

Agenda Item	9.
Report No	CCC/23/24

The Highland Council

Committee: Climate Change

Date: 7 November 2024

Report Title: Strategic Approach to Climate Change Adaptation

Report By: Assistant Chief Executive - Place

1 Purpose/Executive Summary

1.1 This report provides an update on the development of the Climate Change Adaptation Strategy and Action Plan, detailing the strategic approach that will be undertaken.

2 Recommendations

2.1 Members are asked to:

- i. **Note** the contents of this report; and
- ii. **Note** that the Climate Change Adaptation Strategy and Action Plan will be brought to the Climate Change Committee for consideration, prior to full Council approval and publication.

3 Implications

3.1 **Resource** – Resource has been identified within the Climate Change and Energy Team to lead on the development and implementation of an Adaptation Strategy and Action Plan for the Council. The Adaptation Strategy and Action Plan is a Council-wide undertaking and will involve cross-service collaboration.

It is essential that the Council understands the climate vulnerabilities of our assets, operations, and services, and translates these into potential costs. Failure to prepare and build resilience to the effects of climate change will result in the Council facing far greater additional costs in the future.

3.2 **Legal** - The Climate Change (Scotland) Act 2009 places a legal duty on the Council to adapt to the impacts of climate change.

3.3 **Risk** - There are financial and reputation risks relating to this report from the Council in not taking sufficient action to prepare for changes due to climate change impacts. The increasing public awareness of the issues around the climate and ecological emergency, as well as the increasing frequency of extreme weather events support these risks.

3.4 **Health and Safety (risks arising from changes to plant, equipment, process, or people)** – There are no Health and Safety implications arising directly from this report; however, inaction may lead to health and safety implications in the future due to the impacts of climate change affecting plant, process and people.

3.5 **Gaelic** - There are no Gaelic implications arising from this report.

4 Impacts

4.1 In Highland all policies, strategies or service changes are subject to an integrated screening for impact for Equalities, Poverty and Human Rights, Children’s Rights and Wellbeing, Climate Change, Islands and Mainland Rural Communities, and Data Protection. Where identified as required, a full impact assessment will be undertaken.

4.2 Considering impacts is a core part of the decision-making process and needs to inform the decision-making process. When taking any decision, Members must give due regard to the findings of any assessment.

4.3 Integrated Impact Assessment - Summary

4.3.1 An Integrated Impact Assessment screening has been undertaken on 30 September 2024. The conclusions have been subject to the relevant Manager Review and Approval.

4.3.2 The Screening process has concluded the following impacts as set out in 4.3.3 and **Appendix 1**. Members are asked to consider the summary in **Appendix 1** to support the decision-making process.

4.3.3

Impact Assessment Area	Conclusion of Screening/Full Assessment
Equality	<ul style="list-style-type: none"> Children and Young People – <i>Positive / negative / no impact</i> Children affected by disability – <i>Positive / negative / no impact</i> Older adults – <i>Positive / negative / no impact</i>
Socio-economic	<i>Positive / negative / no impact</i>
Human Rights	<i>Positive / negative / no impact</i>
Children’s Rights and Well-being	<i>Positive / negative / no impact</i>
Island and Mainland Rural	<i>Positive / negative / no impact</i>
Climate Change	<i>Positive / negative / no impact</i>
Data Rights	<i>Positive / negative / no impact</i>

5 Background

5.1 Climate change is one of the greatest threats we face, in terms of impacts on our economy, society, the natural environment and our lives. Scotland’s climate is already changing with long-term trends of warming temperatures, shifting rainfall patterns and rising sea levels.

Climate change is already impacting Highland, including changes in the frequency and severity of storms, dry periods, extreme temperatures, and intense rainfall events. This will lead to more frequent flooding, wildfires, and landslides.

The effects of these changes have already proved to be hugely challenging in recent years. These changes will intensify in the coming years, impacting everyone with consequences for our infrastructure, services, communities and the natural environment.

- 5.2 Adaptation is one of the greatest opportunities we can harness which will provide real and effective solutions to our changing climate. Adaptation will help to limit the risks presented, and will foster a brighter, prosperous and more resilient existence now and into the future. Climate change adaptation, climate readiness, and climate-proofing all refer to the process of making adjustments in response to or in preparation for climate-related impacts, which in turn leads to climate resilience. This includes managing climate-related risks and taking advantage of climate-related opportunities.
- 5.3 Adaptation is distinctly different to mitigation. Current and previous climate change action has tended to concentrate efforts around mitigation – which aims to reduce greenhouse gas emissions in order to reduce the impacts of climate change. Much less emphasis has been given to adaptation – which includes making the necessary adjustments to better cope with and manage the impacts of climate change. As climate change impacts are already here and embedded into our future for the foreseeable decades, it is imperative that adaptation measures are undertaken to limit the most serious effects and consequences of climate change on our society, economy and the natural environment. There is scope for both adaptation and mitigation to be delivered simultaneously with multiple co-benefits to be derived in doing so. It is critical that wherever possible, adaptation is considered and implemented alongside mitigation to maximise the benefits and outcomes than can be achieved from the resources invested.
- 5.4 There are a plethora of policy drivers and related strategies at all levels of governance and throughout all sectors in our society. The Climate Change Adaptation Strategy will highlight and incorporate the most significant and relevant of these to minimise what is already a highly complex area. It is important that climate change risks and impacts, the necessary adaptation actions and measures, and the associated benefits are presented as clearly and concisely as is possible. This will enable decisive and effective action planning and decision making.

6 Key Recent Developments

- 6.1 On 3 September 2024, Highland Adapts launched the Economic Assessment component of their Climate Risk and Opportunity Assessment for the region. This assessment includes five reports:-

- A Regional Report;
- Forestry and Timber Sector Report;
- Energy Sector Report;
- Food and Drink Sector Report (focusing on whisky and salmon); and
- Methodology Report

- 6.2 The key findings from the Economic Assessment are noted in **Appendix 2**, and include:-
- Climate change will have potentially significant negative impacts on the Highland region equivalent to around -1.5% Gross Domestic Product a year by the 2050s, rising to up to -3.3% a year by the 2080s.
 - Impacts from flooding (coastal, river, and surface water) are estimated to increase from around £11 million per year currently to £20m per year by the middle of the century and double that by the end of the century.
- 6.3 The full Highland-wide Climate Risk and Opportunity Assessment from Highland Adapts is due to be completed and published later this year. Findings from this region-wide assessment will be incorporated into the Council’s Climate Risk and Opportunity Assessment, as necessary. The intention is for full alignment, where applicable, to ensure a consistent and committed approach to adaptation in Highland.
- 6.4 The Scottish National Adaptation Plan (SNAP3) 2024-2029 was launched by the Scottish Government on 25 September after a period of public consultation which closed on 24 April 2024. This Plan sets out the actions that the Scottish Government with partners will take to respond to the impacts of climate change, to build Scotland’s resilience to climate change in a way that is fair and inclusive. The Adaptation Plan sets out a long-term vision and defines Scotland’s priorities for action over the next five years from 2024 to 2029. SNAP3 commits to delivering over 200 actions and policies. The Executive Summary can be found in **Appendix 3**.

7 The Strategic Approach

- 7.1 The Council’s approach to developing a Climate Change Adaptation Strategy and Action Plan will involve the following stages:

<p>Stage 1 Policy and Strategy Review</p>	<p>This first stage includes researching and gathering the national and local policies and strategies relevant to Climate Change Adaptation. There will be full consideration of how the national policy landscape is linked to local needs and priorities. The most recent and one of the most relevant drivers is the SNAP3 published in September 2024. This first stage also includes mapping key internal and external stakeholders, as well as potential funding resources that could support the Action Plan.</p> <p>IN PROGRESS</p>
<p>Stage 2 Data Analysis</p>	<p>This second stage will identify the most appropriate data and information needed to support climate change analysis and adaptation requirements to be used in subsequent stages.</p> <p>IN PROGRESS</p>

<p>Stage 3</p> <p>LCLIP Review</p>	<p>The Local Climate Impact Profile (LCLIP) is a tool designed to help organisations assess their exposure to the weather and shows how prepared an organisation is to deal with severe weather events. The LCLIP exercise involves researching and gathering extreme weather events information over a chosen set period of time including their associated impacts. This is undertaken via media analysis and data acquired from the Met Office. This Stage 3 will review and update the LCLIP data held by the Council ensuring it is robust and appropriately refreshed.</p> <p>IN PROGRESS</p>
<p>Stage 4</p> <p>LCAT Review</p>	<p>The Local Climate Adaptation Tool (LCAT) is an evidence-based online tool which supports local decision-makers across the UK to plan and adapt to climate change. The LCAT includes How local climates will change; What health and community impacts may occur as a result; Who will be most vulnerable and why; and also, Which adaptations to consider. This Stage 4 review will be an important step in identifying the climate change impacts on society in Highland and the corresponding adaptation solutions/ actions available to address these.</p> <p>NOT YET STARTED</p>
<p>Stage 5</p> <p>Adaptation Scotland Capability Framework and Benchmarking</p>	<p>The Adaptation Capability Framework identifies four capabilities that public sector organisations will need in order to adapt to climate change, providing step by step tasks to guide the adaptation journey. These include Organisational culture and resources; Understanding the challenge; Planning and implementation; and Working together. There are also different levels of maturity, which the Framework helps to identify including how these capabilities can be further developed. The maturity stages include: Starting; Intermediate; Advanced; and Mature. The Framework provides supporting resources, templates and training to help plan and implement action. This stage will help to identify the Council's adaptation capabilities and maturity positioning and will include a benchmarking assessment based on current capabilities using the Framework and Benchmarking Tool. This work will be undertaken alongside other stages, with much of the findings essentially underpinning and informing the Climate Change Adaptation Strategy.</p> <p>IN PROGRESS</p>

<p>Stage 6</p> <p>Corporate Climate Risk and Opportunity Assessment</p>	<p>The Climate Risk and Opportunity Assessment will be focus on corporate activity, including services, people and infrastructure relating to Highland Council operations and ownership. The Council’s assessment will also include findings from the Highland Climate Risk and Opportunity Assessment, to ensure consistency and alignment with adaptation needs and requirements across Highland.</p> <p>NOT YET STARTED</p>
<p>Stage 7</p> <p>Climate Change Adaptation Strategy</p>	<p>The Strategy stage will detail the findings from the previous stages, including the drivers, impacts, risks and needs that must be considered to adapt to climate change over the next 5 years and beyond to fulfil the Scottish Government’s objectives and local priorities relating to SNAP3.</p> <p>IN PROGRESS</p>
<p>Stage 8</p> <p>Adaptation Action Plan</p>	<p>The final stage is the production of an Action Plan that provides a realistic route map to adaptation for the Council to implement measures prioritised over the short, medium and long term; as well as funding resources that can support the Action Plan. Actions will contribute to achieving Scotland’s statutory duties relating to Adaptation, Climate Change and Net Zero as well as enabling the delivery of changes necessary to successfully adapt in order to ensure business continuity across all service areas whilst safeguarding communities, the natural environment and the economy. This will involve cross-service collaboration with teams throughout the Council. It is imperative that teams and services across the local authority have contributed to and endorsed the needs of this Adaptation Strategy to ensure its success and critical impact to address the impacts of climate change. The Action Plan will also include a place-based approach with cross-sector collaboration linking in with Highland Adapts as the region-wide partnership on adaptation.</p> <p>NOT YET STARTED</p>

<p>Stage 9</p> <p>Target Setting, Monitoring, Evaluation and Review</p>	<p>The setting of targets, along with a thorough monitoring and evaluation system will be established. This will ensure that progress is being made and will assist with annual statutory reporting through the Public Bodies Climate Change Duties requirements. The Adaptation Strategy and Action Plan will also be reviewed as part of the monitoring and evaluation process to ensure it is relevant and sufficiently agile to address the changes and impacts brought on by climate change.</p> <p>NOT YET STARTED</p>
<p>Stage 10</p> <p>Consultation</p>	<p>The final stage of this strategic approach will be consultation with Elected Members. This will likely take place in the form of a Members' workshop to share and gather views. Once the consultation process has been completed the Strategy and Action Plan will be updated as necessary prior to final Council approval and publication.</p> <p>NOT YET STARTED</p>

8 Conclusion

- 8.1 The Climate Change (Scotland) Act 2009 contains a legal duty across the public sector to act in a way that it considers most sustainable. The Highland Council's Climate Change Adaptation Strategy and Action Plan will help to meet these requirements, the benefits of which will provide enormous opportunity to help sustain business continuity in the face of a changing and unpredictable climate. It is being produced in alignment with the recently published Scottish Government SNAP3 and will be presented before the Climate Change Committee, with Full Council approval thereafter.
- 8.2 The Climate Change Adaptation Strategy and Action Plan will function as an important mechanism to identify the necessary changes that must be implemented to effectively respond to the impacts and risks of our changing climate.

Designation: Assistant Chief Executive - Place

Date: 7 October 2024

Author: Claire Weaver, Climate Change Coordinator (Adaptation)

Background Papers: Highland Adapts Economic [Assessment](#)
Draft Scottish National Adaptation Plan 3: [Consultation](#)

Appendices: Appendix 1 – Integrated Impact Assessment Summary
Appendix 2: Highland Adapts Economic Assessment – Key Findings
Appendix 3: SNAP3 - Executive Summary

Integrated Impact Assessment Summary

Impact Assessment Area	Conclusion of Screening	Summary of Screening
Equalities, poverty and human rights	Protected characteristics: no impact Poverty and socio-economic: positive impact Human rights: no impact	Adaptation and improving climate resilience will have positive impacts to people and communities, however without implementation the impacts of climate change will have negative impacts and consequences for all.
Children's rights and wellbeing	Positive impact	The Adaptation Strategy must ensure that all risks and impacts of climate change on Council services and operations are identified; with appropriate adaptation measures identified to address these impacts. The impacts of climate change could include consequences for the school estate and infrastructure due to storm damage, and teachers unable to reach work due to flooding for example, which will adversely affect the level and quality of education for the children.
Data protection	No impact	
Island and mainland rural communities	Positive impact	Rural communities are more vulnerable to the impacts of climate change and may suffer disproportionately from the negative consequences if adaptation measures are not implemented.
Climate change	Positive impact	The Climate Change Adaptation Strategy and Action Plan will involve assessing the risks and impacts of climate change to the Council and will include adaptation measures and responses to effectively address these impacts in order to improve climate resilience and ensure business continuity.

Highland Adapts

Economic Assessment of Climate Change Impacts on the Highland Region

Introduction

Fundamental changes are necessary to develop resilience to the current and future impacts from climate change. Effective action requires a shared, place-based understanding of our climate risks and opportunities. This is the motivation behind the **first Highland Climate Risk and Opportunity Assessment**.

Highland Adapts commissioned **Paul Watkiss Associates** to develop an economic component of the wider Highland Climate Risk and Opportunity Assessment. This economic analysis includes a regional report, three sector reports, and a method report. Throughout the regional and sector reports, Paul Watkiss Associates incorporated a novel consideration of the interplay between climate risks and opportunities and the **transition to a circular economy**.

As with all aspects of the Highland Climate Risk and Opportunity Assessment, this analysis is one step in the long-term, iterative process of assessing and addressing climate risks and opportunities. We believe that having this data in hand is **strategic advantage for the Highland region**. These reports represent an important step in our collective journey towards climate resilience. It is now time for us to work together to enact meaningful changes and ensure the future resilience and prosperity of our region.

Key Findings

- Climate change will have potentially significant negative impacts on the Highland region equivalent to around -1.5% Gross Domestic Product (GDP) a year by the 2050s, rising to up to -3.3% a year by the 2080s.
- **Impacts from flooding** (coastal, river, and surface water) are estimated to increase from around £11m per year currently to £20m per year by the middle of the century and double that by the end of the century.
- The potential **economic costs of wildfires** were estimated using data from current wildfires, economic costs of wildfire suppression, and non-market impacts from the release of greenhouse gas emissions and air pollutants. Current costs are estimated to be approximately £0.3b/year, driven by the high societal cost of carbon emissions. This could increase fourfold by the mid-century.
- Risks to the **energy sector** include high negative impacts on energy generation, energy distribution, and on the delivery of net zero plans for the energy sector. The analysis also found some economic benefits for Highland residents from a reduced need for wintertime heating.
- Risks to **salmon production** from rising sea temperature and ocean acidification will increase by the 2050s. Risks to **whisky production** from extreme events and climate conditions will also increase significantly over this time period.
- For the **forestry and timber sector**, costs from high winds; drought, pests, and disease; and wildfires were estimated to rise significantly between 2030 and 2090.

Scottish National Adaptation Plan 2024-29

Executive Summary

Adapting to Climate Change is at the heart of the Scottish Government's mission to improve the wellbeing of people living in Scotland, now and in the future.

Climate change means that Scotland will be wetter in winters, drier in summers, sea level rise will continue, and our weather will become more variable and unpredictable. Extremes will be more common. However, the impact of climate change is already being felt now both around the world and here at home. Intense short periods of rainfall are causing increased flooding. Possible extended periods of drought could bring water scarcity. Nine out of ten of our hottest years on record have come this century. Extreme weather events, and the cascading impacts of climate change, are putting more pressure than ever before on lives and livelihoods.

This Scottish National Adaptation Plan sets out actions to build Scotland's resilience to climate change. It does this through support for our communities, businesses, public services and nature to adapt to the changing climate in a way that is fair and inclusive. The Adaptation Plan sets out a long-term vision and defines Scotland's priorities for action over the next five years. The Climate Change (Scotland) Act 2009 contains a legal duty across the public sector to help deliver the objectives, and the Adaptation Plan describes how we will support Scots to adapt and continue to live well in Scotland's changing climate.

This Adaptation Plan has been in development since the third the [UK Climate Change Risk Assessment](#) (UKCCRA3) was formally adopted in January 2022, setting out 61 risks and opportunities faced by all four UK nations - Annex A. Ongoing activities are highlighted throughout the document, underlining the Scottish Government's commitment to mitigate the impacts of climate change at every opportunity.

Over the next five years, this Adaptation Plan commits to delivering over 200 policies and actions, including:-

- Ensuring all parts of Scotland are building climate resilience through regional partnerships, local action and climate-resilient economies.
- Improving flood warnings for businesses and communities across Scotland, and building rainwater networks in urban areas to manage flash flooding.
- Encouraging behaviour change to help households and communities' cope with both too much and too little water.
- Strengthening our new national network of Climate Action Hubs and ensuring that the Hubs are supporting vulnerable communities to adapt.
- Shifting half of all agricultural funding to be conditional on delivering for climate and nature, including climate adaptation.
- Increasing Scotland's railway resilience through investing approximately £400m over the next five years, with multiple benefits for passengers.
- Developing an investment plan that connects nature finance and adaptation outcomes, including a suite of actions to mobilise public, and responsible private and philanthropic finance supported by an expert taskforce.

- Strengthening the skills and capacity of businesses, communities and organisations to adapt through the Adaptation Scotland programme.
- Establishing the [adaptation.scot](https://www.adaptation.scot) online hub to help people access tools, resources and advice on adaptation action.
- Delivering a suite of new tools and advice tailored for businesses, including a guide for Small and Medium-sized Enterprises (SMEs) and sector-specific tools to support entities most exposed to climate change impacts.
- Leading the way in climate adaptation monitoring, publishing an adaptation monitoring and evaluation framework, supporting annual reporting to the Scottish Parliament and best practice both nationally and internationally in this emerging work.
- Supporting connectivity and resilience of our island populations through fleet renewal of ferry services, with reducing weather-related disruption as a priority.
- Delivering for international communities disproportionately affected by climate impacts through our £36m Climate Justice Fund.
- Delivering comprehensive climate resilience actions across NHS Scotland, including greening the NHS estate.
- Working to improve long-term health outcomes for people, including Public Health Scotland delivering the Adverse Weather and Health Plan.
- Protecting our cultural and historic heritage through improved adaptation actions for historic buildings.
- Building the Public Sector Climate Adaptation Network, led by Adaptation Scotland, which provides opportunities for learning and best practice.

Climate change impacts people and places in multiple ways, and communities with less capacity to adapt because of existing inequalities will need support. This Adaptation Plan focuses on actions that are effective and inclusive, as part of Scotland's just transition. An [Easy Read version](#), accompanied by a [Gaelic language translation](#) and a [children's version](#), of the Adaptation Plan have been created.

The Adaptation Plan is structured in five chapters, covering five outcomes to deliver a climate resilient Scotland. Under each outcome are objectives where key policy actions are set out. Climate risks are interconnected and have the potential to cascade, so our response must be just as agile. The outcomes and objectives have been designed to complement each other, and key policies and actions are prioritised to deliver multiple benefits.