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Warming Stripes - a visual representation of the change in global temperatures as measured over the past 100+ years. Each stripe represents one year, starting in the late 19th century (left) up until 2018 (right). The 'warmer' the stripe the higher the average recorded temperature was that year.

(Source: showyourstripes.info)

Front cover image: Tantallon Castle

Climate Action Plan PURPOSE AND SCOPE

PURPOSE AND SCOPE ADHBHAR AGUS LEUDACHD

The climate emergency is a call to action

Traditional models of consumerism and consumption without consequence are being challenged. The creation of sustainable societies is seen as a moral imperative, and governments and markets are responding. The climate crisis is a challenge that will not be easy to resolve, but it is an opportunity for us to do things better.

The need for climate action has never been clearer. In April 2019 the Scottish Government declared a climate emergency, highlighting that nothing short of transformational change in society was now needed to address climate change.

This plan outlines Historic Environment Scotland's (HES) approach and sets out an ambitious programme of work that, over the next five years and beyond, will transform the way we operate as an organisation. It builds on progress we have already made, but with a step-change increase in ambition. The actions and narrative here focus on how we will change our own operations, transforming the way we protect and operate some of Scotland's most recognisable places and landmarks, as well as the landscapes and infrastructure that support them. Whilst this focus is intentional, we are also committed to sharing our experience, using the knowledge and expertise that we gain to support the wider historic environment and associated sectors in making the changes necessary to address the climate crisis.

Our new Climate Action Plan (CAP) sets out how we intend to work towards making our organisation more prepared for and resilient to changes in our climate, while also playing a leading role in supporting the Scottish Government to meet its ambitious climate change targets. It details how we will continue to build on our progress so far to become an increasingly responsible organisation, placing the environmental impact of our activities at the heart of our policy and strategy decisionmaking processes. We will ensure that the knowledge and experience we gain will be used to deliver benefit more widely and to support the transformational change that will be necessary if the historic environment sector - and our society as a whole - is to adapt to and mitigate the causes of climate change.

As a leading public body in Scotland, we recognise the role we must play in helping Scotland contribute to the global effort in tackling the climate crisis. We also recognise that future changes in policy and legislation, as well as in our understanding of how the climate is changing, will mean the actions set out in this plan may need reviewed and updated.

This plan outlines Historic Environment Scotland's approach and sets out an ambitious programme of work.

'We must turn our cultural heritage from a victim of climate change into a catalyst for climate action.'

'Tha againn ri ghluasad ar dualchas air falbh bho chunnart atharrachadh na Clìomaid gu bhith na culaidh-bhronachaidh airson iomairteach na Clìomaid.'

Alison Tickell, Julie's Bicycle DANGER EROSION & FALLING ROCKS St Andrews Castle, strategically positioned on the North Sea coast, now susceptible to increasing coastal erosion.

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The threats to our cultural assets from climate change are increasingly understood, but perhaps less well articulated is the significant contribution that the historic environment sector can make on a range of fronts in transitioning to a low carbon economy.

Natural decay is increasing, iconic assets are under threat and some may be lost, yet Scotland's historic environment remains an incredible sustainable asset.

On behalf of Scottish Ministers we care for some of Scotland's most iconic places, but our responsibilities extend much beyond them.

The concept of stewardship is well understood in the cultural heritage world, and in Scotland we have some 4000 years of accumulated knowledge and expertise in how to live sustainably using the resources around us.

How we act as a leading public body in Scotland is important - how we operate our business going forward really matters. This will not always be easy but it is necessary, and we firmly believe offers opportunities.

This Climate Action Plan is purposefully ambitious and affects every area of our operations and every member of staff - without them we will not succeed. It will have impacts outwith our organisation and will require the support of a great many partners to deliver the benefits it will bring.

Demonstrating leadership and enabling others to succeed remains core to our outlook as a high performing public body and a charity, and we embrace both in this Climate Action Plan for Historic Environment Scotland.

Alstares

Alex PatersonChief Executive

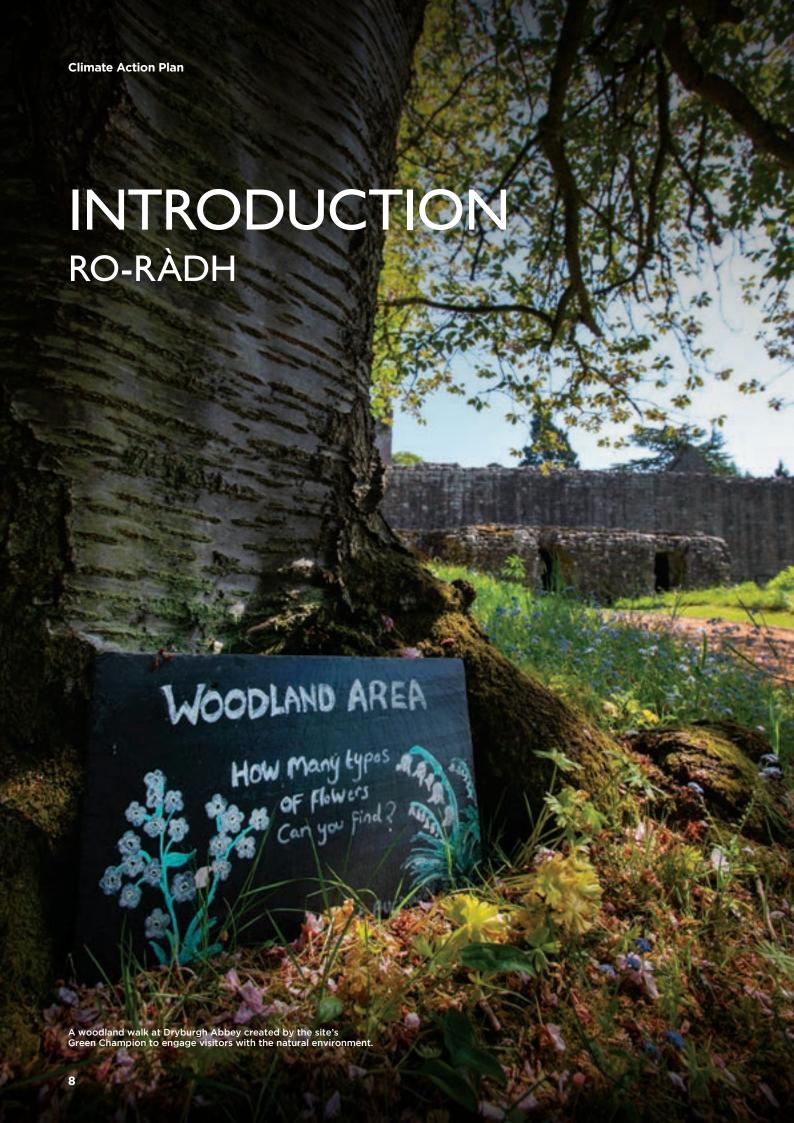
Every aspect of our operations can make a contribution.



Introducing a fleet of electric bikes for staff at our Edinburgh headquarters.



Inspecting decay of masonry at Tantallon.



Who we are

We are a charity and public body leading the way in protecting, understanding and sharing Scotland's historic environment, for today and for the future. We want the historic environment to make a real difference to people's lives: to our health, to our economy, to our culture and to our environment.

We want heritage to involve everyone so that we all benefit.

What we do

- We care for more than 300 sites of national importance all across the country and are the largest operator of paid visitor attractions in Scotland.
- We look after internationally significant archives and artefacts.
- We are at the forefront of investigating and researching the historic environment and addressing the impacts of climate change on its future.
- We protect our historic places through designations and consents, promote their sustainable development and provide millions of pounds each year to local communities to repair and revitalise their historic environment.
- We provide advice and guidance about the historic environment and offer a wide range of training and learning opportunities.
- In every aspect of our work we strive to follow our five organisational values - we are collaborative, professional, innovative, open and respectful.



Climate change is accelerating the decay of many historic assets, such as Dryburgh Abbey.

In our Corporate Plan, Heritage for All, five outcomes have been set to focus our vision as an organisation. Achieving meaningful, beneficial climate action will play a core role in helping us to attain our overall vision for Scotland's historic environment. These five outcomes are:

- The historic environment makes a real difference to people's lives.
- The historic environment is looked after, protected and managed for the generations to come.
- The historic environment makes a broader contribution to the economy of Scotland and its people.
- The historic environment inspires a creative and vibrant Scotland.
- The historic environment is cared for and championed by a high-performing organisation.

We are at the forefront of investigating and researching the historic environment and addressing the impacts of climate change on its future.

CLIMATE CHANGE AND THE HISTORIC ENVIRONMENT

ATHARRACHADH NA CLÌOMAID AGUS AN ÀRAINNEACHD EACHDRAIDHEIL

For Historic Environment Scotland, a sustainable approach to creating value has the potential to significantly increase our impact and centre the historic environment at the heart of Scotland's future in the world.

Urquhart Castle sited on the shores of Loch Ness in the Highlands.

Scotland has a rich, diverse and extensive historic environment. There are more than 56,000 designated sites in Scotland, making up less than 10% of all known historic sites. Our Properties in Care, of which there are 336, span over 5,000 years of Scotland's history and include iconic castles, ruined abbeys, stone circles and internationally renowned Neolithic villages. Aside from its important cultural and historical value, our historic environment makes a positive contribution to Scotland's economy, generating £4.2bn in 2017 alone and supporting 66,000 full-time-equivalent jobs. In 2018, over 18 million people visited an historic attraction in Scotland.

Looking after millennia of Scotland's history gives us a unique perspective on the long-term effects of environmental change. Scotland's climate has always been dynamic, and many historic sites retain evidence of shifting environmental conditions. For example, some historic harbours are now hundreds of metres away from the present-day shoreline; other sites appear as islands on historic maps, but are now connected to the mainland and accessible on foot. Many historic sites are located in areas susceptible to natural hazards such as flooding, yet they demonstrate an inherent resilience and longevity. Understanding our response to past environmental changes may help us to prepare better for the future.

Despite this, the climate change that we are experiencing today is pushing many of our properties, and the wider historic environment, into new and uncharted conditions that they were not designed to cope with.



people visited an historic attraction in Scotland.

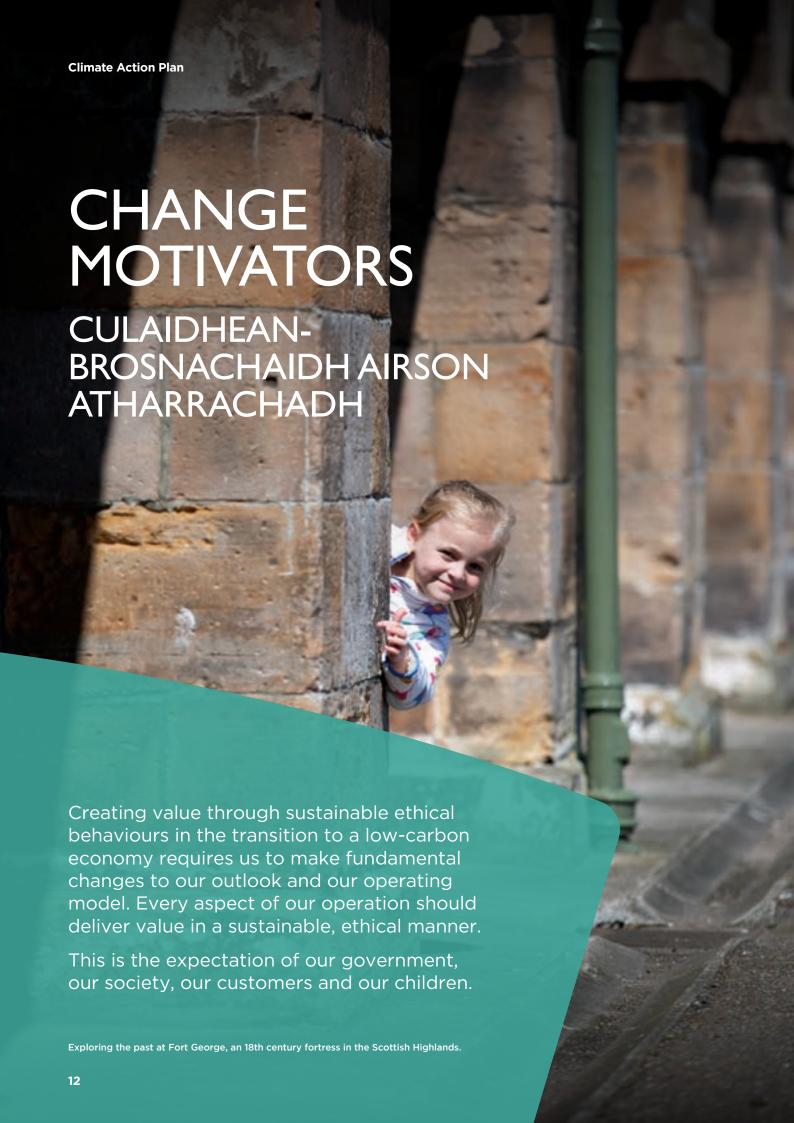


Smailholm Tower, one of a number of sites where we have trialled new technical approaches to reduce climate impacts.

The Intergovernmental Panel on Climate Change 2014 Climate Change Synthesis Report Summary for Policymakers states that 'Warming of the climate system is unequivocal, and since the 1950s many of the observed changes are unprecedented over decades to millennia'. The need for urgent action was highlighted in the IPCC's 'Global Warming of 1.5°C' Special Report, published in October 2018, which warned that without immediate mitigating action, the unprecedented human-induced global warming will have catastrophic consequences across the globe by the second half of this century. In Scotland the historic environment is on the frontline of climate change, and we believe it has a role to play in helping Scotland to adapt and meet the ambitious national climate change targets.

We have an opportunity to stimulate thinking about the impacts of climate change on Scotland's cultural heritage and beyond by utilising our position as the lead public body in Scotland for the historic environment. The historic environment is visible throughout all of Scotland, and as demonstrated by the numbers of visitors to historic sites, there is a growing audience that actively seeks us out.

These challenges provide us with a unique opportunity to lead by example and demonstrate what meaningful climate action looks like, by achieving our objectives set out in this Plan and encouraging others – both at home here in Scotland and on the international stage – to achieve the same.



There are many ways we can work with our staff, partners, visitors and other parties to encourage responsible and meaningful climate action. We recognise that the various people we work with will all have different motivators that can encourage them to make the transformational change that is required. We know that some people respond well to the **science** behind climate change, which demonstrates unequivocally that our climate is changing. Others respond more to the social and environmental responsibilities we have as an organisation. Additionally, there are **legislation and policy** drivers that set out in law our obligations as a public body in Scotland, and there are financial incentives and benefits that come with being an organisation that is pro-actively managing climate risks and embedding good practice.

Our environmental and social responsibility

The climate crisis is an issue that transcends political or organisational agendas, and one that requires action regardless of statutory requirements. Populations likely to be impacted the most by climate change are those already disadvantaged and vulnerable. Local communities dependent on agricultural or coastal livelihoods are also at heightened risk of the impacts of climate change (IPCC, 2018). Due to the national remit of our operations, we have a presence in many different communities, and as such it is important that we take responsibility for reducing our environmental impact by acting in an increasingly sustainable manner. Through leading by example, we will support others to take positive action on combating the causes and impacts of climate change.

The 2019 report of the UN Special Rapporteur in the Field of Cultural Rights (Cultural Rights: Tenth Anniversary Report) states '(a) that the impact of climate change on cultural heritage is an urgent human rights question and must be understood and responded to as such, and (b) that cultural heritage in all its forms represents a powerful resource for addressing the challenges caused by climate change'.

The wider scale and severity of the effects of climate change was highlighted during the UN Conference of the Parties (COP24) meeting in Poland in December 2018. At this meeting, the UN refugee agency (UNHCR) stated that there could be 250 million people displaced by climate change by 2050. It is clearly important to recognise the scale of this issue internationally, and the potential extent of climate-related disruption - and to consider the role that cultural heritage might have to play in a world of shifting priorities. Scotland will be affected by climate change both directly, through the physical impacts of weather, and indirectly, through the economic and political changes that are likely to occur during the present century.

Legislation and policy

As a lead public body in Scotland, we have a strong legislative foundation on which to build an informed and pragmatic approach to tackling climate change.

The Climate Change (Scotland) Act 2009 places duties on public bodies to contribute to emission reduction targets, deliver programmes for adaptation to increase resilience, and act in a sustainable way. We are identified as a 'Major Player' under the Act, due to our size and influence. In a further policy document (Climate Change Plan: third report on proposals and policies 2018–2032) further expectations are placed on the public sector to 'increasingly demonstrate how its own... operations are driving down emissions'.

The Climate Change (Emissions Reduction Targets) (Scotland) Act received Royal Assent in October 2019. It amends the Climate Change (Scotland) Act 2009, setting a net-zero emissions target for 2045 and increasing the targets for 2030 (to 75% reduction) and 2040 (to 90% reduction).

The Paris Agreen	The Paris Agreement Sustainable Development Goals				
National Drivers			Sustainable Deve	Siopinent Godis	
The Climate Change Act (Scotland) 2009	Climate Change Emissions Reduction Targets (Scotland) Act 2019	Our Place In Time: the Historic Environment Strategy for Scotland (2014 to 2024)	The Historic Environment (Scotland) Act 2014	Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015	Scotland's National Performance Framework
Internal Drivers					
Historic Environr	ment Scotland's Co	orporate Plan 'Heri	tage for All', 2019	Onwards	
Climate Action F	Plan Themes				
Theme	HES Policy / Str	ategy	National Drivers		
Climate Impacts, Risk and Adaptation	HES Adaptation (to be developed)		 Climate Ready Scotland: Scottish Climate Change Adaptation Programme 2019 Scotland Adapts: A capability framework for a climate ready public sector 		
Energy and Carbon Management	HES Carbon M	anagement Plan	 Climate Change Plan: third report on proposals and policies 2018-2032 (RPP3) Scottish Government's Conserve and Save: Energy Efficiency Action Plan (published 2010) 		
Circular Economy	Litter PreventionWaste Prevent Plan 2013HES Carbon Ma		 Waste (Scotland) Regulations 2012 Scotland's Zero Waste Plan 2010 Making Things Last: A Circular Economy Strategy for Scotland)
Sustainable Tourism			National Tourism Strategy		
Sustainable Procurement	HES Sustainab GuidelinesModern Slaver		 Procurement Reform (Scotland) Act 2014 Scottish Sustainable Procurement Action Plan 		
Biodiversity and Landscapes	 Biodiversity De 2018 People, Place a A position stat Scottish Nature 				
Sustainable	 HES Carbon M HES Business 		 Public Bodies Climate Change Duties Guidance 2011 Climate Change Plan: third report on proposals and policies 2018-2032 (RPP3) 		

Table 1: Summary of international, national and internal legislative drivers guiding our work.

Travel

The science

The data are clear: the global climate is changing at an unprecedented rate. In its 'State of the UK Climate 2018' report, the Met Office detailed how the ten warmest years recorded since 1884 have occurred since 2002, whereas none of the top ten coldest years recorded have occurred in the last fifty years. Between 2010 and 2019 eight high temperature records were broken, and only one low temperature record. Climate averages for the most recent decade that we have complete data for (2009–18) compared to averages for 1981–2010 show that in Scotland:

- Temperatures have increased by 0.3°C
- There have been 5% fewer days of air frost and 9% fewer days of ground frost recorded
- Summers have been on average 11% wetter and winters 5% wetter.

If we compare current climate averages for the most recent decade with averages for 1961 to 1990, the observed change is greater:

- Temperatures have increased by 0.9°C
- There have been 15% fewer days of air frost and 15% fewer days of ground frost recorded
- Summers have been on average 13% wetter and winters 12% wetter.

The Met Office 2018 report on the change in weather extremes observed in the UK compares temperature and precipitation data for the most recent year with complete data (2017) to the most recent decade (2008–17), and to reference climatology periods of 1981–2010 and 1961–90. Headline findings from this report included:

- The average hottest day of the year has increased by 0.8°C
- Warm spells have more than doubled in length, increasing from 5.3 days in 1961-90 to 13.2 days in 2008-17

 Total rainfall recorded on extremely wet days has increased by c.17% in 2008-17 in comparison to 1961-90. In the west of Scotland, this figure is 36%.

Scottish tidal records show that over the past 20 years, relative sea-levels around Scotland have been increasing on average by 3 mm/yr. This is faster than the 20th-century average for the British Isles, which is 1.4 mm/yr. Since the 1970s in Scotland there has been a 39% increase in the amount of soft coast experiencing erosion, and a 22% decrease in the amount of soft coast accreting. The erosion rate on Scotland's soft coastlines (19% of the total) has nearly doubled to 1 m/yr (Hansom et al, 2017).

In 2018 the Met Office published new climate projection data (UKCP18), with the following headline data for Scotland assuming current rates of global emissions reduction:

- Changes in our climate will accelerate, with winters becoming warmer and wetter; and hotter summers with changing patterns and intensities of rainfall.
- By the 2050s Scotland could see summer temperatures increased by 4 to 5 degrees Celsius, with 40-60% more winter rainfall in places if no action is taken to reduce carbon emissions.
- Rates of sea-level rise are predicted to increase at an accelerated rate, with a global sea level increase of between 0.56 metres and 1.12 metres by 2100 under a highemissions scenario.
- Weather extremes will become increasingly the norm.



The financial case

Many of the objectives set out in this new plan make clear financial sense, either in that they offer the opportunity to reduce costs through improved efficiencies such as reducing waste, travel and energy use, or in that they act to reduce the financial impact when our business operations are impacted by extreme weather events (for example, through risk management planning).

Due to the nature of our business, our day-to-day operations can be vulnerable to disruption from unpredictable extreme and unseasonal weather events. Climate change is now aggravating naturally occurring variability in our climate, and will increasingly become a source of uncertainty with respect to business continuity. For example, in 2018, Storms Hector and Ali were notable as unusually severe storms for the times of year, respectively bringing close to record-breaking wind gusts for June, and one of the most notable September storms in recent decades. Visitor numbers were down approximately 11,000 due to site closures as a result of Storm Hector.

The weather does not have to be extreme to have a negative impact on our operations. Relatively small changes, and progressive changes over time, in aspects such as temperature, rainfall, sunshine, snowfall and wind levels can result in disruption at sites, and can impact on the ongoing conservation and maintenance of our Properties in Care. By improving our resilience against changes in our climate we can limit the physical and financial consequences of extreme weather events as they become increasingly common, as well as limiting the effects of gradual changes in our climate.

Total rainfall recorded on extremely wet days has increased by 17%



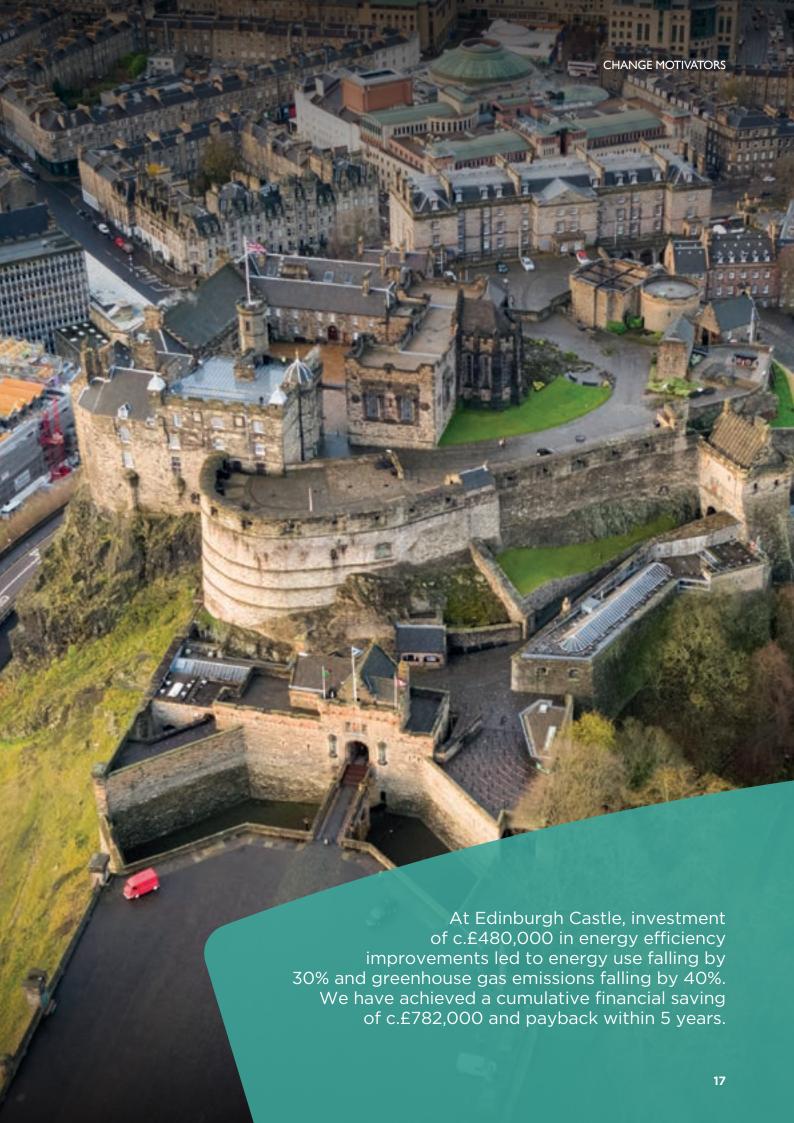
Climate change affects ground conditions and growing seasons which, combined with changing visitor behaviours, is leading to site management challenges here at the Ring of Brodgar in Orkney.



Flooding in Kilmartin Glen, with new raised walkway maintaining access.

We also stand to make financial savings through addressing climate change. For example, the work we have carried out to reduce energy consumption across much of our estate has resulted in significant savings, as well as emissions reduction.

Due to the nature of our business, our day-to-day operations can be vulnerable to disruption from unpredictable extreme and unseasonal weather events.





The seven themes



Climate Impacts and Adaptation



Energy and Carbon Management



Circular Economy



Sustainable Tourism



Sustainable Procurement



Biodiversity and Landscape



Sustainable Travel

In this section, for each theme we have provided a definition of the area of work and our ambition going forward. A detailed set of actions for each of the seven themes is set out in a series of tables.

Our climate change work is centred on four core activity strands - Innovation, Partnerships, People and Training. These activity strands underpin all seven of the main themes and facilitate delivery. These strands are described below.

Innovation

Climate change presents us with new challenges, some of which are uncharted and require innovative solutions. We have extensive in-house expertise covering a range of specialist areas including conservation science and materials analysis, digital documentation, archaeology and heritage asset management, building surveying and engineering (including mechanical and electrical), environmental science, visitor management, cultural resources and historic environment policy development. By continuing engagement across these and other areas of expertise, including external partners, we can address gaps in our knowledge and develop new and innovative approaches to addressing climate change both for our own organisation, and through development of best practice for the wider historic environment and other sectors.

Partnerships

Successes achieved to date in our climate change work are typically underpinned by working closely across teams within our organisation, and together with a range of external partners. We recognise that the key to addressing this agenda will be developing new and creative partnerships, as well as strengthening those that already exist. In Scotland there is already an active core of public sector bodies and supporting organisations working effectively together to tackle climate change, recognising that the challenge cannot be solved in isolation. Increasing international engagement recognises both the leadership role of Scotland and the strength of working with others to combat this global issue. This includes working with international groups such as the Climate Heritage Network.

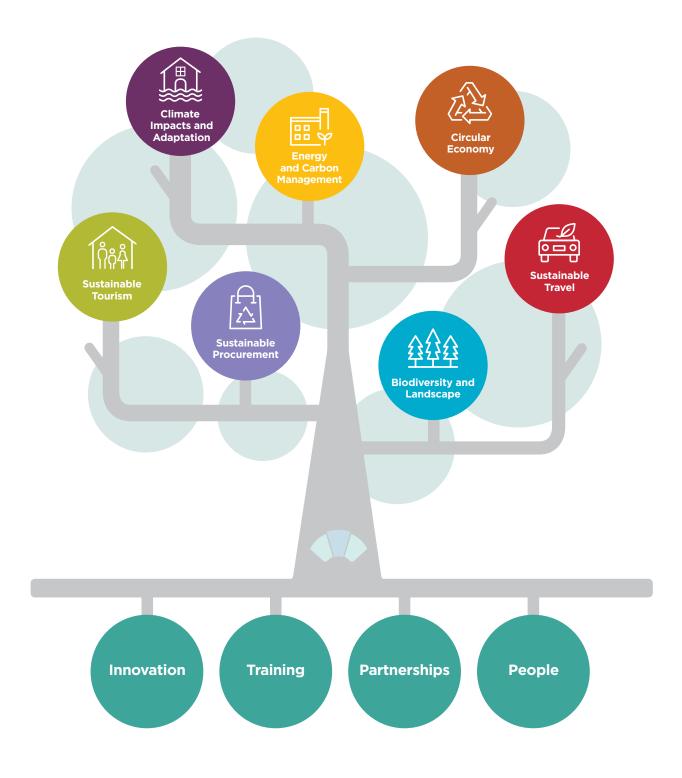
People

Plans and strategies alone will not solve the problem. In order to achieve the ambitions set out here, we require the involvement of our employees and partners, visitors and stakeholders, and others who we can influence. Changing established behaviours and cultures of different sets of people is a core activity that underpins all the key themes of the plan. Through a series of incremental changes in behaviour, the necessary mainstreaming of sustainable practice can be delivered within the timeframe outlined.

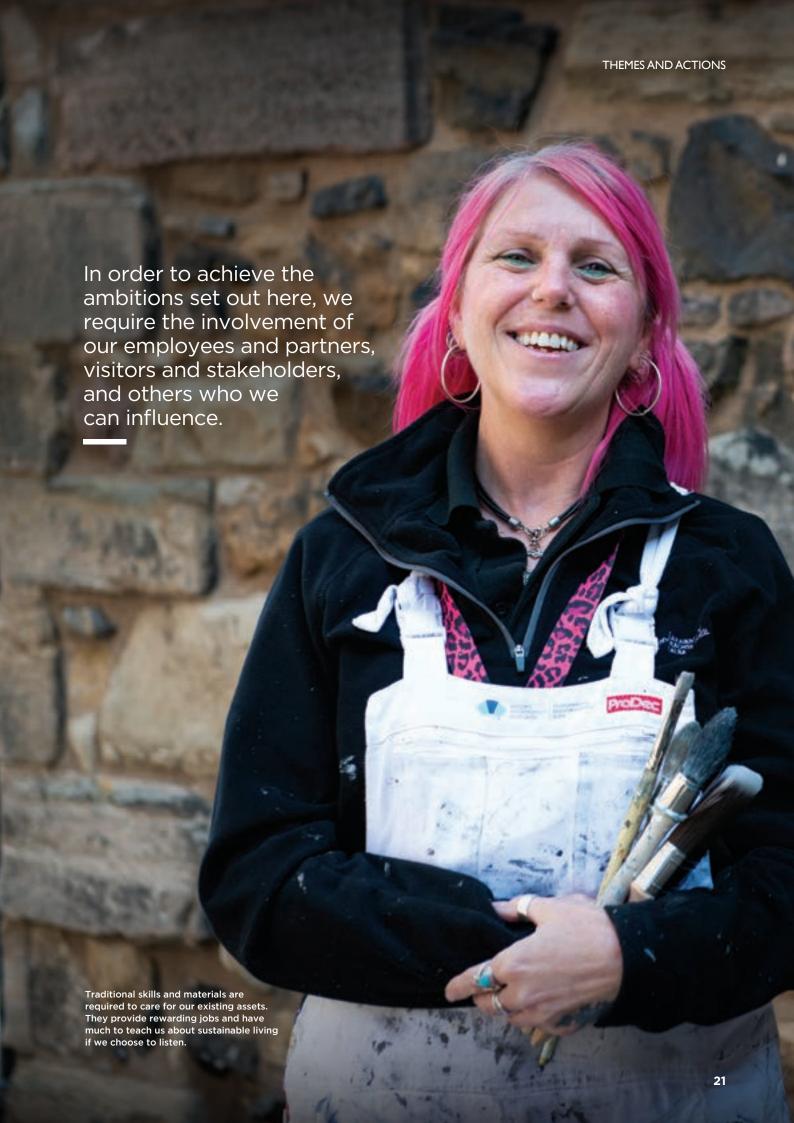
Training

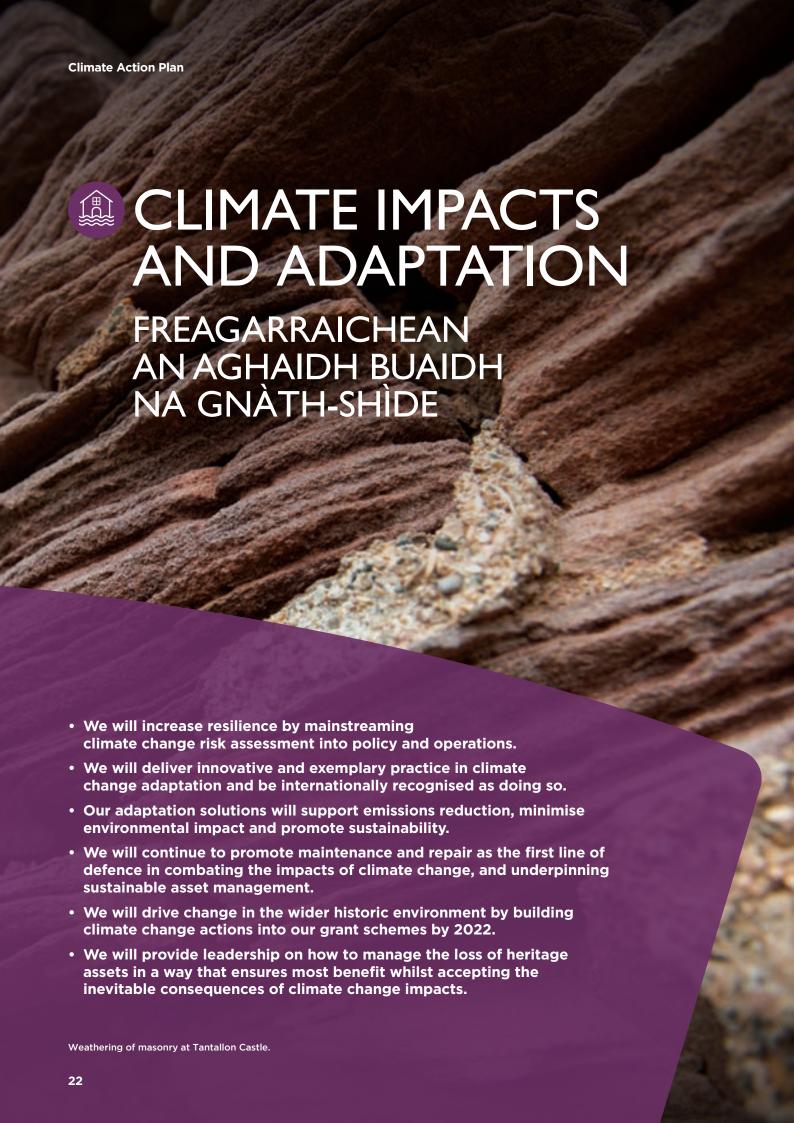
We have a statutory duty not only to transform the way we operate as an organisation, but to provide the wider sector, our stakeholders, visitors and the local communities in which we have a presence with leadership that will help them play their role in climate action. By disseminating the results of our research and best practice through various media such as publications, seminars and training courses, we can provide the tools and knowledge to help support this change in Scotland and more widely.

The key areas for our climate change work



The four core activity strands underpin each of the seven themes. Success in those core activity strands is vital if the actions in this Plan are to be achieved.





The Intergovernmental Panel on Climate Change (IPCC) defines climate change adaptation as 'adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities'.

For us at Historic Environment Scotland this means we need to know what the risks associated with climate change are, so that we understand what the impact of these changes will be. This will allow us to assess what we can do to increase resilience and support adaptation in the historic environment.

The nature of our business makes us vulnerable to disruption that can be caused by extreme weather events, and the location and nature of many of our properties makes them particularly sensitive. Work is required to better understand the effects of both long-term, gradual environmental change on historic assets, and the impact of extreme weather events of increasing frequency and severity. The foresight developed by increasing our knowledge of what is changing, and of the associated risks, will allow us to increase our resilience in more informed and effective ways and identify sites where loss is likely. This applies equally to our role in disseminating advice and guidance to others in order to support increasing climate resilience across the wider historic environment, and to identifying appropriate actions in the face of inevitable loss.

In this plan we are setting out an ambitious programme of work to increase our organisation's resilience to climate change. Key deliverables include the delivery of a tailored Adaptation plan for our organisation, and further development of our Climate Change Risk Assessment, published in 2018, which gives a baseline understanding of natural hazards across our properties. We have a continued commitment to using our experience to better equip the heritage sector, and others,



Coastal erosion at Skara Brae.

We have a continued commitment to using our experience to better equip the heritage sector, and others, to increase their climate resilience.

to increase their climate resilience; this includes working alongside and supporting groups such as Dynamic Coast: Scotland's National Coastal Change Assessment, Edinburgh Adapts and the Sustainable Scotland Network. We will continue to support the Scottish Government's Scottish Climate Change Adaptation Programme (SCCAP), and Adaptation Scotland's public sector guidance on climate change adaptation. We will use our position as a leading public body in Scotland to stimulate discussion and support action that helps promote the benefits of meaningful climate change adaptation to a global audience. Our research and training activities will continue to promote best practice in site management - in particular, recognising the role of maintenance and repair and the importance of skills and materials.



Climate Impacts and Ada	Climate Impacts and Adaptation			
Action	Internal Benefit	Wider Benefit	Core Strands	
Develop a Climate Change Adaptation Plan using the 'Adaptation Capability Framework' developed by Adaptation Scotland	Long-term resilience, risk reduction and financial savings for the organisation as a result of having a business prepared to proactively manage current and future climate risks	Supporting the wider historic environment and others by providing leadership and acting as an exemplar	Innovation Partnerships People	
Enhance monitoring of climate change impacts across our estate and operations, including research and development to support new methods for monitoring unmanned and remote sites (e.g. remote sensing and satellite data, crowdsourced imagery and 'citizen science' projects), and generation of additional quantitative data through Rae Project digital documentation	Increased efficiency and quality of data from sites and operations to inform risk assessment, prioritise investment and make better informed business decisions	Data collated can contribute to wider projects such as Dynamic Coast: Scotland's Coastal Change Assessment, of which we are a key partner	Innovation Training Partnerships People	
Continue to develop our existing Climate Change Risk Assessment (CCRA) methodology, and review and update the Climate Change Risk Register for the Properties in Care every two years	Up-to-date results from incorporation of new climate change data (e.g. UKCP18 projections) to accurately reflect the risk at PICs	Supporting the historic environment sector by providing leadership and acting as an exemplar, including articulating results and methodologies to others in a way that increases understanding of risks within their own communities and supports action to tackle impacts	Innovation Training Partnerships	



Action	Internal Benefit	Wider Benefit	Core Strands
Undertake and support ground-breaking research to better increase knowledge and understanding of the physical, social and economic impacts of climate change on the historic environment; including PhD level research in collaboration with various UK and international research institutions and universities	Better-informed decision- making and prioritisation for management of our sites and collections	Dissemination of research results to benefit the wider heritage and museums sectors	Innovation Training Partnerships People
Increase understanding of how to proactively manage the loss of heritage assets, including maximising benefits through engagement with communities	More effective prioritisation of resources and increased preparedness	Building wider resilience and delivering benefits through increased knowledge and engagement	Innovation Training Partnerships People
Mainstream climate change risk assessment results into Properties in Care investment prioritisation process	Ensuring investment decisions take account of climate change risk and allow proactive action	Leading by example to influence others to do similar, therefore increasing climate change resilience across our sector and more widely	Innovation People
Include climate change resilience measures as part of HES grants and investments	By including climate change our Grants process (including Conservation Area Regenera Heritage Trusts), we can driv sector to increase the resilier environment throughout Scoefficiency, emissions and was circular economy	g Building Repair Grants, tion Scheme and City e change in the wider nce of the historic	Innovation People





Climate Impacts and Ada	ptation		
Action	Internal Benefit	Wider Benefit	Core Strands
Continue to work with external partners and stakeholders to make sure that cultural heritage is acknowledged as a resource that can support meaningful climate action on the global stage	Demonstrating the relevance of cultural heritage to supporting climate change resilience	Supporting others through sharing of knowledge and experience, increasing resilience throughout the sector and more widely	Innovation Training Partnerships People
Trial and implement new ways of communicating the impacts of climate change on the historic environment, utilising our growing social media presence, our on-site interpretation and outreach and event programmes, and creating digital augmented reality interpretation to create an interactive climate change learning resource at the Engine Shed	Increased awareness of the importance of understanding current and past environmental change at our PICs and modelling of future change, supporting long-term asset management Developing the Engine Shed as a world-leading educational resource with respect to understanding climate change impacts on the historic environment	Capturing the attention of a wider audience and inspiring others to increase climate change actions and ambition	Innovation Training Partnerships
Support the work of the Our Place in Time Climate Change Working Group, including publishing a guide to raise awareness of the physical impacts of climate change on the historic environment	An impacts guide will bring together various strands of work, complementing existing HES Short Guides, INFORM leaflets and Technical Research Case Studies	Providing guidance for professionals, property owners, community groups and others	Innovation Training Partnerships People



Create a Climate Change Resource Pack for all new and existing Historic Environment Scotland staff and continue to offer Climate Change Awareness training; develop specific training for Green Champions and their managers to support their work	Through increased staff awareness we will be able to embed a climate- ready culture across the organisation, delivering long-term benefits	Where relevant, we will share training resources and work with others to deliver wider benefits (e.g. Sustainable Scotland Network)	Training People
Support climate change training through continued CPD and other training events, including traditional skills development to increase resilience through effective maintenance and repair Offer a minimum of four one-year climate change training placements through our conservation trainee programme over the next five years, and continue to support PhD and Masters level students	Upskilling the next generation professionals, building expertin HES and our partners		Innovation Training People



ENERGY AND CARBON MANAGEMENT

LÙTH IS MANAIDSEARACHD A' CHARBOIN



- We will become 'net-zero' by 2045 by doubling our annual emission reduction targets over the next ten years and beyond. This target will be reviewed and revised in line with Scottish Government expectations on Public Bodies.
- We will eliminate gas heating from our sites, with all our energy obtained from renewable sources by 2032.
- Where our sites lie at the heart of communities, we will develop these as hubs to support district-wide energy networks.
- We will optimise energy efficiency improvements at all sites by 2028.
- We will demonstrate that traditional buildings are part of the solution, not part of the problem.

Testing newly installed LED floodlighting at Stirling Castle.

Carbon management is the means through which we reduce greenhouse gas (GHG) emissions from our business operations to mitigate the causes of climate change.

Our business operations are many and varied, involving a broad range of emissions sources including energy consumption (gas, electricity and other fuels), water, business travel and waste. In recent years we have made significant progress in better understanding, monitoring and recording these sources in order to reduce consumption and improve practice. Reducing our emissions helps us meet national targets set by the Scottish Government, reduces our environmental impact and realises cost savings. Good carbon management helps us fulfil our public body duty as a leader and exemplar in climate change mitigation.

Our current Carbon Management Plan (CMP) was published in March 2017 and aligns our carbon reduction targets with the longterm national targets to 2050, requiring an overall reduction of 11% over the first five-year period (to 2020). Following the Scottish Government's declaration of a Climate Emergency in April 2019 the CMP will be revised to align with the the national net-zero 2045 target in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. This will require a doubling of our annual emission reduction targets over the next ten years and beyond. This acceleration of progress will require a step change in our approach, including further improvements to energy monitoring/measuring systems across our estate; integration of carbon management into all business areas so that all staff are contributing to emission reductions; and a significantly enhanced programme of investment in low-energy and carbon-neutral systems and infrastructure.



New solar panels about to be installed at Crichton Castle.

With increasing decarbonisation of the electricity grid, our emissions from gas heating will rise proportionately over the next decade, necessitating a transition to renewable heat sources over this period. By building upon previous successes and meeting or exceed targets set out in our CMP, we will provide evidence that the historic environment has a full role to play in supporting emissions reduction across all areas of society. We want the historic environment to be seen as part of the solution, not the problem.

Following the Scottish Government's declaration of a Climate Emergency in April 2019 the CMP will be revised to align with the the national net-zero 2045 target.



Energy and Carbon Mana	gement		
Action	Internal Benefit	Wider Benefit	Core Strands
Revise our current Carbon Management Plan, setting a long term 'net-zero' target by 2045, in line with new national emission reduction targets	Increased resource efficiency and continued cost savings associated with energy, water, business travel and waste	Providing leadership and acting as an exemplar to demonstrate that the historic environment sector can support national emissions targets	Innovation Training Partnerships People
Develop and maintain a register of carbon reduction projects to support CMP targets, including quantification of carbon savings and financial payback	Improved prioritisation of projects and better understanding of carbon and financial saving to support business cases for funding	Sharing of procedures for implementation of carbon reduction projects	Innovation Partnerships
Enhance communications around our CMP and energy reduction programmes, including reporting of energy and emissions targets and results	Increased staff and external partner engagement to support meeting emissions reduction targets	As above	Training Partnerships People
Further improve data monitoring, recording and retrieval methods, including installation of technology such as Automatic Meter Reads (AMR) for electricity, gas and water (requiring upgraded connectivity, particularly at remote sites)	Improvements in quality of data across our estate, supporting ongoing emissions reduction, cost savings and accuracy of Public Bodies Climate Change Duties reporting	Opportunity to demonstrate the installation of a sophisticated energy monitoring system into a complex and diverse estate and how this can support emissions reduction	Training Partnerships People





Set up pilot projects to		Opportunity to	
devolve responsibility for carbon to specific HES business areas, including setting targets and supporting behaviour change		demonstrate new ways to drive further emissions reduction and cost savings across a diverse business, contributing to national emissions targets	
Ensure that energy and carbon management objectives are mainstreamed within strategic and operational decision-making across the organisation	Continued emissions and cost savings	Support for the historic environment sector in the form of leadership and serving as an exemplar; contributing to meeting national emissions targets	Innovation Training Partnerships People
Develop increased funding options for carbon reduction projects, including external partnerships, loan funding and potential for leasing of appliances and infrastructure	Reduced capital expenditure and financial risk; increased carbon and cost savings	Development of innovative approaches to funding which can be replicated by others	Partnerships
Continue to develop and empower Green Champions across the organisation through a series of energy and carbon reduction initiatives	A culture of climate change and sustainability actions will continue to develop as the network grows, further embedding low-carbon behaviours in staff over time	Support for the historic environment sector and wider community, in the form of leadership/acting as an exemplar	Training Partnerships People
	cost savings		



Energy and Carbon Mana	gement		
Action	Internal Benefit	Wider Benefit	Core Strands
Roll-out Energy Audits and walkthroughs at sites to improve understanding and support interventions, including behaviour change, technology and fabric measures	Better understanding of energy use in our built assets, including behaviours of building users and potential technology or fabric adjustments to improve energy and emissions performance and deliver cost savings	Support for the historic environment sector in the form of leadership/ acting as an exemplar; contribution to meeting national emissions targets	Innovation Training Partnerships People
Support energy efficiency retrofit programmes and qualification development for construction industry, including working with Scottish Government and partners (e.g. Energy Saving Trust, Home Energy Scotland) to develop toolkits such as the Energy Improvements Report to improve domestic energy efficiency	Building upon existing partnerships and sharing our knowledge and research with relevant organisations	Development of improved qualifications and training specifically tailored to traditional forms of construction Help for homeowners and others to enable the historic environment to contribute to national climate change targets	Innovation Training Partnerships People
Continue to improve energy reduction at sites through the installation of low-energy systems (e.g. lighting and heating), improved controls and insulation measures	Continued emissions and cost savings, in line with CMP targets	Improved awareness of how the historic environment contributes to supporting national emissions targets Provision of case studies to support wider change	Innovation Training Partnerships People



	Reduced dependency on fossil fuels for heating at our sites; improved rates of transitioning to decarbonised electricity systems over the next decade		
Reduce water consumption across our sites where possible by setting specific reduction targets, improving monitoring and looking at innovative approaches to water efficiency and reuse	Additional emissions reduction and cost savings	Opportunity to convey principles of best practice to others	Innovation Training Partnerships People



- We will champion the maintenance and reuse of historic buildings as a way to make the case for avoided and embodied carbon.
- Our HQ project will be a pioneering exemplar.

Our new building conservation centre in Stirling, The Engine Shed. A once derelict traditional building given a second life and incorporating salvaged, recycled and natural materials throughout.

A circular economy will fundamentally change how we interact with materials and resources. It will represent a shift from a linear economic model – take, make and dispose - towards an approach where materials and products are designed to last longer and be maintained, repaired, upgraded, reused and recycled in a continual loop.

All HES's business areas produce waste, and we are legally responsible for the waste we generate and what happens to it. Waste is both an environmental pollutant and a carbon emitter; focusing on waste reduction is key to reducing our environmental impact, and to ensuring material and financial security in a world of depleting raw materials. The Scottish Government's vision for a zero-waste society is one where all waste is seen as a resource and is minimised, and valuable resources are not disposed of in landfill.

Reporting of waste and setting of targets is part of the mandatory Public Bodies Climate Change Duties Reporting, Our Waste Prevention and Reuse Plan 2013 has been augmented in recent years by a series of waste audits across our estate, providing a series of recommendations for improvements. In 2018 we published our first Litter Prevention Action Plan, identifying actions and showcasing case studies of waste reduction, including supporting community-led litter picks and providing improved bin infrastructure. A new waste plan will see us contributing to achieving Scotland's waste reduction targets (which are some of the most ambitious in Europe) alongside realising the financial, social and environmental benefits of waste and litter reduction and the transition to a circular economy.



The Galgael Trust up-cycling old scaffolding planks donated from HES.

Circular economy is a fast moving sector in which Scotland is recognised as a global leader. We have an opportunity to contribute to this through exploring our own business models as well as investigating how the historic environment can be a positive contributor to a circular economy on a local, regional and national scale. We have the opportunity to champion circularity in a number of areas such as heritage-led regeneration and reuse of construction materials, as well as using our purchasing power and wider investment to enable and drive the circular economy sector forward.

Circular economy is a fast moving sector in which Scotland is recognised as a global leader.



Circular Economy			
Action	Internal Benefit	Wider Benefit	Core Strands
Develop a Circular Economy Plan for HES to identify new circular business models and opportunities for the organisation	Analysis of our business processes and economic models; identification of areas we can transform to provide ourselves with economic and materials security Development of new income streams for our business based on circular models, ensuring our business is fit for the future	Contribution to Scotland's transition to a circular economic model, leading the way in this transition and acting as exemplar	Innovation Training Partnerships People
Implement a new corporate waste management, reduction, reuse and recycling plan detailing corporate standards, targets and staff guidance for our waste activities, including improving infrastructure	Corporate standards will ensure we are compliant and consistent in how we manage waste across the organisation; this will bring improved resource efficiency and long-term cost savings Empowerment of staff throughout the organisation to reduce waste and manage it safely, increasing our impact and putting our people at the heart of the change Provision of consistent and high-quality recycling infrastructure will help us to maintain standards of excellence as well as increasing the quality of our recycling	Ensuring waste management across the estate is up to standard will contribute to meeting Scotland's Zero Waste targets of 70% recycling by 2025 and no more than 5% to landfill by 2025 Reducing waste will also contribute to our emissions reduction targets	Innovation Training Partnerships People



Revise and update contracts for waste collections to ensure compliance, improve standards and improve monitoring and reporting on waste	Ensuring compliance, improving standards and providing better monitoring and reporting on waste Improved data will allow us to move more of our waste up the waste hierarchy, improving resource efficiency and reducing costs, as well as helping identify how we can transform our waste into a resource Better records management and use of digital systems will mean we can incorporate waste management into organisation-wide systems (PICAMS/SIGMA) and will improve organisational efficiency, e.g. saving staff time spent on organising and administering waste contracts	Investing our money responsibly will contribute to Scotland's sustainable economic growth We can realise social benefits from procuring local waste services with a focus on using small and medium enterprises (SMEs) and supported businesses	Innovation Partnerships
Incentivise organisation- wide waste reduction by establishing the true costs of waste disposal and assigning responsibility to business areas through transparent accounting	Assignment of responsibility of waste to business areas will increase visibility of waste costs and support new and innovative waste reduction methods identified by those who generate it	We will look to implement a model that sees waste reduction as an integral part of all roles within the organisation, maximising our successes and outputs and further contributing to Scotland's vision for a zero waste society	Innovation Training People





Continue to drive actions from our Litter Prevention Action Plan

Identify areas where we can undertake focused waste transformation projects involving packaging, plastics, printing and biodegradable waste, including championing digital and reusable alternatives and composting alongside reducing the amount of non-recyclable materials and products we purchase and produce

Ensuring our sites are litterfree means that access for all is of high environmental quality and reduces the likelihood of anti-social behaviours, improving the visitor experience

Ensuring we are not passing on non-recyclables to our visitors helps us to make a wider positive impact

Focusing on nonrecyclable waste reduction will save money on sending waste to landfill through landfill tax Boosts the market for recycled content, making it more accessible to others and helping towards the transition to a circular economy

Contributes to the international push on plastics reduction, initiated through the EU Strategy for Plastics

Innovation Partnerships

Champion adaptive reuse, repair and maintenance of historic and traditional buildings

Work with partners to research the carbon benefits of reusing buildings and structures over new construction, and contribute to waste solutions for construction

Research the environmental benefits of using local traditional materials for both conservation and new build projects Better understanding of what waste is produced in construction will allow us to identify areas were waste reduction and associated costs savings can be made

A sector-wide construction waste reuse scheme with a focus on traditional materials will ensure materials security for the continued conservation of our historic environment, helping to ensure that materials are always available for authentic, successful and long-lasting repairs on our estate

Championing traditional materials will boost the sector and help with supply and demand of these materials Construction waste accounts for 50% of all waste in Scotland; tackling this will help Scotland achieve its zero waste targets, reducing greenhouse gas emissions and pollutants entering the environment

Scotland's historic building stock (built pre-1919) makes up one in five of Scotland's dwellings; ensuring these existing buildings are maintained and repaired to extend their useful life will have far-reaching benefits for carbon emissions and construction waste

Innovation Training

Partnerships



Circular Economy			
Action	Internal Benefit	Wider Benefit	Core Strands
Invest in digital innovations, including alternatives to print, increasing efficiencies in work schedules and developing new business models through digital platforms and improved connectivity at sites	Means we can be a smart organisation, increase efficiency, keep up with innovation, automate compliance, improve connectivity and reduce data protection risks Allows us to improve our reach, accommodate more language and accessibility needs, increase learning outcomes and become a key resource for creative inspiration	Investing in digital technologies will help us link our information and data to wider national databases; can also extend the reach of Scotland's historic environment to a much wider and international audience	Innovation Partnerships
Provide waste and circular economy training and workshops for staff	Transition to circular economy will be accelerated by ensuring our people are at the heart of the changes being made, and skilled and empowered to lead changes in their areas Opportunities for staff development resulting from investment in people	Contributes to Scotland's transition to a circular economic model across the different sectors covered by our organisation Zero Waste Scotland estimates that by 2050, a more circular economy could reduce carbon emissions by 11 million tonnes per year	Training Partnerships People





Circular Economy			
Action	Internal Benefit	Wider Benefit	Core Strands
Work with partners and the wider sector to invest in circular projects, products and services – including working towards a sharing economy, supporting new routes to reuse, and investing in the repurposing and recycling sectors	Realisation of a range of efficiencies throughout the organisation, including financial and staff time Improved cross-departmental links resulting from sharing across directorates in the organisation Improved health and wellbeing of staff through social linkages Improved control and understanding of how our waste is repurposed and/or recycled, leading to cost savings from transforming our waste into a resource	Helps to boost circular innovation in Scotland and contribute towards the multiple economic benefits associated with a transition to a circular economy Forging reuse networks with other organisations can also allow for greater partnership working Boosting the repurposing and recycling industries will ensure that these skills are developed for future generations and will improve capacity for Scotland to process its own waste, find new ways to make waste a resource and ensure economic benefits	Innovation Partnerships



Circular Economy			
Action	Internal Benefit	Wider Benefit	Core Strands
Take action on food waste and reducing food miles Explore ways of better using natural resources and enhancing use of natural materials	Reduction of our environmental impact and transformation of waste into a resource; potential to use elements of our estate, which includes a variety of natural resources including orchards and gardens, in a more productive way Possible opportunities for new income streams through our shops and cafes, as well as wider benefits and partnerships Opportunities to explore the wider potential of natural resources in relation to other materials, such as growing thatch for traditional roofing and linseed for traditional paint; these opportunities can also provide healthier workplaces and enhance wellbeing	Increased contribution to sustainability and security of food and natural materials in Scotland by utilising the resources we have, reducing GHG emissions from transportation as well as the amount of packaging required Increased quality, availability and demand for skills (e.g. gardening), supporting jobs and industry in Scotland Improved understanding around food and material sustainability; possible learning outcomes for local school and community groups	Innovation Partnerships





We are the largest operator of paid-for visitor attractions in Scotland, with our visitor numbers showing significant growth over recent years. At the core of our organisational values is making sure the historic environment is accessible to all.

Part of this involves directly operating and maintaining some of Scotland's busiest and most recognisable landmarks, such as Edinburgh Castle and Skara Brae. Growth in visitor numbers is typically accompanied by increasing emissions from travel alongside rising levels of consumption and production, as well as conservation and management challenges. In order to continue to realise the benefits of access to our Properties in Care and the wider historic environment, we must ensure that growth happens in a responsible and sustainable way.

Sustainable tourism is defined by the World Tourism Organisation (UNWTO) as 'tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities'. If well managed, the tourism sector has the potential to act as an agent for change, triggering impact on and beyond the sector. Sustainable tourism is an underpinning principle of Scotland's national tourism strategy.

We are members of the Scottish Tourism Alliance as well as working in partnership at local level - for example, working closely with stakeholders in the Edinburgh Tourism Action Group to drive forward sustainable tourism. World Heritage Site Management Plans, in which we are a partner, reference sustainable management to protect the Outstanding Universal Value of sites on a local, national and international level, balancing the needs of conservation alongside the interests of local communities and contributing to sustainable economic growth.

We have pledged to promote sustainable tourism in our Corporate Plan, published in 2019. We want our visitor attractions to be sustainable places to visit, and ones that take into the account the needs of local communities as well as those of our visitors and other stakeholders. We wish to ensure that we provide our visitors with the facilities, infrastructure and information they need to visit our properties to ensure their visit is as environmentally responsible as possible. We aspire to do this whilst continuing to deliver increased benefits and maintaining a financially resilient organisation, as well as supporting the wider tourism sector in its ambition to become more environmentally sustainable.



Digitally documenting Maeshowe in Orkney, part of the Heart of Neolithic Orkney World Heritage site in order to monitor condition and provide remote access.

We want our visitor attractions to be sustainable places to visit, and ones that take into the account the needs of local communities.



Sustainable Tourism			
Action	Internal Benefit	Wider Benefit	Core Strands
Work with partners to investigate opportunities for how our Properties in Care and the wider historic environment can contribute to sustainable tourism for Scotland, in line with our heritage for all approach	Ensuring the historic environment is a sustainable tourism destination and contributing to the Scottish climate change targets to generate income in a responsible manner whilst ensuring the historic environment is protected for future generations Increased impact on health and wellbeing by ensuring that access to the historic environment is readily available to all	As a leading organisation in the Scottish tourism industry, our commitment contributes to the overall impact of tourism in Scotland	Innovation Training Partnerships People
Map out the wider environmental impact generated by tourism to our Properties in Care, including travel, catering and retail Formulate business models based on reducing impact in line with Scotland's emissions targets and circular economy principles	Better understanding of emissions from tourism, which will inform our business and marketing models and make them fit for a net zero future Investigating circular business models for tourism income such as selling services and experiences, renting and leasing, investing in digital innovations and circular retail products, will enable us to continue to trade in a zero emissions world Enabling low carbon access to sites will ensure our Properties in Care are accessible to all	Contributes towards the Sustainable Development Goal 12: sustainable consumption and production	Innovation Partnerships



Investigate the full environmental impacts tourism is having upon the historic environment, and formulate management and adaptation strategies to alleviate these whilst ensuring our heritage is accessible to all	Early adaptation to impacts of tourism will enable us to better protect the historic environment for future generations It will also help identify areas for early investment to prevent costly damage at a later stage, and give insights into new and innovative means of protection	Leading by example and sharing innovations with the wider conservation sector and beyond will ensure everyone continues to benefit from Scotland's historic environment	Innovation Training
Increase awareness of sustainability amongst visitors Provide infrastructure to empower our visitors to make more sustainable choices when visiting our sites (for instance, waste reduction and sustainable travel)	Asking and enabling our visitors to help reduce emissions from energy, waste, water and travel will deliver cost savings as well as other benefits for the organisation, and help maintain our high standard of quality assurance assessments	Helps to promote sustainable tourism actions across the wider industry in Scotland	Training Partnerships People
Continue to grow and empower our Green Champion Network – drawing upon the skills and passion of our frontline staff to champion sustainability at our sites; putting our people at the centre of the change	Helps achieve actions laid out elsewhere in the CAP Encourages environmentally friendly behaviours amongst staff	Supports national targets, contributing to wider sustainable tourism	Training People



Responsible purchasing can lead to environmental, ethical, social and economic benefits. Smart use of procurement can play a key role in promoting jobs and growth, encouraging innovation and boosting training and apprenticeship opportunities, as well as helping small and medium enterprises (SMEs), third sector organisations and supported businesses to compete effectively for contracts.

Sustainable procurement is central to the Scottish Government's National Performance Framework, designed to create resilient communities. HES has dedicated Sustainable Procurement Guidelines that apply the principles set out in the Sustainable Procurement Action Plan for Scotland, providing staff with purchase guidance in a number of key business areas. We use sustainability tests for larger contracts to ensure that we build sustainable criteria into the specification of products or services where possible, and also link this to evaluation criteria.

We are committed to fair and ethical procurement and want to ensure our purchasing power is helping to realise wider social benefits in such a way as to support climate justice. We promote the use of supported businesses and related organisations, and have placed contracts with businesses that have a social and environmental purpose committed to giving people with disabilities the opportunity to be involved in a work environment. For relevant contracts we require confirmation that goods have been procured in line with fair and ethical requirements, including International Labour Organisation (ILO) conventions that have been ratified by the country of origin. In 2017 we received accreditation as a Living Wage Employer, as recognised by the Poverty Alliance, the Living Wage Foundation and the Scottish Government, and in 2018 we established a Modern Slavery Working Group and published a Modern Slavery Statement.



Extraction of local sandstone from the reopened Swinton quarry in the Scottish Borders, providing rural employment and ensuring a supply of traditional local stone.

We aim to embed sustainable procurement across all of our activities, with the objective of being innovative and transformational when sourcing goods and services that contribute to Scotland's wider sustainable economy and the transition to a circular economy. We will aspire to be a sector leader in facilitating better procurement of traditional skills and materials within the construction sector through developing framework contracts for others to follow, and actively seeking opportunities to be exemplars in design and operations. Our programme of actions aims to reflect this vision, and to look for ways to drive this ambition forward.

We will work harder in procuring ethically and sustainably, maximising the added value of our spend.



Sustainable Procurement			
Action	Internal Benefit	Wider Benefit	Core Strands
Update HES Sustainable Procurement guidelines and ensure they are implemented throughout the organisation Evaluate and improve the positive social, economic and environmental impacts of our operations by embedding sustainability checklists into tenders	Guidelines will give staff a clear framework to work within, boosting responsible purchasing throughout the organisation Guidelines will lead in the longer term to financial savings, as considerations of full life cost will be taken into account alongside repair, maintenance and upgrades of goods and services being written into contracts, reducing the need for replacements	Using our purchasing power to maximise ethical, environmental, social and economic benefits Investing in SMEs and supported businesses	Innovation Training Partnerships People Partnerships People
Implement circularity principles in tenders	Ensuring our organisation is fit for the future Giving us financial and material security and placing us at the forefront of innovation Ensuring we leave a positive legacy for future generations in the form of high-quality materials and resources	An opportunity to act as a sector leader across the many industries our organisation is involved with; favouring sustainability, waste reduction, support of SMEs and supported businesses Providing training and apprenticeship opportunities Boosting local economies	Innovation Training People
Work with partners to deliver guidance and framework contracts for public bodies	Frameworks aid the purchasing of goods for the organisation, and will significantly assist suppliers and specifiers Working together with partners will ensure that we are working towards common goals, and add credence and legitimacy to our purchases	Maximising our purchasing power across all organisations to achieve further ethical, environmental, social and economic benefits	Innovation Partnerships People



Sustainable Procurement			
Action	Internal Benefit	Wider Benefit	Core Strands
Run training sessions for staff on sustainable procurement to upskill our purchasers, keep them up to date on best practice as it emerges, and improve understanding of how this relates to the HES vision and values	Responsible purchasing expanded to all areas of the organisation, including staff making ad hoc purchases Allowing staff to access and understand the ethical, environmental, social and economic benefits they can achieve through their purchases	Empowering staff to achieve wider benefits from their purchases and link them more closely to national and community benefits	Innovation Training People
Undertake audits of our supply chains for goods and services, and be transparent	Ensuring we are not funding unethical or environmentally detrimental operations	Showcasing our values through our purchasing power, allowing us to act as exemplar and set good examples of working practices	People
Set organisational targets for the procurement of construction materials Work to develop a Scottish framework for traditional materials, and develop case studies to boost the traditional materials industry in Scotland	Ensuring the future security of traditional materials supply, which is integral to the conservation and maintenance of our monuments into the future Encouraging the flourishing of traditional skills in Scotland alongside a secure material supply, including supporting new uses and products from sustainable materials	Boosting the market for construction materials such as stone, slate and timber in Scotland - bringing with it jobs and investment for the Scottish economy In the longer term, ensuring we have the appropriate skills and materials to maintain our historic environment into the future Providing partnership opportunities to develop a sector-wide strategy	Innovation Partnerships People



Sustainable Procurement			
Action	Internal Benefit	Wider Benefit	Core Strands
Undertake research and publish best practice case studies on sustainable and circular procurement, including more accurate measurement of the ecological footprints of our buildings and projects	Maximising the environmental, financial and wider benefits from the buildings we conserve, refurbish and build new	Boosting the sector by creating opportunities to showcase the wider benefits of traditional materials, giving a low-resourced industry the tools to trade and compete with large international companies Supporting small business and indirectly reinvigorating the traditional skills sector	Innovation Training People
Support circular and sustainable practices in the use of locally produced, non-toxic materials Produce case studies	Helping us to achieve security and continuity of supply of appropriate materials that are currently unavailable or difficult to source	Providing best practice examples of how we can learn from past production of sustainable traditional materials to support business growth and traditional skills	Partnerships People







The Scottish Government defines biodiversity as all life forms and their interactions with the environment to form living systems (ecosystems) which sustain nature and upon which our own survival depends.

HES has statutory obligations in relation to biodiversity, as well as numerous opportunities to support it. Scotland and the UK have adopted the people- and place-based definition of landscape contained in the European Landscape Convention (ELC): "Landscape" means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.'

Our approach to landscape is set out in 'People, Place and Landscape: A position statement from Scottish Natural Heritage and Historic Environment Scotland':

- Our vision is that all Scotland's landscapes are vibrant and resilient.
- They realise their potential to inspire and benefit everyone.
- They are positively managed as a vital asset in tackling climate change.
- They continue to provide a strong sense of place and identity, connecting the past with the present and people with nature, and fostering wellbeing and prosperity.

The management of Properties in Care provides opportunities both for supporting and improving biodiversity, and for increasing understanding of landscape and the natural environment. Protection of historic sites during development, including agricultural improvement, has allowed the preservation of local habitats and species. As a result, many of our sites support populations of rare birds, bats, amphibians and invertebrates, as well as forming important wildlife corridors that allow the migration and spread of plants and animals.

Climate change is introducing specific challenges to managing biodiversity and landscapes. Extreme weather events can make large and historic trees and landscapes more vulnerable to damage, whilst changing weather patterns will alter the optimum conditions and habitats for certain species. Additionally, the spread of pests and diseases will result in damage and loss. Proactive actions will be required in order to maintain biodiversity and landscape value, not just at our sites but across the wider historic environment.

We will build upon existing work on biodiversity and landscape management, delivering actions set out in 'People, Place and Landscape' and our 'Biodiversity Delivery Statement'. We will meet or exceed relevant targets of the Scottish Biodiversity Strategy, as well as expanding and increasing partnerships and involvement of others across the organisation. Biodiversity and landscape will be taken into account in all relevant decisionmaking and embedded into corporate targets. The effects of climate change on biodiversity and landscape will be better understood, informing our advice and guidance. Action will be taken to maintain and improve biodiversity at sites in our care.

Climate change is introducing specific challenges to managing biodiversity and landscapes.



Biodiversity and Landsca	Biodiversity and Landscapes			
Action	Internal Benefit	Wider Benefit	Core Strands	
Improve understanding of the effects of climate change and climate change mitigation on biodiversity and landscape, through ongoing surveys monitoring, research and collaboration	Ensuring evidence-based decision-making for proactive management of climate change impacts on landscape and biodiversity on our estate	Results will inform development of good practice, advice and guidance	Innovation Training Partnerships People	
Formalise objectives of our internal Landscape Working Group	Co-ordinating dialogue across the organisation to ensure a consistent approach to landscape across our operations Avenue to develop landscape projects	Helping to streamline our delivery on relevant national targets and actions for biodiversity and landscape	Training Partnerships People	
Embed biodiversity and landscape management into organisational targets by ensuring that it is considered in all appropriate decision-making	Increased staff awareness of the importance of biodiversity and landscape	Helping to deliver on relevant national targets and actions for biodiversity and landscape	Innovation Training Partnerships People	
Where possible, help to conserve and increase biodiversity at HES sites through good management, improved green infrastructure and targeted action for key species and habitats Increase partnership working with other organisations	Creation of reservoirs of local species and habitats, and facilitation of wildlife flow by maintaining wildlife corridors and safeguarding linear features Improvement of biodiversity at sites by means of different maintenance regimes Ability to share knowledge and expertise to improve internal skills and processes Increase in visitors to sites that provide exemplar areas of biodiversity or diverse ecosystems	Helping to deliver on relevant national targets Partnership approach fosters a better relationship with other organisations, allowing for improved delivery of objectives from both	Innovation Training Partnerships People	



Increase awareness, understanding and enjoyment of biodiversity and landscape by engaging more people in the conservation of both the natural and historic environment	Improving overall visitor experience and education when relevant interpretation relating to the biodiversity of our sites is provided Increase in visitor numbers to sites that provide exemplar areas of biodiversity or diverse ecosystems	Helping deliver on relevant national targets	Training Partnerships People
Collate all necessary data relating to biodiversity and landscape and develop interactive GIS layers	Better geographical and spatial understanding of our landscape and biodiversity assets Improved management of biodiversity risks associated with environmental hazards	Helping deliver on relevant national targets Potential to share data and outcomes with others, including influences on risk and adaptation measures at sites	Innovation Training Partnerships People
Improve communications activity and engagement on biodiversity and landscape	Sharing the good work that is already being done internally Improved dialogue across HES on the importance of biodiversity and landscape enhancing our sites Promotion of the importance of green infrastructure and good management, ensuring understanding of the importance of these processes	Increased awareness of and engagement with biodiversity and landscape and relevance for historic environment	Training Partnerships People



Biodiversity and Landscapes			
Action	Internal Benefit	Wider Benefit	Core Strands
Maintain, improve and promote linkages between the biodiversity and landscapes of HES and sites managed by others	Potential for improved partnerships internally, and with others (e.g. local authorities) in better understanding biodiversity needs when developing green networks, paths, etc	Wider path networks to improve health and wellbeing and to increase access and appreciation of nature and landscape whilst maintaining or increasing biodiversity	Training Partnerships People
Develop green infrastructure to increase resilience and reduce negative environmental impacts at our sites (e.g. flooding, erosion etc.)	Integrating ecosystem improvements to enable sites to better withstand and recover from impacts of climate change and major weather events	Developing innovative green engineering solutions to support climate change adaptation	Innovation Partnerships
Develop Landscape Management Plans for HES Properties in Care	Ensuring our operations are aligned to national approach to landscape and biodiversity		Innovation Partnerships





SIUBHAIL SO-SHEASMHACHD

- Our vehicle fleet will be reduced by 30% by 2025.
- Where practicable, we will have a fully electric road vehicle fleet by 2025.
- We will make it easier for staff to work remotely to reduce travel.
- We will improve cycling infrastructure for our staff and visitors.
- We will reduce use of private hire taxis by 80% by 2022.
- We will develop integrated transport hub solutions and remove visitor vehicles from many of our top sites by 2028.
- We will remove 50% of car parking spaces at our HQ by 2025 and create a new natural habitat in its place.
- We will undertake a review of business flights with a view to reducing aviation emissions.

Cycling to Craigmillar Castle.

Transport accounts for 27% of Scotland's greenhouse gas emissions, and 73% of this is from road transport. Sustainable travel is the promotion and implementation of low- and zero-carbon modes of transport.

The Scottish Government's Climate Change Plan: Third report on proposals and policies 2018–2032 (RPP3) announced that all new petrol and diesel cars and vans will be phased out by 2032. Scotland's cities have already begun to introduce low-emissions zones, the first of which came into effect in Glasgow in 2018. Edinburgh, Aberdeen and Dundee will follow by 2020.

The decarbonisation of road transport means that HES will need to support low-carbon travel across our business, including staff commuting and visitor travel to our sites. This will require a transformative approach in our use of vehicles and fleet, including the promotion of active travel and travel alternatives. We will invest in Electric Vehicles (EVs) and associated charging infrastructure, promoting their use to staff and visitors. Additional benefits from the provision of more sustainable travel options include reductions in air pollution, noise pollution and congestion, more healthy lifestyles and improved staff wellbeing.

We aim to be an organisation in which staff are able to work flexibly and are supported to make low-carbon commutes that keep them healthy and productive. We will incentivise sustainable travel methods, as well as seeking alternatives to travel, through devolved carbon budgets to business areas.



Launching our staff pool bikes at HES head office.



A ranger-led walk through Holyrood Park.

We will invest in Electric Vehicles (EVs) and associated charging infrastructure, promoting their use to staff and visitors.



Sustainable Travel				
Action	Internal Benefit	Wider Benefit	Core Strands	
Develop and implement a new Sustainable Travel Policy to better support decision- making for staff	Supporting staff to use greener modes of transport Achievement of cost savings and contribution to emissions reduction targets by means of organisational change Embedding a sustainable travel culture by setting targets for all business travel activities across the organisation	Providing leadership and acting as an exemplar to the historic environment sector and beyond Contribution to national travel and emissions targets, including decarbonising road transport by 2032	Innovation Training Partnerships People	
Improve quality of existing business travel usage data, including a specific review of business flights with a view to reducing emissions from aviation	Improved accountability contributing to emissions reduction targets in our Carbon Management Plan Helping to better set directorate-level emissions targets for business travel	Improved accuracy on reporting business travel emissions through Public Bodies Climate Change Duties Report, supporting meeting national emissions targets	Innovation Training	
Further improve IT alternatives to travel through remote access video links, agile and remote working	Reduced emissions relating to business travel, therefore meeting and exceeding emissions reduction targets	Improved delivery of business travel emissions to help deliver on national emissions targets for Scotland	Innovation Training Partnerships People	
Increase existing EV charge infrastructure across the organisation for staff and visitors	Preparing HES for transition to low-/no-carbon modes of transport Provision of EV charge points at sites to provide better access options to visitors	Supporting the national plan for a system of EV charge points across Scotland (Switched on Scotland 2017) Provision of EV access to more HES sites Provide exemplar of successful shift in a large organisation to inspire others towards stopping all fossil fuel vehicle use by 2032	Innovation Training Partnerships People	



Sustainable Travel				
Action	Internal Benefit	Wider Benefit	Core Strands	
Increase EV fleet across the organisation, with the aim to fully decarbonise the fleet by 2030	Reduced HES pool fleet emissions, helping to deliver emissions targets set by our Carbon Management Pan (CMP)	Help meet national targets set out by the Climate Change Plan (RPP3)	Innovation Training Partnerships People	
Expand Cycle Friendly Employer (CFE) assessments to more sites and support increased infrastructure	Improvements to be carried out to sites, providing infrastructure to enable change across the organisation Costs of taxi, HES fleet, grey fleet reduced Staff health and wellbeing improved by transition to healthier travel modes	Visitors will benefit from improved cycle infrastructure at sites. Contribute to meeting national emissions targets. Providing exemplar public body actions	Partnerships People	
Utilise our Green Champions Network to inform and influence staff in making more sustainable travel choices	Fostering a wider sustainable travel culture across the organisation Improvement in staff health and wellbeing	Improve visibility of visitor sites that are linked to the National Cycling Network and Local Authority cycle/walking networks. Reduced travel emissions to help deliver on national emissions targets	Training Partnerships People	
Increase access and availability to staff pool bikes, electric bikes and associated schemes	Reduced emissions and costs associated with staff business travel Improvement in staff health and wellbeing	Reduced business travel emissions to help deliver on national emissions targets Inspiration for other organisations and public to follow suit	Training Partnerships People	
Improve communications, information and advice relating to sustainable travel for staff and visitors	Staff more aware of greener travel alternatives and incentivised to reduce travel emissions Fostering a wider sustainable travel culture across the organisation	Promotion of good behaviour outside the organisation, providing visitors and others with information on greener travel alternatives Incentivising visitors to reduce travel emissions	Training Partnerships	

MEASURING PROGRESS











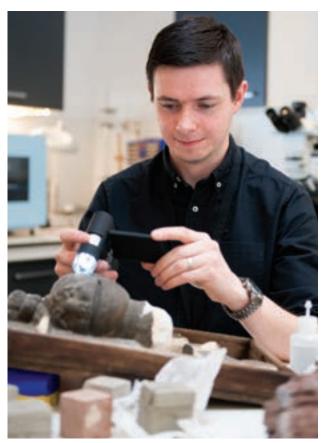


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Delivery of the actions in this plan will be monitored by a newly created Climate Action Plan Governance Board, to be chaired by our Chief Executive.

The ongoing ambitions of the plan will be reflected in our Corporate Plan and Annual Operating Plans, and progress monitored and measured via key performance targets in those respective documents. Annual updates on progress will be published in our annual Sustainability Report, published as an annex to the HES Annual Report and Accounts, and in the mandatory Public Bodies Climate Change Duties Report, submitted to the Scottish Government and published annually.

The specific actions detailed in this plan are set out to cover a five-year period, after which the document will undergo formal review. Owing to the rapidly evolving nature of climate change knowledge and information, as well as changes to government policy and legislation, it is acknowledged that elements of this plan may require updating over a shorter timescale. Related HES documents such as our Carbon Management Plan, Business Travel Policy, Litter Prevention Action Plan, Waste Prevention and Reuse Plan, Retail Plan and Sustainable Procurement Guidelines, as well as our forthcoming Biodiversity Policy and Adaptation Plan, will also be reviewed and updated as necessary.



One of our conservation scientists investigating the properties of various stone types.

We stand ready to respond to the asks of us in the future. What we consider ambitious today may not be enough in the future.

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