcome 7	A Well-Adapted East Lothian	CLIMATE CHANGE ADAPTATION: How East Lothian Council and the wider East Lothian community can adapt to climate change and further anticipated climatic events

7. Outcome 1: A Low Carbon and Sustainable Council

7.1 East Lothian Council's Carbon Emissions Reduction Target 2019–24

East Lothian Council will reduce its overall carbon emissions from the Council's own estate and operations by 2.5% per year relative to population size, over the 5 year period of the Climate Change Strategy.

East Lothian Council will continue to reduce the carbon emissions from its own estate, assets and operations. The Council aspires to lead by example in further reducing its carbon emissions in line with the Scottish Government's ambitious targets, and acting sustainably.

7.2 Key Objectives to achieve Outcome 1

1. Carbon management to achieve East Lothian Council's emissions reduction targets
2. East Lothian Council will embed sustainability into its policies, systems and processes across Service Areas
3. East Lothian Council will minimise waste and encourage resource efficiency
4. East Lothian Council will improve the energy efficiency of Council buildings
5. East Lothian Council will have an efficient vehicle fleet and reduce business mileage
6. East Lothian Council's schools will be sustainable and our young people will be environmentally aware and empowered to take action

7.3 Key Challenges

- **Rapid population growth:**
East Lothian has a rapidly growing population and this is expected to continue, as East Lothian has the second highest projected population increase of any Scottish local authority area²⁹. This anticipated population growth will require expansion of associated infrastructure and development, including housing and transport, and the redesign of amenities and services. Development of the new town of Blindwells is underway, and significant expansion is taking place at Wallyford, Craighall / Musselburgh and Dunbar. The predicted population growth will require expansion in schools and reassessment of the Council's existing assets, including public buildings.
- **Modal shift towards energy efficiency and low carbon transport:**
New developments and infrastructure are being developed in East Lothian with sustainability more embedded, and more energy efficient buildings. Energy efficiency programmes are underway for existing housing and Council buildings, and those of our partner organisations. However, modal shift in transport patterns remains a significant challenge in the area. Although some modal shift is underway to more active and sustainable travel modes, including electric vehicles, transport remains a challenge. However, the anticipated population growth will also create opportunities, for example, an increased population base would potentially make increased bus services more viable.

²⁹ <https://www.nrscotland.gov.uk/files//statistics/population-projections/sub-national-pp-16/pop-proj-principal-2016-tab-publication.pdf>

- **The Council's carbon emissions data and baseline:**

The Scottish Government's carbon reduction targets of 42% reduction by 2020 and 80% by 2050 are measured from a Scotland-wide baseline year of 1990. However, comparable data for East Lothian is not available from 1990.

East Lothian Council has reported annually to the Scottish Government on its carbon emissions³⁰ since 2013/14; this is currently its baseline year of data collection. However, this dataset is incomplete because it does not yet include the carbon emissions associated with the Council's Transport Fleet, due to incomplete recording of fleet data. In 2018/19 a new system was introduced to more accurately record the Council's fleet data. This will enable the council to include the full data set when reporting its 2018/19 data and set a new baseline for future reporting of the Council's carbon emissions.

- **The Climate Change Bill:**

The Climate Change (Emissions Reduction Targets) (Scotland) Bill, currently progressing through the Scottish Parliament, proposes to introduce an even more ambitious target. Amendments to the Climate Change Bill have been lodged to set a target of net-zero greenhouse gas emissions by 2045 at the latest, and increasing the levels of the 2030 and 2040 targets to 70% and 90% emissions reductions respectively. The Council will have to prepare for this anticipated more stringent target, and prepare to meet this challenge across all aspects of our estate and operations.

7.4 East Lothian Council's carbon footprint

East Lothian Council's annual Climate Change Reporting on its carbon emissions commenced in 2013/14 and the most recent report was in November 2018³¹. The reports provide useful insight into how the Council is responding to the challenges of climate change and carbon emissions reduction.

The 2017/18 report includes a breakdown of the Council's carbon footprint, which is **17,204 tonnes CO₂e**³² (tonnes of carbon dioxide equivalent) in 2017/18, compared with 17,610 in 2016/17, 19,086 in 2015/16 and 20,763 tonnes CO₂e in 2014/15 (illustrated in Figure 7). These figures do not yet include carbon emissions from the Council's vehicle fleet.

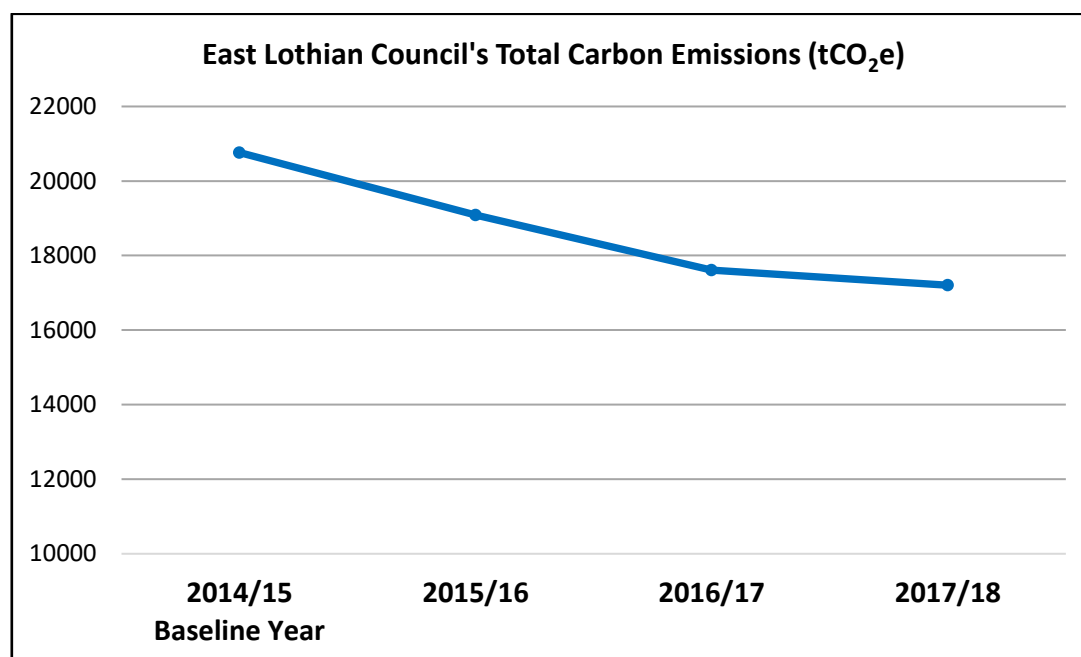
The Carbon Footprint is defined as the total set of greenhouse gas (GHG) emissions caused by an organisation, and is usually expressed in terms of the amount of carbon dioxide (CO₂) or its equivalent of other GHGs emitted (CO₂e).

³⁰ East Lothian Council's Climate Change Reports: <https://sustainablesotlandnetwork.org/reports/east-lothian-council>

³¹ East Lothian Council's Climate Change Reports: <https://sustainablesotlandnetwork.org/reports/east-lothian-council>

³² Figures from East Lothian Council's Climate Change Reporting data
<https://sustainablesotlandnetwork.org/reports/east-lothian-council>

Figure 7: East Lothian Council's annual total carbon emissions³³, expressed in tonnes of carbon dioxide equivalent (tCO₂e), showing emissions reduction:



This indicates that the Council has already significantly reduced its annual carbon emissions, by 17% over the past 4 years.

It is evident that the Council is making good progress in respect of emissions reduction, year on year, despite significant population growth. The Council is also striving to improve the extent and integrity of the data that we collect. This is an imperative if we are to successfully design and model future interventions. It will be important to note that in capturing more information on carbon emissions our baseline measurement will change, for example in 2018/19 when we include fleet data for the first time. This is reflected in **Action 1.1A** within our proposed Action Plan.

For 2017/18, East Lothian Council's carbon emissions included the following sources:

- Refuse municipal to landfill 3,346 tonnes
- Organic garden waste 13,115 tonnes
- Mixed recycling 18,586 tonnes
- Refuse municipal / commercial 56 tonnes
- Grid electricity 20,866,101 kWh
- Natural gas 31,190,606 kWh
- LPG 91,145 litres
- Gas oil 99,437 litres
- Burning oil (kerosene) 14,676 litres
- Water supply and treatment 124,279 m³
- Average car – unknown fuel 1,311,321 miles

The detailed breakdown of East Lothian Council's carbon emissions sources (from Climate Change Report 2017/18) is set out in Appendix 5.

³³ This dataset does not currently include Transport / Fleet data. A new baseline will be set in the 2018/19 reporting year which includes Fleet data i.e. once the complete dataset is available.

7.5 How has the Council already achieved carbon emissions reductions?

East Lothian Council's **Carbon Management Plan 2009–14** (CMP) set out a plan for reducing carbon emissions associated with the Council's own estate and services. The CMP set an ambitious target to reduce the Council's carbon emissions by 5% per year over the 5 years of the Plan, starting from the baseline of 44,034 tCO₂e in 2007/08.

Various projects were undertaken by the Council to meet the CMP reduction target of 25% by 2014, including:

- Energy efficiency improvement projects;
- Improved monitoring of energy use in schools and community centres;
- Improved understanding and increased awareness among staff of carbon management through the establishment of 'CRAW' ('Conserve Resources at Work') programme;
- Improved fleet management, including speed limiters on new vehicles;
- Improved recycling collection and community recycling facilities.

East Lothian Council's Carbon Management Plan 2009–14 focused on reducing carbon emissions from:

- Energy and water usage in buildings, including offices and schools
- Waste
- Fleet vehicles
- Business travel
- Street lighting

Corporate Asset Management

The Council is already leading by example in acting sustainably, reducing carbon emissions, and contributing to a more sustainable East Lothian through the sustainable management of its corporate assets. The Council owns a diverse range of property, land and other assets, which support the delivery of local services, and support the local economy and the wellbeing of people in our communities. These include operational property, non-operational property, open space, roads, lighting and related assets, fleet, information and communications technologies (ICT), and housing.

The Council has an important role in managing these assets and shows leadership in sustainable asset management, as set out in the Council's Asset Strategy and Management Plan 2018–2023. Table 1 sets out the key achievements in corporate asset management that have already led to a reduction in carbon emissions, and further key projects underway.

Table 1: East Lothian Council's key achievements in Corporate Asset Management that have led to a reduction in carbon emissions, and further key projects underway:

Aspect of Council's assets / estate	How has the Council already achieved carbon emissions reduction in this area?	What projects will be progressed to further reduce carbon emissions?
Office review and rationalisation, partnership asset planning, and improved ways of working	<ul style="list-style-type: none"> • Reducing the Council's office footprint and modernising the workplace through the Ways of Working strategy; • Creating a Digital Authority, focusing on increasing web-based transactions and commissioning a new Customer Relationship Management (CRM) in 2018 to facilitate more online access to services and entitlement cards; 	<ul style="list-style-type: none"> • Reducing our carbon emissions through good asset management and targeted investment; • Delivering Transformational Change and harnessing the opportunities offered by technology in the provision of services, including provision of flexible working practices and rationalising office

	<ul style="list-style-type: none"> • Rationalising of Council offices in Haddington in 2016, releasing accommodation for 10 starter offices for rental by local businesses; • Collaborating with the Scottish Police Authority to co-locate operational and Community Police within the existing Council headquarters in Haddington; • Relocating the Torness Strategic Coordination Centre from the former Cockenzie Power Station to the Council offices in Macmerry in 2016. 	<p>space to reduce the footprint of our office estate, and looking for opportunities for co-location, sharing assets and integrating services;</p> <ul style="list-style-type: none"> • Stimulating economic growth and regeneration in the area, which creates a vibrant local economy, reducing the need for people to travel outwith the county for employment.
Renewable Energy and Energy Efficiency of Council Buildings	<ul style="list-style-type: none"> • Energy efficiency improvement projects; • Improved monitoring of energy use in schools and community centres; • A scoping study identified key work streams which form the Council's Energy Transformation Work Plan, and some of these projects are now being taken forward. 	<ul style="list-style-type: none"> • The planning process has begun for the installation of more photovoltaic solar panels (solar PV) on the roofs of our existing housing stock; • New Council housing developments which are currently under construction and those being planned will generally include the provision of solar PV; • Preliminary work is underway to consider the development of a solar farm and hydroponics at a former landfill site. The Council anticipates that the benefits deriving from these projects will be delivered within a 5 year period.
Transport: Council Vehicle Fleet	<ul style="list-style-type: none"> • The Council's Transport Services are actively engaged in developing Ultra Low Emission Vehicle (ULEV) options across the Council, including utilisation of full EV (electric vehicle) and hybrid technology for pool cars and operational vehicles for staff use. This is providing staff with the latest vehicle technology, with associated fuel savings, reducing our carbon footprint. • The Council has put in place an electric pool car fleet for staff use: pool cars are now operating at the Council's Randall House office and will soon be operating at John Muir House. • Dedicated EV charging points are currently being installed. 	<ul style="list-style-type: none"> • Electric vehicle leasing is optimised through Transport Scotland funding, with 17 new vehicles being utilised within the Council at present with further funding being secured for additional vehicles. • An ongoing review of the Council's vehicle fleet is taking place, with options for the most fuel efficient vehicles (Euro 6 vehicles) being investigated.

Figure 8: Solar panels on Windygoul Primary School, Tranent



7.6 How will the Council meet its carbon emissions reduction target?

The Council's aspirational target of 2.5% per year (relative to population size) reduction in carbon emissions over 5 years will be met by:

- Embedding carbon management into policies and practices across all service areas;
 - Communicating carbon reduction actions and practices to all employees, to ensure participation and input to projects and initiatives, and to encourage further ideas.
- To achieve the annual carbon emission reduction target, the Council will review and manage the following aspects of its estate, management and operations and will **set specific targets for each of these during the period of this Strategy**:
- land use,
 - asset management,
 - energy efficiency,
 - waste,
 - water,
 - information and communication technology,
 - transport,
 - procurement,
 - education,
 - travel, and
 - heat targets.
- The Council will undertake **detailed future carbon emissions projections**, based upon data supplied by Service Areas, to inform the setting of accurate future climate change targets relating to:
- Energy use of buildings and other assets
 - Waste
 - Streetlighting
 - Fleet mileage

- Business Travel
- Water use

These projections will enable an accurate longer term carbon emissions reduction target to be set by the Council for the future. It will also enable adjustments to be made for new national statutory targets which may be set in the interim.

7.7 Embedding carbon management and sustainability into policies and practices across Service Areas

Integrated Impact Assessment

The Council will work to understand the impact of its corporate operations, policies and service delivery on society, the economy and the environment, and explore ways to reduce this, in accordance with the principles and requirements of sustainable development and Strategic Environmental Assessment.

In January 2016 the Council launched a new Integrated Impact Assessment (IIA) to examine the impact of our decisions in relation to equality, poverty, the economy and the environment. The IIA enables the Council to promote equality, human rights and sustainability, whereas previously the assessment was limited to an Equality Impact Assessment. Completed assessments made available to the public assist the Council in meeting its legal requirements to:

- Undertake an Impact Assessment on equality, human rights including the rights of children and young people, the environment and climate change;
 - Consider sustainability as part of the decision making process; and
 - Identify whether a Strategic Environmental Assessment (SEA) is required.
- The IIA process is currently being revised and updated to reflect the new policy context in relation to equalities and climate change. This will continue to ensure that the Council considers equalities, sustainability and climate change mitigation in all Council policies and decision-making.

Sustainable Procurement

The Council is one of the largest procurers of goods and services in the local area, spending approximately £140 million every year on goods, services and construction projects. This represents a substantial opportunity to deliver additional social, environmental and economic benefits to East Lothian.

The Council is currently updating its **Sustainable Procurement Policy**, which states that, alongside achieving value for money, the Council is committed to maximising the social and economic benefit derived from its procurement and in minimising the environmental impact of goods, services and works that it procures, ensuring that procurement is carried out in a sustainable manner.

This will ensure that the Council meets its legal obligations under the Procurement Reform (Scotland) Act 2014, and the Sustainable Procurement Duty under the Reform (Scotland) Act 2014. These set out how it can improve the economic, social and environmental wellbeing of the authority's area,

CASE STUDY 1.1

East Lothian Council has already taken steps to improve the sustainability of its taxi contract by setting out the expectation that tenders commit to reducing carbon emissions and support the Council's approach to carbon reduction. Service providers are encouraged to consider how they will work towards a low carbon emission taxi fleet and educate or train drivers in eco-friendly driving techniques.

facilitate the involvement of small and medium business enterprises, third sector bodies and supported businesses and promote innovation.

- The Council will produce and implement a revised and updated Sustainable Procurement Policy:
 - The Council will strive to ensure that goods and services are procured ethically and responsibly, from ethical and sustainable sources, including through the supply chain and sub-contractors;
 - Community Benefits: the Council will maximise the social benefit derived by incorporating community benefit clauses into contracts wherever appropriate (and in compliance with Public Sector Procurement Regulations), linking this with areas of need in local communities identified by the Area Partnerships via their Area Plans;
 - Environmental Benefits: linked to Community Benefits to improve the local environment in and around our communities, including carbon off-setting projects e.g. tree planting, woodland enhancement or natural habitat restoration projects;
 - Adopting principles of waste minimisation, recycling and re-use;
 - Minimising the environmental impact of the products that are procured by, for example, selecting durable, low energy products and purchasing goods from accredited sustainable, local sources where appropriate;
 - Improving the sustainability of the supply chain by encouraging suppliers and contractors, through specification, to offer sustainable products and services and improve their internal environmental performance.

Schools and Young People

The Council values the input, enthusiasm and involvement of its school pupils and young people in raising awareness of climate change and the need to reduce our carbon emissions, acting sustainably, and in taking action for the future.

- The **Eco-Schools**³⁴ programme is a worldwide sustainability learning programme for schools, which encourages the school community to plan and take action on environmental issues and earn a 'Green Flag Award'. Many East Lothian schools and nurseries are registered with Eco-Schools, and several hold Green Flag Awards³⁵.
- Young people have told us that they would like to see changes to make their schools more environmentally friendly and more sustainable, including reducing plastic packaging in school canteens. The Council will be introducing a greater selection of **recyclable materials** across school catering services (see Case Study 1.2).

CASE STUDY 1.2

A greater selection of recyclable materials will be introduced across East Lothian's school catering service after Ben, an S1 pupil at Ross High School in Tranent, contacted the Council. Ben said: "I think that by going eco-friendly in our canteens, our schools and East Lothian as a whole can make a great impact on our environment. Only 9% of plastic is recycled and there will be more plastic in our oceans than fish by 2050. I love looking after the environment and I think that by removing plastics in our canteens we can change the world, not just East Lothian."

³⁴ Eco-Schools <https://www.keepsotlandbeautiful.org/sustainable-development-education/eco-schools/>

³⁵ <https://www.keepsotlandbeautiful.org/sustainable-development-education/eco-schools/local-authorities/east-lothian/>

- **Environmental awareness and recycling levels** are high in East Lothian's primary schools with all food waste and packaging separated and correctly disposed of in dining halls and kitchens.
 - While this is also true of secondary school kitchens, much of the packaging and food waste is not recycled by pupils. It is hoped that introducing more 'green' packaging options, alongside an awareness-raising campaign, will lead to an increase in recycling at secondary school level.
 - The Council recently achieved Soil Association Scotland's ***Bronze Food for Life Served Here* award** across its primary schools for the sixth year running. This scheme, supported by the Scottish Government, supports local authorities to serve more local food and freshly-prepared, healthy, sustainable meals in schools. Pupils in East Lothian primary schools benefit from locally sourced food, including vegetables grown in East Lothian.
- The Council will continue to improve sustainability and recycling in schools.

The Council will support, encourage and empower young people across the county to make decisions and take action, and inspire others in their local communities to take action, as part of the global movement for change.

- The Council will set up a Young People's Climate Change Forum to enable our young people's voices to be heard and to support our young people to take the lead in making change for the future towards a Low Carbon and Sustainable East Lothian.
- The Council will embed the objectives of this Climate Change Strategy into the 'Sustainability' element of the school curriculum.
- The Council will support and nurture East Lothian's young people to be responsible citizens who are environmentally conscious and aware of climate change and what they can do to reduce their carbon footprint, now and for the future.

Improving Sustainability:

Single-use Plastics Reduction

- The Council will reduce its reliance on single-use plastics, eliminate their use wherever feasible, and lead the way to a more sustainable future that is less reliant on single-use plastics.

The Council will undertake an audit of single-use plastics use across Council venues and processes. The audit will include a review of suitable and cost-effective alternatives, where required, and will assess the carbon footprint of the alternatives to ensure they will not have a detrimental impact on carbon emissions and climate change, which is the primary focus of this Strategy.

Actions to achieve this Outcome are set out in the Action Plan.

These actions will contribute towards delivering Sustainable Development Goals

SDG 12 – Responsible Consumption and Production

SDG 13 – Climate Action

8. Outcome 2: A Resource Efficient and Sustainable East Lothian

Sustainable East Lothian will be a place of social equity underpinned by sustainability; working towards a zero waste East Lothian, and a low carbon and energy efficient county; ensuring the next generation has the resources they need to thrive.

East Lothian Council will work in partnership with our local communities, businesses, groups and organisations towards achieving a resource efficient and sustainable East Lothian. This will require a joined-up effort across the county, in our homes and businesses, in the resources that we use and how we manage waste.

8.1 Key Objectives to achieve Outcome 2

1. Awareness raising, information provision and behaviour change
2. Energy Efficient East Lothian
3. Resource Efficient and Sustainable East Lothian

8.2 Key Challenges

- East Lothian's predicted rapid population growth and increase in housing will create challenges for energy consumption, energy efficiency and resource efficiency
- It is critical to change behaviour in relation to the use of energy and resources although tackling behaviour change is challenging
- Fuel poverty is a challenge for East Lothian, particularly among vulnerable older people and households in rural areas and town centres (particularly those in the private rented sector and in tenements with multiple owners)
- National climate change targets and fuel poverty targets are becoming more ambitious and increasingly challenging to meet
- A co-ordinated local heat and energy efficiency strategy is required for East Lothian, to meet climate change obligations and to meet the expectations and aspirations of local communities
- The option to develop local heat networks and other renewable energy regeneration systems should be considered at an early stage in the planning of new developments to ensure that opportunities are not missed
- Further / ongoing investment is required to continue to improve the energy efficiency and resource efficiency of existing housing stock, local businesses and other non-domestic buildings
- East Lothian's targets for waste management are set nationally rather than locally so the Council needs to be able to respond to national policy to drive change

8.3 Why is resource efficiency important to climate change?

Reliance on finite natural resources, and the burning of fossil fuels to create energy to power our homes, businesses, services and transportation, have contributed to the increase in global carbon emissions that have caused global temperature rise. Extracting, processing, using and then disposing of all materials creates environmental impacts, and the energy used for this process contributes directly to climate change.

Resource Efficiency means using the Earth's limited resources in a sustainable way, to ensure that future generations will have the resources they will need, while minimising environmental impacts and wasted resources.

8.4 The National Context

The heat and energy efficiency of our homes and other buildings

have a large impact on climate change, and although carbon emissions from housing are gradually decreasing, the Residential sector still contributes 16.4% of Scotland's overall greenhouse gas emissions³⁶. Scotland's Energy sector has shown a significant decrease in greenhouse gas emissions over the past few years, predominantly resulting from the closure of coal-fired power stations, including Cockenzie Power Station.

The **disposal of waste** also has major environmental and climate impacts, particularly the release of the greenhouse gas methane from landfill sites. Scotland's Waste sector also shows a decrease in greenhouse gas emissions in recent years, although the Waste Management sector contributed 4.3% to Scotland's overall emissions in 2016³⁷.

Scottish Government targets

The Scottish Government recognises the key role that resource efficiency plays in meeting Scotland's ambitious targets to reduce greenhouse gas emissions. The Scottish Government has set ambitious resource efficiency targets and impacts for Scotland.

The Scottish Government's Climate Change Plan 2018–32³⁸ sets out the climate change targets for energy and waste:

- **Electricity:** By 2030, 50% of all Scotland's energy needs to come from renewables, with emissions from electricity to fall by 28%;
- **Buildings:** Emissions from residential and non-domestic buildings to fall by 23% and 53% respectively, leading to an overall emissions reduction of 33%. 35% of heat for domestic buildings will be supplied by low carbon technologies, where feasible;
- **Waste:** Emissions to fall by 52% and the longer term transition to a circular economy to deliver further emissions reductions. The landfilling of biodegradable municipal waste to be phased out by 2021 and by 2030 a 50% reduction in food waste is expected.

Waste Reduction: national aims

The Scottish Government proposes to achieve a '**zero waste Scotland**', which will contribute to carbon emissions reduction targets and build on the progress that has already been achieved in reducing the climate impacts of waste management in Scotland. The vision of the Scottish Government's '**Scotland's Zero Waste Plan**'³⁹ includes the following:

³⁶ Scottish Greenhouse Gas Emissions 2016 (the latest figures available), Scottish Government:

<https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2016/pages/3/>

³⁷ <https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2016/pages/3/>

³⁸ <https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/>

³⁹ <https://www.gov.scot/binaries/content/documents/govscot/publications/publication/2010/06/scotlands-zero-waste-plan/documents/00458945-pdf/00458945-pdf/govscot%3Adocument>

A zero waste Scotland will:

- *be where everyone – individuals, the public and business sectors – appreciates the environmental, social and economic value of resources, and how they can play their part in using resources efficiently;*
- *reduce Scotland's impact on the environment, both locally and globally, by minimising the unnecessary use of primary materials, reusing resources where possible, and recycling and recovering value from materials when they reach the end of their life;*
- *contribute to sustainable economic growth by seizing the economic and environmental business and job opportunities of a zero waste approach.*

The Scottish Government is supported in achieving its ambitious targets by the organisation Zero Waste Scotland, which includes the following aims⁴⁰:

- Recycling 70% of all waste by 2025
- Reducing waste by 15% by 2025
- Reducing food waste by 33% by 2025
- Meeting 50% of energy heat demand from renewables by 2032

Zero Waste Scotland⁴¹ supports the move to a '**circular economy**', which it defines as "an all-encompassing approach to life and business where everything has value and nothing is wasted. In simple terms, it can be explained as "make, use, remake" as opposed to "make, use, dispose"⁴².

Energy Efficiency: national aims

The Scottish Government has designated energy efficiency as a **national infrastructure priority**, and has set this out in their policy document **Energy Efficient Scotland**⁴³, which provides the routemap to achieving the vision that

'By 2040 our homes and buildings are warmer, greener and more efficient'

Energy Efficient Scotland has two key objectives:

- To remove poor energy efficiency as a driver for fuel poverty;
- Reducing greenhouse gas emissions through more energy efficient buildings and decarbonising our heat supply.

This means addressing energy use in our homes, workplaces and other non-domestic buildings, and means ensuring that our homes and buildings are well insulated to prevent heat loss and improve energy efficiency, which will directly reduce carbon emissions. Not only will this mean that houses are warmer, but it will also help to address inequalities by reducing fuel poverty.

The **Energy Efficiency Standard for Social Housing (EESH)**⁴⁴ aims to improve the energy efficiency of social housing in Scotland. It will help to reduce energy consumption, fuel poverty and the emission of greenhouse gases.

Energy Efficiency means reducing the amount of energy needed to run appliances, provide services or products, and the measures that can achieve this.

⁴⁰ Zero Waste Scotland <https://www.zerowastescotland.org.uk/content/who-we-are>

⁴¹ <https://www.zerowastescotland.org.uk/>

⁴² <https://www.zerowastescotland.org.uk/circular-economy/definition>

⁴³ Energy Efficient Scotland <https://www.gov.scot/publications/energy-efficient-scotland-route-map/>

⁴⁴ <https://www.gov.scot/policies/home-energy-and-fuel-poverty/energy-efficiency-in-social-housing/>

The Scottish Government has set out its ambitions for improving the sustainability and energy efficiency of Scotland's buildings in its **Building Standards** technical handbooks⁴⁵. These provide guidance on achieving the standards set in the Building (Scotland) Regulations 2004, including improving energy efficiency, surface water drainage and good insulation for domestic buildings, and encourage developers to incorporate energy performance and sustainability measures⁴⁶.

8.5 The East Lothian Context

8.5.1 Energy

Renewable energy, heat and energy efficiency

In 2016 the Council established an **Energy Transformation Programme** and Transformation Board to explore options in East Lothian for providing affordable, sustainable low carbon energy to residents and businesses in the local area. The programme will also promote improvements in energy efficiency, while supporting the delivery of Scottish and UK Government objectives and increasing energy security.

The objectives of the project include:

- Increasing the proportion of energy sourced from renewables
- Reducing the number of people in fuel poverty
- Increasing partnering activity and the number and range of energy efficiency projects
- Reducing energy consumption
- Reducing carbon emissions
- Reducing energy costs
- Creating jobs through sustainable energy projects

Initially the project aims to develop an **integrated energy management framework** by preparing an energy baseline for East Lothian, identifying local challenges and opportunities. This is anticipated to make housing more energy efficient, reduce fuel poverty and reduce greenhouse gas emissions.

The Council recognises the role of local energy generation and provision in tackling issues such as fuel poverty, energy dependence, and carbon emissions as well as reducing energy costs for councils and potentially generating new income streams. A scoping study identified five key work streams which form our **Energy Transformation Work Plan**:

- Potential for a solar Photovoltaic farm and hydroponics at a former landfill site;
- Solar Photovoltaics on Council Housing;
- Energy Efficiency Programme and solar for Council public buildings;
- Collaboration with private sector to identify use for heat from Energy for Waste Plant;
- Energy Partnership – to provide a route to market for solar PV energy resulting in cheaper energy tariff for East Lothian residents.

- The Council anticipates that the benefits deriving from these projects will be delivered within a 5 year period.

⁴⁵ <https://www.gov.scot/publications/building-standards-2017-domestic/>

⁴⁶ <https://www.gov.scot/publications/building-standards-2017-domestic/7-sustainability/70-introduction/>

Renewable Energy Generation

East Lothian has a vast potential for renewable electricity generation. Promoting and investing in renewable generation will:

- enhance security of supply by broadening the base of our electricity generating mix
- minimise consumer exposure to future reliance on volatile and rising fossil fuel prices
- deliver economic benefits to East Lothian
- help meet the Scottish Government's challenging decarbonisation targets

Local Heat and Energy Efficiency networks

There is an expectation from the Scottish Government that local authorities will deliver Local Heat and Energy Efficiency Strategies for their areas. These will aim to transform the energy efficiency and heating of our buildings so that where possible, buildings are near zero carbon by 2035, and ensure a co-ordinated approach to the local planning and delivery of energy efficiency and heat decarbonisation programmes.

East Lothian's Local Heat and Energy Efficiency Strategy (LHEES) will

- set out a framework and delivery programme for the reduction of energy demand and decarbonising the heat supply of buildings in East Lothian, and
 - include opportunities to identify renewable energy schemes in partnership with our local communities.
- The Council will prepare an action-focused East Lothian Local Heat and Energy Efficiency Strategy. The LHEES will be a sub-section of the East Lothian Climate Change Strategy.

Energy efficient homes

The East Lothian Local Housing Strategy 2018–23 (LHS) sets out the strategic vision for East Lothian that by 2023 we will have:

'Healthy, sustainable homes in vibrant communities, that meet increasing levels of need, reduce inequalities and improve wellbeing across all stages of people's lives'.

The LHS identifies six priority outcomes, including:

- Sustainable and vibrant communities are created and maintained;
- The condition, energy efficiency and where appropriate the management of existing stock is improved;
- Fuel poverty is reduced and climate change targets exceeded.

Reducing Inequalities by Reducing Fuel Poverty

As well as impacting on climate change, energy inefficiency of housing and the rising cost of fuel contribute to **fuel poverty**. The Scottish Government is committed to tackling fuel poverty and improving the energy efficiency of Scotland's buildings. In 2018, the Warm Homes Bill was introduced to ensure progress is made towards tackling fuel poverty and supporting vulnerable households. This programme will also address the significant health implications of living in a cold home, such as deteriorating mental health and severity of asthmatic symptoms.

Fuel Poverty

A household is defined as being in fuel poverty if more than 10% of household income is spent on heating and other energy needs. Fuel poverty is affected by levels of household income, the price of fuel and the energy efficiency of housing. Those in poverty often have to choose between a meal or putting on heating.

Fuel poverty and the consequent effects it has upon health and wellbeing is a challenge for East Lothian. 28% of households in East Lothian are fuel poor⁴⁷, and this is set to rise due to projected increases in energy prices.

Fuel poverty disproportionately affects older people, which combined with the ageing population in East Lothian may also mean that fuel poverty rates increase. The UK Government provides Winter Fuel Payments⁴⁸ to eligible older people to help with the cost of heating bills.

- The Council will continue to improve the energy efficiency of our housing stock. This is one of the most cost-effective ways to tackle fuel poverty and reduce carbon emissions, whilst also building resilience to the impacts of climate change.

Energy Efficiency programmes underway in East Lothian

The Council is already progressing energy efficiency programmes across East Lothian.

- The Council is undertaking an extensive programme of **energy efficiency improvements to Council-owned social housing**:
 - A project is currently underway to install energy efficient LED lighting into shared stairwells.
 - The Council is building new council housing which is energy efficient and includes renewable generation to exceed the requirements of the Building Regulations in these areas.
 - Developments which are currently under construction and those being planned will generally include the provision of photo-voltaic solar panels (solar PV), and the Council intends to further extend the level of renewable generation and energy efficiency in the future.
- The Council will continue to work with its local delivery partners to deliver an ambitious **energy efficiency programme in private sector housing**. This is targeting fuel poor areas of East Lothian, funded by grants totalling over £5 million from the Scottish Government's Home Energy Efficiency Programme Scotland: Area Based Scheme (HEEPS: ABS). This scheme is providing energy efficiency measures to deliver carbon savings, make homes warmer and cheaper to heat and helping to reduce fuel poverty.

CASE STUDY 2.1

East Lothian Council's programme of installing over 6000 energy efficiency measures in homes in East Lothian (both Council owned and private sector housing), including external wall insulation and boiler upgrading, has resulted in better fuel and energy efficiency for households, saving owners / occupiers money on their energy bills.



External wall insulation is installed on housing at Pinkie Braes, Musselburgh

⁴⁷ Key results from the Scottish House Condition Survey (SHCS) Local Authority tables 2015-2017

<https://www2.gov.scot/Resource/0054/00546519.pdf>

⁴⁸ <https://www.gov.uk/winter-fuel-payment>

Opportunities for sustainable energy and heat in new developments

East Lothian's Local Development Plan (LDP) supports sustainable heat and energy and the transition to a zero carbon county with specific policies for 'Sustainable Use of Energy and Heat in New Development'. The LDP addresses the following in new development:

- Looking to reduce demand for energy and consider generation from low and zero carbon generating technologies;
- Looking to minimise resource consumption through layout and design in larger sites;
- Providing a framework for decisions on low carbon and renewable energy proposals, including onshore wind farm / turbine development as well as onshore works for offshore wind developments.

A potential district heating scheme is being explored at the **Blindwells** new town development site.

A new **Energy From Waste** plant has recently been constructed at Oxwellmains near Dunbar. There may be potential for local heat networks to develop adjacent to the new plant, to exploit local district heating opportunities.

Energy generation from waste is supported by the LDP, with the potential for other local heat networks in connection with the Energy From Waste plant at Millerhill in Midlothian, in the vicinity of the new Craighall development outside Musselburgh, and options appraisals are currently underway for the site of the former power station at Cockenzie.

8.5.2 Waste and Recycling

East Lothian's targets and achievements

East Lothian's targets for waste management are set nationally rather than locally. The current Scottish Government targets for waste are:

- 60% recycling/composting and preparing for re-use of waste from households by 2020;
 - No more than 5% of all waste to go to landfill by 2025;
 - A ban on biodegradable municipal waste going to landfill by 1st January 2021.
- East Lothian Council will continue to work to achieve these national targets and the Scottish Government's Zero Waste Plan.

In order to meet the new waste recycling target and Waste (Scotland) Regulations 2012, the Council adopted an ambitious Waste Strategy in 2014. Every household was provided with access to the following services:

- weekly food waste,
- fortnightly glass, cans, plastics, paper and cardboard recycling,
- fortnightly garden waste collections and
- fortnightly residual/non-recyclable waste collection.

A dedicated trade waste collection service including recycling was rolled out to our 1500 customers.

In 2017 the Council's household recycling rate increased to 53.1%, saving 11,581 equivalent tonnes of carbon dioxide (figure calculated using Zero Waste Scotland's Carbon Metric).

The Council's role is to manage and co-ordinate waste and recycling collections across East Lothian and although this covers plastic recycling and disposal this is dictated by

international markets and the types of plastic that can be recycled. For all other plastics the Council provides an accepted disposal route.



Figure 9: Waste recycling at the Council's Kinwega Waste Transfer Station, Wallyford

The Council has supported the Scottish Government in relation to its proposals for:

- Consultation on the plastic bag charge (now implemented);
- Consultation on the deposit return scheme;
- Scottish Household Waste Charter;
- Consultation on the bans on single use plastics.

From these areas we expect national policy to drive change.

The Council's Waste Services also undertakes an extensive awareness raising programme across the county to inform people about recycling their waste and promoting the five stages of the 'waste hierarchy' (as set out in the EU Waste Framework Directive 2008)⁴⁹:

1. Prevention
2. Re-Use
3. Recycling
4. Other Recovery (e.g. incineration)
5. Disposal (landfill)

➤ The Council will continue to work towards a zero waste East Lothian.

The Circular Economy

Zero Waste Hubs are located in Dunbar and Musselburgh, run by a non-profit social enterprise which operates across East Lothian in partnership with the Council, and diverts over 30 tonnes of material from landfill each month to reuse for community benefit. In its first year, it diverted 400 tonnes of material from landfill, saving the Council around £40,000 in landfill tax. Its aims also include alleviating poverty and inequalities through the promotion of waste as a community resource.

⁴⁹ <http://ec.europa.eu/environment/waste/framework/index.htm>

Other examples of the circular economy are already underway in East Lothian, including 'Recycling First', which assists families in receipt of benefits to access necessary furniture items and collects second-hand furniture to distribute to disadvantaged households.

The concept of a local circular economy is also supported by local organisations such as Sustaining Dunbar. Dunbar was Scotland's first Zero Waste Town.

- The Council will investigate feasibility of and progress circular economy options for East Lothian, working in partnership, including expanding 'Zero Waste' initiatives into all of East Lothian's communities, for example:
 - Office furniture re-use schemes
 - Recycle centre where people can swap items ('swap shops')
 - Repair cafes
 - Tool share initiatives / tool libraries
 - Other item share initiatives e.g. gardening equipment share; toy share
 - Promotion of local community resources / item banks / share schemes
 - Support skill sharing and learning

Resource efficiency for businesses

The Council's Economic Development service has employed a consultant for over 17 years, part funded by the European Regional Development Fund, to assist East Lothian's SME businesses to improve their energy and resource efficiency, and save money. The consultant works with businesses, on a one-to-one basis, to develop business plans to improve their efficiency and lower their costs, and can assist them to apply for funding, such as from Resource Efficient Scotland⁵⁰. Resource Efficient Scotland also provides support for businesses in resource efficiency and the circular economy.

Over the years, many East Lothian businesses have been successful in gaining significant amounts of funding from various sources, enabling them to make many environmental improvements.

- The Council will continue to support local businesses to improve their resource and energy efficiency.

Reducing Construction Waste

Resource Efficient Scotland (RES) states that the construction industry generated 5 million tonnes of waste in 2016 alone⁵¹, making it Scotland's largest waste producing sector, with huge implications for climate change. RES provides a toolkit, expert help and funding⁵² to reduce waste from construction.

With the extensive construction of new housing developments underway across East Lothian, including the construction of the Blindwells new town, waste generation and resource efficiency must be addressed if the county is to become a resource efficient and sustainable county.

East Lothian's Local Development Plan has a specific policy on Construction Waste (LDP Policy W4) which states that site waste management plans must be submitted with all planning applications for major developments and should reflect the waste hierarchy,

⁵⁰ <https://www.resourceefficientscotland.com/>

⁵¹ <https://www.resourceefficientscotland.com/Construction>

⁵² <https://www.resourceefficientscotland.com/content/waste-prevention-implementation-fund>

including how materials will be recycled/reclaimed, steps to minimise waste, and management of waste.

- The Council will continue to enforce the LDP policy on Construction Waste for major developments.

Reduction of plastic waste and litter

The detrimental global impacts of plastics waste are very much in the public eye. Across East Lothian organisations, groups, businesses and social enterprises already have many projects and initiatives underway to raise awareness of and reduce the reliance on single-use plastics, including the following:

- **Fidra**, environmental charity based in North Berwick, whose work on the environmental damage from plastic-stemmed cotton buds led to a Scottish Government consultation on a ban on the sale and manufacture of plastic-stemmed cotton buds in Scotland – this is now likely to be implemented;
- **Plastic Free Communities**: Dunbar is at an early stage in becoming one of Scotland's first 'Plastic Free Communities'⁵³, a national scheme promoted by Surfers Against Sewage;
- **Sustaining North Berwick** is tackling the problem of expanded foam polystyrene takeaway packaging in North Berwick, and other local solutions to plastic waste;
- **East Lothian Countryside Rangers and East Lothian Countryside Volunteers** lead beach litter clean-ups around the county's beaches, working with various partners and volunteers;
- **Dunbar Against Litter** is tackling the local problems of littering in Dunbar;
- **East Lothian Tourism Attractions Group** members are currently looking into how they can make their tourism attractions more sustainable, including eliminating single-use plastics.

The Council is currently preparing a **Code of Practice on Litter and Refuse (COPLAR)** in order to fulfil the duties under the Environmental Protection Act 1990 to, as far as is practicable, keep land and certain roads clear of litter and refuse.

There is an emphasis on the role of prevention, and thus the Code of Practice aligns with the Climate Change Strategy regarding awareness-raising to change behaviour in order to reduce or eliminate waste, including from our local environment.

- The Council will continue to work with and support our partners to reduce plastic waste in East Lothian and tackle the blight of litter.

Actions to achieve this Outcome are set out in the Action Plan.

These actions will contribute towards delivering Sustainable Development Goals

SDG 10 – Reduced Inequalities

SDG 12 – Responsible Consumption and Production

SDG 13 – Climate Action

CASE STUDY 2.2

'The Plastics Police' (initially funded by Musselburgh Area Partnership) is a group of four schoolboys in Musselburgh who have developed and are selling reusable aluminium waterbottles to reduce reliance on single-use plastic bottles – Leading by example!



⁵³ <https://www.sas.org.uk/plastic-free-communities/>

9. Outcome 3: Active Travel and Sustainable Transport are used for Everyday Journeys

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

9.1 Key Objectives to achieve Outcome 3

1. Promote and raise awareness of active and sustainable transport options
2. Active Travel is used for everyday journeys
3. Sustainable Transport is used for everyday journeys

9.2 Key Challenges

- Greenhouse gas emissions from the Transport sector are increasing, particularly emissions from road transport
- East Lothian's predicted rapid population growth and increase in housing will create challenges for sustainable transport integration, although it will also create opportunities, for example, in potentially increasing the viability of increased bus or train services / capacity
- It is critical to change travel behaviour to more active and sustainable transport modes, although tackling behaviour change is challenging
- East Lothian's transport network and services are experiencing capacity issues, which are compounded by commuting travel patterns (particularly from East Lothian into Edinburgh on a daily basis) and the cumulative impact of population growth
- The rail network through East Lothian currently has limited capacity
- In some areas there is a lack of connectivity between settlements, particularly in rural areas, and a lack of integration between active travel and public transport, which can lead to increased car use
- In some instances there is a lack of public understanding and appreciation of public transport options available, and the promotion of sustainable transport options could be improved
- There is a perception that public transport is too expensive with inconsistencies between the distance travelled and fare paid
- Vehicle emissions are a key factor in the existence of an Air Quality Management Area at Musselburgh High Street

9.3 The National Context

Transport currently accounts for the largest source of Scotland's total greenhouse gas emissions (37%) and has overtaken energy supply as the highest contributor to emissions in Scotland⁵⁴. Whilst all other sectors which are sources of Scotland's greenhouse gas emissions show a decrease in emissions in recent years, transport is the only sector showing increasing emissions. This is mainly due to increases in cars, goods vehicles and international

⁵⁴ Scottish Greenhouse Gas Emissions 2016, Scottish Government: <https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2016/pages/3/>

aviation. Road transport emissions are the largest contributor to Scotland's transport emissions, i.e. cars, lorries, vans, buses and motorcycles.

Scottish Government Targets for Transport and Travel

The Scottish Government's Climate Change Plan⁵⁵ provides details of the decarbonisation pathways to 2032 by sector. **Key emissions reduction targets for Scotland's Transport sector are:**

- Significant decarbonisation of transport with emissions to fall by 37% by 2032 (from baseline levels, 1990);
- Petrol and diesel engine cars and vans to be phased out by 2032;
- A proposed transition to ultra-low emission electric and hydrogen vehicles; and
- Encouragement of active travel (walking and cycling).

The Scottish Government proposes that new infrastructure, improvements in technology, and behaviour change will be the main drivers in achieving these targets. The Scottish Government proposes to electrify 35% of our rail network and introduce Low Emission Zones in Scotland's four largest cities. It envisages increased active travel, low emission cars and vans being widespread and becoming the norm, and freight infrastructure featuring more efficient HGVs operating from out of town freight consolidation centres.

Nationally these proposals are supported by policy documents including those for Active Travel:

The Scottish Government's Cycling Action Plan for Scotland sets out the following vision:

"By 2020, 10% of all journeys taken in Scotland will be by bike."

The vision of Scotland's National Walking Strategy is:

"A Scotland where everyone benefits from walking as part of their everyday journeys, enjoys walking in the outdoors and where places are well designed to encourage walking."

These policies recognise the importance of providing the infrastructure to enable people to choose to travel by active and sustainable modes of transport, and the importance of behaviour change to achieve this. As well as contributing to a reduction in greenhouse gases emitted by the Transport sector (and thus having a potentially large impact on achieving Scotland's carbon reduction targets), switching to active and sustainable travel modes has other significant benefits to communities and individuals, including:

- Improving connectivity both within and between communities;
- Improving air quality and reducing the potentially far-reaching and significant health impacts of traffic emissions and air pollution;
- Improving physical activity levels, health and wellbeing through increased levels of walking, cycling and other modes of active travel, with significant longer-term implications for health and social care services in the future;

Active Travel
is a concept of travel that includes only those forms of transport that require active use of the human body as a transport machine, such as walking and cycling.

Sustainable Transport
includes public transport options such as buses and trains, shared community transport, electric vehicles and low-emission vehicles, car share and car clubs.

⁵⁵ <https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/>

- The opportunity to enhance path and active travel networks as important green networks in and around our urban areas, with benefits to wildlife and biodiversity, as well as people;
- Contributing to ‘place-making’ in helping to create communities with less reliance on the private car as a mode of transport, with consequent benefits to social interaction, reducing social isolation, and reducing inequalities;
- Helping to reduce increasing traffic levels and the potential for ‘gridlock’ on our road networks, with implications for our economy, and the movement of goods and materials;
- Opportunities to encourage walking, cycling and sustainable tourism, and the associated economic benefits this can bring.

9.4 The East Lothian Context

9.4.1 Path and active travel networks and sustainable transport connectivity

Facilitating and encouraging modal shift in the travel behaviour of East Lothian’s residents and visitors will have one of the greatest impacts on reducing carbon emissions, and is a fundamental part of a low carbon lifestyle.

As set out in East Lothian’s Local Transport Strategy⁵⁶ (LTS), the Council has worked for many years to develop and implement active and sustainable travel improvements, in partnership with local communities, Area Partnerships, and national organisations.

- The Council will continue to implement improved active travel and sustainable transport connectivity, working in partnership.



Figure 10: Cyclists on shared-use cycleway between Dunbar and Whitesands

⁵⁶ https://www.eastlothian.gov.uk/meetings/meeting/16358/members_library_service (report 140/18)

Working towards modal shift to active travel and sustainable transport

East Lothian's LTS and its associated policy documents set out a vision and framework of actions to achieve modal shift away from single-occupancy vehicles, particularly for shorter journeys, towards active travel and sustainable transport solutions.

The Active Travel Improvement Plan focuses on improving health and wellbeing by promoting active travel and sustainable transport options. The Parking Management Strategy takes a hierarchical approach to parking, to evaluate parking supply and demand and use appropriate interventions to improve town centre vitality and vibrancy, to improve accessibility for all users, and encourage the use of public transport.

The key Objectives of East Lothian's Local Transport Strategy include

- To deliver a more attractive and safer environment for pedestrians and cyclists;
 - To reduce the overall dependence on the car and the environmental impact of traffic;
 - To promote the availability and use of more sustainable means of travel;
 - To locate new development where it reduces the need to travel;
 - To maximise accessibility for all and reduce social exclusion;
 - To promote integration and interchange between different means of travel.
- These outcomes will be achieved by continuing work by the Council, in partnership with our local communities, to create and maintain active and sustainable transport infrastructure, and by behaviour change programmes to encourage people to change their modes of travel for the journeys they make.

Behaviour change: 'East Lothian On The Move'

Since 2015, the Council has worked in partnership with East Lothian's Local Area Partnerships on behavioural change interventions in our communities to encourage active and sustainable travel, funded by the Scottish Government's 'Smarter Choices, Smarter Places' fund. The 'East Lothian on the Move' project has raised awareness, promoted the path and active travel networks, and encouraged local participation in active and sustainable travel projects in and around our communities.



- The Council will continue to work with Area Partnerships on behaviour change interventions to encourage the shift to active and sustainable transport modes.

Active Travel (walking and cycling) improvements

Funding from Sustrans Community Links and Sustrans National Cycle Network improvement fund, combined with Council funding for core paths and active travel, has enabled infrastructure and connectivity improvements to East Lothian's core paths and cycling routes. This has contributed to increased use of the path and active travel network by people of all abilities, for both functional journeys and recreation. As well as reducing carbon emissions this improves physical activity, health and wellbeing.

- The Council will continue to develop a connected network of active travel routes around the county in conjunction with Sustrans Community Links, to encourage people to walk and cycle rather than using the car.

Active Travel to School

East Lothian has been consistently successful with active travel to school, as evidenced by the annual national Sustrans 'Hands Up Scotland Survey'⁵⁷. Compared with other Scottish local authorities, East Lothian schools have regularly had the highest number of pupils travelling actively (walking, cycling, scooting) and sustainably to school.

- The Council will continue to support and promote active travel to school.
- The Council will support modal shift in travel to school from school buses to active travel wherever feasible.

Sustainable Transport improvements

The Council is leading on sustainable transport improvement opportunities in East Lothian, in particular:

- East Lothian is the only Scottish local authority area where bus patronage is increasing, due to better management of bus routes and connectivity;
 - Public transport connectivity developments have included the extension of bus routes between Edinburgh and East Lothian, including a tourist bus to East Lothian departing from central Edinburgh launched in 2018;
 - Proposals to increase the capacity of East Lothian's rail network, including increasing station platform length to accommodate trains with more carriages;
 - The Council has been awarded funding from the first round of Transport Scotland's Local Rail Development Fund to identify, and look at ways to overcome, the existing barriers to connecting Haddington and Tranent into the rail network. The study will also consider rail implications of the proposed new town at Blindwells.
- The Council will continue to enhance and better integrate public transport provision and connectivity by:
 - Examining the potential for timetable scheduling with transport providers to reduce connection times and enhance multi-modal journeys;
 - Exploring the potential for public transport interchanges across East Lothian;
 - Working to improve rural transport connectivity.

Electric Vehicles

Projects are underway across East Lothian to encourage the shift to electric vehicles (EV) and ultra-low emissions vehicles (ULEV).

- The Council is leading advances in EV capacity across East Lothian, particularly the roll-out of electric vehicle charging points across the county, with input from local communities and significant funding from Transport Scotland.

This will increase the number of EV chargepoints in East Lothian to 50, including Rapid chargers in each main town and Fast chargepoints around the county. This should ensure

CASE STUDY 3.1

Active Travel to School:

Dunbar Primary School is particularly exceptional, both in East Lothian and at a national level, with in excess of 80% of pupils travelling to school by active travel modes, from a school roll of almost 1000 pupils.

Source: Sustrans 'Hands Up Scotland Survey'



⁵⁷ <https://www.sustrans.org.uk/scotland/hands-up-scotland-survey>

that every main town in East Lothian has access to at least one Rapid charger. More are planned over the next few years as demand and funding are identified.

Additionally, the Council is accessing additional funding from the UK Government for providing on-street charging points where requested by individuals without private driveways (i.e. no means to plug in an electric car at their own house).

9.4.2 Benefitting East Lothian's economy

Sustainable transport improvements can support a thriving local economy. Locating economic development in East Lothian reduces the need to travel, with associated climate change benefits, as well as wider social and economic benefits.

Key proposals to support and grow the local economy in East Lothian, as set out in East Lothian's Economic Development Strategy⁵⁸, are to

- Increase cycle and walking tourism in East Lothian;
- Improve public transport connectivity, and encourage more sustainable modes of transport;
- Support town centres and local businesses, thereby reducing the need to travel;
- Improve superfast broadband connectivity across East Lothian.

These all support the aims of improving active and sustainable travel in East Lothian, and reducing the reliance on the car, particularly for short local journeys.

The national promotion of the John Muir Way coast-to-coast route across Central Scotland has seen an increase in use of the route by walkers and cyclists in particular. Associated economic benefits have been reported by local businesses along the Way in East Lothian.

The Council has recently launched a 'Bike Packing' Cycle Route through East Lothian based on a mobile app, called 'Go East Lothian Trail'⁵⁹, a good example of promotion of active travel and a sustainable tourism development. It is hoped that the Trail will attract more cyclists to East Lothian and benefit local businesses.

9.4.3 Role of the Planning System

The role of the planning system in providing active travel and sustainable transport connectivity in new developments is key to achieving carbon emission reduction targets and modal shift in East Lothian. East Lothian's Local Development Plan (LDP) allocates housing sites which are close to the main centres of employment, retail and leisure to reduce the need to travel. The LDP also sets out various policies and proposals to ensure infrastructure is in place to encourage modal shift, and promote active travel and public transport as preferential modes of transport to the private car. These include:

- Segregated Active Travel Corridor – an active travel 'spinal' route across the county from Dunbar to Musselburgh and connecting onwards to Midlothian and Edinburgh, part of which has already been implemented;
- Requiring new development to be located where it can be easily accessed on foot, bicycle and by public transport;
- Bus network improvements;
- Supporting electric car and bus charging points;

⁵⁸ East Lothian Economic Development Strategy Refresh, Oct 2018
<https://www.eastlothian.gov.uk/meetings/meeting/16252/cabinet> (Cabinet Paper 02)

⁵⁹ <http://bikepackingscotland.com/eastlothian/>

- Rail improvements;
- Revised proposals for urban traffic.

In addition, New Homeowner Packs for residents of new housing areas set out active and sustainable travel options developed for the Travel Planning of new developments, to encourage an active and sustainable travel ethos from the outset.

9.4.4 Improving Air Quality

Air quality assessment by the Council led to the centre of Musselburgh, around Musselburgh High Street, being designated an '**Air Quality Management Area**' (AQMA) in 2013 due to the levels of nitrogen dioxide resulting from the amount of vehicles and idling traffic.

To address the levels of nitrogen dioxide and other air pollutants the Council has implemented traffic management solutions and is currently investigating wider-

reaching solutions to future-proof Musselburgh for active and sustainable travel. The levels of air pollutants in Musselburgh's AQMA have gradually decreased and there have been no exceedances of Air Quality Objectives for at least 2 years.

Another innovative solution to Musselburgh's air quality issue has been the installation of a '**CityTree**', a technological solution to improve local air quality (see Case Study 3.2). The CityTree was installed during Scotland's Climate Week 2018 and the associated promotion helped to raise awareness of more sustainable travel choices.

➤ Musselburgh's proximity to Edinburgh has enabled East Lothian Council to work with City of Edinburgh Council to pursue opportunities for electric bike hire and cycle hire hubs in Musselburgh, to capitalise on projects already underway in Edinburgh and Portobello. These options are currently being investigated.

Air Quality linked to pollution from vehicles has been identified as a serious risk to public health in the UK

CASE STUDY 3.2

Musselburgh's 'CityTree' is constructed of special mosses, which can remove harmful road traffic associated air pollutants, including nitrogen dioxide and particulate matter, from the surrounding area by up to 30% while absorbing as much carbon dioxide from the air as up to 275 urban trees.



The CityTree on Musselburgh High Street

Actions to achieve this Outcome are set out in the Action Plan.

These actions will contribute towards delivering Sustainable Development Goal SDG 13 – Climate Action

10. Outcome 4: A Place Encouraging a Low Carbon Lifestyle

East Lothian will be a place which encourages the transition to a low carbon lifestyle and reduces inequalities in our communities, by promoting green networks, active travel and outdoor play, local food growing, local amenities, and community meeting places, where everyone is connected to the outdoors and nature thrives.

The Council will work together in partnership with local communities to facilitate and encourage the changes in lifestyle that will enable East Lothian to become a low carbon county. East Lothian already has a strong framework in place, underpinned by existing Council strategies and work already underway by local organisations.

10.1 Key Objectives to achieve Outcome 4

1. Community involvement, engagement and awareness-raising of sustainable lifestyles
2. Green Network connectivity and enhancement
3. Allotments and Community Food Growing spaces
4. Open Space provision and improvement
5. Ensure new developments support low carbon lifestyles

10.2 Key Challenges

- We need to reduce carbon emissions rapidly, with far-reaching changes in all aspects of society, in order to keep global temperature rise below 1.5°C; it will be challenging to encourage people across our society to engage with this
- Changing people's attitudes and behaviour towards more sustainable, low carbon lifestyles is challenging
- National climate change targets are becoming more ambitious and increasingly challenging to meet
- Retrofitting green infrastructure and off-road paths is difficult in urban areas
- Green and blue networks and infrastructure should be considered at an early stage in the planning of new developments to ensure that opportunities are not missed
- Engaging with, funding and sustaining community-led projects can be challenging
- There is ongoing demand for greater allotment provision in East Lothian
- There is a need to consider options to involve our communities in the ongoing management and maintenance of paths, open space and greenspace going forward

10.3 The International and National Context

The recent IPCC report⁶⁰ makes it clear that achieving a drastic reduction in global carbon emissions will require **“rapid, far-reaching and unprecedented changes in all aspects of society”**. This means changes to our lifestyles, including the way we move around, obtain food and other produce, and where and how we work. It means looking at what we can change about our existing communities to facilitate and encourage these changes, and how we lay out new housing and other new developments. It means working together in partnership with local people, who know their communities best, to ensure that everyone has the opportunity to benefit, reducing inequalities and enhancing quality of life.

⁶⁰ <https://www.ipcc.ch/sr15/>

As well as reducing carbon emissions and its effect on global warming, this will have far-reaching, **wider benefits to our communities and society**. These include improving health, wellbeing and physical activity, improving social cohesion, reducing social isolation, improving air quality, enhancing the ‘sense of place’ in our communities, and creating a place for wildlife and nature to thrive alongside us.

Scottish Government proposals

The Scottish Government’s Climate Change Plan⁶¹ sets out a pathway to a low carbon lifestyle, and how place-making can encourage our communities to achieve this, including:

- Locating amenities, shops and places of employment close to where people live, to reduce the need to travel;
- Green networks, greenspaces and woodland creation all support and encourage healthy, active, outdoor lifestyles, encourage wildlife, and provide important roles in carbon reduction and storage;
- Paths and active travel infrastructure encourage walking or cycling rather than driving cars, with health and air quality benefits, as well as contributing to reducing carbon emissions;
- Allotments encourage local food growing, foster community involvement and interaction, and are beneficial to health and wellbeing;
- Gardens and parks help us to connect with nature and enjoy being outdoors, with the health and wellbeing benefits this brings, as well as having important functions in carbon storage and climate change adaptation.

In addition to reducing carbon emissions, these can improve local communities and help them to adapt to the impacts and challenges of a changing climate.

Changing Behaviour towards a Low Carbon Lifestyle

The Scottish Government has also set out how individuals can be influenced to change their daily behaviours to move towards a more ‘**low carbon lifestyle**’⁶². The Scottish Government set up the ‘**Greener Scotland**’⁶³ website to provide a one-stop-shop of information, resources and advice on how people can incorporate low carbon behaviours into their daily lives, including helping households to:

“save energy, reduce waste, travel smarter and eat greener”.

The Scottish Government’s Climate Change Plan highlights the important role of local communities in helping to achieve emissions reduction targets alongside public bodies and by working in partnership. Local communities have a key role to play in reducing emissions through locally-led projects that encourage behaviour change.

Role of the Planning System

The Scottish Government’s Climate Change Plan highlights the significant role of the planning system in providing a framework to support and encourage low carbon lifestyles

A Low Carbon Lifestyle

refers to the choices that each of us can make in our daily lives, that will contribute to a reduction in carbon emissions, and therefore will help to reduce global warming. This includes the way we travel, the food we eat, reducing, re-using and recycling our waste, where we work or shop, and how we heat and power our homes and businesses.

⁶¹ <https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/>

⁶² <https://www.gov.scot/publications/low-carbon-scotland-behaviours-framework/>

⁶³ <http://www.greenerscotland.org/>

and the transition needed to achieve decarbonisation. The vision of Scotland's National Planning Framework 3⁶⁴ is:

- a successful sustainable place
- a low carbon place
- a natural, resilient place
- a connected place

Role of Green Networks

The Green Network is:

*“connected areas of green and blue space within and around our towns and cities, linking out into the wider countryside, which underpin the region's quality of life and sense of place and provides the setting within which high quality, sustainable growth can occur”*⁶⁵



Figure 11: Green network in the urban landscape, Dunbar

Green networks and blue infrastructure (streams and waterways) have important roles in climate change mitigation and adaptation. Greenspaces and street planting have a role in carbon sequestration⁶⁶. Well-connected, high quality greenspaces are important to people's health and wellbeing, biodiversity and food security, and to our local environment, communities and economy, as well as encouraging a low carbon lifestyle. They also play a valuable role in mitigating climate change by:

- Carbon sequestration through planting which absorbs carbon dioxide and oxygenates the atmosphere;
- Providing opportunities for active and sustainable travel, allotments and other community growing schemes, which enable people to grow their own food locally so potentially reducing indirect carbon emissions;

⁶⁴ NPF3: <https://www2.gov.scot/Resource/0045/00453683.pdf>

⁶⁵ SESPLAN definition <https://www.sesplan.gov.uk/assets/publications/MIR/Green%20Network.pdf>

⁶⁶ 'Carbon sequestration' is the process of removing carbon dioxide from the atmosphere

- Regulate local climate, reducing the ‘urban heat island’ effect;
- Encourage people not to travel for recreation by bringing nature into town – and bringing people closer to nature.

The **Central Scotland Green Network (CSGN)** is an initiative which aims to restore and transform the landscape of Central Scotland, including East Lothian. The project recognises the significant positive impact that woodland planting will have in helping Scotland reach its climate change targets.

Allotments, Local Food Growing and Community Growing Space

Allotments and community gardens have the potential to contribute to the sustainability of a community and the move to a low carbon lifestyle promoted by the Scottish Government to mitigate against and adapt to climate change. Locally grown produce reduces travel and transport needs thus reducing carbon emissions. Local food growing projects help reduce inequalities and help to alleviate food poverty.

10.4 The East Lothian Context

East Lothian’s communities are already making the change to a lower carbon lifestyle. Facilitation and encouragement of a lower carbon lifestyle are embedded into policies and strategies across the Council. Local organisations around the county are encouraging the transition to a more sustainable lifestyle.

- The Council will continue to work in partnership with our communities, including Area Partnerships, to enable the transition to a low carbon county that begins with the everyday choices we all make.
- The Council will help to ensure the infrastructure is in place to enable these everyday changes to be made, and help to promote behaviour change to encourage people to think about their daily choices and the impacts of these.

Creating thriving communities to encourage a low carbon lifestyle

Active travel links around our communities including to schools, and locating amenities such as shops and public transport hubs close to where people live, influence the choices people make in their everyday lives and impact on the transition to a low carbon lifestyle. The Council’s **East Lothian Town Centre Strategies** Supplementary Planning Guidance⁶⁷ and East Lothian’s Economic Development Strategy set out frameworks and action plans for vibrant, flourishing town centres and a thriving local economy, reducing the need for people to travel far by car. This is complemented by the East Lothian Local Transport Strategy.

Improvements in digital connectivity and broadband in East Lothian further reduce the need to travel, and encourage local working and local employment hubs.

Town Centre Regeneration planning with local communities is underway in Musselburgh, Tranent, North Berwick, Haddington and Dunbar. This aims to take a holistic look at ways to improve our town centres to ensure they continue to thrive whilst supporting low carbon lifestyles and assisting with the transition to a low carbon East Lothian.

A priority outcome of the **East Lothian Local Housing Strategy**⁶⁸ is:

⁶⁷ East Lothian Town Centre Strategies Supplementary Planning Guidance

https://www.eastlothian.gov.uk/meetings/meeting/16411/members_library_service (Report 20/19)

⁶⁸ https://www.eastlothian.gov.uk/info/210550/housing/12398/local_housing_strategy_and_investment/1

“Sustainable and vibrant communities are created and maintained”.

- This will be achieved by the delivery of quality sustainable housing, particularly in town centres and rural areas, including bringing empty town centre properties back into use, where appropriate, for affordable housing, and by supporting community led activity that seeks to improve town centres and rural areas.

The importance of open space and green space in urban areas

The Council’s ambition, as set out in the **East Lothian Open Space Strategy 2018**⁶⁹, is that everyone living in East Lothian should have local access to attractive, good quality parks, sports pitches and play areas, and local connections to the Green Network, providing access to the countryside along a well designed network of accessible path routes. These have particular importance for climate change mitigation, and encourage a low carbon lifestyle.

The Council has planted hundreds of trees in urban areas over many years. These have important functions not only in enhancing the amenity value and sense of place in our communities, but also have crucial roles in reducing carbon emissions by carbon sequestration, local cooling by creating shade, and helping to absorb traffic pollution.

- The Council will continue to deliver the sustainable management of its open spaces and green spaces, and work closely in partnership with local community groups, such as the award-winning ‘In Bloom’ groups, to improve local communities.

East Lothian Allotments and Local Food Growing

Practical solutions for growing your own food near to where people live, improving local green space and green network connectivity, fostering community engagement and enjoyment of the outdoors are detailed in the Council’s **Local Food Growing Strategy** (in preparation), which is being prepared in response to the requirements of Part 9 of the Community Empowerment (Scotland) Act 2015.

- The Council’s Local Food Growing Strategy will set out the framework for the Council’s involvement in assisting and encouraging East Lothian’s communities to develop local food growing projects, with implications for reducing carbon emissions and climate change adaptation.

Provision of community growing space across East Lothian has many benefits to local communities and in contributing to a low carbon lifestyle, including:

- facilitating the development of co-operatives, social enterprise and community led retail outlets selling local produce which in turn contributes to the sustainable carbon neutral provision of locally grown fresh produce and enhanced local employment opportunities;
- providing access to healthy, locally grown food; making a valuable contribution to the quality of life, health and wellbeing for residents;
- contributing to part of a green corridor or green network to benefit wildlife;

CASE STUDIES 4.1

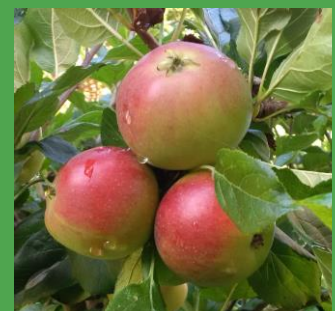
Local Food Growing Projects in East Lothian:

Roots & Fruits Growing Project, Prestonpans

The Ridge project, Dunbar

Ormiston Grows project

East Linton Community Orchard



⁶⁹ <https://www.eastlothian.gov.uk/meetings/meeting/16252/cabinet> (Cabinet Paper 03)

- providing the opportunity for an environmental education resource.

Fostering an enjoyment of and interest in the outdoors, and being in close contact with nature from a young age, is not only good for our health and wellbeing, but it develops and nurtures an awareness and understanding of the natural world, our place in it, and what we can do to preserve and protect it for future generations.

- The Council will investigate options for working in partnership with our communities to bring areas of suitable urban land into use for local growing / biodiversity projects.

The important role of our communities and working in partnership

Our communities have already identified the importance of a thriving local economy, local food growing, improvements to active travel and sustainable transport, and enhanced greenspaces, in improving their communities – including the ‘sense of place’, encouraging behaviour and lifestyle change. East Lothian’s local **Area Partnerships** and Active Travel sub-groups are delivering actions through their local **Area Plans** to improve our local communities for the future.

Local groups and organisations are taking forward proposals, plans, initiatives and actions to deliver cleaner, greener, low carbon communities across East Lothian, including:

- **‘Sustaining Dunbar’** has a detailed Action Plan setting out their vision and proposals for a sustainable Dunbar and East Linton area and has developed many initiatives and raised awareness.
 - **‘Climate Friendly Aberlady’** undertook a Community Survey and has produced an action plan for Aberlady, to help deliver more sustainable travel and transport options and improve local green spaces. Many of these actions are currently being delivered in partnership with the Council, and this will continue.
 - **‘Sustaining North Berwick’** is working locally and with the Council to improve sustainability and encourage local initiatives in the North Berwick area.
- The Council will encourage and assist other areas of East Lothian to become involved in taking forward sustainability and promoting a low carbon lifestyle in their local area.

Many other local community groups around East Lothian are making a difference to their local areas in creating better places and encouraging a lower carbon and more sustainable lifestyle. Those which were identified during the public consultation on the development of the Climate Change Strategy are listed in Appendix 6.

- The Council will continue to work closely in partnership with our local communities to improve them for the future, and help them with the transition towards a low carbon and sustainable future.

The role of the planning process in supporting low carbon lifestyles in East Lothian

The **East Lothian Local Development Plan 2018**⁷⁰ (LDP) sets out a framework to support and encourage low carbon lifestyles and the transition needed to achieve decarbonisation. Planners actively seek provision where necessary of green networks, paths, active travel routes, open space and Sustainable Drainage Systems in new housing developments.

- The East Lothian LDP specifically addresses climate change and the transition to a low carbon lifestyle and low carbon economy by:

⁷⁰ https://www.eastlothian.gov.uk/downloads/download/13023/local_development_plan_2018

- Creation of mixed-land use communities, to reduce the need to travel (and therefore reduce greenhouse gas emissions from traffic), by allocating sites for new housing development near existing or proposed employment locations and facilities, including local services and schools;
- Inclusion of policies on green networks, open space, play space and allotments.

Supplementary Planning Guidance (SPG) provides further direction to ensure that East Lothian's future developments will lead East Lothian towards being a carbon neutral county.

In particular the **Green Networks Strategy SPG** sets out a vision for a connected green network in East Lothian that contributes to the Central Scotland Green Network, including:

- A place for encouraging business growth, increasing community spirit and activities, enhancing active travel, recreation and healthy living;
- How green networks can create a place in balance, adapting to and mitigating climate change.

The **Design Standards for New Housing Areas SPG** (in preparation) will set out the importance of designing new housing areas which connect people to a healthy, outdoor lifestyle on their doorstep, and encourages active travel and outdoor play, with green networks and multi-generational open spaces to encourage community interaction, and reduce the dominance of the car.

Blindwells new town

An area of land has been allocated at Blindwells through the LDP, and further land safeguarded to allow the potential for development there to be explored. This is potentially an exciting opportunity to create a low carbon town of the future, designed around principles of sustainability, with a low carbon ethos.

- The Council intends to prepare a Design Framework for a larger Blindwells new settlement.

The new town could bring many benefits, to the west of the county in particular. There could be the opportunity to provide a town centre in a larger Blindwells that would serve surrounding communities, improving the availability of local amenities and help regenerating nearby settlements. A larger Blindwells would also be well located to promote future strategic employment and inward investment opportunities and improvements to public transport provision in the area. This could help reduce the need to travel as well as travel distances and related carbon dioxide emissions.

Actions to achieve this Outcome are set out in the Action Plan.

These actions will contribute towards delivering Sustainable Development Goals

SDG 13 – Climate Action

SDG 15 – Life on Land

11. Outcome 5: A Low Carbon and Sustainable Economy

East Lothian will have a sustainable and digitally-connected local economy, with thriving, low carbon and sustainable businesses, at the heart of vibrant local communities, contributing towards a sustainable, fair and equitable East Lothian.

Aligning with the objectives of East Lothian's Economic Development Strategy to deliver sustainable and inclusive economic growth, and existing partnership working and good practice examples already in place, we will create a local economy in East Lothian that is future-proofed, low carbon and resource efficient.

11.1 Key Objectives to achieve Outcome 5

1. East Lothian will have a sustainable and digitally-connected local economy, with thriving, low carbon, sustainable businesses
2. East Lothian's low carbon and sustainable economy will sustain vibrant, thriving local communities

11.2 Key Challenges

- East Lothian has a relatively low job density, and a high rate of commuting out of the area to access employment elsewhere in the region, particularly Edinburgh
- There is a need to develop new, more sustainable low carbon sectors in East Lothian, and to promote and encourage low carbon innovation and sustainable businesses
- Developing and delivering the key strategic sites for employment (Cockenzie, Blindwells, QMU) will be challenging, however, these sites also bring significant opportunities for East Lothian
- Whilst many of the area's residents are highly qualified, there are areas of deprivation, and regeneration opportunities continue to exist particularly in the west of East Lothian
- Issues with East Lothian's digital infrastructure mean that digital connectivity remains a challenge
- Delivery and availability of land for employment and economic use are limited, particularly in areas of high demand
- There is a trend towards travelling longer distances to retail sites outwith East Lothian

11.3 The National Context

The move towards a **sustainable and localised economy** will contribute towards reducing the carbon emissions that cause global warming. A thriving localised economy creates local benefits and opportunities, reduces the need to travel, and promotes vibrant and sustainable communities. Energy and resource efficiency are at the core of a sustainable economy, and the Scottish Government promotes the use of sustainable transport, reduction of waste and the move towards a localised and circular economy.

The vision of the Scottish Government's Climate Change Plan⁷¹ is for a **low carbon, resilient economy** and a more sustainable future for Scotland. The Climate Change Plan sets out the pathway to a low carbon economy, while helping to deliver sustainable and inclusive economic growth and secure the wider benefits to a greener, healthier and fairer Scotland – protecting and growing Scotland's economy, while ensuring that the opportunities and challenges which arise are spread evenly across all parts of society.

Whilst acknowledging a moral responsibility to tackle climate change, the Plan also recognises the **economic opportunities** that are likely to arise, including the potential of renewable energy resources. With its abundant natural resources, Scotland is well placed to take advantage of the economic opportunities afforded by transition to a low carbon economy. The Plan encourages development of renewable energy projects, creating investment opportunities to deploy renewable energy technologies, innovation and leadership.

The move to a low carbon economy is supported by Scotland's **National Planning Framework**. The Planning Vision of Scotland's National Planning Framework 3 states:

"We live in a Scotland with a growing, low carbon economy with progressively narrowing disparities in well-being and opportunity. It is growth that can be achieved whilst reducing emissions and which respects the quality of environment, place and life which makes our country so special".

The Scottish Government's Climate Change Plan is closely aligned to **Scotland's Economic Strategy**⁷², which focuses on sustainable and inclusive business growth. One of the key priority areas set out in Scotland's Economic Strategy is: *"Investing in our people, infrastructure and assets in a sustainable way"*. This will be achieved by:

- Investing in Scotland's people to ensure we have a well-skilled, healthy and resilient population, an innovative and productive workforce, and investment in strengthening local communities;
- Providing physical and digital connectivity and investment in infrastructure to enable businesses to grow, innovate and create good quality employment opportunities;
- Prioritising investment to ensure we protect and nurture our natural resources and capture the opportunities offered by transition to a more resource efficient, lower carbon economy.

Investment in low carbon products and services, opportunities to repurpose oil and gas infrastructure for carbon storage, and sustainable business opportunities contributing towards the transition to a circular economy⁷³, will create opportunities for innovation, employment and economic growth.

A Low Carbon Economy refers to an economy that has a minimal requirement for carbon energy sources and is proposed as a means to prepare for and reduce our exposure to expected future supply problems and associated rising energy costs as well as minimising any impacts of climate change.

⁷¹ <https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/>

⁷² <https://beta.gov.scot/publications/scotlands-economic-strategy/>

⁷³ 'Circular economy': Ellen MacArthur Foundation <https://www.ellenmacarthurfoundation.org/circular-economy/concept>; Zero Waste Scotland <https://www.zerowastescotland.org.uk/our-work/circular-economy>

Scottish Government Targets

Specific sectors of the Scottish economy have targets set out by the Scottish Government in the Climate Change Plan to take advantage of new low carbon technology opportunities and to reduce carbon emissions. Specifically, the following targets apply to sectors of the Scottish economy:

Electricity and renewables:

- By 2030, 50% of all Scotland's energy needs to come from renewables, with emissions from electricity to fall by 28%;

Industry:

- Emissions from the industrial sector to fall by 21% by 2032;
- Industrial energy efficiency to enable heat recovery with its associated benefits and development in low carbon technologies to create business opportunities;

Agriculture:

- Scotland's agricultural sector to be among the lowest carbon and most efficient food producers in the world, with an emissions reduction target of 9%.

Forestry:

- Land Use, Land Use Change and Forestry: This sector to increasingly act as a net carbon sink - by 2032, woodland cover to have increased from around 18% to 21% of Scotland's land area.

11.4 The East Lothian Context

East Lothian has a rapidly growing population and demonstrates strong growth in its business base and number of jobs in recent years⁷⁴, although many residents commute outwith the county to employment in Edinburgh, and there is a high rate of part-time and self-employed people working in East Lothian. However, there is predicted to be strong future employment growth in the high-value professional, scientific and technical sector⁷⁵.

The East Lothian Local Development Plan addresses a lack of usable land for employment. Although there are ongoing issues of transport and digital connectivity, both of these are being addressed with improvement schemes underway.

East Lothian Council has recently adopted a refreshed East Lothian Economic Development Strategy, the central purpose of which is ***"to identify the opportunities which East Lothian can exploit to maximise its sustainable economic competitiveness"***.

Economic objectives for a sustainable East Lothian

East Lothian's Economic Development Strategy⁷⁶ sets out five strategic objectives to deliver sustainable and inclusive economic growth for the future, including

"To become Scotland's most sustainable and digitally-connected local economy"

East Lothian has many features that can support it becoming Scotland's most sustainable local economy, including distinctive, well-used town centres; a business sectoral profile that aligns with more sustainable sectors; and an excellent environment to enhance work-life balance.

⁷⁴ East Lothian Economic Development Strategy Refresh, Oct 2018
<https://www.eastlothian.gov.uk/meetings/meeting/16252/cabinet> (Cabinet Paper 02)

⁷⁵ <https://www.eastlothian.gov.uk/meetings/meeting/16252/cabinet> (Cabinet Paper 02)

⁷⁶ <https://www.eastlothian.gov.uk/meetings/meeting/16252/cabinet> (Cabinet Paper 02)

East Lothian's Economic Development Strategy states that key issues in delivering this objective include providing a framework for:

- Developing new, more sustainable low carbon sectors;
- Encouraging and enabling innovation amongst East Lothian's businesses;
- Improving public transport connectivity, and encouraging more sustainable modes of transport;
- Supporting town centres and local businesses – thereby sustaining and potentially creating local jobs, and meeting the leisure, cultural and wider needs of residents;
- Balancing East Lothian's growth aspirations with its outstanding natural environment and quality of life; and
- Ensuring maximum coverage of superfast broadband across East Lothian.



Figure 12: Haddington Farmers' Market

Economic opportunities for East Lothian

To ensure that East Lothian has a thriving and sustainable local economy, there are many initiatives which, developed sustainably, are important in creating local employment, promoting local businesses, reducing the need to travel and enhancing local communities. These will contribute either directly or indirectly to reducing carbon emissions.

The East Lothian Economic Development Strategy states that East Lothian's sectoral strengths are in Food and Drink, Tourism and Higher Education. In addition, East Lothian's entrepreneurial culture, skilled workforce, proximity to Edinburgh and its quality of life are key factors encouraging economic growth.

- The significant economic opportunities for East Lothian, highlighted in the Economic Development Strategy, include the following:

- East Lothian is included in the £1.3 billion **Edinburgh and South East Scotland City Region Deal**. Interventions of significant importance to East Lothian under the City Region Deal include: a Food and Drink Innovation Campus located at Edinburgh Innovation Park, Queen Margaret University; the new town development at Blindwells, which will include business units and a supermarket, as well as creating construction employment; and an Integrated Regional Employability and Skills programme, particularly targeting those from disadvantaged groups through the Inclusive Growth agenda.
- **Cockenzie**, site of the former power station, which is now owned by the Council. The masterplan for this site includes outline plans to develop 90,000m² of employment space and 3,500 new jobs, generating £66 million for the East Lothian economy.
- **Tourism** is already a key growth sector of East Lothian's economy, bringing visitors and tourism spend into the county, building on its proximity to Edinburgh and its promotion as 'Edinburgh's Coast and Countryside', and golf, which is estimated to attract 100,000 visitors to East Lothian annually. The East Lothian Tourism Action Plan 2016-18 highlights tourism opportunities around East Lothian's wildlife, coast, cycling, golf and walking.

Thriving Town Centres

East Lothian Council has signed up to the **Town Centre First Principle**⁷⁷, which supports continued investment in town centres, to help local communities thrive. East Lothian's Local Development Plan also supports the Town Centre First Principle. The principle, developed by Scottish Government and COSLA (Convention of Scottish Local Authorities), means adopting an approach to decision-making that considers the vibrancy and health of town centres as a starting point. Thriving town centres create vibrant local communities and reduce the need to travel, promoting a low carbon East Lothian.

Town Centre Strategies⁷⁸ have recently been prepared by the Council for each of East Lothian's main towns. The Vision for Musselburgh town centre⁷⁹ is:

"Musselburgh town centre will see improvements to help tackle climate change, improve its public realm, protect its character and historic identify and make the town centre a place that people choose to visit and build a business."

- The Council will encourage town centre development and support mixed uses in town centres to enhance sustainability and resilience by:
 - Exploring and taking advantage of opportunities to develop business space within town centres;
 - Identifying opportunities for community and social use of premises in town centres, recognising the shift in retail trends, and changing nature of high streets; and
 - Considering alternative commercial uses of town centre and rural assets.

⁷⁷ <http://www.gov.scot/Topics/Built-Environment/regeneration/town-centres/TheTownCentreFirstPrinciple>

⁷⁸ East Lothian Town Centre Strategies Supplementary Planning Guidance
https://www.eastlothian.gov.uk/meetings/meeting/16411/members_library_service (Report 20/19)

⁷⁹ Musselburgh Town Centre Strategy 2
https://www.eastlothian.gov.uk/meetings/meeting/16411/members_library_service (Report 20/19)

Sustainable Business Development

Support for interventions to help East Lothian's businesses, create jobs and develop its workforce is integral to the approach set out in the refreshed Economic Development Strategy. Initiatives such as those of Resource Efficient Scotland⁸⁰ and Zero Waste Scotland⁸¹, which aid and assist business efficiency and productivity, are supported by the Council.

The Business Development Gateway in East Lothian encourages new businesses to consider the environment and sustainability in their products, systems, processes, supply chains and distribution. Resource Efficient Scotland provides advice to SME businesses⁸² on how their business can be more energy efficient and resource efficient, which will also save them money. This is covered under Outcome 2.

- The Council will continue to support businesses to be more sustainable.

Sectors of East Lothian's economy

Food and Drink

East Lothian Council successfully developed and implemented an industry-led '**Business Improvement District**' for its local food and drink producers⁸³ – the first of its kind in the world – to support and promote local East Lothian food and drink producing businesses.

Agriculture

Farming is an important part of East Lothian's economy and shapes the countryside around our communities. The sector is working hard to become 'greener' and reduce its carbon emissions, to meet the Scottish Government's targets.

Windfarms

There are several wind farm developments in the Lammermuir Hills, which support renewable energy generation and contribute towards Scotland's renewable energy production targets. These include Aikengall Windfarm, Crystal Rig Windfarm and Pogie Windfarm. The Local Development Plan has policies on Wind Farms and Smaller Scale Wind Turbine Development.

Actions to achieve this Outcome are set out in the Action Plan.

**These actions will contribute towards delivering Sustainable Development Goal
SDG 13 – Climate Action**

⁸⁰ <https://www.resourceefficientscotland.com/>

⁸¹ <https://www.zerowastescotland.org.uk/content/resource-efficiency-waste-prevention-implementation-fund>

⁸² <https://www.resourceefficientscotland.com/>

⁸³ <https://www.scotlandsfooddrinkcounty.com/about-us/>

12. Outcome 6: A Healthy and Resilient Natural Environment

East Lothian will have healthy, diverse natural ecosystems that support biodiversity and the wellbeing of our communities, functioning to off-set carbon emissions, acting as a key force in adapting to climate change, and resilient to changes in climatic conditions.

12.1 Key Objectives to achieve Outcome 6

1. East Lothian's natural environment will be healthy and resilient, functioning to off-set carbon emissions
2. East Lothian's biodiversity will be protected and wildlife will be encouraged
3. We will help to protect East Lothian's coast and marine environment

12.2 Key Challenges

- Natural habitats in good condition lock in carbon from the atmosphere; yet East Lothian's fragile natural habitats are threatened by the impacts of climate change
- It is challenging to maintain East Lothian's natural habitats in prime condition, particularly in coastal areas, due to climatic impacts and increasing recreational pressures at coastal destinations associated with a growing population
- Enhancing the condition and quality of natural heritage sites will be a challenge as the use of the countryside expands and diversifies
- Changes in agricultural subsidies and land use / farming practices impact on natural habitats, biodiversity and soil condition
- The value of East Lothian's agricultural land and pressures from new developments mean that identifying suitable locations for habitat restoration and connectivity or woodland planting continues to be challenging
- Putting a value on East Lothian's 'Natural Capital' would help to protect the natural environment, however this would be challenging
- The challenges for the future will be to deliver or encourage conservation management across more of East Lothian's ecological network. This is necessary to make the most of the 'natural' areas that remain, and to prevent a continual decline in quality through a lack of appropriate management.

12.3 The importance of a healthy natural environment: carbon capture and carbon storage

The health of our natural environment is intrinsically linked with that of our own. The natural environment provides all of the primary resources we rely on to create the energy that powers our world, feeds our population and provides our raw materials.

Carbon is locked in to our natural environments, and the diverse habitats and ecosystems they support. Woodlands, peatlands and saltmarsh in particular store vast quantities of carbon, preventing its release into the atmosphere as carbon dioxide provided these natural habitats remain in good condition. Degraded or damaged natural habitats are less effective at maintaining the balance of carbon. The burning of wood, peat and fossil fuels releases this locked-in carbon, and damage to soils accelerates this process.

Carbon sequestration is the process of removing carbon dioxide from the atmosphere

Climate change is impacting on fragile habitats such as saltmarshes, which are threatened by tidal inundation, and wet grasslands which are at risk of drying up. Climate change is also impacting on our wildlife, including migratory birds and native species, some of which are threatened by extinction⁸⁴.

12.4 The National Context

The Scottish Government's Climate Change Plan acknowledges the importance of Scotland's abundant natural resources, meaning that Scotland is well placed to take advantage of the economic opportunities afforded by transition to a low carbon economy. This includes development of **renewable energy** projects based on solar, wind, tidal or hydro power.

The Climate Change Plan also recognises the opportunities to **restore biodiversity and ecosystems to assist with carbon capture and storage**. Scotland's greenhouse gas emissions report⁸⁵ shows that all sectors are net carbon emitters with the exception of Woodland / Forestry, which is a net absorber of carbon dioxide, contributing to -12.7 MtCO₂e absorbed from the atmosphere in 2016. Restoration of degraded peatland has been shown to contribute to annual carbon sequestration of up to -19 tCO₂e per hectare⁸⁶.

Scottish Government Targets

The Climate Change Plan sets out the pathway to decarbonisation and the role of Scotland's natural environment and land use in achieving this. The Plan states that Scotland's 'Land Use, Land Use Change and Forestry' sector will increasingly act as a net **carbon sink**, with the following specific targets for this sector:

- *By 2030, 250,000 hectares of peatland to have been restored;*
- *By 2032, woodland cover to have increased from around 18% to 21% of Scotland's land area.*

Woodland expansion will make a positive contribution to regional carbon sequestration and national climate change targets⁸⁷. These objectives will also have significant implications for protecting and restoring these natural habitats and biodiversity.

Habitat restoration

The Central Scotland Green Network (CSGN) project aims to restore and transform the landscape and natural habitats of Central Scotland to ensure benefits to nature, people in our communities, and the economy. CSGN projects that restore natural habitats and enhance biodiversity, in urban and rural areas, include woodland planting and wildflower grassland projects, with implications for carbon sequestration.

Natural Capital

'Natural Capital' is a methodology for putting value on the natural environment and natural resources, and the range of benefits (known as 'ecosystem services') that people derive from them. These benefits include climate regulation, carbon storage, health savings through reduced air pollution and natural flood defences.

Biodiversity

is the variety of plant and animal life, including terrestrial, marine and aquatic life, and the links between species and their ecosystems.

Ecosystems

are the communities of plants and animals in an area and how they interact with each other and with the environment.

⁸⁴ <https://www.rspb.org.uk/get-involved/campaigning/climate-change-effects-on-nature-and-wildlife/effects-of-climate-change-on-wildlife/>

⁸⁵ <https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2016/pages/3/>

⁸⁶ <https://www.theccc.org.uk/wp-content/uploads/2018/09/Reducing-emissions-in-Scotland-2018-Progress-Report-to-Parliament.pdf>

⁸⁷ <https://www2.gov.scot/seag/seagDocs/SEA-00501/12598.pdf>

A recent report by the Office of National Statistics⁸⁸ valued Scotland's natural resources at £273 billion. Protecting the natural environment and safeguarding our natural capital is a vital part of Scotland's transition to a low carbon society.

12.5 The East Lothian Context

East Lothian's landscape, natural heritage and spectacular coast shape the county and create the backdrop to our communities, economy, recreation and land use. Many sites in East Lothian are designated for their international, national or local natural heritage value.



Figure 13: Saltmarsh at John Muir Country Park, an important habitat for carbon storage

The Council manages many of the most popular countryside sites in East Lothian, including John Muir Country Park, named in honour of the pioneer of nature conservation John Muir, who was born in Dunbar in 1838.

- The Council manages 80% (47 km) of East Lothian's coast, with extensive focus given towards the sustainable management of the coastline, helping to ensure that the Council meets its statutory duty as a public body to conserve biodiversity.
- The Council's countryside management systems have direct implications for mitigating climate change, by conserving and restoring natural grassland, woodland and saltmarsh.
 - **Aberlady Bay**, designated as a Local Nature Reserve in 1952, is managed by the Council. The reserve includes areas of saltmarsh which is important for carbon sequestration.

⁸⁸ <https://www.gov.scot/publications/scottish-natural-capital-ecosystem-service-accounts-2019/pages/1/>

- **The Tyne estuary** is designated as a country park, **John Muir Country Park**, which is managed by the Council. A 'carbon audit' study in 2010 identified that John Muir Country Park had potential to consolidate its carbon sources and reduce its carbon footprint⁸⁹, and several of the recommendations have now been implemented. With predicted temperature rise the biodiversity and fragility of John Muir Country Park is of great concern and prompts a need for special attention regarding the sustainability of this coastal hotspot for the future.
- **Local Biodiversity Sites (LBS)** are designated by local authorities. East Lothian's LBSs are included in the Local Development Plan, and provide a good quality network of habitats and ecological connectivity across the area, allowing species to migrate across the county in response to natural life cycles or environmental effects such as climate change.

East Lothian Biodiversity Action Plan

The East Lothian Biodiversity Action Plan aims to reverse the loss of habitats and species in East Lothian, and lists habitats and species that are a priority for conservation action in the county. There is a need to implement the following Biodiversity Priorities across East Lothian:

- **Arable Farmland:** To provide food and nesting habitat for farmland birds, re-connect hedgerows
- **River Quality:** To meet standards set by the Water Framework Directive
- **Woodland:** To protect and enhance Ancient Woodland and create new wooded habitats to connect across the landscape
- **Grassland:** To introduce conservation management to naturally species-rich grasslands
- **Urban Habitats:** To create interesting and attractive landscapes that are valuable for wildlife and people

Management of the natural heritage: terrestrial habitats

- The Council's Countryside Service manages 31 countryside sites, to enhance the natural habitats, conserve wildlife species and ecosystems and manage visitors sustainably. Conservation grazing at some sites has resulted in improvement in grassland quality.

CASE STUDY 6.1

East Lothian Countryside Rangers and East Lothian Countryside Volunteers have undertaken surveys of butterfly species over many years, and their data reveals an expansion northwards of the range of many species of butterflies. Five new butterfly species are now common and breeding in East Lothian that have only arrived here in the last 20 years, including the Speckled Wood and Comma. Butterflies are a really good indicator of changes in habitat or climate.



Speckled Wood Butterfly
Photo by N. Morgan

The Biodiversity Action Plan provides a list of habitats and species that are at particular risk of local extinction. These are known as Priority Habitats and Species.

⁸⁹ Source: East Lothian Council's Carbon Audit of John Muir Country Park (2010)

These management measures mean that these habitats are in better condition, and will function more optimally in carbon storage, off-setting carbon emissions, and are a key aspect of mitigating against climate change.

East Lothian's coastal and marine environment

- The Council's Countryside Ranger Service helps to look after East Lothian's beaches and inshore waters around our coast, helping to conserve the coastal environment, manage visitors sustainably and protect fragile coastal habitats that function in climate change mitigation and adaptation.

The Ranger Service also works closely in partnership with many local groups, organisations and individuals who assist with regular Beach Cleans, removing litter from our beaches, particularly plastic waste washed up from the sea.

The local environmental charity 'Fidra' delivers high impact environmental projects, including focusing on ending persistent and avoidable plastic and toxic aquatic pollution, such as plastic pellets called 'nurdles', commonly found polluting East Lothian's beaches.

Urban green spaces and connectivity

Green networks and semi-natural greenspaces in urban areas have important functions in mitigating against climate change, reducing air pollution, and creating connected spaces for wildlife. This is covered under Outcome 4.

- The Council has converted areas of amenity grassland in urban areas into 'wildflower areas', in some areas for over 15 years. These have become an important habitat and permanent feature for urban wildlife, benefitting both wildlife and people.

Actions to achieve this Outcome are set out in the Action Plan.

These actions will contribute towards delivering Sustainable Development Goals

SDG 13 – Climate Action

SDG 14 – Life Below Water

SDG 15 – Life on Land

CASE STUDY 6.2

East Lothian Council's Countryside Services set up a network of East Lothian Countryside Volunteers, who gave 9,322 hours of voluntary work in 2017/18, helping to conserve our important natural environment and wildlife species.



East Lothian Junior Rangers

13. Outcome 7: A Well-Adapted East Lothian

East Lothian's natural environment, buildings, infrastructure and society will be adapted to the effects of climate change, and its communities will be resilient to further changes in the future.

East Lothian's climate is already changing, and this is impacting on our communities, infrastructure and natural environment. The Council will lead by example in preparing for and managing climate change impacts. The Council will work in partnership to develop resilient communities, ensure businesses are prepared with Business Continuity Plans, and help ensure our natural environment can help us adapt to climate change.

13.1 Key Objectives to achieve Outcome 7

1. Climate Ready Society: Our communities, businesses and other organisations will become more resilient and adapt to climate change
2. Climate Ready Buildings and Infrastructure that are adapted to climate change
3. Climate Ready Natural Environment that helps us to adapt to climate change

13.2 Key Challenges

- East Lothian's climate is changing and there is a need to adapt to further climatic events and ensure resilience: this is challenging and likely to be resource intensive;
- It is difficult to predict when and exactly where climatic impacts will occur; we have to work around most likely scenarios and projections;
- Key challenges are:
 - flood protection and flood risk management;
 - adapting our buildings, services and infrastructure to climate change;
 - helping our communities and businesses to adapt and be more resilient to future climate impacts; and
 - managing the natural environment to provide climate adaptation benefits whilst protecting our natural heritage assets.

13.3 East Lothian's Climate Risks

Over the next fifty years, East Lothian is likely to experience warmer and wetter winters with more heavy downpours, warmer drier summers, and increasing risk of extreme weather including storms, drought and heatwaves. Areas of the county are at risk from flooding and heavy downpours, and flood protection schemes are in place. Coastal defences are in place to reduce risks from tidal surges and inundation at our coast. Coastal flooding is predicted to increase with sea level rise.

The Council has undertaken a **Local Climate Impacts Profile (LCIP)**, which identified climate risks and highlights East Lothian's vulnerability to severe weather events and the impact on local communities and the Council's assets, infrastructure and capacity to deliver services. These climate impacts include:

- Effects on infrastructure and society of extreme weather events such as storms, high winds and heavy snow, including damage to buildings and power supply, blocked roads, transportation problems, impacts on services such as social care and waste collection, impacts on business continuity, and school closures;

- Heavy or prolonged rainfall and/or coastal inundation causing flooding, with potentially severe detrimental impacts on our communities, particularly on the most vulnerable in our society.

This chapter sets out how we will address these impacts and achieve a well-adapted Council and a well-adapted and resilient East Lothian.



Figure 14: Flooded road in the Lammermuir Hills near Oldhamstocks

13.4 A Well-Adapted Council

Context

The Climate Change (Scotland) Act 2009 specifies that public bodies must, in exercising their functions, act in the way best calculated to deliver the Scottish Government's statutory adaptation programme. Furthermore, guidance⁹⁰ issued by the Scottish Government states:

“All public bodies need to be resilient to the future climate and to plan for business continuity in relation to delivery of their functions and the services they deliver to the wider community”

It is necessary for public bodies to understand how climate change could impact on their supply chains, resource supplies (energy, water, materials) and infrastructure. As a provider of a range of local services, East Lothian Council could be impacted by changes in temperature, extreme weather and heavy rainfall. This will have consequences for service delivery, creating new demands on emergency response services, the maintenance of buildings and longer term health issues.

- By taking a strategic approach to climate adaptation and early action to adapt, the Council will be in a good position to reduce the cost of service disruption and protect vulnerable sites, buildings and communities.

A Resilient Council: Risk Management

The Council already has systems and procedures in place to manage climate-related risks:

⁹⁰ <https://www.gov.scot/publications/public-bodies-climate-change-duties-putting-practice-guidance-required-part/>

- The Council's **Corporate Risk Register** is in place to manage risks, including climate related risks, across all Council services. These include asset management and capital planning;
- Individual Service Areas have their own **Risk Management Plans**, which sit under and feed into the overarching Corporate Risk Register;
- The Council has a **Severe Weather Response Plan**⁹¹ in place, which details the procedures to be followed in response to severe weather events, including flooding. It supplements the Council's Corporate Emergency plan, relevant Police Scotland Emergency plans and other partner agencies' plans;
- The Council's **Strategic Coordination Centre** at Macmerry can be activated during extreme events to manage and maintain the running of key services. It was activated during the 'Beast from the East' extreme snowfall event in 2018 to ensure continuity and coordination of key Council services, including the care of vulnerable people;
- Individual Council Service Areas have their own **Business Continuity Plans**, which identify threats to services and measures to mitigate against these, with key actions to be taken to maintain business continuity;
- The Council is involved in the **Adaptation Scotland Learning Exchange**, and benefits from advice and support from Adaptation Scotland;
- The Council coordinates East Lothian's **Resilient Communities initiative**, which highlights to communities what they can do for themselves whilst working with the Council at times when unexpected events occur impacting on their daily lives.

13.5 A Well-Adapted East Lothian Context

“No single organisation, business or community can adapt to climate change alone.
We are all dependent on and influenced by the decisions of others and
need to work together to adapt.”

From The Scottish Government's 'Climate Ready Scotland: Scottish Climate Change Adaptation Programme' (2014)

Our communities will often be in the front line in responding to the impacts of climate change. East Lothian Council will work together with our community partners, including Community Councils and local Area Partnerships, to lead the community response to climate change.

- The Council will work in partnership with local employers, landowners, voluntary groups, and community planning partners including Emergency Responders, to ensure that adaptation actions are tailored effectively to the localised impacts of climate change.
- The Council will build capacity and take action in response to the risks and opportunities that East Lothian faces as a result of changes in our climate.

13.5.1 Flood Risk Management

Flood risk management responsibilities

- The Scottish Environmental Protection Agency (SEPA) is Scotland's national flood forecasting and flood warning authority, with a duty to provide flood risk advice to

⁹¹ https://www.eastlothian.gov.uk/downloads/file/23701/severe_weather_plan_2018

land use planning. SEPA operates flood warning schemes, including in East Lothian.

- The Council is responsible for implementing and maintaining the flood protection actions. The Flood Risk Management (Scotland) Act 2009 places responsibilities on local authorities to reduce overall flood risk and promote sustainable flood risk management.
- Property and business owners can take steps themselves to reduce damage and disruption to their homes and businesses from flooding. This includes preparing a flood plan or Business Continuity Plan and flood kit, installing property level protection, signing up to Floodline and Resilient Communities Initiatives, and ensuring that properties and businesses are insured against flood damage.

The **Flood Risk Management Strategy** has been developed to reduce the damage and distress caused by flooding. It provides the information needed by local authorities to take action to manage flood risks.

Actions to reduce flood risk

The **Local Flood Risk Management Plan** describes the actions to avoid and reduce the risk of flooding, and prepare and protect our communities.

- The Council is currently progressing the actions in the Local Flood Risk Management Plan. These include flood protection schemes and works, flood protection studies, surface water management plans, and natural flood management studies and works.

Flood Protection Schemes currently underway in East Lothian are:

- **Musselburgh Flood Protection Scheme**, which aspires to deliver a level of protection from all sources of flooding, including from the River Esk, plus allowance for climate change. The scheme has incorporated the possibilities for natural flood management solutions, subject to the scheme's study on it, and includes protection from the effects of rising sea levels. A detailed delivery programme will be developed after detailed designs have been drawn up.
- **Haddington Flood Protection Scheme**, to reduce flood risk from the River Tyne. The scheme is at the early stages of development, and would consist of flood defences, possibly in combination with natural flood management.
- **Existing Coastal Flood Defences** will continue to be maintained by the Council along the coast at Cockenzie, Prestonpans and Gosford Bay.

Community Flood Action Groups involve the community and their local expertise and knowledge in area-specific issues and could help increase community resilience to flooding. Groups have been identified across East Lothian.

Flood Storage involves designing areas to deliberately flood in order to store or redirect floodwater. Allowing areas such as parkland, sports fields, road spaces, or below ground spaces to flood can prevent the flooding of more vulnerable land uses. At present, this option is under-utilised in East Lothian. Potentially areas of open space could be designed to flood to reduce the risk to built-up areas.

Areas in East Lothian that are Potentially Vulnerable to Flooding:

- Musselburgh
- Cockenzie & Port Seton
- Longniddry
- Prestonpans
- Haddington
- Dunbar
- West Barns



Flooding in Haddington

13.5.2 Adapting Buildings and Infrastructure:

Increasing the resilience of buildings and infrastructure networks

- The Council has identified and put in place improvements and solutions to adapt East Lothian's buildings and infrastructure to the effects of climate change, following best practice and national policy advice.

Adaptation improvements undertaken by the Council include the following:

- Roads, infrastructure and coastal protection management and maintenance measures to reduce climatic impacts on transport and infrastructure, as set out in East Lothian's Local Transport Strategy and the Roads Asset Management Plan;
- Improvements to the energy efficiency of housing in East Lothian, delivered with Scottish Government grant funding. This ensures that homes are better insulated, so they are warmer and less likely to be affected by damp and mould growth as the climate becomes milder with wetter winters;
- The Council will continue to ensure that all of its properties meet Scottish Housing Quality Standards and Energy Efficiency Standards for Social Housing (EESH) targets, which ensure homes are better adapted for a changing climate, as set out in the East Lothian Local Housing Strategy;
- Choosing sites for new development which are not at significant risk of flooding, and preventing development where flood risk is unacceptable, as set out in the East Lothian Local Development Plan;
- Supporting allotments and community gardens: these help communities adapt to the negative impacts of climate change and changing weather patterns by providing a local year-round source of fresh food produce, which can potentially be distributed locally to those in need or to local Food Banks if required;
- Water management by means of Sustainable Drainage Systems (SuDS), which provide multi-functional benefits including storing and re-using surface water, thus reducing the risk of surface water flooding and improving water quality. SuDS are now a legal requirement for new developments therefore are routinely constructed in East Lothian developments. Retrofitted SuDS in urban areas can address flood risk whilst allowing for future modification to cope with climate and other changes.

Benefits of Sustainable Drainage Systems (SuDS)

- Reduced flood risk
- Improved air quality
- Improved water quality
- Dispersal of pollutants
- Increased biodiversity
- Attractive environment

Future buildings improvements for a changing climate could include:

- Adapting the ventilation and insulation of buildings to cope with the impacts of climate change, including natural ventilation and passive cooling measures to prevent buildings overheating;
- Green roofs to keep buildings cool in the summer through the process of evapotranspiration and provide insulation during the winter. They support urban biodiversity and can be integrated into Sustainable Drainage Systems to filter and store rainwater, reducing pressure on drainage systems during heavy downpours;
- In urban areas, green walls and roofs would address the heat island effect.

13.5.3 Adapting Society: Developing Resilient Communities

- The Council has been engaged with a Resilient Communities initiative since 2014.

This initiative has targeted all of East Lothian's 20 Community Councils, several Tenants and Residents Associations (TRAs) and Area Partnership groups.

The initiative highlights what our communities can do for themselves whilst working with the Council at times when unexpected events occur impacting on their daily lives. The 'Beast from the East' severe weather event in 2018 was a clear motivator for communities to engage with the Council due to their needs, particularly those most vulnerable.

The Council has encouraged each Community Council to identify a **Single Point of Contact** and deputy who will be responsible for liaising with the Council, both during 'normal' times and also times when an unexpected risk occurs and their needs can be quickly known and dealt with in the best way the Council can provide. Community Councils and TRAs have also been encouraged to create their own **Emergency Response/Asset plans** with the assistance of the Council.

A '**Resilient Communities Workshop**' event was held in Musselburgh in October 2018 to discuss best practice, share information and highlight/promote Resilient Communities. The workshop was hosted by the Council and involved local community representatives, responder agency personnel, representatives from the voluntary sector and Council staff.

- The Council will continue to promote the Resilient Communities initiative and work with communities and responder agencies.

Assisting businesses to adapt to climate change

- The Council will support our businesses and economy to prepare for and adapt to climate change by encouraging businesses to put into place '**Business Continuity Plans**', to address potential impacts on their systems, processes, supply chains and distribution. This will help to reduce business disruption and impacts on productivity and sales due to climate change impacts.

Adaptation Scotland⁹² can assist businesses and organisations to identify opportunities to reduce climate-related risks and take action to increase the resilience of their business.

- The Council will explore options for working in partnership with Adaptation Scotland to facilitate events / an advice network to assist East Lothian's SMEs to prepare for climate change.

13.5.4 The Role of the Natural Environment in Climate Change Adaptation

A productive, healthy and diverse natural environment has a key role in climate change adaptation, for example in coastal and river flood protection. Trees, plants and soil are critical in absorbing and retaining rainfall, helping to avoid flooding.

Resilient Communities have the ability to recover quickly from adverse situations, such as those anticipated with a changing climate. They can do this by actively influencing and preparing for economic, social and environmental changes. When times are difficult, the community can call upon the numerous resources they have to pull together and bounce back.

CASE STUDY 7.1

East Lothian's Resilient Communities initiative is coordinated by East Lothian Council's Emergency Planning, Risk & Resilience Manager, Protective Services

⁹² Adaptation Scotland www.adaptationscotland.org.uk

Adapting to climate change and preserving important ecological functions requires a combination of building resilience and accommodating change. Climate change may affect the balance of ecosystems, impact on the range of our native species, and enable invasive non-native species to thrive. A degraded environment may be less able to sustain productive land or water supply.

Managing East Lothian's natural environment to adapt to climate change

The Council's Countryside Service manages several important sites that are designated for their natural heritage importance, including Aberlady Bay Local Nature Reserve and John Muir Country Park. On reviewing Management Plans for any of the designated sites within the extensive East Lothian estate, the impact of climate change is assessed.

- **Natural coastal protection:** East Lothian has the most intense coast in Scotland, in respect of the number of visits and extent of natural heritage designation. The Council's adaptive management and working with natural processes along East Lothian's coastal sites have evolved over many years. This includes principles of 'planned retreat' for the coastline, and saltmarsh evolution studies allowing natural development of dune systems. These natural systems are important in **alleviating tidal storm-surge inundation** on the coast. Coastal habitats such as saltmarshes and mudflats can absorb and diffuse the impact of extreme high tides and storm surges, and reduce damage to coastal areas at greater risk.
- **Natural river flood protection:** Along rivers, improving natural riverine habitats, including freshwater marshland and wetlands, will enhance their function as natural flood prevention areas, absorbing floodwater from rivers and gradually releasing the floodwater back into the river system to prevent more significant flooding downriver. The Haddington Flood Protection Study is currently looking into natural flood management i.e. floodwater storage on farmland adjacent to rivers.
- **Invasive species:** The Council has an extensive track record on control of invasive non-native plant species, including giant hogweed and Japanese knotweed, and has developed best practice for control of the non-native plant pirri pirri burr.

East Lothian's **Green Network Strategy** Supplementary Planning Guidance sets out aims in relation to climate change adaptation for new developments, including:

- Natural Green Network assets such as riverine areas and the coast should be taken into account when planning defences against flood or erosion;
- Landscaping and tree planting should take into consideration how the changing climate will affect new developments as well as the impact of the scheme on climate change. Plants should be chosen to survive the future climate. Planting can be used as windbreaks to provide shelter or to reduce energy consumption of buildings;
- Work with landowners, farmers and homeowners to promote best practice in management of their green infrastructure assets for climate adaptation e.g. timing and direction of ploughing, planting tree belts and wildlife corridors, enhancing private gardens.

Actions to achieve this Outcome are set out in the Action Plan.

These actions will contribute towards delivering Sustainable Development Goals

SDG 10 – Reduced Inequalities

SDG 13 – Climate Action

14. Monitoring and Evaluation Framework

A Monitoring and Evaluation Framework has been set up which outlines the key indicators and targets for the Climate Change Strategy 2019–24. A formal review of progress in relation to Climate Change Strategy outcomes will take place annually, with the monitoring framework enabling the impact of progress in relation to Climate Change Strategy actions to be measured against key indicators. The action plan will be reviewed and updated annually.

Annual Climate Change Strategy progress reviews will be carried out by the Climate Change Planning and Monitoring Group. Annual progress updates will be reported through the Members' Library Service.

15. Action Plan for East Lothian Climate Change Strategy 2019–2024

The Climate Change Strategy will be implemented through the Action Plan, which provides the objectives and associated actions that will achieve the Outcomes in the Strategy. The Action Plan identifies tasks to be achieved, the links to other relevant Council strategies and plans, and the lead person who will be responsible for taking the actions forward. The Action Plan has been created to be undertaken over a 5 year period but will require updating as changes occur.

Timescales: Short (1 – 2 years), Medium (3 – 5 years), Long (6+ years), or as specified.

The actions in the Action Plan link to East Lothian Council's **Council Plan Indicators** as set out in the Strategic Performance Monitoring Framework.

The Climate Change Strategy will deliver Council Plan Indicator 39 in particular:

Growing our Communities: *'Work closely with partners to meet our commitments to Climate Change targets'*.

The Climate Change Strategy links to indicators for Service Areas across the Council, and links to actions and targets from relevant strategies and plans across Service Areas. The Climate Change Strategy Action Plan brings these together into one place to set out how Climate Change mitigation and adaptation targets will be delivered.

Action Plan for East Lothian Climate Change Strategy 2019–2024

Outcome 1: A Low Carbon and Sustainable Council							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 1.1: Carbon management to achieve East Lothian Council's emissions reduction targets							
1.1A	Improve the integrity of ELC's carbon emissions data, and identify ELC's new baseline annual carbon emissions for Climate Change Reporting and monitoring	Climate Change Strategy; ELC Climate Change Reporting	Sustainable Energy & Climate Change Officer	Annual Climate Change Reporting to the Scottish Government: East Lothian Council's total annual emissions	To be established once ELC Fleet / Transport data included	To achieve a measured carbon emissions baseline for the 2018/19 reporting year that includes data from all Service Areas	Short (1 year)
1.1B	Work with all Service Areas to set specific annual carbon emissions reduction targets for aspects of ELC estate and operations, and to reduce carbon emissions annually to meet overall 2.5% relative annual reduction target	Climate Change Strategy; ELC Climate Change Reporting	Sustainable Energy & Climate Change Officer	Annual Climate Change Reporting to the Scottish Government: East Lothian Council's total annual emissions	17,204 tonnes CO ₂ e in 2017/18 (new baseline to be established for 2018/19)	To achieve the overall 2.5% per year relative carbon emission reduction target	Short / Medium (annually for 5 years)
1.1C	Undertake detailed future carbon emissions projections to inform the setting of accurate future climate change targets for ELC for: Energy use of buildings and other assets, Waste, Streetlighting, Fleet mileage, Business Travel, Water use	Climate Change Strategy; ELC Climate Change Reporting	Sustainable Energy & Climate Change Officer	Carbon emissions projections to inform the setting of accurate future climate change targets for ELC	To be established	Carbon emissions projections for ELC to inform future Climate Change Strategy	Medium (5 years)
1.1D	Annual reporting on East Lothian's overall Per Capita Carbon Emissions, within the scope of local authorities – this will give an indication of whether measures and interventions are reducing East Lothian's overall emissions	Climate Change Strategy	Sustainable Energy & Climate Change Officer	Data published annually by the UK Government Department of Energy and Climate Change (tCO ₂ e) for all UK local authority areas	Baseline data 5.2 tCO ₂ e (2016/17)	Decreasing annual per capita carbon emissions	Short / Medium (annually for 5 years)

Objective 1.2: East Lothian Council will embed sustainability into its policies, systems and processes across Service Areas							
1.2A	Produce and implement an updated Integrated Impact Assessment (IIA) procedure that is in line with current policies on equalities, human rights, sustainability and climate change; including by introducing 'Sustainability Tests'	Integrated Impact Assessment process	Service Manager – Corporate Policy and Improvement	Production and implementation of an updated IIA procedure; revised IIA process to be used for all Council policies and decision-making	The current IIA needs to be updated to reflect current policies and legislation	Production, adoption and implementation of an updated IIA procedure	Short
1.2B	Produce and implement a revised and updated Sustainable Procurement Policy, to ensure that goods and services are procured ethically and responsibly, from ethical and sustainable sources	Procurement policy	Team Manager – Procurement	Production of an updated Sustainable Procurement Policy	Previous Sustainable Procurement Policy has not been fully implemented	Production, adoption and implementation of an updated Sustainable Procurement Policy	Short
1.2C	Create a Sustainability Charter for East Lothian Council and individual Service Areas; Staff are aware of resource efficiency and energy efficiency behaviours and are implementing these to improve recycling levels, improve energy saving, water saving etc	Climate Change Strategy	Sustainable Energy & Climate Change Officer	Production of a Sustainability Charter covering all Service Areas; staff awareness-raising programme; awareness levels among staff; levels of recycling, waste recycling, energy / water use	None at present	Production of a Sustainability Charter; increase in staff awareness and levels of recycling; decrease in waste, energy and water use	Short / Medium (annually for 5 years)
1.2D	Undertake an audit of single-use plastics use across Council venues and processes, identifying where single-use plastic can be eliminated (including a review of suitable / cost-effective alternatives, where this is required, and assess the carbon footprint of the alternatives) and implement this	Climate Change Strategy	Sustainable Energy & Climate Change Officer	Audit of single-use plastics use and alternatives; eliminate use of single-use plastics wherever feasible	Baseline to be determined through audit process	Audit of single-use plastics use and alternatives; single-use plastics eliminated wherever feasible	Medium
Objective 1.3: East Lothian Council will minimise waste and encourage resource efficiency							
1.3A	Reduce ELC's municipal waste in line with national targets, review recycling options and water efficiency within Council	Scottish Government waste	Service Manager –	Reporting on Scottish Government waste reduction targets; review of	Current waste reduction figures as	Reduced municipal waste, increase in recycled waste in	Short / Medium

	buildings and provide new systems where required	reduction targets	Waste Services	recycling options with proposed outcomes / solutions	reported by Waste Services	line with waste reduction and recycling targets, water efficiency	(annually for 5 years)
Objective 1.4: East Lothian Council will improve the energy efficiency of Council buildings							
1.4A	Continue the programme of energy efficiency improvements and incorporation of low carbon technologies in Council owned buildings – aiming for carbon neutral buildings	Corporate Asset Management Plan; Climate Change Strategy	Service Manager – Property Maintenance	Energy efficiency measures, as per checklist	Existing energy efficiency measures in place	Energy efficiency measures installed in all Council buildings	Ongoing / Short to Medium
1.4B	Continue asset management and transformation programme of Council building / office review and rationalisation, and review / transformation of ways of working	Corporate Asset Management Plan; 'Work Smart' Policy	Service Manager – Strategic Asset and Capital Management	As per Corporate Asset Management programme	As per Corporate Asset Management targets; need to establish baseline	Increased building / office rationalisation as per Corporate Asset Management targets; transformed ways of working	Ongoing / Short to Medium
Objective 1.5: East Lothian Council will have an efficient vehicle fleet and will reduce business mileage							
1.5A	Implement a 'Green Travel Plan' for Council staff, setting out the expectation, resources and infrastructure to implement modal shift in staff travel behaviour from driving single-occupancy private cars to sustainable travel options, including use of electric vehicle (EV) pool cars, electric bikes, i-bikes, car sharing, active travel, use of public transport	Local Transport Strategy (LTS)	Team Manager – Assets and Regulatory, Road Services	As per LTS: introduce a travel plan for all ELC staff (subject to constituencies of the service)	Research has been undertaken to establish baseline of staff travel behaviour	As per LTS: Travel plan introduced; proportion of staff travelling by active & sustainable transport modes increases	Short (1 – 2 years)

1.5B	Continue the development of ultra low emissions vehicles (ULEV) options across the Council, including utilisation of full electric vehicle (EV) and hybrid technology for pool cars and operational vehicles; installation of EV charging points	Fleet Management; LTS	Service Manager – Transport	Numbers of ULEV and EV vehicles in Council Fleet / number of EV charging points	As per Fleet Management data	Replace the majority of the Council's fleet with ULEV wherever feasible; number of charging points increases	Ongoing / Short to Medium
Objective 1.6: East Lothian Council's schools will be sustainable and our young people will be environmentally aware and empowered to take action							
1.6A	The Council will set up a Young People's Climate Change Forum to enable our young people's voices to be heard and to support our young people to take the lead in making change for the future towards a Low Carbon and Sustainable East Lothian	Climate Change Strategy	Sustainable Energy & Climate Change Officer	Young People's Climate Change Forum set up and delivering	None at present	Young People's Climate Change Forum set up and functioning; young people inspired to take action locally	Short
1.6B	The Council will embed the objectives of this Climate Change Strategy (CCS) into the 'Sustainability' element of the school curriculum, and support the Eco Schools Programme, to support our young people to be environmentally aware and empowered to take local action	Curriculum for Excellence	Head of Education	Objectives of Climate Change Strategy embedded in school curriculum; levels of participation in the 'Eco-Schools' programme in East Lothian schools; eco-projects delivered	Confirm baseline with 'Keep Scotland Beautiful' which runs the Eco-Schools programme	Objectives of CCS embedded in school curriculum; increased participation in 'Eco-Schools' programme; more Green Flag Awards; more eco-projects delivered	Medium
1.6C	Improve sustainability and recycling in primary and secondary schools including reduction / elimination of single-use plastic packaging, a greater selection of recyclable materials across school catering services, improved recycling & food composting facilities in schools		Service Manager – Facilities	Quantities of single-use plastic packaging purchased; quantities of recyclable materials across school catering services; recycling & food composting facilities in schools	Establish baseline in association with Facilities Management and Waste Services	No single-use plastic packaging in school canteens; more recyclable materials; recycling & food composting facilities in all schools	Medium

1.6D	Continue to source local food and achieve the Soil Association's <i>Food for Life Served Here</i> award; and promote/ensure more plant-based food options in schools, including 'meat free' days and vegan options		Service Manager – Facilities	Achieving the <i>Food for Life Served Here</i> award; food options available in school canteens	<i>Food for Life Served Here</i> Bronze award has been achieved by ELC for past 6 years	Achieve <i>Food for Life Served Here</i> Silver award; more plant-based food options are available in schools	Ongoing / Short to Medium
1.6E	Active Travel to School campaign and promotion, including 'Bikeability' training, parking management around schools, and supporting modal shift from school buses to active travel wherever feasible	LTS; Area Partnership Plans	Service Manager for Roads	As per LTS; number of pupils travelling to school by active travel modes (Sustrans Hands Up Scotland Survey data)	Baseline data from Sustrans Hands Up Scotland Survey	As per LTS; increased number of pupils travelling to school by active travel modes	Ongoing / Medium
Continued /							

Outcome 2: A Resource Efficient and Sustainable East Lothian							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 2.1: Awareness raising, information provision and behaviour change							
2.1A	Establish an East Lothian Climate Change Network with representation across sectors of our society; this will form the basis to provide information, training and support for residents, communities and businesses and share best practice to help inspire action across the county	Climate Change Strategy	Sustainable Energy & Climate Change Officer	Establishment of East Lothian Climate Change Network; awareness levels measured via Residents' Survey	Need baseline for awareness levels from Residents' Survey	East Lothian Climate Change Network is established and functioning; increasing levels of awareness	Ongoing / Short to Medium
Objective 2.2: Energy Efficient East Lothian							
2.2A	Prepare and implement an East Lothian Local Heat and Energy Efficiency Strategy (LHEES), including integrated energy management framework; feasibility of district heating systems, biomass, PV, renewable electricity generation, including local Community Energy Schemes with local communities	LHEES	Service Manager – Strategic Investment and Regeneration	Production of an East Lothian Local Heat and Energy Efficiency Strategy (LHEES) with identified actions	Establish baseline during LHEES process	Production, adoption and implementation of an East Lothian Local Heat and Energy Efficiency Strategy (LHEES)	Medium
2.2B	Maximise funding opportunities for energy efficiency measures across all housing tenures and continue roll-out of measures and provision of energy efficiency advice targeted at households most at risk of fuel poverty	LHEES; Local Housing Strategy (LHS)	Service Manager – Strategic Investment and Regeneration	As per LHS: number of energy efficiency measures installed and number of households provided with advice	As per LHS	Increased number of energy efficiency measures installed and increased no. of households provided with advice	Ongoing / Short to Medium
2.2C	Building Standards: Insist on and enforce Energy Efficiency Standards for new houses / buildings (energy efficiency, insulation	Building Standards; LDP Policies	Service Manager – Engineering Services and	Energy Efficiency Standards for East Lothian housing / buildings	As per current Building Standards & LDP Policy	Produce and implement Energy Efficiency Standards	Short

	etc) which meet current Buildings Standard Regulations and LDP Policies	including SEH2	Building Standards			for East Lothian housing / buildings	
Objective 2.3: Resource Efficient and Sustainable East Lothian							
2.3A	Exceed national waste reduction targets by expanding household and street recycling schemes; waste / recycling awareness campaign	Waste Management	Service Manager – Waste Services	As per Waste Management annual data reporting	As per Waste Management annual data reporting	Exceed national waste reduction targets	Ongoing / Short to Medium
2.3B	Progress Circular Economy options for East Lothian, working in partnership – including expanding ‘Zero Waste’ initiatives into all of East Lothian’s larger communities (Zero Waste Hubs currently in Musselburgh and Dunbar)		Service Manager – Waste Services	Circular Economy initiatives / Zero Waste hubs	Need to establish a baseline	Circular Economy initiatives / Zero Waste hubs in all of East Lothian’s larger communities	Medium to Long term
2.3C	Continue to assist businesses to implement resource efficiency (including circular economy), energy efficiency and waste reduction measures		Service Manager – Economic Development	Number of energy/resource efficiency measures installed; cost saved to businesses – as per RES data	As per RES data	Increased uptake of energy/resource efficiency measures by businesses; increased cost savings	Ongoing / Short to Medium
2.3D	Support communities to progress towards and achieve Plastic Free Community status, including projects that will help achieve this	Climate Change Strategy	Sustainable Energy and Climate Change Officer	Progress towards Plastic Free Community status by communities; projects implemented	To be established	As per Plastic Free Community status requirements; projects implemented	Medium to Long term
2.3E	Support businesses and event organisers to move to zero waste alternatives e.g. compostable cups; reduce reliance on single-use plastics; including revising licencing / permits so lease-holders / activities are required to cut single-use plastic use	Climate Change Strategy	Sustainable Energy and Climate Change Officer	Number of businesses / events switching to zero waste / plastic free packaging etc; revised licencing / permits implemented	To be established	Increased number of businesses / events switching to zero waste / plastic free packaging etc; revised licences / permits implemented	Medium to Long term

Outcome 3: Active Travel and Sustainable Transport are used for Everyday Journeys							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 3.1: Promote and raise awareness of active and sustainable transport options							
3.1A	Continue the promotion of active travel and sustainable transport options in East Lothian, including via Area Partnerships, East Lothian On The Move, Traveline, smart technology and mobile / digital technology	LTS; Area Partnership Plans	Team Manager – Assets and Regulatory, Road Services	As per LTS; Awareness levels from Residents' Survey; number of behaviour-change interventions produced	As per LTS and East Lothian On The Move reporting process	Increased levels of awareness from Residents' Survey; increased number of behaviour-change interventions produced	Ongoing / Short to Medium
Objective 3.2: Active Travel is used for everyday journeys							
3.2A	Implement the actions in the Active Travel Improvement Plan (ATIP) (Local Transport Strategy)	LTS (ATIP); LDP; Developer Contributions Framework	Service Manager for Roads (Infrastructure)	As per ATIP (LTS)	As per ATIP (LTS)	As per ATIP (LTS)	Ongoing / As per ATIP (LTS)
3.2B	Implement the Segregated Active Travel Corridor	LTS; LDP	Service Manager for Roads (Infrastructure)	Segregated Active Travel Corridor implemented	As per LTS	Segregated Active Travel Corridor implemented and being used	Long (5 – 20 years)
3.2C	Improve management and maintenance of the Core Path Network, and continue to improve path surfaces to ensure access for all abilities, in partnership with our communities	Core Paths Plan; LTS / ATIP; Area Plans	Service Manager – Sport, Countryside and Leisure	Core Paths Audits data	As per Core Paths Audits	Improved management and maintenance of Core Paths Network (Core Paths Audits)	Ongoing / Short to Medium
3.2D	Improve cycling route connectivity and safety, particularly to connect rural communities to larger settlements and/or	LTS / ATIP; Area Plans	Service Manager for	Implementation of connecting cycle routes	As per LTS	Connecting cycle routes are	Medium to Long term

	public transport hubs and connectivity to local amenities		Roads (Infrastructure)			implemented and being used	
Objective 3.3: Sustainable Transport is used for everyday journeys							
3.3A	Enhance and better integrate public transport provision and connectivity, including connectivity of residential areas with local sustainable transport modes	LTS; LDP; Developer Contributions Framework	Service Manager for Roads (Infrastructure)	As per LTS	As per LTS	As per LTS	As per LTS / Ongoing
3.3B	Implement improvements to East Lothian's public transport network: rail network, bus services and bus network connectivity, shared community transport options	LTS	Service Manager for Roads (Infrastructure)	As per LTS	As per LTS	As per LTS	As per LTS / Ongoing
3.3C	Undertake sustainable transport infrastructure improvements, including Sustainable Transport Hubs (following feasibility studies); electric vehicle (EV) chargepoints (including improving management and maintenance of chargepoints); electric bike hubs	LTS	Service Manager for Roads (Infrastructure)	Numbers of Sustainable Transport infrastructure developments implemented	Need to establish baseline; as per LTS	Increased numbers of Sustainable Transport infrastructure developments implemented around East Lothian	Ongoing / Short / Medium / Long term
Outcome 4: A Place Encouraging a Low Carbon Lifestyle							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 4.1: Community involvement, engagement and awareness-raising of sustainable lifestyles							
4.1A	Work in partnership with communities to deliver local improvements, including to the public realm in towns, open space / greenspace. Encourage and support the formation and work of local volunteer groups, such as "friends of" or "in bloom" groups. Promote opportunities to	Open Space Strategy (OSS); Area Plans	Service Manager – Sport, Countryside & Leisure	Projects supported and delivered; number of community events, training and initiatives undertaken; number of participants	As per Area Plans and OSS	Number of projects supported and delivered; number of community events, training and initiatives undertaken;	Ongoing / Short to Medium

	encourage a sustainable lifestyle, undertake education and awareness-raising activities and training.					number of participants; as per OSS	
Objective 4.2: Green Network connectivity and enhancement							
4.2A	Implement the Green Network Strategy to ensure connectivity, accessibility and enhancement of green spaces and green networks	Green Networks Strategy SPG; LDP; Open Space Strategy (OSS)	Service Manager – Sport, Countryside & Leisure	Greenspace connectivity in our settlements and new developments; ‘Quality of Urban Greenspace’ environmental indicator: Landscape Audit Management System (LAMS) score	Current LAMS score for our urban greenspaces as per OSS	All settlements have connected green networks close to where people live; LAMS score increasing	Ongoing / Short / Medium / Long term
4.2B	Ensure that Core Path, active travel and wider path networks are integrated with green networks and connect residential areas (including new developments) with settlement amenities, destinations, parks/open space, transport hubs; path networks in and around settlements should include shorter recreational circuits	Core Paths Plan; LTS / ATIP; LDP; Developer Contributions Framework	Service Manager – Sport, Countryside & Leisure	Length of Core Paths and length of promoted active travel routes; path and active travel connectivity	Current length of Core Paths and length of promoted active travel routes	Increased length of paths & active travel routes; particularly in urban/semi-urban areas; increased path & active travel connectivity with amenities etc	Ongoing / Short / Medium / Long term
Objective 4.3: Allotments and Community Food Growing spaces							
4.3A	Develop a Local Food Growing Strategy to ensure that allotment / local food growing sites in East Lothian are of a sufficient quality to meet the needs and aspirations of local residents; locally managed	OSS; Local Food Growing Strategy (in prep); LDP	Service Manager – Sport, Countryside & Leisure	Production of Local Food Growing Strategy with identified actions; number of allotment / local food growing sites	Establish baseline during Local Food Growing Strategy development; as per Amenity Services records	Production, adoption and implementation of a Local Food Growing Strategy; improved provision of allotments / local food growing sites; locally managed	Medium

Objective 4.4: Open Space provision and improvement							
4.4A	Implement the actions in the Open Space Strategy (OSS) to improve quality standards of parks and open space, and the provision, operation and maintenance of high quality play space and associated facilities	Open Space Strategy (OSS); Play Policy; LDP	Service Manager – Sport, Countryside & Leisure	‘Quality of Urban Greenspace’ Landscape Audit Management System (LAMS) score	As per OSS	LAMS scores: All amenity open space at 60% quality standard; all parks at 70% quality standard; maintain and improve LAMS scores	Medium / Long term
4.4B	Encourage the local community to identify vacant or derelict sites and work in partnership to improve these to the benefit of the appearance of the local area, biodiversity and potentially community growing projects	Open Space Strategy (OSS); Area Plans	Service Manager – Sport, Countryside & Leisure	As per OSS	As per OSS	As per OSS	As per OSS / Ongoing
Objective 4.5: Ensure new developments support low carbon lifestyles							
4.5A	Implement the Open Space Standards and Green Network Strategy for new developments; establish effective dialogue with housing developers to achieve delivery of high quality design masterplans that include appropriate open spaces, allotments etc.; identify how new development can be ‘future-proofed’, e.g. incorporation of renewable energy and other sustainability features, ducting to accommodate future infrastructure roll-out such as ultrafast broadband	OSS; LDP; Green Network Strategy SPG; Design Standards for New Housing Areas SPG (in prep); Economic Development Strategy (EDS)	Planning Service Manager, Development Management	Effectiveness of new developments in delivering targets; as per LDP, OSS and EDS	As per LDP	All new developments achieve, and where possible exceed, design standards for a low carbon lifestyle as set out in LDP and OSS	Ongoing / Short, Medium, Long term

Outcome 5: A Low Carbon and Sustainable Economy							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 5.1: East Lothian will have a sustainable and digitally-connected local economy, with thriving, low carbon, sustainable businesses							
5.1A	Build low carbon planning, energy efficiency and sustainability advice into the East Lothian business support ecosystem, and continue to support businesses to reduce their carbon footprint, improve energy and resource efficiency, and increase sustainability in their processes, supply chains, packaging, distribution	Economic Development Strategy (EDS)	Service Managers – Economic Development and Strategic Investment	Number of businesses supported to improve energy/resource efficiency, as recorded by ELC's resource efficiency consultant	As per EDS	Increased number of businesses supported to improve energy/resource efficiency	Ongoing / Short to Medium
5.1B	Support increased levels of digital inclusion and speed across East Lothian, to help businesses & communities take advantage of improved broadband infrastructure and mobile network coverage	EDS	Service Manager – Economic Development	Superfast broadband connectivity indicator as per EDS	92.1% (2018)	100% (2022)	Medium
5.1C	Implement the actions in the Economic Development Strategy (EDS) to encourage low carbon innovation, research, new business opportunities, training (e.g. in renewables); maximise the key assets in East Lothian to support sector development and local employment	EDS	Service Manager – Economic Development	As per EDS	As per EDS	As per EDS	As per EDS
Objective 5.2: East Lothian's low carbon and sustainable economy will sustain vibrant, thriving local communities							
5.2A	Encourage town centre development and enhancement, support mixed uses in town centres to enhance sustainability and resilience, provide continued support for local retailers and businesses through	EDS; LDP; Town Centre Strategies	Service Managers – Economic Development and Strategic Investment	As per LDP, EDS and Town Centre Strategies	As per LDP, EDS and Town Centre Strategies	As per LDP, EDS and Town Centre Strategies	Ongoing / As per LDP, EDS and Town Centre Strategies

	'shop local schemes', farmers' markets, support for local co-working initiatives etc						
5.2B	Continue to support the 'Town Centre First' Principle to develop and enhance our town centres	LDP; EDS; Town Centre Strategies	Planning Service Manager, Development Management	As per LDP, EDS and Town Centre Strategies	As per LDP, EDS and Town Centre Strategies	As per LDP, EDS and Town Centre Strategies (TCSs)	Ongoing / As per LDP, EDS and TCSs
Outcome 6: A Healthy and Resilient Natural Environment							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 6.1: East Lothian's natural environment will be healthy and resilient, functioning to off-set carbon emissions							
6.1A	Review, update and implement actions in ELC Countryside Site Management Plans to ensure countryside sites / natural habitats are in prime condition for carbon sequestration / carbon storage – particularly for Aberlady Bay; John Muir Country Park; Gullane Bay	ELC Countryside Site Management Plans	Principal Countryside Officer	Production of revised Countryside Site Management Plans; Condition of Countryside Sites indicator	Baseline Condition established for all relevant sites	Revised Countryside Site Management Plans; increased Condition of Countryside Sites indicator score;	Medium to Long term
6.1B	Work with farmers, landowners and national partners to maximise carbon storage potential of land-use by planting of woodland or individual trees; peatland restoration and conservation projects, where possible; enhance the natural resource (particularly woodland, saltmarsh, peatland and other carbon rich soils)	Biodiversity Action Plan; Green Networks Strategy	Principal Countryside Officer	As per national site condition monitoring indicators; national indicators; implementation of conservation projects working in partnership	Baseline established as per national site condition monitoring indicators / national indicators	As per national site condition monitoring indicators; conservation projects implemented in partnership	Ongoing / Short / Medium / Long term
6.1C	Woodland creation / enhancement, tree planting and hedgerow planting in and around our communities to offset the carbon emissions and traffic pollution in urban areas	Green Networks Strategy SPG; OSS; Lothians	Service Manager – Sport, Countryside & Leisure	Areas of woodland planted; number of urban/street trees planted	As per ELC Tree Management (Amenity Services) baseline	Increased areas of woodland in and around towns; increased	Ongoing / Short / Medium / Long term

		Forestry & Woodland Strategy				numbers of urban/street trees	
Objective 6.2: East Lothian's biodiversity will be protected and wildlife will be encouraged							
6.2A	Implement the Biodiversity Priorities in the East Lothian Biodiversity Action Plan across East Lothian	Biodiversity Action Plan	Principal Countryside Officer	As per Biodiversity Action Plan	As per Biodiversity Action Plan	As per Biodiversity Action Plan	Ongoing / As per Biodiversity Action Plan
6.2B	Undertake projects to improve and encourage biodiversity & wildlife and enhance natural habitats in and around our communities and urban areas, including managing amenity greenspace for biodiversity / pollinators, trees, riverside habitats, grasslands	Biodiversity Action Plan; OSS	Service Manager – Sport, Countryside & Leisure	Number of local biodiversity projects supported; records / surveys of urban wildlife	As per Lothians Wildlife Records; Biodiversity Action Plan	Increased number of local biodiversity projects supported; increased records of urban wildlife	Medium / Long term
Objective 6.3: We will help to protect East Lothian's coast and marine environment							
6.3A	Work in partnership to look after the marine environment, including East Lothian's coast and beaches (e.g. beach cleans) and promote responsible use and enjoyment of the coast	Countryside Site Management Plans	Principal Countryside Officer	Actions in Countryside Site Management Plans; number of beach cleans / promotional events etc	As per actions in Countryside Site Management Plans	As per actions in Countryside Site Management Plans; maintain & increase numbers of beach clean / promotional events etc	Ongoing / Short / Medium / Long term
6.3B	Investigate the impacts of increasing recreational pressures on East Lothian's coast, including recreational disturbance to habitats and wildlife, and the cumulative impacts	LDP	Planning Service Manager, Development Management	Production of study into impacts of increasing recreational pressures on East Lothian's coast to inform future management / development pressures	Need to establish baseline	Production of study into impacts of increasing recreational pressures on East Lothian's coast,	Medium

Outcome 7: A Well-Adapted East Lothian							
Ref	Action	Relevant Strategy	Lead Person	Indicator	Baseline	Target	Timescale
Objective 7.1: Climate Ready Society: Our communities, businesses and other organisations will become more resilient and adapt to climate change							
7.1A	The Council will work with local communities to set up a Climate Change Adaptation network for East Lothian (based upon the Resilient Communities network) including Single Points of Contact (SPoCs), to establish and develop Emergency Response / Asset plans to address climate impacts and put these plans into action	Climate Change Strategy; Resilient Communities; Severe Weather Response Plan	Emergency Planning and Risk Manager; Sustainable Energy and Climate Change Officer	Establishment of a Climate Change Adaptation network for East Lothian; Production of Emergency Response / Asset plans to address climate impacts	As per Resilient Communities' Emergency Response / Asset plans	Climate Change Adaptation network is set up; every Community Council has a Single Point of Contact and an Emergency Response / Asset plan in place	Medium to Long term
7.1B	Encourage and help businesses, public sector organisations and other institutions prepare for the challenges and opportunities presented by climate change, including preparing Business Continuity Plans	Climate Change Strategy	Service Managers – Economic Development and Strategic Investment	Number of businesses, public sector organisations and other institutions prepared for climate change impacts; number of Business Continuity Plans in place	Need to establish baseline	Increasing number of businesses / organisations etc prepared for climate change impacts; increased no. of Business Continuity Plans in place	Medium to Long term
Objective 7.2: Climate Ready Buildings and Infrastructure that are adapted to climate change							
7.2A	Ensure the road, rail and active travel network infrastructure, including coastal protection for coastal transport infrastructure, is future-proofed to withstand extreme weather events / tidal surges and future changes to the climate	LTS; Road Asset Management Plan, Corporate Risk Register,	Service Manager for Roads (Infrastructure)	As per LTS; Road Asset Management Plan; Corporate Risk Register (CRR), Risk Management Plans	As per LTS; Road Asset Management Plan; Corporate Risk Register, Risk	As per LTS; Road Asset Management Plan; Corporate Risk Register, Risk Management Plans	Ongoing / As per LTS; Road Asset Management Plan, CRR, Risk

		Risk Mgt Plans			Management Plans		Management Plans
7.2B	Implement Flood Protection Schemes for Musselburgh and Haddington	Flood Risk Management Strategy	Service Manager for Roads (Infrastructure)	Implementation of Flood Protection Schemes (FPSs) for Musselburgh and Haddington	To be established	FPSs for Musselburgh and Haddington are implemented	Medium to Long term
7.2C	Review the resilience of Council buildings and infrastructure networks to sustain and enhance the benefits and services provided	Corporate Risk Register; Risk Management Plans; Corporate Asset Mgt Plan	Service Manager – Protective Services	As per Corporate Risk Register; Risk Management Plans	As per Corporate Risk Register; Risk Management Plans	As per Corporate Risk Register; Risk Management Plans	Ongoing / As per Corporate Risk Register; Risk Management Plans
Objective 7.3: Climate Ready Natural Environment that helps us to adapt to climate change							
7.3A	Promote and facilitate the adaptation of the natural environment by enhancing natural habitats and landscape features e.g. coastal dunes systems, saltmarsh, tree planting	Countryside Site Management Plans; Biodiversity Action Plan	Principal Countryside Officer	As per Countryside Site Management Plans; Biodiversity Action Plan	As per Countryside Site Management Plans; Biodiversity Action Plan	As per Countryside Site Management Plans; Biodiversity Action Plan	Ongoing / As per Countryside Site Management Plans; Biodiversity Action Plan
7.3B	Work with landowners to create connected blue networks and natural flood management, including marshland habitat creation and Sustainable Drainage System opportunities	Flood Risk Management Strategy; Green Networks Strategy	Service Manager for Roads (Infrastructure)	Opportunities are taken to work with landowners to improve blue networks and natural flood management	As per Flood Risk Management Strategy	Increased blue network connectivity and areas of natural flood management identified	Long term

Appendix: Consultation Questionnaire

This questionnaire is attached to help you respond to the Consultative Draft East Lothian Climate Change Strategy 2019-24. The questionnaire is also available online at eastlothianconsultations.co.uk although you do not have to use this to respond if you do not wish to do so. Comments and suggestions are invited **IN WRITING by 5pm on Monday 22nd July 2019.**

1. Does the Consultative Draft Climate Change Strategy capture the key climate change and sustainability related issues and challenges that we face across East Lothian?

2. Do you have any comments on the draft vision for East Lothian?

3. Do you consider the seven outcomes to be appropriate?

4. Do you consider the draft actions to be suitable in addressing identified issues?

5. Do you have any comments on the Integrated Assessment?

6. Do you have any comments on the consultation process?

7. Do you have any other comments?