

One Planet Prosperity - A Framework for Water

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Every day SEPA works to protect and enhance Scotland's environment, helping communities and businesses thrive within the resources of our planet.



We call this **One Planet Prosperity**

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Introduction

Scotland is renowned worldwide for the quality of its rivers, lochs, wetlands and seas. They are some of the country's greatest natural assets; attracting visitors, contributing to the health and well-being of its people, supporting a rich diversity of wildlife and providing for the sustainable growth of its economy. Water is a resource that underpins key industries like food and drink production. Maintaining this enviable reputation for the quality of Scotland's water environment is important for Scotland's continued economic success and well-being.

However, Scotland like many countries across the world, uses too many natural resources, including water. If everyone lived as we do in Scotland, we would need three planets to sustain our way of life. Clearly we only have one. This overuse of natural resources is damaging the planet and threatening our way of life. Biodiversity is in decline and parts of our freshwater environment and oceans are polluted with waste materials, including plastics.

The climate is changing and we are facing a climate emergency. Nine of the 10 warmest years for the UK have occurred since 2002, and 7 of the 10 wettest since 1998¹. Climate change could see summers in Scotland up to 4.8 degrees warmer and 40% drier². The science on climate change is clear, droughts will become more frequent and we will experience more damaging floods. Scotland's population is also growing, placing increasing demands on land and natural resources as we build more homes and infrastructure, increase water supply, grow more food and produce more waste.

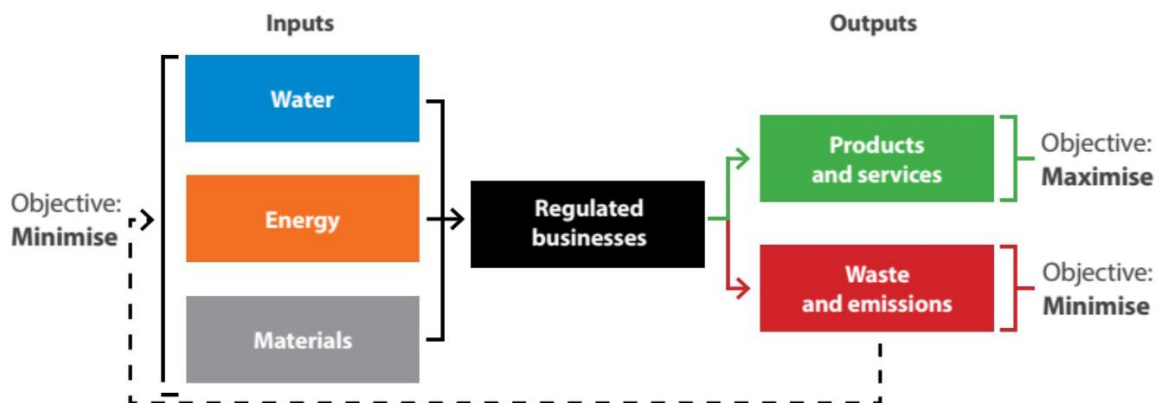
All parts of our communities, businesses and the Government will have key roles to play to enable Scotland to successfully tackle this challenge in the 21st Century. We need to find new and innovative ways of using less resources while also creating economic and social success.

SEPA is doing its part through a new regulatory strategy, One Planet Prosperity. We are working with businesses to help them comply with environmental regulations, while finding ways to work with as many as possible to go beyond compliance to use energy, materials and water more wisely. To achieve this, we are taking a coordinated approach to working with sectors through sector plans. They are our strategic plans for shaping our interactions with every sector and the

¹ State of the UK Climate 2017: <https://rmets.onlinelibrary.wiley.com/toc/10970088/2018/38/S2>

² Met Office UKCP18 predictions for a location in central Scotland under high emission scenario.

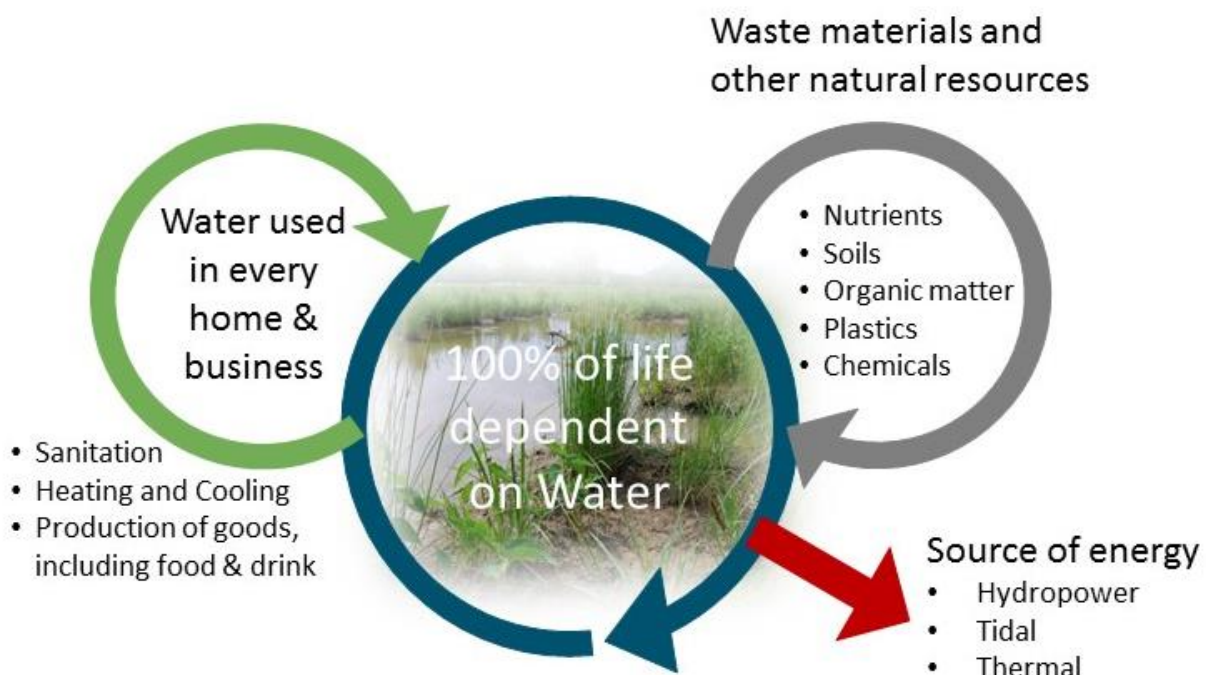
operators in them and will be at the heart of everything SEPA does. Many of these sectors have a big role to play in managing the water environment – including water supply and waste water, Scotch Whisky, crop production, dairy production, finfish aquaculture and housing. The plans contain specific actions targeted at achieving compliance with environmental standards – such as a strengthened regulatory framework for marine pen fish farms, as well as important opportunities to move beyond compliance.



SEPA, as lead for river basin management planning in Scotland, is in a strong position to help deliver One Planet Prosperity through our water work. SEPA's Framework for Water sets out how we will focus and target our water work, in partnership with others, to support the sector approach and delivery of One Planet Prosperity. It sits alongside and complements SEPA's Waste to Resources and Energy Frameworks. The Framework for Water will also support and complement SEPA's developing Flood Strategy.

Water and the circular economy

The 'extract-make-dispose' approach to natural resources in large parts of the economy is mirrored in how we use water through 'abstract-use-discharge'. In light of the climate emergency and biodiversity crisis, this has to change. The principles of a circular economy (design out waste, keep resources in use, restore the natural environment) apply equally to water and can help ensure we live and prosper within the resources of one planet. The following summarises how water fits with the circular economy³:



- The water environment is essential to all life in Scotland – including water used for human consumption and to support wildlife. This natural water system also supports places that benefit the health and wellbeing of local communities. It's under pressure from climate change and a legacy of historic damage. We must protect the water environment from further harm and look for opportunities to restore it and increase resilience to climate change.
- We abstract water from the environment and use it in our homes and businesses for sanitation; heating and cooling; and in the production of goods, including food and drink. The treatment, transfer and disposal of water for these uses requires a large amount of

³ Adapted from work by the Ellen MacArthur Foundation, Antea Group and Arup.

energy and materials. There are significant opportunities to use water more efficiently, waste less and find alternatives to water wherever possible.

- Water acts as a carrier of waste materials and other natural resources. This can be by design, for example to carry waste from our public sewer systems, or inadvertently as waste materials such as plastics are discarded and end up in the water environment. Poor land use practice in the production of food can also lead to the loss of valuable natural resources, such as soils, nutrients and organic matter which can be washed off land and carried in rivers and lochs to coastal waters. There are significant opportunities to reduce this waste, keep materials and natural resources in use, save money for businesses and prevent harm to the natural environment.
- Water, through its physical properties, can be used as a source of low carbon Energy. Renewable energy can be extracted through hydropower and tidal schemes, and heat can be recovered from sewers. There are significant opportunities to optimise the extraction of energy from water.

Purpose and Outcomes

The purpose of SEPA's Framework for Water is to:

Focus our management of the water environment so that Scotland can live and prosper within the resources of one planet.

To achieve this, working in partnership with others, we have five specific outcomes that will guide where we put our efforts:

1. Secure fair and efficient use of water resources in homes and businesses. Look for alternatives wherever possible and waste none.

3. Increase the resilience of Scotland's towns, cities, countryside and coastlines to climate change.

5. Create a high quality water environment near to where people live and work, for recreation, amenity and active travel.



2. Ensure businesses have access to a high quality water environment to support sustainable economic growth

4. Protect and restore the water environment to support rich and diverse wildlife.

How we will work

We will use two ‘lenses’ to organise and prioritise our work – a sector lens and a place lens. The sector approach will maximise our influence to deliver the outcomes of SEPA’s Framework for Water. A focus on place will identify opportunities across sectors and deliver multiple benefits in communities, towns, cities and catchments.

We will also:

- Use the Framework for Water to focus and prioritise our work. We will prioritise work where it secures multiple benefits. In particular, we will focus on where the work helps Scotland deal with the Climate Emergency through mitigation, adaptation and reducing resource use and waste.
- Continue to develop our whole system focus to gain multiple benefits across water, energy and materials.
- Build on our proven ability to develop strong and effective partnerships to deliver actions.
- Through regulation, protect the water environment and ensure compliance with environmental standards.
- Seek innovation and new ways of working – not business as usual. We urgently need a step change in approach to meet 21st century challenges.
- Where possible, avoid actions that use large amounts of energy and materials.
- Focus our monitoring of the water environment to understand the use of this essential natural resource and inform where we can most effectively target our effort.

SEPA’s role in water management is crucial to our efforts to deliver a circular economy for water. Our water management responsibilities, together with the supporting evidence, regulations, funding and input of other public bodies, give SEPA a leading role in how water is used and managed in Scotland.

What success looks like

We'll know when Scotland is making progress towards a circular economy for water that supports one planet prosperity when we have:

- Waste water systems limiting the loss of materials and resources. (Outcomes 1, 2, 3, 4, 5)
- Water supply to homes and business resilient to droughts. Farms resilient to droughts and using water efficiently in the production of crops and livestock. (Outcomes 1, 3, 2, 5)
- Restored rivers supporting the health and wellbeing of local communities by providing opportunities for active travel, recreation and amenity. Blue-green infrastructure (natural or nature based features such as rivers, burns, ponds and swales) in our towns and cities helping manage surface water during periods of intense rainfall, improve air quality and mitigate the impacts of higher temperatures and droughts. (Outcomes 3, 4, 5)
- A resilient water environment in rural areas, limiting damage caused by floods and erosion, and supporting wildlife. Soils, nutrients and organic matter managed well on land, reducing waste and protecting the water environment and the benefits it provides. Catchments storing and slowing floodwaters, reducing run-off and increasing groundwater recharge. (Outcomes 1, 2, 3, 4, 5)
- Clean and safe bathing beaches and shellfish growing areas. (Outcomes 2, 4, 5)
- Homes and businesses reducing the use of water and recycling it wherever possible. (Outcomes 1, 4)
- Controlled the spread of damaging invasive non-native species in rivers, lochs and coastal waters. (Outcomes 4, 5)
- Water of consistently high quality for people, business and wildlife across Scotland. (Outcomes 2, 4, 5)
- Migratory fish able to access spawning and rearing grounds. (Outcomes 4, 5)