



**Scottish
Water**
Trusted to serve Scotland





We support a flourishing Scotland by providing a reliable supply of high quality, great tasting drinking water



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The Scottish Government invited Scottish Water to work with those engaged in the water sector to develop an ambitious long term vision which sets out how the sector will deliver its vital services and provide leadership in responding to the climate emergency. The vision, which is aligned to the United Nations Global Goals and the Scottish Government's National Performance Framework, is:

Scotland's Water Sector Vision



Scotland's water sector will be admired for excellence, secure a sustainable future and inspire a Hydro Nation.

Together we will support the health and wellbeing of the nation. We will ensure that all of Scotland gets excellent quality drinking water that people can enjoy all of the time. Scotland's waste water will be collected, treated and recycled in ways that generate value and protect the environment. We will enable the economy to prosper.

We will transform how we work to live within the means of our planet's resources, enhance the natural environment and maximise our positive contribution to Scotland achieving net zero emissions.

We will involve and inspire Scotland's people to love their water and only use

what they need. We will promote access to the natural environment and encourage communities to enjoy and protect it.

We will be agile and collaborate within the sector and with others to be resilient to the challenges which will face us. We will keep services affordable by innovating and delivering the greatest possible value from our resources, helping those who need it most. We will serve all customers and communities in a way that is fair and equitable to present and future generations.

We are a vital part of a flourishing Scotland.



THE GLOBAL GOALS



National Performance Framework



Douglas Millican
Chief Executive
Scottish Water



Introduction

Scottish Water has a crucial purpose – at the heart of our country – to support a flourishing Scotland through being trusted to care for the water on which Scotland depends.

We are proud to provide water and waste water services that are essential to everyday life for households and businesses across Scotland. Our drinking water, the quality of Scotland's water environment, our customer experience and our efficiency are at their best ever levels. We make a critical contribution to Scotland's health, well-being and prosperity, the sustainability of our natural environment, and our country's long term economic success.

We are publicly owned and commercially managed, ultimately answerable to the people of Scotland for the services we deliver. We continuously listen to our customers and communities to understand their expectations and seek to meet these wherever possible.

Our household and business customers rightly expect reliable supplies of high quality tap water and for their waste water to be taken away and returned safely to the environment. Whatever the long term challenges, we will do our utmost to meet those expectations and further build our customers' trust in us.

Scottish Water is a long term business - where the assets that provide our vital services can last for decades or even centuries, and our customers depend upon our services throughout their lifetime. As such we have worked with our stakeholders to develop this strategic plan, which describes how we will seize the opportunities and rise to the challenges ahead - building on past success to meet customers' expectations, deliver

Scottish Ministers' objectives and play our leading role in achieving Scotland's ambitious Water Sector Vision.

Over 150 years ago the Victorian pioneers created the water industry in response to the public health crises of that time. At the start of this century, Scottish Water was created to transform the industry's performance; delivering substantial improvements to drinking water quality, environmental protection, efficiency and customer service. Over the next 25 years this plan will enable Scottish Water to transform how services are delivered again as we deal with the climatic threats to our services, replace our ageing assets, and play our full part in reducing emissions to beyond net zero.

The climate crisis

Our biggest challenge and wider responsibility relates to the global climate crisis. We have already made a strong contribution to Scotland's emissions' reduction through renewable energy generation and energy efficiency - enabling renewable energy generation of over twice the electricity that we consume in our operations.

We will play our full part in achieving the Scottish Government's climate change commitments through an ambitious plan to secure net zero emissions by 2040 and going beyond that thereafter. This will be an immense – but necessary – challenge as many of our assets may be largely unchanged by 2040, and therefore significant additional activity will be required across all our other activities to compensate for continuing emissions from large parts of our asset base.

During 2020 we will develop a route map, setting out how we will lead our industry to achieve net zero emissions; involving radical action, transformative change and additional investment¹.

Adapting our services

The climate crisis is also a present reality, and growing challenge and uncertainty to delivering the reliable services our customers expect. Climate change is impacting right across the water cycle, and this will only increase as the planet heats further, from changing the quality of the source waters that we treat to provide drinking water, through to dealing with the extremes of flooding and drought. These are serious, uncertain and costly challenges that we will increasingly face, but we are committed to dealing with them well.

To deliver consistently excellent services we rely on a vast number of complex and diverse assets, including over 2,000 water and waste water treatment works and an underground pipe network of nearly 100,000 km. Many of our assets were built over 50 years ago, and some of our water mains and sewers are well over a hundred years old; it is inevitable that every day assets can fail and there is potential for customers to experience disruption to their water and waste water services.

Managing the risk of failure of our assets more effectively has been key to improving service levels in recent years. While we will continue to excel in this, pursuing ever greater operational effectiveness, we must increase investment significantly to ensure we can replace ageing assets and deal with climate change.



Customer expectations

Over the past two years, working with the Customer Forum², we have shared the long term opportunities and challenges we face with our customers, communities and stakeholders, and asked over 25,000 people for their views on our proposals to serve them in the decades to come. Customers' expectations of the services that we deliver, and the way in which we act, continue to evolve and we anticipate that these will further grow and change. However it is clear that our customers expect us to act responsibly, and when we engage with them, to be open about the challenges we face and the implications for them of the cost of delivering their services³.



To meet the challenges of the future, we are embracing a new regulatory approach

Our strategic plan

This plan is focused on how we will meet our customers' current and future expectations; pursuing excellence in all we do, seeking always to act responsibly and ethically, building trust, leading and inspiring others, to achieve three strategic outcomes that are aligned with our role in achieving Scotland's ambitious Water Sector Vision. These outcomes are:

- **Service excellence** adapting to a changing climate, dealing with our ageing assets and meeting our customers' evolving expectations.
- **Beyond net zero emissions** showing leadership in mitigating climate change and enhancing Scotland's natural environment.
- **Great value and financial sustainability** customers will receive great value, now and in the future, and we will be financially sustainable.

In previous periods, we have operated successfully within the traditional regulatory framework of delivering clear commitments for an agreed level of funding. To meet the challenges and uncertainties of the future, we are embracing a demanding new regulatory approach that will enable us to prioritise and plan investment through a rigorous, dynamic and rolling process.

Our plan contains areas that we will need to transform as well as those that we will continually improve. Key areas that we will transform include:

- eliminating the net emissions associated with our activities,
- our approach to investment planning and the long term management of our assets,
- the robustness of our water supply systems,
- the management of surface water,
- embracing the circular economy,
- activities whose cost can be transformed through simplification and technology, and
- the way in which our people and supply chain partners work to deliver our services.

In addition, we will continue to innovate and improve activities including: how we deliver our water and waste water services, the quality of service we provide to our customers, our support for new housing development and economic growth, and the efficiency of all our activities.

Delivering our plan

Over the last decade we have achieved greater efficiency, enabling us to reduce real household customer charges by 10%. Transforming our activities to meet the challenges ahead will not allow us simply to replace assets on a like for like basis. Although there are major uncertainties in understanding the full costs and timing of the necessary investment, replacing our ageing assets and dealing with climate change mean there are significant upward pressures on the investment required. While we will remain sensitive to customers' economic circumstances, we currently expect that delivering this investment will likely require moderate above inflation increases in charges, which we will limit by continuing to drive strenuously for greater efficiency, and continued access to borrowing from the Scottish Government.

Over the past decade, efficiency enabled us to reduce real household customer charges.

As the long term cost of delivering this plan becomes clearer, we plan to hold world leading public engagement with customers and communities about the rate of progress that they wish us to achieve and the associated cost, in the context of all their other expectations and financial priorities. We will keep our strategy under review to reflect changes in our customers' and stakeholders' expectations, or the external environment, and our ever greater understanding of the costs of delivering this plan.

This plan will be achieved by everyone involved being fully committed to our ambition and the transformation of many aspects of our activities – whether our own people or those engaged through our supply chain and partners. Over the next year, we will engage them in this new transformation and in identifying how our character (our values and behaviours) should evolve, building on our existing character that reflects the dedication and passion of our people for serving our customers.

Scottish Water endeavours to be fully open and transparent but – as a large organisation – there is more we can do to ensure this is how we are always perceived. Through the creation of our future character and the development of our people, we will seek to ensure that everyone operates in a fully open and transparent manner.

Climate change affects the quality of source waters that we treat to provide drinking water.



We will continually enhance the way in which we involve customers and communities in decision making and provide information that is accessible and meaningful for those who wish to understand more about our activities, performance and prospects.

Over the next year we will prepare a Delivery Plan for the 2021-27 period setting out our plans and priorities for the first part of this strategic plan period, including milestones and targets that will be updated annually thereafter with our stakeholders. Each year we will also publish a performance report setting out all aspects of our current performance, future prospects, and key areas of learning and future improvement, with an interim report being provided every six months. We will work with stakeholders to demonstrate to customers that their money is being invested wisely by extending assurance frameworks to reassure our customers about the effectiveness and value of our investment activity.

We are proud of the part we play in water being Scotland's most trusted industry. We are ambitious to do more – building our customers' trust as we undertake this next great transformation and fulfil our purpose of supporting a flourishing Scotland.

Douglas Millican • Chief Executive

We will fulfil our purpose of supporting a flourishing Scotland by pursuing ten strategic objectives which will enable us to achieve our three strategic outcomes, all of which will ensure that we play our leading role in achieving Scotland's ambitious Water Sector Vision.

This plan is highly inter-connected where many of the strategic objectives contribute to multiple outcomes. However, on the following pages each strategic objective is described within the section associated with the principal outcome that it will achieve.

Plan on a Page





Scottish Water

Trusted to serve Scotland



Your water
your life



Can't top up?
Call 0800 0778 778

Service Excellence

E TAP

Service Excellence

Adapting to a changing climate, dealing with our ageing assets and meeting customers' evolving expectations

We support a flourishing Scotland by providing a reliable supply of high quality, great tasting drinking water, safely collecting, treating and recycling waste water, enabling sustainable and inclusive economic growth and empowering customers and communities.

Our services will be increasingly challenged by the impacts of our changing climate and environment. Global heating is already causing an increasing frequency of extreme weather events, including an increase in rainfall intensity and prolonged dry spells. Although the precise impacts of global heating are highly uncertain, we expect that more extreme weather will lead to an increase in sewer flooding and impact the quality and availability of our source waters.

We will increasingly face these serious, uncertain and costly challenges, but we are committed to adapting to our changing climate. We set out in the sections below how we will transform and deliver the vital services which our customers expect.

To deliver these services we depend on a healthy natural environment including water catchments that must be safeguarded. We also depend on a large system of complex and diverse physical assets. Our physical assets generally either:

- have many decades of remaining life, and where we will pursue excellence in their operation and maintenance;
- have substantial remaining life, and where there is scope to improve their performance and extend their life through investment or operational optimisation; or
- will need to be replaced or significantly enhanced, and where we will maximise the scope for transformation in the way in which the associated services are delivered.

Delivering consistently excellent water supply

Our overall water quality compliance is generally high and we have made significant progress in reducing the risks associated with contaminants that have the greatest impact on public health, as well as reducing the number of drinking water quality incidents, interruptions to customers' supply and leakage to below the economic level.

We are committed to building on this strong foundation to increase the reliability and resilience of our water service and to provide excellent water quality to all of our customers.

To achieve this we will transform the water service, taking a systems based approach, working in partnership to protect source waters, boosting the capability of our water treatment works, and increasing the resilience of our supplies. We plan to remove lead from the public water network by 2045, and work with partners and customers to provide access to a lead free water supply.

Water availability

We must ensure that there is sufficient availability of source water that can be treated for supply to our customers, even during more extreme droughts. We will achieve this largely by reducing the amount of water we take from the natural environment through reduced leakage, improved operational efficiency and inspiring customers to use water wisely, in alignment with the Scottish Environment Protection Agency's (SEPA) water supply and waste water sector plan⁴.

Source water quality

The water we use to produce drinking water is predominantly taken from surface water sources such as lochs and rivers. In Scotland these source waters are particularly rich in organic matter, and concentrations of these have increased over recent years, placing significant strain on many of our water treatment works. We expect this challenge will continue to grow and we also expect to experience increases in bacteriological and algae growth within surface water sources during extended hot weather. These are leading us to use more chemicals, and install additional treatment stages to meet drinking water quality standards.

However, we will do all we can to minimise the cost to our customers of dealing with these adverse environmental changes. We will develop partnerships with local land owners, communities, NGOs and other stakeholders to promote land restoration and catchment

enhancement to manage the quality of our source waters, targeting catchments where source water quality is deteriorating and those catchments which may be at risk of future deterioration.

Water treatment

To minimise the cost to customers, we will optimise and maintain our water treatment assets, extending their life and ability to provide excellent quality drinking water.

However, we must also transform the capability of many of our water treatment works so that they deliver consistently excellent quality drinking water, particularly to meet the challenges from our deteriorating source waters and adapting to the changing climate. As we improve those works that are already known to have short-comings, other gaps in capability will emerge as other assets become challenged by further climatic changes.



To manage the quality of our source waters, we will develop partnerships with land owners, communities, NGOs and other stakeholders to promote land restoration and catchment enhancement.

This transformation will include stimulating and embracing innovative technologies and partnerships to minimise resource use and reduce the emissions' impact of treating drinking water.

Water supply

We must safeguard the quality of water until it reaches customers' taps. This will involve improving the integrity of our service reservoirs and pipe network, removing lead from our network, and taking a leading role in partnering with others to support customers' access to a lead free water supply.

Most customers only receive drinking water through a single supply system and are vulnerable to an extended interruption due to climate change and ageing assets. We will

transform the interconnectivity of our major water supply systems over the coming decades, prioritising the highest risk systems first, so that customers will ultimately have a more resilient water supply.

Transforming waste water services

Conventional approaches to waste water collection and treatment have served us well, but a transformational approach is needed as the climate crisis and population change put our waste water systems under increasing pressure.

The majority of sewer flooding and pollution incidents are due to blockages, often caused by people disposing of items such as nappies, sanitary items, wipes and cooking oils down the drain. However, the more serious repeat occurrences are a result of storm water

overwhelming the fixed capacity in the sewer system because of increasing rainfall and more paved surface areas; as our climate changes, greater rainfall intensity will significantly increase the problem.

Many of our waste water treatment works are close to capacity and our treatment processes, while providing essential protection of the water environment, are both energy and carbon intensive.

We will transform the reliability, resilience and sustainability of our waste water service to ensure Scotland's waste water is collected, treated and recycled in ways that generate value and protect the environment.



Waste water collection

The changing climate and population growth mean that we are thinking differently about how our sewerage network should meet customer service expectations, as well as supporting the environment and economic development in the decades to come.

We will develop Drainage and Wastewater Management Plans for all our sewer catchments to ensure we understand and manage the risks to their effective operation. Today we have very limited real-time visibility of our sewers' operation so we will transition to smart sewer networks; to provide the visibility and capacity control to reduce the risk of customer flooding and pollution incidents.

We plan to lead the transformation of the management of surface water, working in partnership with Local Authorities, SEPA, house builders and communities. We will promote blue-green approaches and drive innovative solutions to reduce flooding and pollution and create better places to live.

We will continue investing to reduce the risk of flooding to customers impacted by repeat high consequence sewer flooding, and the risk of unsatisfactory intermittent discharges to the natural environment, where it is not disproportionately expensive.

We will boost our work to influence and inspire manufacturers and our customers to change their approach to disposal of inappropriate items to sewers, to minimise blockages and the harmful chemicals, plastics and debris that can reach our rivers and beaches and endanger aquatic species.

There are a wide range of emerging pollutants that can enter the environment through the water cycle. To understand and mitigate the associated risks, we will continue to work in partnership with others to undertake research, identify and implement source control and promote regulatory change where necessary and possible. Where necessary source control is not feasible, we will assess how to optimise or improve our waste water treatment works.

Waste water recycling

As with our water service we will optimise and maintain our assets, extending their life and ability to provide essential environmental protection. We plan to transform our waste water treatment works to recycling and recovery centres over the coming decades, continuing to safely treat and return waste water to the water environment, while converting these assets into being energy positive. This approach is aligned to SEPA's water supply and waste water sector plan.



We will improve the capability and energy efficiency of our waste water treatment works, taking advantage of developments in control and instrumentation technology to maximise their potential and reduce their energy use.

We plan to demonstrate this, and other technologies, at scale and then roll them out across our asset base as treatment assets need replacing, or earlier, to achieve our beyond net zero emissions' commitment.

Bio-resources

Currently 40 Gigawatt hours (GWh) per annum (pa) of renewable energy is generated from our bio-resource⁵, predominantly at assets managed under Private Finance Initiatives (PFI),



We plan to lead the transformation of the management of surface water, working in partnership with Local Authorities, SEPA, house builders and communities

and there is potential to increase this by up to 100GWh pa. We are also working with SEPA as part of our Sustainable Growth Agreement to look for opportunities for co-digestion with other wastes. We will explore these opportunities and develop plans to maximise the potential of this valuable resource to support our commitment to beyond net zero emissions.

Enabling sustainable and inclusive economic growth

Enabling new housing and business growth

Every day we connect new houses and businesses to our water and waste water networks across Scotland. This activity, both in housing and industry, is a vital component of ensuring Scotland has a prosperous and inclusive economy.

We expect significant growth in the number of properties to be served, particularly in the east of Scotland, because of forecast population growth and continuing reduction in average household occupancy, although the precise impact of this on our activities is uncertain.

To enable new housing and business growth sustainably and cost effectively we will continue to work collaboratively with developers, planning authorities and other agencies to understand the timing and scale of their new developments.

We will also:

- Encourage development where we already have capacity by influencing decision makers in government, local authorities and developers.
- Develop schemes for new strategic capacity where it is highly likely that capacity expansion will be required, commencing delivery of new investment as development is confirmed so that our new assets are ready 'just ahead of need'.
- Take the lead in providing strategic water and waste water infrastructure where it is most cost effective to do so, and there is high confidence that the associated development will progress.
- Encourage development of water efficient homes and provide access for developers to low carbon, standard water and waste water infrastructure products to make adoption of new assets easy and efficient for everyone involved.

In addition, we will work with the Scottish Government, the Water Industry Commission for Scotland, the development community and customer representatives to ensure that long term funding arrangements contain appropriate incentives and represent a fair allocation of cost between developers, new customers and existing customers.

Increasing support for a prosperous economy

The water sector in Scotland provides 16,600 direct jobs and has a turnover of £3.7 billion. Scottish Water is the single largest contributor to the sector's economic impact, a major employer, landowner, and a partner to many other businesses and sectors.

We are one of the biggest investors in Scotland's infrastructure, investing more than £650 million annually on goods and services with more than 75% of this staying in Scotland, helping to create and sustain jobs in our supply chain. We directly employ around 4,000 people and indirectly employ around 3,000 more in quality jobs and fair work. We expect our investment to grow to over £1 billion per annum over the next 25 years and we will work with firms across the sector to build a sustainable supply chain for the future, championing low/no emission approaches.

We will work to grow the value of Scotland's water resources, contributing to the creation of a vibrant and dynamic water economy that brings benefits to all of the people of Scotland. We will work with partners to fulfil Scotland's potential to attract and develop opportunities for businesses or industries for whom a large volume of water is a critical resource.

Sustainable rural water supplies

Whilst we supply 97% of households and businesses in Scotland, the remainder are on private water supplies, usually in rural areas where communities' water supplies can be vulnerable to the impact of extreme weather. We know that the quality and quantity of these private supplies is often poor and impacts not only on people's health but also on the ability for these areas to grow and thrive.

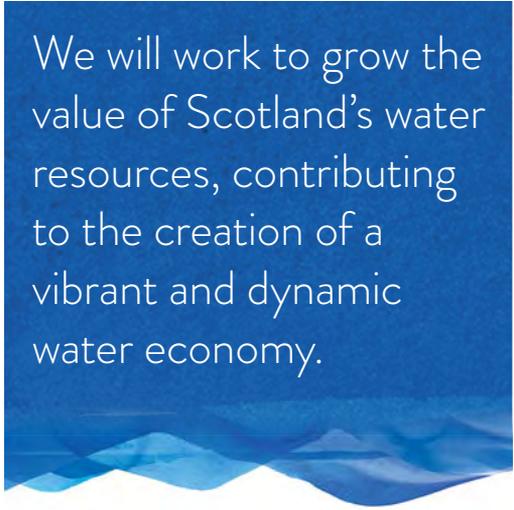
To ensure that all of Scotland gets excellent quality drinking water, we will support the Scottish Government in its approach to private supplies; making this area a key focus for innovation and developing support services for those on private supplies on a not-for-profit basis.

Empowering customers and communities

Delivering a consistently excellent customer experience

We have significantly improved the experience provided to customers and now provide a leading service experience. Customers' expectations will continue to evolve; our key priority is to consistently understand, anticipate and meet these as they grow and change.

The foundation of excellent customer experience is delivering the excellent water and waste water services described in this plan. When a problem occurs customers must receive a rapid and personal resolution.



We will work to grow the value of Scotland's water resources, contributing to the creation of a vibrant and dynamic water economy.

Our customer principles will guide the way we interact with customers and communities. We will adopt new technology and enhance our support for customers in vulnerable circumstances or who experience service issues caused by their own plumbing.

We will continue to prioritise investment to deal with assets whose repeat failure causes regular service impacts to a small number of household or business customers.

We will create the best possible retail environment and ensure we are a great wholesaler, ensuring it is easy for Licensed Providers and business customers to do business with us and pursuing charging structures that incentivise good practice.



Involving and inspiring our customers and communities

As Scotland's most trusted consumer industry we already have good relationships with the customers and communities we serve.

We recognise that societal expectations are changing; we will therefore transform our relationships with customers and communities, making them active and two-way. This means enhancing the way we involve them in investment projects: embracing joint working with communities where this creates better places to live; implementing world leading public engagement; and extending our education programme. We have valued the input of the Customer Forum and are committed to ensuring a continuing, active, independent customer perspective on the services we provide. We will work with stakeholders to determine how this will be achieved.

We will enable deeper understanding among customers of their water and the water environment, empowering customers and communities to play their role in keeping the water cycle running smoothly, managing surface water and becoming more water efficient, to achieve a more sustainable future together.

We will extend our 'Your Water Your Life' campaign, including our network of Top Up Taps, to encourage people to carry a refillable water bottle and refill with tap water.

We also recognise that it is critical to keep people safe around water, so we will continue to work in partnership with Scottish Swimming to deliver swimming lessons to pre-school and primary school-aged children.

Our People

Delivering service excellence depends on the engagement and skills of our people in all aspects of our activities.

We will continue our industry leading focus on the safety, health and well-being of our employees.

We will further enhance our diversity and develop the people and skills we need for the future, through investment in training, our commitment to innovation, our work with education, our youth talent pipelines, the development of our leaders and appropriate reward arrangements. We will collaborate with our partners, local authorities and skills development bodies to develop how our resourcing and talent planning could help benefit the most deprived communities in Scotland.



Beyond Net Zero Emissions

Beyond Net Zero Emissions

Showing leadership in mitigating climate change and enhancing Scotland's natural environment.

We will support a flourishing Scotland by going beyond net zero emissions, embracing the circular economy and enhancing Scotland's natural environment.

Through our leadership we will drive progress in this area aligned to the Scottish Government's environment strategy and climate change plan, and SEPA's ambitions for 'One Planet Prosperity'.

Transforming our emissions

We have already made great progress in reducing our operational carbon footprint by 41% since 2006. We are committed to achieving net zero emissions by 2040 and going beyond that thereafter.

This is an immense challenge due to the amount of electricity and chemicals we use to deliver our services. The greenhouse gasses emitted through our waste water treatment processes and in delivering our capital investment programme represent a significant operational and embodied⁶ carbon footprint.

During 2020 we will produce a route map setting out our plans to achieve net zero

emissions by 2040. To achieve this, we need to transform practices up and down our value chain.

Throughout this plan, we have set out the measures that we can identify today which will contribute to this outcome, while also delivering service excellence and great value. These include:

- Increasing our own and hosted renewable energy generation from 200% to 300% of our electricity usage by 2030.
- Investing in energy efficiency to further reduce our operational carbon footprint.
- Transforming our investment decision making to encompass 'six capitals'⁷ approaches.

- Partnering with our supply chain to support low carbon construction, innovation and the transformation in skills needed.
- Seeking out new technology to eliminate greenhouse gas emissions from our processes, fleet and buildings, working with our regulators where innovative approaches are required.
- Transforming how surface water is managed.
- Developing a new 'circular economy' waste water recycling and recovery concept works that will convert sewage into energy and recover nutrients and bio-resources and build partnerships to maximise the unique opportunity that we have for recovering heat from our sewers.
- Reducing the amount of water we take from the natural environment by seeking innovative approaches to finding and fixing leaks across both our, and our customers', networks, and inspiring and empowering household and business customers to only use what they need.
- Working in partnership with communities, NGOs and others to maximise the role our land and catchments can play in capturing and storing carbon.

Embracing the circular economy

To deliver net zero emissions we will embrace circular economy thinking across all we do. We will transform our investment appraisals to support the three core principles of: design out waste and pollution, keep products and materials in use, and regenerate natural systems.

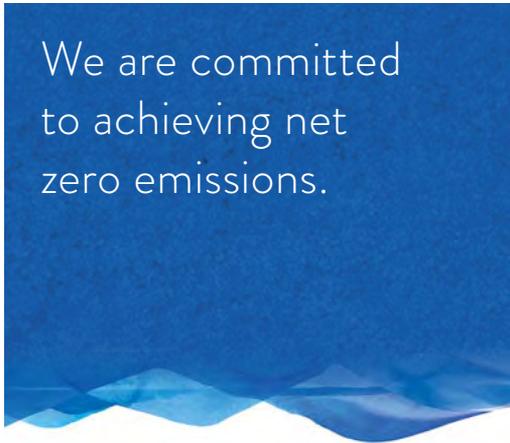
We will maximise the life of our existing assets. When constructing any new asset we will embrace low carbon construction and pursue opportunities to reduce the amount of carbon that is embodied in the materials and services we purchase.

Enhancing the natural environment

We will seek out opportunities to enhance the natural environment, reducing the water we take from the natural environment and using our land and assets to increase biodiversity, planting trees, restoring peatlands and creating better places to live.

We will work with the Scottish Government, regulators, and developers to secure policy and planning approaches that achieve a sustainable urban drainage landscape, increase the resilience of our water supplies and enhance urban living and biodiversity. This will require major change in other sectors such as town planning, housing, regulation and a wide range of business sectors in order for us to succeed. We welcome SEPA's commitment to partnering with us to drive forward these major changes.

Scottish Water's reservoirs and other landholdings are a significant resource and part of Scotland's 'natural capital'. We will manage them in a way that increases the contribution they can make to our natural and social capital. As a major landowner in Scotland we will seek to connect communities to their local environment and support tourism by enabling access to our assets, particularly reservoirs and upland catchments for leisure purposes.



We are committed to achieving net zero emissions.



As a major landowner in Scotland we will seek to connect communities to their local environment and support tourism by enabling access to our assets.





Great Value and Financial Sustainability

Great Value and Financial Sustainability

Customers will receive great value, now and in the future, and we will be financially sustainable

We support a flourishing Scotland by ensuring that our services are affordable for customers while we are financially sustainable and support a prosperous economy.

Over recent years, our efficiency and customer service have both greatly increased. This has enabled us to provide our water and waste water services to household customers, on average, for around one pound per day. This is among the lowest level of charges in the UK, despite serving customers across diverse urban, rural and island communities.

Despite our significantly improved efficiency, there is much more for us to do to ensure that our customers receive great value, both now and in the future, and that we are financially sustainable.

Keeping services affordable

There are significant upward pressures on our costs, and therefore potential customer prices, because of increasing demand for investment from the cost of replacing our ageing assets and dealing with climate change. However, we will limit the rate of growth in our investment programme to that which we can deliver efficiently and effectively, and we are committed to keeping customer prices as low and stable as possible over the long term.

Many households and businesses have been under financial pressure for a number of years. Long term economic forecasts are for growth in the UK economy and household incomes of



We will keep our strategy under review to reflect changes in our customers' and stakeholders' expectations

around 2% pa above inflation⁸. We currently expect that delivering the necessary investment will likely require moderate above inflation increases in charges, which we will limit by continuing to drive for ever greater efficiency.

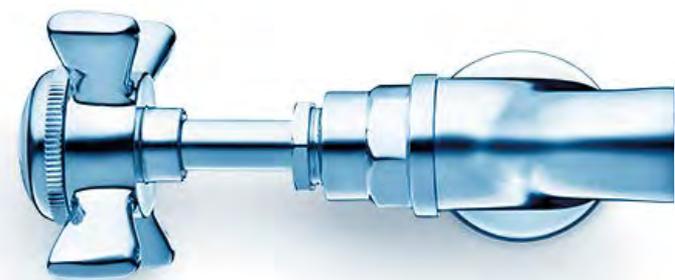
As the long term cost of delivering this plan becomes clearer, we plan to hold world leading public engagement with customers and communities about the rate of progress that customers wish us to achieve and the associated cost, in the context of all their other expectations and financial priorities. We will keep our strategy under review to reflect changes in our customers' and stakeholders' expectations, or the external environment, and our ever greater understanding of the costs of delivering this plan.

Some of our customers will, at times, find themselves in vulnerable financial circumstances. We will work with the Scottish Government, Local Authorities and Citizens Advice Scotland to ensure customers in the most vulnerable financial circumstances receive appropriate support in paying our charges.

Making smarter investment choices

Building a deeper understanding of our assets

To deliver our services we depend on a large system of complex assets. Many of our treatment works were built over 50 years ago, and some of our water mains and sewers are well over a hundred years old.



Some assets, such as dams and most sewers have a very long life, and can continue to remain effective over the long term by appropriately maintaining them. Many of our other assets, including water mains, treatment works and the more complex mechanical, process and electrical assets that we have installed in the last 20 years require to be maintained and then replaced to ensure customers receive the service they expect.

Our current level of asset replacement is well below the long term required replacement rate so we plan to transition to the necessary long term replacement level over the life of this

plan. Our work with our economic regulator, the Water Industry Commission for Scotland, indicates that the replacement value of those assets that need to be replaced (i.e. excluding dams and sewers) is in the region of £30 billion; and the annual amount we must invest in asset replacement will need to increase from around £250m pa at present to over £800m pa in 2045⁹.

While we are transitioning to a sustainable level of asset replacement the condition of our assets will inevitably continue to deteriorate, although we will seek to avoid the impact of this on service delivery through enhanced risk management.

We are committed to pursuing excellence in our asset management approaches and building an ever deeper understanding of the capability and replacement needs of our assets. We have conducted a detailed review of our current process and practices, and are working with industry experts¹⁰ to co-create a 10 year asset management improvement plan to transform our asset information and investment decision making capability. As part of this, we will further improve our asset information and modelling techniques to understand the risk of failure to service and to strengthen the forecasts of our long term asset replacement needs. We will publish this improvement plan during 2020.



Investment planning, prioritisation and delivery

Our investment needs will continue to increase significantly to replace ageing assets and ensure that our services are resilient to climate change; however the necessary investment to deal with climate change is much more uncertain and will be regularly assessed.

To deliver great value we must maximise the benefit that our investment delivers. We are therefore enhancing our approach to investment planning, including moving to a rigorous, dynamic and rolling process.

We have worked with our stakeholders to develop a new investment planning framework that will prioritise investment to improve asset capability,

We are enhancing our approach to investment planning, including moving to a rigorous, dynamic and rolling process

address compliance issues and risks, meet areas of greatest customer impact, and support new housing and business growth while achieving a net zero emissions future. This new approach will allow us to continually incorporate the latest evidence, collaborating with stakeholders to ensure the costs and benefits of competing investment priorities are considered appropriately across all 'six capitals'. We will also increase stakeholder and community engagement, beginning conversations earlier so communities can influence the selection of the solution by incorporating their thoughts, concerns and ideas into our decision making.

Moving to this new approach will initially be challenging, but will ultimately enable a more flexible and transparent framework through which we can make smarter investment decisions. We are committed to working with stakeholders to continually improve the framework and our approach to investment appraisals.

We are also transforming how we will deliver our investment. Through our supply chain procurement we will ensure a balance of continuity and new approaches. We will grow the capability, capacity and flexibility to deliver more effectively and efficiently while accessing world leading expertise through our existing and new suppliers.



Transforming how we work

Throughout this strategic plan we have identified where we and our partners need to transform. Recognising the scale of transformation needed we have appointed a Transformation and Digital Director to ensure that we adopt a strategic approach to change. We will drive transformation and innovation throughout the business and build the capacity and skills to lead, inspire and influence others to explore new approaches.

Delivering continuous efficiency improvements

In each previous regulatory period, we have been set demanding efficiency targets. At the start of each period, we have not always known how these targets would be met but we have consistently risen to the challenge and delivered greater efficiency.

In delivering this plan, we will take all possible steps to drive for further efficiency setting a stretching target - to achieve, at least, 1% year-on-year real reduction in our broadly recurring costs.

To achieve this we will transform how we work, investing to save and adopting an agile approach to transformation where we pilot new approaches, learn lessons and then scale these fast where there is value in doing so. Our transformation programme will cover all areas of our activity, targeting those areas with the greatest scope for simplification, streamlining and automation.

We will boost investment in our research and innovation programmes, continuing to seek out, trial and implement new working practices, materials and technology. We will expand our partnerships with local and global universities, research institutes and companies which will allow us to identify, develop and implement innovative technologies and approaches. We will also develop open innovation challenges to stimulate research and innovation to address our key strategic issues.

Digital and technological developments will give us new capabilities to collect, analyse, automate, predict, correct in real time and minimise risks. However, we must also take further steps to keep our assets, data and activities safe from threats such as cyber-attacks.

Financial Sustainability

Our plan to deliver great value for customers is based on keeping customer prices affordable over the long term, making smarter investment choices and transforming how we will work.

Private Finance Initiative

Twenty of Scotland's waste water treatment works, and our largest sludge treatment centre, are currently operated under long term Private Finance Initiative contracts, all of which will come to an end by 2040. We will manage the maturing of these contracts on a case by case basis to take advantage of cost and emissions saving opportunities, while managing service risks. We expect to bring the waste water treatment works back under our control at the end of each contract, or earlier if opportunities present themselves. For the PFI contract associated with our largest sludge treatment centre, that expires in 2026, we will fully evaluate all options as market based solutions may offer best value for money and environmental benefit.

Managing cash effectively

Like all major infrastructure providers, we smooth the impact of major investment peaks by borrowing money. We borrow only from the Scottish Government, paying interest on these loans. As historic debt reaches the end of its term, it is replaced by new debt.

We will manage our finances prudently with a view to minimising the long term cost to customers. As such, continued access to appropriate levels of borrowing from the Scottish Government is crucial to enable us to balance the rate of investment with the impact on customer charges during the transition to the long term charge level required to sustainably replace our assets. We will therefore work with the Scottish Government to secure appropriate levels of fixed interest rate borrowing to support the delivery of this plan.

We always aim to have access to £100m cash balances¹¹ so that we can manage any unforeseen shocks.

Broadening our revenue base

The Scottish Water group delivers commercial services in competitive markets, in the UK and internationally. We will grow our income by increasing our own and hosted renewable energy generation to 300% of our electricity usage by 2030 and take advantage of other appropriate opportunities to broaden our commercial

activities. We will also work with our industry stakeholders to continue to identify, and where appropriate, begin to charge any 'hidden customers' – i.e. those that may receive services but don't currently pay for them.

Building trust

Scottish Water endeavours to be fully open and transparent but – as a large organisation – there is more we can do to ensure this is how we are always perceived.

Over the next year we will prepare a Delivery Plan for the 2021-27 period setting out our plans and priorities for the first part of this strategic plan period, including milestones and targets that will be updated annually thereafter with our stakeholders. Each year we will also publish a performance report setting out all aspects of our current performance, future prospects, and key areas of learning and future improvement, with an interim report being provided every six months.

We will work with stakeholders to develop an assurance framework that demonstrates to customers that their money is being used wisely, providing confidence in the effectiveness and value of our investment activities.



We will drive transformation and innovation throughout the business and build the capacity and skills to lead, inspire and influence others to explore new approaches



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Our strategic plan seeks to build the trust and confidence of all our customers, now and in the future.

Supporting Documents

1. [Customer Insight](#)
2. [Investment Planning and Prioritisation Framework](#)



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¹This plan will take us beyond net zero emissions, though the investment required to achieve that may have associated emissions. A short note is available [\[link\]](#) that sets out how we will carry out environmental assessments on our more detailed plans and route maps.

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²In partnership with the Water Industry Commission and Citizens Advice Scotland we established the independent Customer Forum to work with us on understanding the needs and aspirations of customers and communities, and to put them at the heart of this plan.

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³A supporting document on customer insight has been jointly prepared with the Customer Forum.

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⁴A <https://sectors.sepa.org.uk/water-supply-and-waste-water-sector-plan/>

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⁵Enough to provide the electricity to nearly 12,000 homes

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⁶Here the term “embodied carbon” describes the greenhouse gas emissions associated with the (i) extraction of raw materials (ii) processing into products and components (iii) transport and onsite construction associated with our investment programme.

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⁷The ‘six capitals’ reporting framework enables reporting of value creation over time. The framework categorises the capital stocks as social and relationship, natural, human, intellectual, manufactured and financial (International Integrated Reporting council)

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⁸The Long View How will the global economic order change by 2050? (February 2017) PWC.com <https://www.pwc.com/gx/en/world-2050/assets/pwc-the-world-in-2050-full-report-feb-2017.pdf>

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⁹WICS 2019 Decision Paper Asset Replacement https://www.watercommission.co.uk/UserFiles/Documents/2019%20Asset%20Replacement_Final.pdf

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¹⁰Including Professor Bryan Adey, <https://ethz.ch/content/specialinterest/baug/institute-ibi/infrastructure-mgmt/en/personen/prof-dr-bryan-adey.html>

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¹¹A cash balance of £100m represents around 4 weeks of forecast cash requirements.





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