



Our climate challenge

Helping to deliver a resilient, low carbon Scotland

SEPA's 2014-2018 Climate Change Plan

Foreword

Welcome to *Our climate challenge*, which sets out the direction for addressing climate change for the next five years. We recognise that climate change is a symptom of unsustainable human activity and is the greatest threat to the planet's ecosystems, with significant consequences for humankind. Through its ambitious, world leading climate change legislation, Scotland has an opportunity to become a global exemplar in efforts to reduce emissions. As the nation's environmental watchdog we want, and need, to adopt a leading position to set Scotland on an increasingly sustainable path towards a resilient, low carbon future.



Scotland is already experiencing the impacts of climate change and projections indicate that we will continue to see changes, including wetter winters, drier summers and stormier conditions. More frequent and severe weather events will increase the risk and consequences of landslides and flooding. We are in a period of unprecedented change that will influence how we, our children and our grandchildren, live and work. We have a vital role to play in helping Scotland's communities and businesses to be resilient in the face of this change, for example through our work in the areas of flood warning and flood risk.

Moving our economy to a low carbon future is a significant challenge, but it is also a huge opportunity for clean, green and innovative businesses to flourish, creating new jobs. Through our regulatory role, we can help Scottish businesses reduce their emissions, and work with them to reduce consumption of non renewable resources and identify opportunities for further reductions in emissions.

Our climate challenge provides a framework for our actions on climate change over the next five years. It is guided by our vision to do everything in our power to help Scotland address climate change to ensure that our environment, economy and communities flourish.

James Curran
Chief Executive

“ SEPA will do everything in its power to help Scotland address climate change to ensure Scotland's environment, economy and communities flourish. ”

Contents

Context for our work	3
Our climate challenge in the global context	3
The context for Scotland	4
SEPA's climate change vision	5
Our role	6
Delivering with our partners	7
Our strategic themes	8
Our climate challenge in context	9
Acting as a key climate change leader and adviser	10
Helping Scotland to adapt	12
Working with Scottish business	14
Being an exemplar and educator	16
Making our plans happen	18

Context for our work

Our work must support wider Scottish, UK and international efforts to address the man-made impacts of climate change. Scotland's climate is already changing in terms of temperatures, patterns of precipitation, weather events and sea level change. Left unchecked, global climate change will accelerate, with impacts on the world's most vulnerable communities, as well as far-reaching effects on Scotland's environment, its economy and its people.

The latest Intergovernmental Panel on Climate Change (IPCC) Report¹ states that "Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes."

Scotland has passed the most ambitious climate change legislation anywhere in the world and, to ensure that we play our part in delivering Scotland's targets, we are committed to a climate change vision that guides our action.

The Climate Change (Scotland) Act 2009

- Requires reductions in Scotland's greenhouse gas emissions of at least 42% by 2020 and 80% by 2050 from a 1990 baseline.
- From 2020 to 2050, requires annual emissions reduction targets that are at least 3% less than the target for the preceding year.
- Establishes a statutory Adaptation Programme.
- Imposes duties on public bodies to act in the best way calculated to help deliver the greenhouse gas reduction targets and the Adaptation Programme, and to act sustainably.

¹ Available from <http://www.ipcc.ch>



Our climate challenge in the global context

Key findings from the IPCC Assessment Report 5²

- It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century.
- The atmospheric concentrations of carbon dioxide (CO₂), methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. CO₂ concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions.
- Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes.
- The rate of sea level rise since the mid-19th century has been larger than the mean rate during the previous two millennia.
- Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.

² Available from <http://www.ipcc.ch>

The context for Scotland



Scotland's climate

- Temperatures in Scotland have risen by about 0.8°C since 1980.
- The length of the growing season across Scotland has increased by more than four weeks over the past half century.
- Across Scotland, winter rainfall has increased significantly over the past 50 years, with a rise of almost 70% in the north of the country.
- Rainfall intensity in Scotland has increased by over 7% since 1961³.

Our efforts to tackle climate change will also result in changes to our environment, society and economy. These include building flood or coastal defences, developing renewable and low carbon energy resources, and protecting and restoring peatlands and other high carbon soils.

³ UKCP09 2012 Online observed trends report viewed at <http://ukclimateprojections.defra.gov.uk/22647>

In May 2013, carbon dioxide levels in our atmosphere topped 400 parts per million (ppm). This is a significant milestone: the last time levels were regularly above 400ppm was three to five million years ago, when the climate was considerably warmer. Projections show that these trends on emissions and temperature will continue upwards in the long term⁴.

Even if we manage to reduce global greenhouse gas emissions significantly in the coming years, historic emissions will continue to change our climate for at least the next 30 to 40 years. We cannot prevent this change, but we can make sure that we are more resilient as a country to the anticipated effects. The report of the Stern Review⁵ on the economics of climate change clearly highlights that the benefits of strong, collective, early action on mitigating and adapting to climate change far outweigh the costs.

In Scotland, we emit over 40% above the global average level of greenhouse gas emissions per person and our use of resources in terms of our global footprint is more than twice the amount⁶ considered to be sustainable globally.

Scotland's climate is already changing. Further changes will lead to things like:

- an increase in river and coastal flooding;
- droughts;
- changes to the crops we grow, our fisheries and how we use our land;
- changes to biodiversity and landscapes;
- an increased frequency and intensity of storms that may cause disruption and threaten life and property.

⁴ Source: NOAA, 2013 http://www.esrl.noaa.gov/gmd/webdata/ccgg/trends/co2_data_mlo.pdf

⁵ Stern, N 2006 The Economics of Climate Change - available from http://web.archive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/stern_review_report.htm

⁶ In 2006 Scotland's ecological footprint was estimated at 4.8 global hectares / person. This estimate is based on revised methodology and data and results in lower figures for earlier years than previously reported. In 2006, Scotland's Ecological Footprint per capita was more than double the per capita bio-capacity of the planet (2.1 global hectares/capita) Source: Scottish Government <http://www.scotland.gov.uk/About/Performance/scotPerforms/indicators/ecologicalFootprint>



SEPA's climate change vision

“SEPA will do everything in its power to help Scotland address climate change to ensure Scotland’s environment, economy and communities flourish.”

Our climate challenge provides a five year framework for our work, translating this vision into action. It also reinforces our support to the delivery of the Scottish Government’s climate change ambitions.

We aim to achieve our vision by working across four ‘strategic themes’, which provide our direction on climate change to the end of 2018. These will be delivered through our core work, by adapting existing projects to add further climate value and through new initiatives. Specific areas of activity under the themes will be set out in the supporting Delivery Plan which will be updated routinely to secure implementation of *Our climate challenge* and to respond to emerging needs.

We aim to identify and secure multiple benefits from our work on climate change in areas such as water, air quality, flooding, land, ecosystem services, planning, public health and economic development.

Responsibility for action on climate change is shared by a wide range of organisations and players, and so delivering real change requires working in partnership. While we want to take a leading role in Scotland, we know that working with partners is crucial and will add value to our actions and to those of others. Partners include businesses, public sector bodies, local authorities and the people of Scotland.

Our role

The Scottish Government has shown leadership in its response to climate change. Addressing climate change is central to the National Performance Framework⁷. Specifically, the Scottish Government has sought to deliver a low carbon, more resilient Scotland by adopting a strong position through the world leading Climate Change (Scotland) Act 2009. The Act presents Scotland with significant challenges and opportunities. The Act also imposes specific public bodies' duties which provide a clear framework for our climate change work and designate SEPA as a 'major player'. Through *Our climate challenge*, we aim to deliver on the commitment made in our vision and we seek to play our full part in delivering action to address the challenge.

We will strongly support Scottish efforts on climate change and help Scotland's move to a low carbon, resilient and sustainable country in a way that also protects and improves the environment, human health and well-being. This is a specific outcome of our Corporate Plan 2012-2017⁸.

We will do this through:

- Our monitoring and scientific understanding of Scotland's environment - we can advise on how the changing climate is having an impact.
- Our regulatory roles - we can help industries to reduce their own emissions and encourage and support development of resource efficiency and appropriate new low carbon technologies (including low carbon energy sources), while also protecting and improving the quality of our environment.
- The advice and information we give using a range of media - we can help Scotland to become more resilient to the effects of climate change.
- Through our core work to protect the environment - we can also realise climate change benefits.

⁷ Scottish Government National Performance Framework viewed at <http://www.scotland.gov.uk/About/Performance/purposestratobj>

⁸ SEPA 2012 viewed at http://www.sepa.org.uk/about_us/publications/idoc.ashx?docid=a9ed962a-ddb0-4929-a2eb-fd93054475b9&version=-1

⁹ SEPA 2014 Sustainability Report 2012-13 viewed at http://www.sepa.org.uk/about_us/publications/idoc.ashx?docid=40211e3c-f5bf-44ff-8943-09b59272cfa4&version=-1



The Climate Change (Scotland) Act 2009 Public Bodies' Climate Change Duties

These place duties on public bodies when exercising their functions to act:

- in the way best calculated to help deliver the emissions reduction targets and the statutory Adaptation Programme;
- in a way they consider is most sustainable.

Every year we publish a Sustainability Report which provides an externally verified account of our own environmental performance and which sets out our actions in response to these climate change duties⁹.

Reducing emissions from landfill sites

We audit gas management systems at active landfill sites to ensure the most efficient collection of climate-damaging landfill gas. Each audit assesses gas controls in detail and identifies issues likely to impact on the future development or restoration of these sites. Closed landfills are also being assessed to identify those with the potential to further reduce greenhouse gas emissions. The potential net release of methane, a powerful greenhouse gas, from an average active biodegradable landfill is estimated to be equivalent to around 30,000 tonnes of carbon dioxide (CO₂) per year.

Our initiatives are producing tangible results. For example, in the Scottish Borders we required active landfill gas control systems to be put in place to manage greenhouse gas emissions. From one of the sites, a potential equivalent saving of 14,910 tonnes CO₂ per annum has been calculated - this is equivalent to almost five times SEPA's total CO₂ emissions.

Delivering with our partners

We recognise the value of working with partners and stakeholders: adding value, securing multiple benefits from resources invested and achieving shared objectives. Partnerships hold the key to successfully delivering our ambitions; we will continue to develop and extend our partnership working.

We are currently involved in a number of existing partnerships with a variety of organisations. For example, we work closely with the Scottish Government and we are part of a four agency partnership on climate change including Scottish Natural Heritage, Forestry Commission Scotland and Historic Scotland. We also play a key part in the work of the 2020 Climate Group and have strong partnership links with CAMERAS¹⁰, the Sustainable Scotland Network, Adaptation Scotland and others covering science, policy and practice.

¹⁰ CAMERAS: A Coordinated Agenda for Marine, Environment and Rural Affairs Science. <http://www.scotland.gov.uk/Topics/Research/About/EBAR/CAMERASsite>



Scotland's climate challenges

Around one in 22 of all residential properties and one in 13 of all non-residential or business properties in Scotland are at risk from flooding. The average annual damages to homes, businesses and agriculture from flooding is estimated to be between £720 million and £850 million. Projections suggest that flooding is likely to increase in some areas as a result of climate change¹¹.

¹¹ http://www.sepa.org.uk/flooding/flood_risk_management/national_flood_risk_assessment.aspx

Our strategic themes

Four strategic themes set the direction for our work on climate change over the next five years. These are:

Acting as a key climate change leader and adviser

Helping Scotland to adapt

Working with Scottish business

Being an exemplar and educator

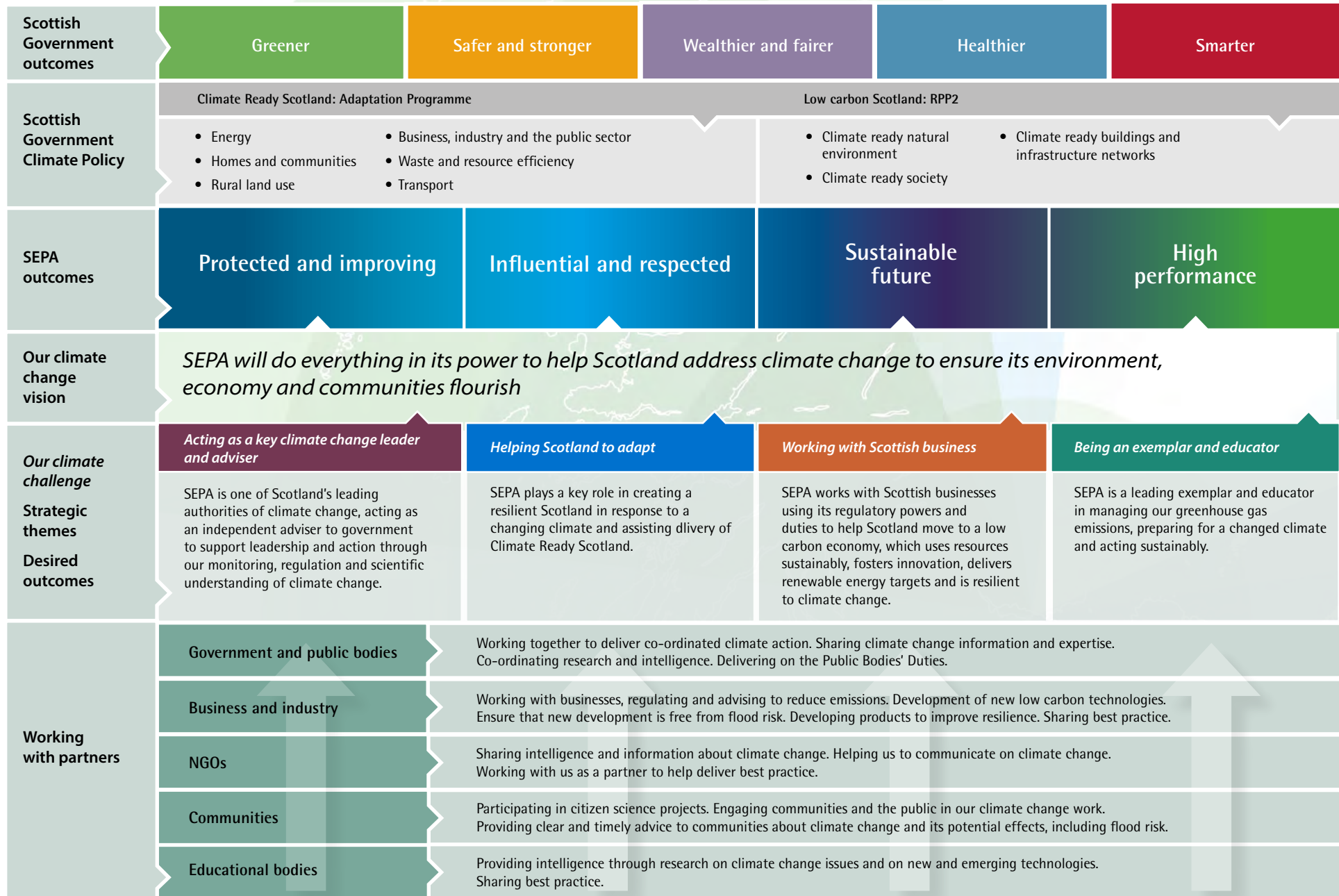
The four strategic themes provide the context for us to deliver actions on climate change that enable us to fully contribute to the Scottish Government's outcomes and to its key climate policies. The themes also contribute to all four of our own outcomes as set out in our Corporate Plan. All four strategic themes require us to work with a wide range of partners across all sectors in Scotland, including:

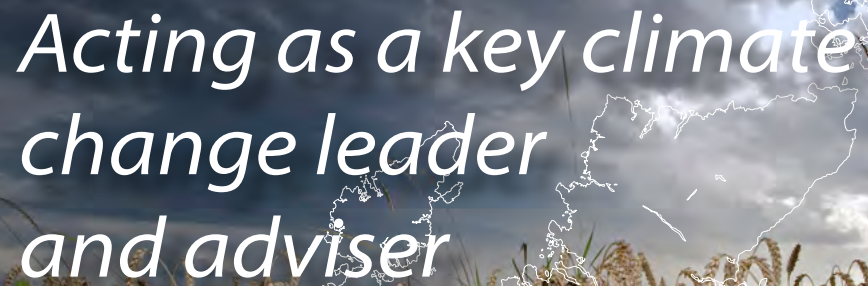
- the Scottish Government and other public bodies, which like us are challenged to meet the Public Bodies' Climate Change Duties and with whom we can learn lessons and share good practice;
- businesses that we regulate and we work with to identify and deliver on shared objectives;
- Non-Governmental Organisations (NGOs) which may take a different perspective, challenge our activities and help provide information to inform our actions;
- the communities we serve through our duty to protect and improve the environment and human health, helping people take action to reduce their emissions and helping communities to improve their resilience to the changing climate;
- educational bodies, to help increase the evidence base, to inform our actions, to address climate change and to strengthen our advisory role.

The diagram on page 9 illustrates how *Our climate challenge* sits in the context of the Scottish Government's outcomes and how we anticipate working with partners.



Our climate challenge in context





Acting as a key climate change leader and adviser

Where we are

The scale of the challenge set by the Climate Change (Scotland) Act 2009 is ambitious and provides the principal context for this theme. The vision of a low carbon, resilient Scotland needs a co-ordinated approach to action if it is to be achieved. This needs to be led and facilitated by strong and authoritative public agencies.

As one of the 'major players' identified under the Public Bodies' Climate Change Duties guidance, we are well placed to fulfil a role as a leader and adviser, working in partnership with other public bodies. This allows us to come together around shared objectives for delivering these duties.

We have an important role in understanding and communicating the science of climate change and the resulting impacts on Scotland's environment. We aim to communicate that to policymakers, decision takers and the public through a range of media in order that our businesses, communities and important national assets are resilient to future climate change.

Where we want to be in 2018

It is our ambition to be one of Scotland's leading authorities on climate change, acting as an independent adviser to government to support leadership and action, through our monitoring, regulation and scientific understanding of climate change.

To achieve this ambition we aim to:

- be seen as a key Scottish authority on climate change and its impacts, and are able to provide clear advice to Government in order to help shape policy;
- build alliances and partnerships across the Scottish public sector to help provide a strong lead on climate change issues and provide support for co-ordinated action across the public sector to help ensure that the Public Bodies' Climate Change Duties are met;
- be recognised as a key partner to Scottish Government, providing strong support to implement the Second Report on Proposals and Policies (RPP2) and Climate Ready Scotland: Scottish Climate Change Adaptation Programme;
- ensure our monitoring and scientific understanding of the impacts of climate change on Scotland's people, businesses and environment is respected and well understood, and is being integrated into policymaking;
- with partners, communicate with a wide range of Scottish audiences on climate change issues in a co-ordinated way using appropriate communications tools, such as the '*Making the Case for the Environment*'¹² materials, to enable co-ordinated action on climate change;
- work to sustain and enhance the benefits, goods and services that the natural environment provides.

¹² http://www.sepa.org.uk/making_the_case.aspx

Scotland's Environment Web Project

Enhancing the scientific foundation

We will present clear evidence based on our own and partners' knowledge about how the changing climate has already impacted Scotland's environment, how it will likely impact our future environment and how this could affect Scotland's people and business, now and in the near future.

Knowing how the environment is already changing and how it will likely change in the near future, ensures that our decision-making and advice, as Scotland's environmental regulator, takes account changes in environmental pressures and sensitivities.

Knowing key aspects of the current and likely future environment underpins the readiness of Scotland's people and business to deal with the effects of climate change and provides Scotland with an enhanced scientific foundation to support the Scottish Government's behavioural change framework and adaptation programme.

The Scotland's Environment website¹ brings together information on Scotland's environment and provides a unique resource of environmental data, information and reports, from known and trusted sources. This provides a portal for policymakers, businesses and communities with the most up to date information about what a changing climate might mean for them.

The project is the outcome of a partnership of Scotland's key environment agencies, the Scottish Government and non-governmental organisations.

¹ For more information on Scotland's Environment Web Project, visit: www.environment.scotland.gov.uk

Leadership in climate change

SEPA is a major contributor in a number of climate change leadership groups. These include: the Climate Change Delivery Board, the Scottish Government's mechanism to deliver its climate change commitments; the Public Sector Climate Leaders' Forum and its supporting Officer Group; the Public Sector Climate Champions Network and the CAMERAS group on climate change science.

We are also an active partner in the business-led 2020 Climate Group.

Helping Scotland to adapt



Where we are

The Scottish Government's Climate Ready Scotland: Scotland's Climate Change Adaptation Programme provides the principal context for this theme. Scotland is already experiencing change to its climate. This will have a range of different effects, including changes in temperature, precipitation and the likelihood of more severe weather events. These changes are already resulting in a number of impacts such as river and coastal flooding and landslips, with consequences for Scotland's communities, businesses and environment. These in turn pose risks to health and property, as well as potential costs: financial, reputational and resource.

More widely, a changing climate means we have to adapt in other ways, and it is important that we are able to plan for this. For example, in the future we may be able to grow different crops, which in turn may place different demands on our land and on our water resources. As an environmental regulator, we need to know what these changes might be and how we may need to respond to them. We also have to ensure that our own operations are resilient to changes in climate. We will achieve this through application of sound science to develop robust policy responses, working with Adaptation Scotland and other partners.

Where we want to be in 2018

Our ambition is to play a key role in creating a resilient Scotland in response to a changing climate; assist delivery of Scotland's Climate Change Adaptation Programme and promote adaptation across all of our strategic themes.

To achieve this ambition, we aim to:

- help shape a more resilient Scotland that is better protected from future flood risk through our role in flood risk management, flood warning and engaging with planning authorities;
- use our expertise, knowledge and information on climate impacts in Scotland to inform policymaking;
- work with others to monitor the actual and potential impacts of climate change on Scotland's environment;
- work with others to communicate on adaptation issues, providing clear advice that is respected, well understood and acted upon;
- improve our own resilience to the impacts and consequences of climate change by considering adaptation in the preparation of our own plans;
- prepare flood risk management strategies which set the framework for effective flood risk management across the nation;
- prepare river basin management plans which set the framework for sustainable water management across Scotland;
- work with land managers to promote sustainable use of land to reduce emissions and improve resilience to our changing climate.



Flood risk management planning

Our role in flooding is central to helping Scotland adapt to climate change.

To meet legislative requirements we:

- have produced a national flood risk assessment to identify areas most vulnerable to risks of flooding;
- provide advice and information to planning authorities and developers on flood risk associated with proposed new development plan proposals and planning applications (including validating flood risk assessments submitted by developers) to help avoid flood risk in line with Scottish Planning Policy;
- encourage planning authorities to undertake strategic flood risk assessments.

The second river basin management plans (RBMP) will be published in 2015 and climate change will be considered during their preparation. For example, the report which outlines the current condition of our waterbodies and of future challenges considers the impacts of climate change on the ecological status of, and objectives for, the water environment.

The draft RBMPs for Scotland will use these outputs to identify measures to further build climate change considerations into the plans. This will include more focused attention on areas where actions to improve the water environment are expected to result in increased greenhouse gas emissions, or where areas are identified as being less resilient to the impacts of climate change.



Working with Scottish business



Where we are

Our regulation of businesses through environmental legislation provides the principal context for this theme. We regulate sites which together emit the majority of Scotland's greenhouse gas emissions, and we are responsible for the regulation of the EU Emissions Trading System in Scotland¹. This sets the total amount of regulated greenhouse gases that can be emitted by the factories, power plants and other installations within the system in Scotland. This means we are well placed to work with Scottish businesses to help reduce emissions.

We also have a significant role in helping Scotland to move towards a low carbon, zero waste economy by advising business on resource efficiency and waste minimisation. Renewable energy is a major opportunity for Scotland, and we have an advisory role, for example through the planning process, to help ensure the environment is protected while maximising opportunities for low carbon energy solutions.

Through our regulatory role under the Pollution Prevention and Control Regulations, we aim to bring about reduction in pollution and resource use, and minimisation of waste. As well as having a significant influence on greenhouse gas emissions, we are able to encourage resource efficiency of Scottish business.

We are therefore uniquely placed to bring together these regulatory and business advisory functions, to the wider benefit of Scotland and its economy.

¹ SEPA EU-ETS web page viewed at http://www.sepa.org.uk/climate_change/solutions/eu_emissions_trading_system/how_does_the_system_work.aspx

Where we want to be in 2018

It is our ambition to work with Scottish businesses, using our regulatory powers and duties, to help Scotland to move to a low carbon economy, which uses resources sustainably, fosters innovation, delivers renewable energy targets and is resilient to a changing climate.

To achieve this ambition, we aim to:

- fully understand and utilise the controls available to us through our regulation of industry to enable greenhouse gas reductions;
- help bring about a reduction in resource use with corresponding reductions in greenhouse gas emissions through our regulatory and advisory roles;
- develop collaborative initiatives with business sectors to identify shared climate change objectives and actively work together to secure their delivery;
- working with partners, including Zero Waste Scotland and Scottish Enterprise, effectively communicate advice and information to Scottish businesses about climate change in relation to our regulatory functions;
- develop our understanding and application of carbon assessment in order to understand the climate impacts of policies and proposals, particularly from emerging technologies;
- use our powers and duties to promote sustainable use of resources, resource efficiency and clean technologies, to help move Scotland to a low carbon economy;
- support the work of the 2020 Climate Group to help bring about significant emissions reductions in businesses.



Influencing resource efficiency

Working with businesses on the assessment of impact of windfarms

We have worked with industry and others to develop good practice guidance to minimise the environmental impacts of windfarms, including preventing disturbance of peat, which is an important carbon store.

Through carbon assessments, the greenhouse gas emissions associated with developments on peat soils are better understood and can be quantified. This has resulted in increased knowledge about the impacts of such developments and has led to many developers adjusting their proposals so as to minimise peat disturbance and reduce associated emissions.

This work supports decision making and aims to maximise the benefits of these developments in terms of greenhouse gas emissions.

We are responsible for delivering resource efficiency at sites posing the greatest environmental risks. We are committed to exploring a proportionate, consistent approach to encourage businesses to deliver resource efficiency and to reduce emissions. Reduction in the uses of energy, water and raw materials can reduce greenhouse gas emissions. We will develop conversion factors to help us quantify emissions savings resulting from resource efficiency. We will also develop case studies to demonstrate how our influence on resource efficiency contributes to climate change mitigation through the reduction of greenhouse gases.





Being an exemplar and educator

Where we are

The Scottish Government's Public Bodies' Climate Change Duties guidance provides the principal context for this theme. As a designated 'major player' we are likely to have "a high impact and influence" under the duties. This places an extra responsibility on us to take a leadership role by demonstrating and sharing good practice and acting as an exemplar and educator that others can learn from.

To realise our climate change vision, we must integrate consideration of climate change within all that we do, ensuring that climate change considerations are embedded in our policies, programmes and projects. We must demonstrate how we can continually drive down greenhouse gas emissions whilst remaining an effective regulator, supporting businesses to thrive sustainably and helping public sector bodies to deliver their duties sustainably.

Cultural and behavioural change among organisations and employees is a key part of successful climate change action. Achieving this successfully requires a co-ordinated approach, with collective action by everyone across the organisation towards agreed emissions reduction goals. This includes the development and use of tools and practices to improve performance.

Where we want to be in 2018

It is our ambition to become a leading exemplar and educator in managing our greenhouse gas emissions, preparing for a changed climate and acting sustainably.

To achieve this ambition, we aim to:

- be recognised as a true exemplar and educator in managing our own performance, demonstrating clear and sustained commitment and progress to meeting long term emissions reduction targets;
- ensure our staff are fully aware of our climate change vision, of our responsibilities and of what they can and should do through their work to contribute to them;
- factor climate change into all of our main business processes and planning, so that it is fully embedded into our core work;
- work alongside partners to help demonstrate how an organisation can embed climate change into its business;
- ensure our internal resource planning processes enable the right SEPA resources to be available at the right time to deliver our climate change actions;
- review all of our main policies, strategies and guidance to identify opportunities to take forward climate change action.



Greening SEPA further

Reducing our own emissions

From 2006/7 to 2012/13 we have reduced our greenhouse gas emissions by 10.1%. Emissions from business travel are down by 30% since 2006/7, including a 93% reduction from domestic flights. We continue to reduce our business car mileage (down 15% between 2011/12 and 2012/13) and increase our use of pool cars and public transport. Every year we publish externally validated annual reports on performance against all of our environmental targets.



We will continue to improve our own environmental performance and demonstrate this by:

- retaining certification to the ISO standard 14001 for environmental management;
- acting to reduce our overall greenhouse gas emissions by 42% from 2006–2007 to 2020;
- setting interim targets to reduce our emissions from specific areas;
- meeting our waste reduction targets;
- maintaining a roadmap to track and plan emission reductions in line with our targets.

Embedding ecosystem services

The benefits from the environment that people rely upon for their economic and social health and well-being are known as ecosystem services. Changes to our climate will affect the ability of our environment to deliver these benefits. We will investigate how taking account of ecosystem services can improve our understanding of the impact that environmental change has on people and how this can be embedded into our decisions.

By using ecosystem services to describe the benefits that people gain from our environment, we will be better able to:

- communicate the significance of climate change;
- make decisions that take account of and compare different types of environmental changes (including changes to climate);
- assign relative priority to our work on climate change when compared with other environmental protection work.





Making our plans happen

Publishing *Our climate challenge* is the first step on a five year journey. Delivering on the ambitions we have set is key to ensuring that we make a real difference to meeting Scotland's climate challenge. To help ensure effective delivery we believe there are three additional components central to success:

Delivery Plan

Bridging the gap between *Our climate challenge* and making it happen is an internal Delivery Plan. This sets out specific activities under the four strategic themes, which provide the means of realising our desired outcomes.

These activities are split into two types:

- committed actions that are already resourced with plans in place to deliver these;
- proposed actions that we aim to develop, resource and bring forward through the life of *Our climate challenge*.

The Delivery Plan is a dynamic document with proposed actions becoming committed actions when scoped, prioritised and resourced. The plan will be continually reviewed and updated as new challenges and opportunities emerge. It will also identify the key partners we need to work with.

Governance

Our climate challenge is governed by a dedicated internal board that will monitor the actions in the Delivery Plan and make key decisions about its progress and delivery.

Annual report

We will report annually on our progress in delivering *Our climate challenge* through an annual report against Public Bodies' Climate Change Duties. This report will highlight the key areas of progress made during each financial year towards the achievement of the strategic themes and outcomes. The report will be independently validated and included in our annual Sustainability Report.