# Our Strategic Direction to 2050

South West Water

Bournemouth Water

Isles of Scilly Water

Bristol Water

## Contents



## About this document

This document sets out our long-term ambition for the water system we operate. It covers the leadership and action we will take, the action needed from others, and the opportunities we must collectively grasp if we are to ensure high quality, reliable and resilient water services alongside protecting the environment for future generations.

## Each and every day we operate a water recycling system for the region. As a responsible business we have set out our strategic direction to 2050, driven by our purpose, to support the lives of people and the places they love for generations to come.

As responsible stewards of the water recycling system, we take in rainfall from the skies and wastewater draining from homes and businesses, we treat it to make it safe, and we release it back into the environment, where it travels to the sea and the cycle repeats.

Over the last 30 years we have invested more than £13 billion in the areas we serve, innovating to deliver world-class drinking water, cleaner, safer bathing beaches and more reliable services. We have also supported nature to thrive and pioneered ways to give our customers a say in our business and a share in our success – all for a little over £1 a day.

Over recent months and years we have engaged widely and heard clear messages from our customers, stakeholders, regulators and investors. Significant challenges lie ahead and some are very real today.

Between now and 2050 we are striving for:

- **Resilient water resources through healthy catchments** – by re-balancing the amount of water we use with the amount we take from the environment
- **Top quality drinking water** – an enduring primary priority through innovating in treatment and distribution of water
- **Controlled and treated wastewater flows** – through reducing our reliance on storm overflows, upgrading treatment capability and creating smart sewer networks which help prevent sewer flooding and pollution incidents
- **Nature recovery and net zero** – by using catchment based, joined up, natural capital solutions which deliver against all our ambitions
- **Being trusted by customers stakeholders and communities** – by delivering against our promises, providing exceptional levels of service and fair and affordable bills.

This document sets out our ambitions to 2050 for the water recycling system, the leadership and action we will take, the action needed from others, and the opportunities we must collectively grasp if we are to ensure high quality, reliable and resilient water services for future generations.

**Our purpose**

**Bringing water to life** – supporting the lives of people and the places they love for generations to come

**90,000**
customers are shareholders

**Our region faces significant challenges, both today and in the longer term**

We serve one of the most distinctive and diverse regions in the UK stretching from Bristol to Bournemouth, Devon, Cornwall and the Isles of Scilly.

Our network stretches over 45,000km across one of the most treasured tourist destinations and, whilst we have 860 miles of coastline and over one third of the country's designated bathing beaches, we have only 5% of the population. Our infrastructure and operational capability must flex to serve the needs of a population that swells to twice its normal size during the summer months as visitors flock to our region.

Our environment is already changing at an alarming rate. The drought of 2022 saw the warmest and one of the driest years on record. By 2050, summers in the South West are expected to be on average 3 degrees warmer than today, with at least 20 days of extreme heat.

The quality of the environment is essential to our communities and the regional economy, but climate change presents new challenges to the water cycle on which this relies. At the same time, expectations on our delivery for customers and the environment continue to grow.

Forecasts suggest over 530,000 additional people will be living and working in our region by 2050, needing 275,000 more new homes, all requiring connection to our network. We will also need to invest to decarbonise our operations, reducing our reliance on volatile and high cost fossil fuels.

**We will drive operational excellence, harness smart technologies and digital solutions to support delivery**

Our ambition is to protect and enhance the environment at every stage of our operational activity. We will deliver reliable, high quality water through investing in smart resilient networks and careful management of catchments, cutting leakage and water wastage by harnessing AI, data analytics and smart meters, seeking opportunities to enhance the biodiversity value of our operational estate.

By developing resilient natural and built wastewater infrastructure that protects communities and the environment, we will maximise the value of wastewater to the environment as a source of water, nutrients and energy, eliminating waste, circulating resources, and regenerating nature.

Our digital transformation will make sure we can meet customers' individual needs providing intuitive, easy to access channels to support day to day interactions and engaging with communities.

**We will deliver fair and affordable outcomes for customers and stakeholders**

We are acutely aware of the current economic climate and the fact under any economic scenario there are always customers in situations which make bills unaffordable.

We will work smarter, utilising new technology, better data and challenge ourselves to be ever more efficient to keep bills as low as possible.

We will protect the most vulnerable members of society through bespoke services and affordable bills. We will use innovations in charging to ensure that our bills are fair – with everyone paying proportionately for the services they use. Our region has benefitted hugely from our past investment, but it is becoming increasingly clear that the future scale of investment will be even larger. We are committed to attracting green investment, and building on our track record of sustainable financing to fund improvements in a way that is both ethical and affordable for all.

We continue to be passionate about a future where all our customers and stakeholders can shape our decision making and influence our impact on the natural environment, with a socially responsible and legitimate business model, supported by effective regulation.

Our ambition is for every customer and employee to have a stake and a say in our business, through our pioneering WaterShare+ scheme.

**A step change in investment is required to meet future challenges.**

Our region has experienced transformational periods of investment before. Between 1992 and 2011, a major programme known as ' Clean Sweep' saw 250 crude sewage outfalls closed through investment in sewage treatment facilities across the region.

Over the past 10 years we have kept bills flat in real terms, offsetting the increase relating to additional investment through reducing the cost of delivering our day to day services.

We now enter a new era, where another transformational programme of investment is required to respond to the challenges which threaten the reliability of our services, together with the need to refocus on the health of the environment.

Responding to the major challenges that we face today, together with meeting rising environmental legal requirements, will require significant investment to transform how we work and the systems that we operate within.

**Achievement of our ambition requires action from all.**

Customers and stakeholders rightly expect us to play a leadership role, particularly as we seek behavioural change in the amounts of water we use and the way we interact with our water infrastructure and the natural environment.

Delivering our ambition will also require political commitment to provide the tools to address challenges at source, and bring others on the journey, so that everyone is able to contribute to the delivery of the long-term targets Government has set for society. For instance, support to make charging more progressive, so that new service and tariff offerings can support environmental change whilst keeping water affordable when faced with the scale of investment required.

Successful delivery of our ambitions to 2050 will require partnership and collaboration to overcome the barriers and challenges we face together. We continue to be committed to support the lives of people who live and visit our region, and the places they love for generations to come.

**Susan Davy**
Chief Executive Officer

A stake and a say in our business

WaterShare+

# Our strategic direction in summary

Our service is essential to public health, our local environment and the economy of our region. Our purpose drives us to deliver long term public and environmental value for the customers and communities we serve.

## Understanding what customers and stakeholders expect from us

Our customers and stakeholders tell us that the two biggest problems we face and need to fix is too much untreated sewage going into waterways and not enough water stored for a future of hotter drier weather.

Customers recognise the urgency of change and that additional investment is required to transform our services to be fit for the future.

Ability to pay their bills rest heavy on the minds of some customers, particularly at the current time when the cost of living is high.

## KEY TRENDS

- Accelerating climate change
- Rapidly evolving customer expectations
- Growing population and changing demographics
- Higher environmental standards
- Changing supply chain
- Technological advances and Big Data
- Evolving government infrastructure policy
- Evolving employment market

see page 22
for more details

## CHALLENGES WE FACE

- Reducing levels of water resources against rising demands
- Infrastructure to adapt to climate change
- Achieving Net Zero and decarbonisation
- Affordability
- Available skills and workforce
- Need to protect the environment

see page 30
for more details

## KEY ENABLERS

- Advance catchment thinking
- Create resilient, smart, fit for water infrastructure
- Drive technology, leverage data and the supply chain
- Create the culture for our people to succeed
- Develop markets, create value

**see page 54**
for more details

## COLLECTIVE ACTION REQUIRED

- Changes to behaviours and mindsets
- Supportive regulation and government support
- Stronger partnerships
- Supportive customers and communities

**see page 57**
for more details

## OUR AMBITIONS

**see page 30**
for more details

### Resilient water resources through healthy catchments

- Create greater capacity through a diverse portfolio of water sources, strategic regional resources and inter-connectors
- Protect and boost river flows
- Reduce leakage in the network and at customers homes

### Top quality drinking water

- Ensure world class drinking water that meets stringent water quality standards
- Progressively address emerging risks
- Create resilient, smart networks with real time tracking and management of water pressure, flow and quality

### Controlled & treated wastewater flows

- Evolve our water recycling and sewerage system to meet the needs of our communities and the environment
- Enhance sustainable drainage to reduce risk of flooding and pollution
- Create resilient smart wastewater networks with real-time tracking and management of capacity

### Delivering nature recovery & net zero

- Increase biodiversity through further habitat creation and improvement
- Decarbonise our operations
- Use our land and resources to increase renewable energy generation
- Return treated water safely to the environment

### Trusted by customers, stakeholders & communities

- Delivering the basics brilliantly – being accessible to our customers when they need us and providing excellent customer service
- Drive greater engagement through transparency – sharing our plans, data and how we are performing
- Make it easier for customers to reduce their water consumption and save money
- Innovate through progressive charging, to ensure fair and affordable bills for all; specifically protecting those most in need of support
- Ensure our services are resilient to emerging threats including cyber and criminal.

# Introduction

Since 1989, South West Water has provided water and wastewater services across Devon and Cornwall. Today we provide services across the South West.

We are committed to supporting the people and places of the South West. Through community programmes, graduate schemes, and environmental efforts, we strive to deliver for the region. Officially a Great Place to Work, and with the Fair Tax mark.

# The area we serve

## Our brands

**1989** — South West Water

- water & wastewater services
- **c.1.8 m** population served
- **450 m litres** of drinking water per day

**2015** — Bournemouth Water

- water services
- **c.500,000** population served
- **140 m litres** of drinking water per day

**2020** — Isles of Scilly Water

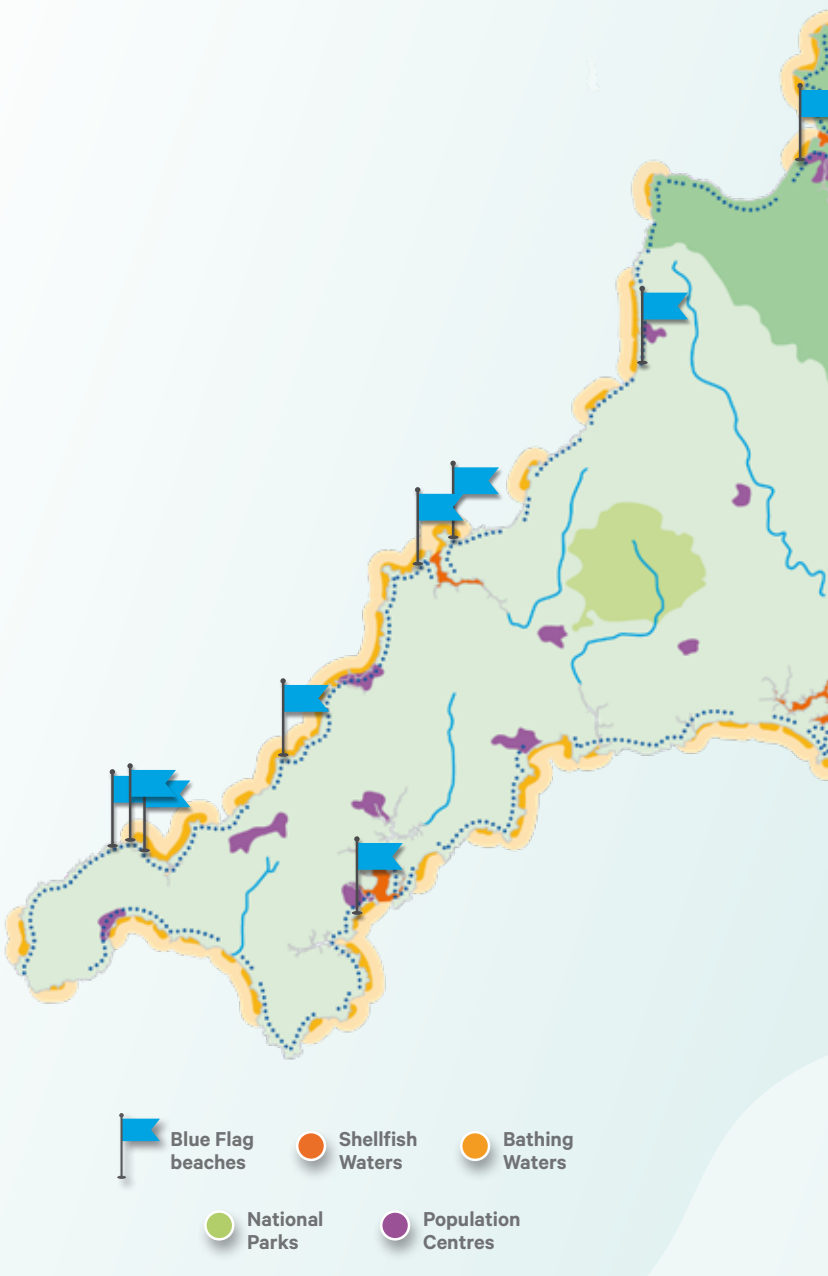
- water & wastewater services
- **c.2,000** population served
- **0.7 m litres** of drinking water per day

**2021**

- water services
- **c.1.2 m** population served
- **280 m litres** of drinking water per day

## Our purpose

**Bringing water to life –** supporting the lives of people and the places they love for generations to come




Isles of Scilly Water

Population grows up to
**10 million**
in the summer

**36%**
of all the designated Bathing Waters in England

**30**
designated Shellfish Waters

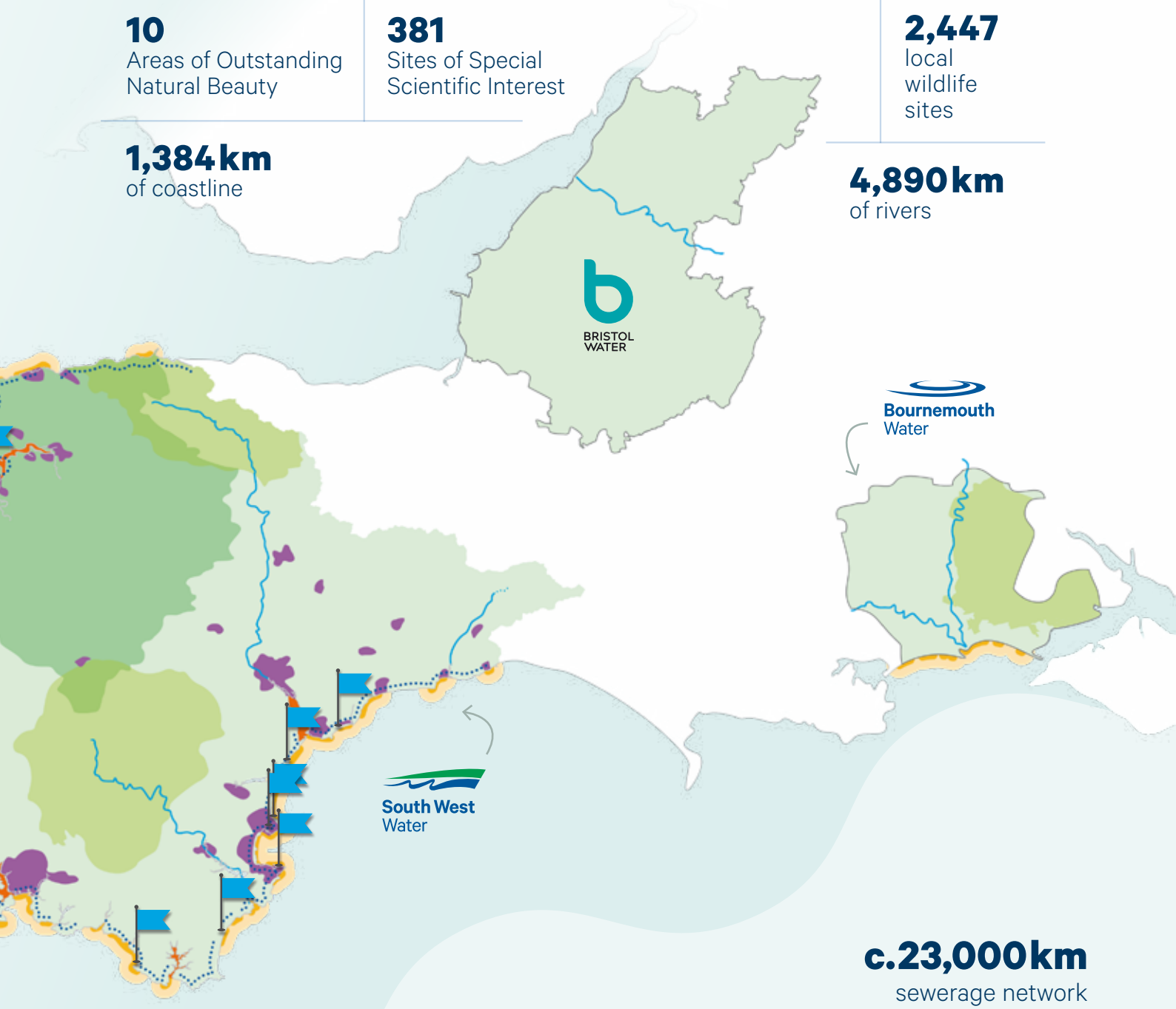
**10**
Areas of Outstanding Natural Beauty

**381**
Sites of Special Scientific Interest

**2,447**
local wildlife sites

**1,384 km**
of coastline

**4,890 km**
of rivers




**c.23,000 km**
sewerage network

**1,223 wastewater pumping stations**
– to move wastewater through our network and on to treatment works

**655 wastewater treatment works**
– using a diverse range of processes and technologies

Provision of ultra violet disinfection or membrane filtration at
**more than 65 wastewater sites**
to protect Bathing and Shellfish Waters to the highest standards

# Working with the water cycle

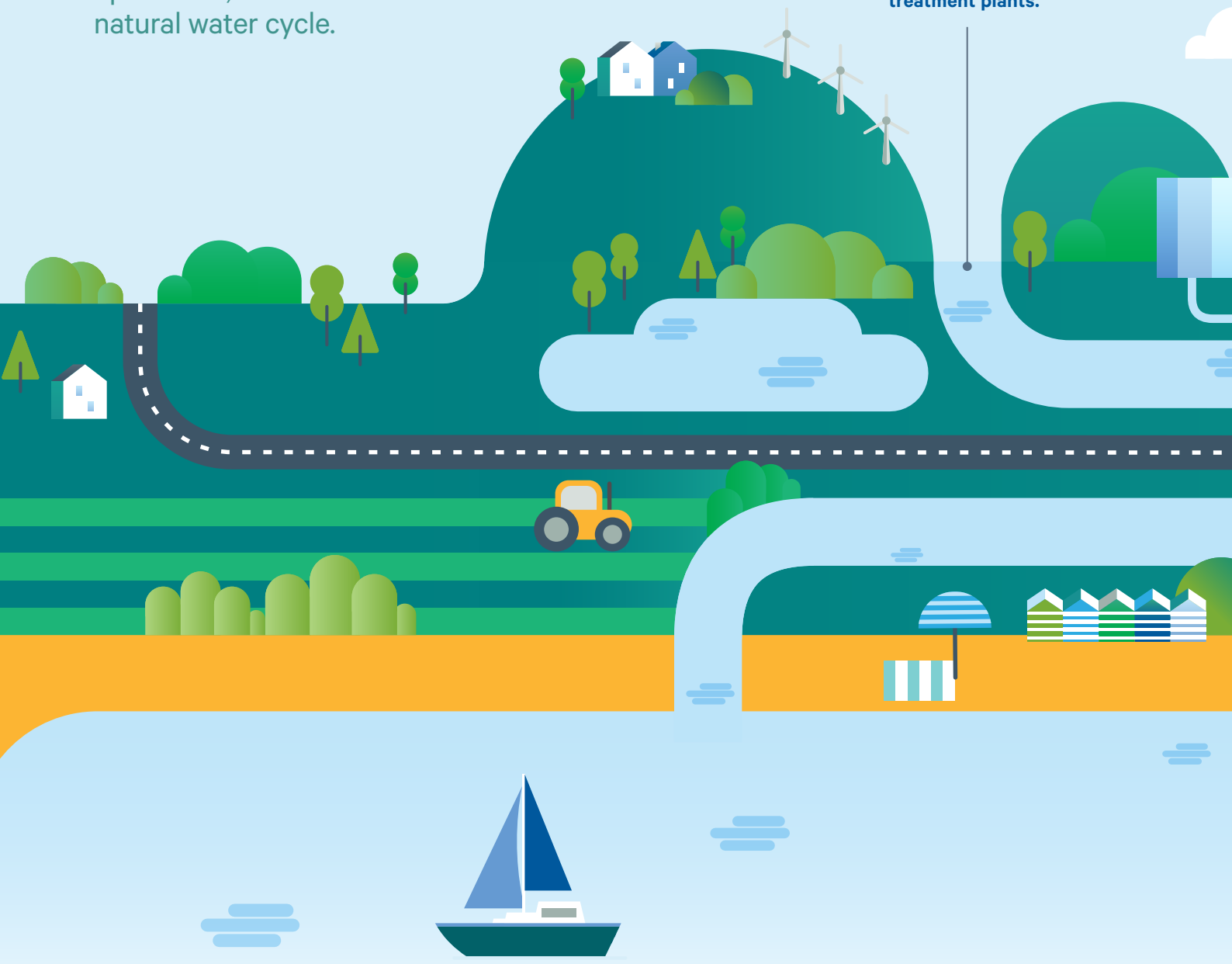
We are a large regionally-focused business – our operations are integral to delivering services and benefits to our customers, stakeholders, the environment and the wider economy.
We are dependent on the natural environment at all stages of operations, which mirror the natural water cycle.

1

**In our catchments we take water from rivers and groundwater sources which we store in 32 reservoirs. We also use desalination to supply customers in the Isles of Scilly.**

2

**Our operations play a vital part in maintaining the level of river flows – from the level of water we release from our reservoirs into rivers, to the level we abstract and take to our treatment plants.**



3

Water is treated at one of our 58 treatment works across the region. Every day we treat around 1 billion litres of water, that's enough to fill 400 olympic size swimming pools every day.

4

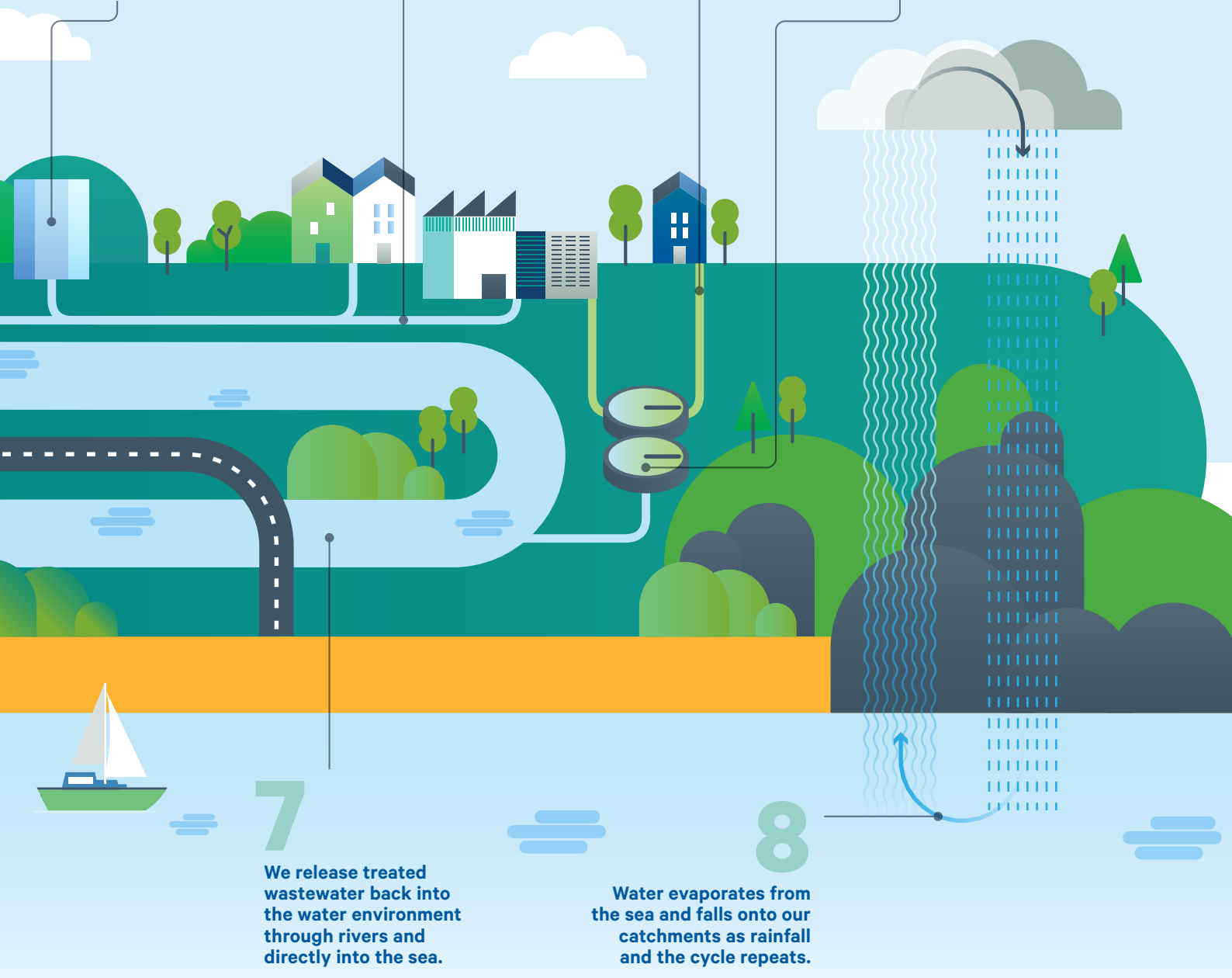
Once the water is safe to drink, we transport this to customers' homes and businesses through our 25,000km of water pipes.

5

We collect wastewater from homes and businesses in our South West region using our 23,000km of sewers.

6

We treat wastewater to a high standard at one of our 655 wastewater treatment works.



7

We release treated wastewater back into the water environment through rivers and directly into the sea.

8

Water evaporates from the sea and falls onto our catchments as rainfall and the cycle repeats.

# Where we are today

We have been on a journey over the last 30 years – improving performance, environmental outcomes, affordability and resilience. But our environment is already changing at an alarming rate. We need to invest to transform the way in which we operate and maintain our infrastructure so that in future it remains capable of delivering high quality, reliable and resilient services in the face of climate change and more severe weather patterns.

# Our story so far... a 30 year journey

We do more than simply provide efficient and affordable water and wastewater services. Our purpose is to make sure that we deliver public health, boost environmental value, support green economic recovery, and create social benefit for all, today and for generations to come.

The way that we treat water and wastewater has been transformed over a generation.

With £13 billion investment over the last three decades in our regions, our "clean sweep" of the 1990s radically increased the amount of sewage which is treated before being returned to the environment.

Today customers enjoy world-class drinking water, with leakage down by a third, sewer flooding down by 80%, 100% of beaches meeting environmental standards (with 98% good or excellent compared to 28% in 1991), and wildlife and nature has returned to rivers and seas.

Water and wastewater bills are a little over £1 a day, and according to Ofwat they are at least £100 lower than they would have been without their regulation. With 110,000 customers also supported through our affordability initiatives, we are on track for 100% of customers to have an affordable bill by 2025.

**£13 billion**
investment
in the last 30 years

Bills at a little over
**£1 a day**

**100%**
coastal bathing water
quality compliance

**Over 100,000 hectares**
improved through
catchment management

**c. 2.35 million visitors**
to our sites

**3 new reservoirs**
in the last 16 years

**99.96% drinking water quality**
samples meeting all
stringent tests set

**c. 110,000 customers**
benefit from one of
affordability schemes

## We want the South West to be the destination for water quality

WaterFit is our plan to 2025, that we launched in April 2022. It outlines how we will play our part, working with partners, customers, visitors and local communities to protect and enhance the South West's water for future generations.

There's no doubt that improving river and sea quality has taken centre stage, as water-based recreation, such as wild-swimming and paddle boarding have become more popular, and the pandemic has strengthened the bond we all want to have with green and blue spaces, now and for generations to come.

Home to 860 miles of coastline and nearly four in every ten coastal bathing waters, we value and prioritise the water environment. We have worked across the region to improve the bathing waters around the coastline, which now for the first time has achieved 100% water quality standards, with 99% achieving Good / Excellent.

This document will ensure that we continue the direction set in our WaterFit plans – setting out our ambitions for the next 25 years.

Find out more here


**WaterFit – our plan for healthy rivers and seas**

# Our customers and stakeholders

## Giving customers a stake and a say in what we do

**“The critical thing is the Panel independently can analyse what the company is doing to make sure they are delivering on the promises they made to their customers.”**

**Lord Matthew Taylor**
Chair of the WaterShare+ Customer Advisory Panel

In response to customer feedback we launched our WaterShare+ initiative.

For our New Deal Business Plan for 2020-25, we promised lower bills, improved service, better environmental protection, a stake and greater say in what we do, and a commitment to share successes if we beat our targets.

As customers help shape and deliver our plans, it’s only right that they are offered a real stake in the business and a greater say in what we do and how we do it. So, in 2020 we launched a first-of-its-kind shareholder scheme for customers – giving them the opportunity to get involved, hold us to account, and share in successes.

Alongside, an independent WaterShare+ Advisory Panel was established to protect the interests of our customers – it provides an independent review of our commitments and delivery of our promises as the voice of the customer.

Customers from all regions have the opportunity to join the regular public meetings held by the Panel, to find out how we are delivering our business plan for the benefit of customers, communities and the environment.

To find out more or to join our next public meeting **click here**.

WaterShare+

## 1 in 14 of our customers are also shareholders

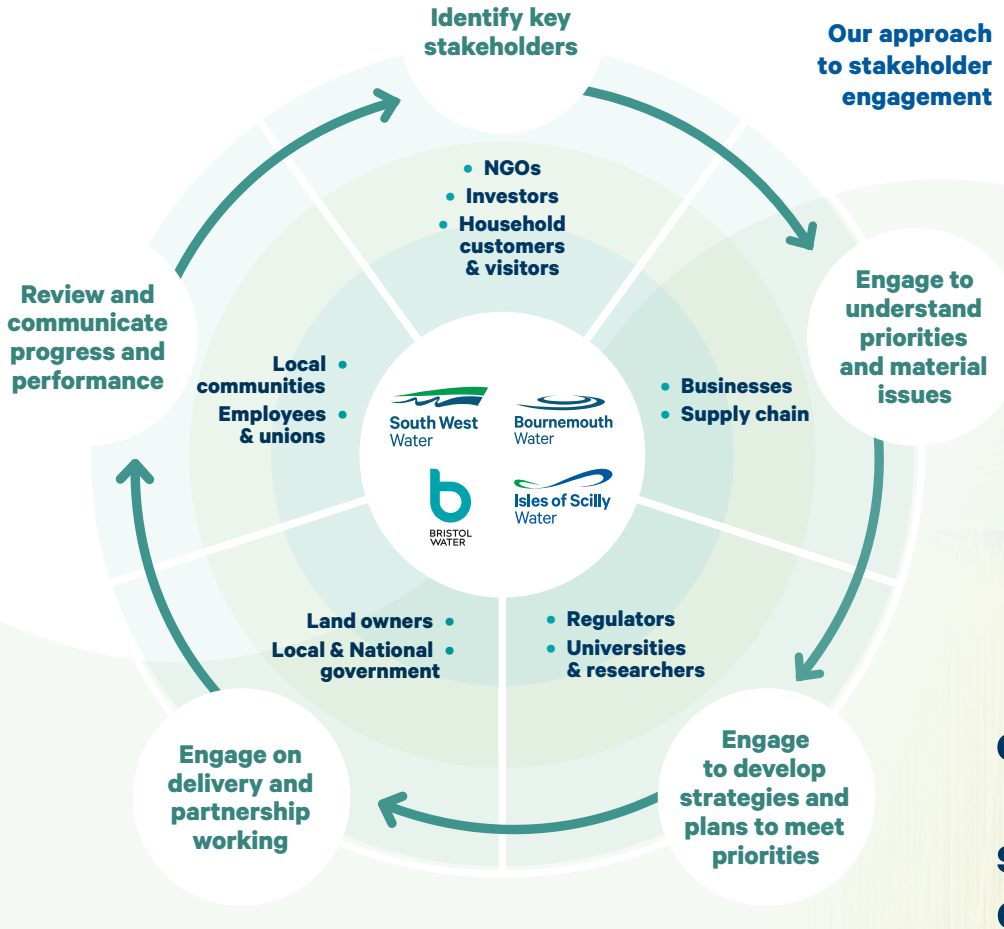
# How we engage

## Our purpose drives us to deliver long-term public and environmental value for the customers and communities we serve.

We work with a wide range of customers and stakeholders to understand their views and requirements on a continuous basis and ensure that these sit at the heart of our decision-making and planning processes.

### Who are our stakeholders?

Our stakeholders are a diverse group of individuals and organisations who are impacted by how we operate. We have a range of ways to engage with stakeholders and hear their views. Of vital importance is our collaborative work to deliver improvements for our shared communities.




**The views of customers and stakeholders sit at the heart of our decision making process**

# What is important to **our customers**

To develop our plans, we've asked over 30,000 customers what they want – and we've listened. As we continue our journey and investment, we will continue to meet the priorities and needs of our customers and stakeholders.

1. **Clean, safe water supply**

**"I know I have safe, drinkable water coming out of my taps."**
SWW customer, Aged 45-59

2. **Prevent pollution**

**"I think they'll have to increase prices because demand will go up if the population growth is going up, and there is a need to protect the environment."**
Bournemouth customer, Aged 46+

3. **Protect bathing waters**

**"Our environment is our biggest asset and I think that needs to be protected, so I think that's the biggest challenge."**
Future customer, Bristol

4. **Prevent sewer flooding**
5. **Boost nature & wildlife**
6. **Reduce leakage**
7. **Resilience to extreme weather**
8. **Protect rivers**
9. **Less reliance on storm overflows**
10. **Excellent customer service & responsiveness**

**"The cost of bills... I think that's the one that has the most immediate impact on the customers."**
Future customer, Bournemouth

**"Storm overflows that are specifically effective in places like beaches need priority rather than something across all of the overflows."**
SWW customer, Aged 56+

# What is important to our stakeholders

We listen to our stakeholders through our every day interactions, as well as through our newly established Stakeholder Forum. Our plans reflect what is important to our stakeholders.

## Communities

**To take action to reduce spills and pollutions arising from our Victorian sewage system**

**To improve the natural environment – putting nature on everyone's doorstep**

**Working together on common issues**

**Investment to support a green recovery and economic prosperity**

## Supply chain

**A good understanding of future and forward planning**

**Opportunities for growth, training and positioning**

## Investors

**A stable and trusted sector that they can rely on and work with**

**Green opportunities and strong ESG performance**

## Employees

**A purpose led organisation with values aligned to their own**

**A trusted employer, with leaders who foster collaboration and build a collegial environment**

## Government and regulators

**Support delivering priorities – such as the 25 year Environment Plan**

**Compliance with regulations and laws that deliver public value**

**Investment that boosts equality and fairness, and supports Levelling Up**

## Visitors

**Great beaches and excellent bathing waters**

**Abundant nature and biodiversity**

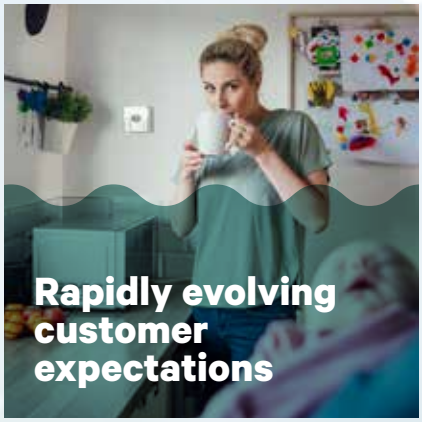
**Advice and support on how they can support our local environment**

# Understanding the key trends

To set our long-term direction we need to consider what our region will be like in the future.

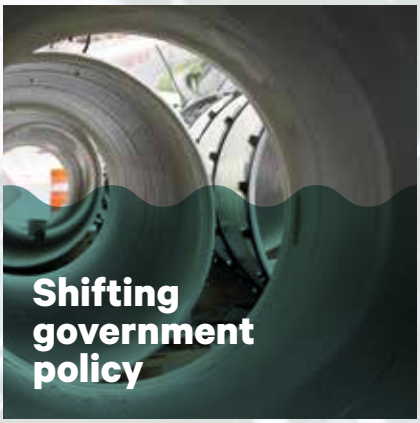
We have identified eight key trends today which will impact on how we operate in the future.

## There are a number of key trends that we observe. These present a mix of risks and opportunities for the future.









# Accelerating climate change


## Human-caused climate change is already affecting many weather and climate extremes and in early 2023 the Intergovernmental Panel on Climate Change (IPCC) anticipated that warming will exceed 1.5°C before the end of this century.

The rising temperatures will cause more heatwaves and droughts. Warming the atmosphere will cause increased moisture and in turn more extreme rainfall, storms and flooding. We will see a melting of polar ice leading to rising sea levels and re-shaping of our coastlines.

The South West is particularly vulnerable to climate change, given its 860 miles of coastline, and adjacency to the western approaches of the Atlantic Ocean, exposing the area to impacts from rising sea levels and storm intensity. We are already starting to observe the impacts of drought, rising temperatures, flooding, rising sea levels and storm surges, and coastal erosion on our operations.

### The risks from climate change in the South West are:

**Extreme heat, increasing droughts and reducing the availability of high quality fresh water**

**Changes in rainfall patterns**

**More frequent extreme weather events such as storms and floods**

**Harm to the natural environment and biodiversity**

**Coastal flooding, sea level rises and erosion.**

## Coastal risks

Coastal areas are particularly vulnerable – parts of Devon, Cornwall and Bristol, are all due to be lost to the sea by 2050.

Areas such as Westward Ho!, Braunton, Exeter, Newton Abbot, Plymouth and parts of Bristol are also at risk.

Without action to save these communities, managed retreat will be an important part of our future plans.


Source: coastal.climatecentral.org

## 9 in 10 customers

consider climate change to be a significant environmental risk that needs action.

Customers think it is important to protect infrastructure from the impacts of climate change, to enable services to be maintained in the face of ever more extreme weather.

## Growing population and changing demographics

As the population and demographic of the world change – so too do they in the South West. Official forecasts suggests an additional 500,000 extra people will be living and working in the region by 2050, adding to the 3.5 million who currently live in the regions we serve.

As a beautiful coastal region, our resident population swells to 10 million as visitors come to enjoy the environment in the South West. During the pandemic, due to the increase in home working and an increase in 'staycations', we saw half of the anticipated 2050 growth in population due across the region, concentrated in the tourism areas of Devon and Cornwall.

### A bigger population means...

**More homes built across the South West – which need to be connected to our infrastructure without harming the environment**

**More demand for water to serve the growing population**

**Increased water for farmers who need to produce food for a bigger population, along with shifts in the crops that farmers grow (more hardy) and a trend to less meat**

**Population movements as communities shift location in response to coastal erosion and rising sea levels.**

## Rapidly evolving customer expectations

Now more than ever it is critical to put the customer at the heart of our business. Customers expect us to get the basics right as a minimum and expectations are rapidly evolving beyond that.

**Our operations – Customers expect a continuous, seamless service with us also being a force for good in our communities**

**Transparent and ethical – Companies need to be increasingly transparent about operations, performance, and services**

**Personalised services – Customers are more empowered than ever by digital technology, and expect personalised products and services to meet their needs**

**Smart technology – Smartphones and social media are transforming how and how often we engage with customers**

**Environment – Customers are increasingly environmentally aware and expect us to be custodians of our local environment.**

## Higher environmental standards

A healthy environment is important for our region, and in the face of climate change, ecological decline and greater recreational use of rivers and seas, customers and stakeholders rightly tell us that they expect environmental leadership from us as a priority.

Our research tells us that customers have a more positive attitude to companies that support social and environmental issues.

Our customers are willing to pay more for us to deliver services which also provide social and environmental benefit.

**25% more**

Our system now handles 25% more wastewater and rainwater than it did 15 years ago

Across the South West, the annual damage due to floods is forecast to increase by up to

**50% by 2050**

## Changing supply chain

We serve 3.5 million people a day, through our 3,000 talented employees and 10,000 jobs in the wider supply chain across the South West. Working together we have reduced cost and improved service to our customers.

**Growing concerns around supply chain talent, especially specialist skills**

**Change to expectations around supplier ESG credential**

**Supply chain resilience and logistic disruption – such as chemicals used in water treatment**

**Supply chain agility – and ability to respond to shocks and uncertainty such as changes in commodity prices.**

**We need collaboration and improved partnership working to de-risk the supply chain, as well as a shift from global to more nature-based solutions and local service provision.**

## Technological advances

Big Data, digital technologies and open data are being leveraged to increase reliability, optimise assets, improve supply chains, and boost customer relationships.

### Some key technology trends which impact us are:

**The availability and accuracy of sensors that collect and transmit data is improving**

**The ability to collect, store and analyse data has expanded**

**Big Data, digital twins and computing algorithms are being developed which translate unstructured data sets into actionable intelligence.**

These trends will only increase as there is more integration of Internet of Things, faster access to the Internet, and advances in the computational power of computers and mainstream devices.

For customers this means that we can predict operational problems and fix them before they have an impact, it allows us to be transparent, to be agile, and therefore build trust and legitimacy.

## Shifting government policy

In the last 30 years, over £200 billion of private sector investment has enhanced water sector infrastructure across the UK, benefitting consumers now and for generations to come.

But there is more to do as infrastructure continues to form the backbone of a successful modern economy.

The government has set out ambitious goals for the economy and environment, putting infrastructure at the heart of its plans.

### These goals include:

**Environment – a 25 year plan to improve the environment by removing harmful abstractions, improving discharges and reducing water lost through leaks and used by customers**

**Net Zero – ambitious targets have been set, backed by green jobs that can support clean growth.**

**Levelling up – improving living standards, opportunities, productivity, employment and education in areas where these are lagging**

**Sustainable housing – 250,000 homes need to be built each year across the UK to avoid spiralling prices and maintain affordable homes. These homes need to be sustainable – reducing water and energy use, boosting biodiversity, and minimising waste.**

## Dynamic employment market

Employment market flexibility and diversity has been steadily increasing, with more people than ever working in self-employment, part-time jobs, and under zero hour contracts.

An important consequence of these changes is ensuring the skills and talent for the future. As sustainability and the environment becomes more important, and as technological advancement and artificial intelligence is increasingly common in the workplace, new and niche skills become more important. STEM based occupations, such as digital literacy and ICT skills, are emerging areas of focus.

Good employers will take ownership for future proofing skills and talent to reflect the new ways of working. Delivering our ambitions will require different skillsets and new ways of working.

# The challenges we face and their impacts

We have always faced challenges. However, the challenges that we are facing today are already bigger and more uncertain than anything before.

Some of the challenges will present us with risks that we need to respond and adapt to through all stages of the water cycle. There are also opportunities for us to grab, including leveraging new technology and open data to rebuild trust and legitimacy and reduce costs.

## There are a number of challenges we face, and impacts that we need to successfully address, if we are to protect customers and the environment.

1. **Reduced availability of raw water to meet increasing demand**
2. **The need to adapt our infrastructure to be resilient to the impacts of climate change and growth**
3. **The need to decarbonise our operations and increase carbon sequestration**
4. **The need to adapt our workforce**
5. **The need to protect the environment, so that it continues to be at the heart of resilient services**
6. **Affordability challenges and re-thinking charging to ensure fair bills for all**

# 1 Reduced availability of raw water to meet increasing demand

## By 2050, summers in the South West will be on average 2-3°C warmer than today, with at least 20 days of the year of extreme high temperatures.

This will extend the summer months, increasing tourism, boosting demand for water from both domestic residents and tourists. The higher temperature will reduce rainfall by 14%, creating a deficit of over 200 million litres of water as less is available to abstract from rivers and groundwaters.

At the same time, by 2050, official forecasts show that a further 500,000 people will live in the region, across urban centres such as Bristol and Exeter, but also in isolated coastal communities. Without any action, this will increase the demand for water.

Farmers will also have higher demands for water as they look to grow crops and water livestock to produce food for the growing population.

The higher temperatures will impact on the quality of water in rivers, as algal blooms become more commonplace. Improving water treatment techniques will be needed.

**Delivery of resilient service in the future will require us all to adapt how we use, and interact with, our services and the aquatic environment.**

### Linked trends


**Accelerating climate change**


Rapidly evolving customer expectations


**Growing population and changing demographics**


**Higher environmental standards**


Changing supply chain


Technological advances


Shifting government policy


Dynamic employment market

**10 million visitors** visit the South West each year – and this could be even more in the future.

### The drought of 2022

Summer 2022 brought widespread and severe drought to much of Europe, including the UK. River flows, groundwater levels and reservoir stocks all decreased significantly during the summer.

Met Office statistics show that in 2022, England experienced the hottest summer since the extreme drought of 1976 and the warmest year on record.

The dry conditions coincided with extreme heat – which increased the use of water considerably, putting further pressure on resources. Some companies, including South West Water, introduced temporary use bans to reduce water usage, in order to protect supplies and the environment.

We will start to see more weather like 2022 – so we need to learn the lessons of this drought and take steps now to ensure the environment and customers are protected.

# 2 The need to adapt our infrastructure to be resilient to the impacts of climate change and growth

## Overall the risk of storms in our region is set to double – with impacts on our sewers and treatment works resulting in higher risk of sewer flooding and an increased dependence on storm overflows.

- Winters will be 17% wetter than they are today in the South West, with more extreme heavy rainfall events, increasing the risk of flooding from rivers and groundwaters.
- Summers will be drier, but there will be more summer thunderstorms and associated flash flooding as grounds are too dry to absorb the rain.
- At the same time, more people will be living in the region – needing more water, creating more wastewater, and increasing impermeable areas (such as roofs, roads and driveways) which will add to flows into our sewers.

Without investment, a further 10% of catchments become at risk of sewage flooding in a severe storm by 2050, increasing the number of properties at risk of flooding in a severe storm by 17,000 properties. 112 treatment works are also at risk of being overloaded and unable to meet their environmental permits.

Climate change, population growth and urban creep increase the dependence on storm overflows to prevent flooding to homes and businesses. Without investment, discharges from storm overflows would increase.

The risks and impacts of flooding events due to climate change will leave urban areas close to waterways particularly at risk – some of our sewage works and many of our sewage pumping stations will be overwhelmed by 2050. This includes some of our significant treatment works in areas such as Countess Wear in Exeter, Hayle and Falmouth in Cornwall and Ernesettle, Marsh Mills and Camels Head in Plymouth, which together serve a population of over 400,000 people.

**Keeping surface waters out of sewers through boosting natural drainage is a key step in protecting homes from flooding and ensuring zero harm to the environment.**

### Linked trends


**Accelerating climate change**


**Rapidly evolving customer expectations**


Growing population and changing demographics

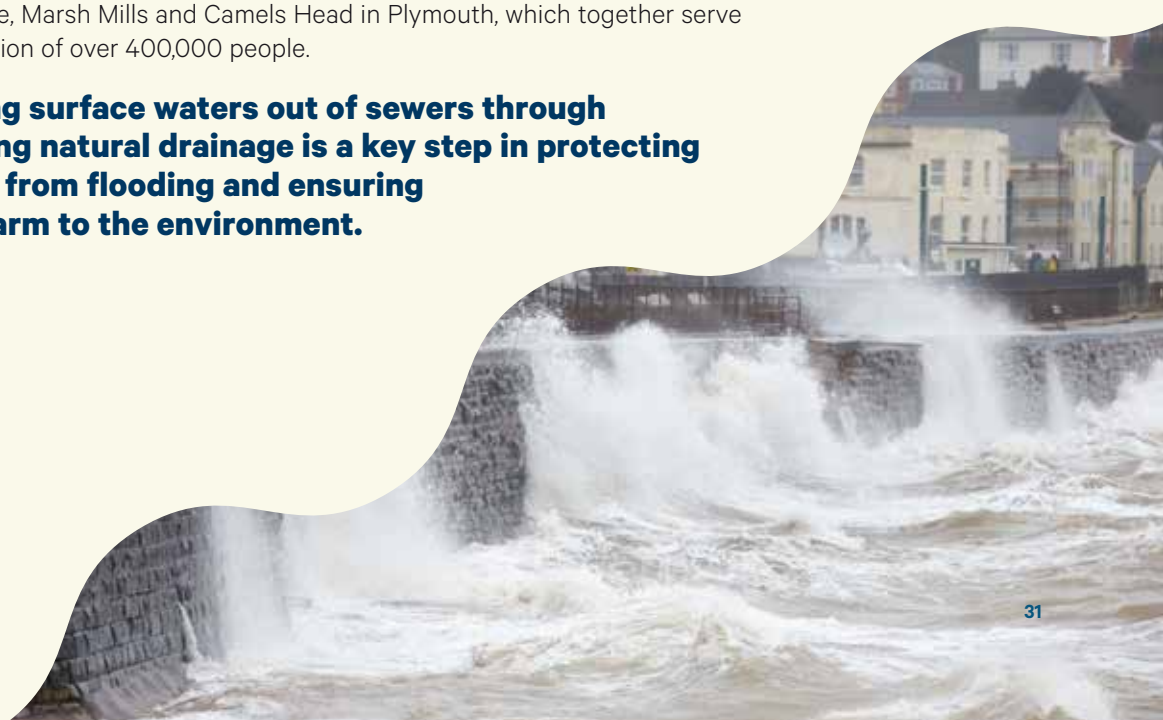

**Higher environmental standards**


Changing supply chain


**Technological advances**


**Shifting government policy**


Dynamic employment market



# 3 The need to decarbonise our operations and increase carbon sequestration

The UK has set a legally binding target to achieve net zero greenhouse gas emissions by 2050, making it the first major economy to do so.

In today's world, the pressing challenge of climate change demands that we take proactive measures to reduce greenhouse gas emissions, and this affects every sector, every business and every household. To become net zero is about achieving a position where the amount of greenhouse gas emissions are balanced by the amount of greenhouse gas emissions removed from the atmosphere.

### What does net zero mean for the economy?

- Using more clean energy by increasing the use of renewables, wind, solar and hydroelectric power instead of fossil fuels
- Saving energy by ensuring assets, buildings and appliances are more efficient to reduce wasted energy
- Choosing greener transportation by encouraging electric vehicles and reducing emissions
- Upgrading buildings and assets, improving insulation and heating systems
- Planting trees to absorb carbon dioxide and investing in new technologies.

### Linked trends


**Accelerating climate change**


**Rapidly evolving customer expectations**


Growing population and changing demographics


**Higher environmental standards**

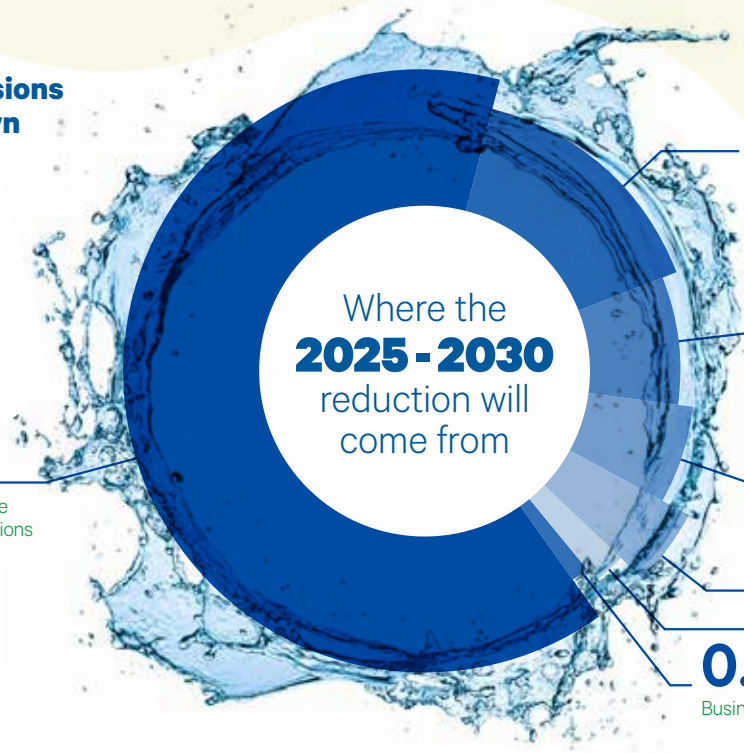

Changing supply chain


Technological advances


Shifting government policy


Dynamic employment market

## Our emissions breakdown




**11%** Emissions associated with our treatment of wastewater and sludge disposal*

**7%** Outsourced activities (contractors)

**6%** Grid electricity transmission and distribution

**4%** Fleet transport

**2%** Direct emissions from burning fossil fuels

**0.1%** Business travel

**70%** Grid electricity we use in our operations

*Also includes a small amount of emissions from air conditioning and refrigeration equipment

# 4 The need to adapt our workforce

The South West shares similar challenges to the rest of the UK in the competition for talent, as well as some unique features.

- Competition for STEM talent as the "Net Zero Energy Workforce" requirement for green skills and low carbon workforce ramps up is estimated to create 139,000 jobs in the South West by 2050
- Loss of existing talent due to the baby boomer retirement crunch – amplified in the South West where the ratio is 6:1 higher aged 65 and over, and where 20% of existing workforce will retire over the next 10 years
- Cost of providing future-proofed skills is escalating – with government setting aside a £3 billion investment in skills and education, and with the burden increasingly being transferred to employers
- Perception from over 70% of today's 16-24 years, that in order to get on, you need to leave the region.

**We recognise the importance of a healthy, diverse workforce to our success.**

Our continued focus on **diversity and inclusion** is supporting our goal of building a sustainable, agile, diverse and engaged workforce.

**And we look to the future through our apprenticeship and graduate programmes.**

**139,000 jobs**
in the South West by 2050

Great Place To Work.

**20% of existing workforce**
will retire over the next 10 years

**Linked trends**


Accelerating climate change


Rapidly evolving customer expectations


Growing population and changing demographics


Higher environmental standards


Changing supply chain


Technological advances


Shifting government policy


**Dynamic employment market**

# 5 The need to protect the environment, so that it continues to be at the heart of resilient services

We depend on the environment for high quality water resources. Our operations need to be in tune with the natural water cycle, taking only what we need from rivers and returning wastewater treated to a high standard so that the cycle can continue.

The delicate balance is at risk as the climate changes and as increasing demands are placed on our catchments. The future of our services depend on protecting the natural environment.

The complex challenges of the future require a systems thinking approach which considers the linkages within our catchments. Such as the connection between biodiversity and water quality and using natural solutions to manage flooding and treat wastewater.

There are so many benefits from boosting nature and biodiversity – clean air, clean and plentiful water, carbon storage – all adding to our health and wellbeing, whilst boosting resilience to extreme weather.

We are committed to delivering our enhanced Biodiversity Duty confirmed in the Environment Act 2021 – in our Biodiversity Strategy we commit to taking action to protect the valuable biodiversity that we have on our landholdings.

We will restore and enhance biodiversity in our everyday operations and work with others across the region to ensure our sites play their role in connecting biodiversity in the wider landscape of nature recovery.

**Linked trends**


**Accelerating climate change**


**Rapidly evolving customer expectations**


**Growing population and changing demographics**


**Higher environmental standards**


Changing supply chain


Technological advances

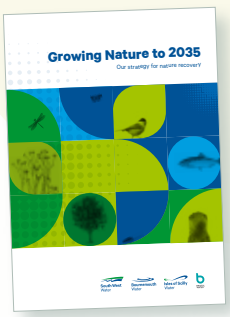

Shifting government policy


Dynamic employment market

## Environmental leadership means for our customers...

- Having the right behaviours and culture in place e.g. recycling and minimising waste, minimising our carbon footprint
- Targeting and delivering stretching performance, including industry leading leakage
- Being a good neighbour in the region e.g. supporting tourism and recreation by improving bathing waters and river quality
- Addressing global challenges by supporting national/local responses
- Innovating and pioneering change and sharing knowledge with others
- Taking action to reverse the decline of nature.

Find out more here




**Biodiversity Stategy**

# 6 Affordability challenges and re-thinking charging to ensure fair bills for al

## Some households struggle to pay their water bills. When this happens, bills can go unpaid and customers cut back on water use or other essentials in order to afford their bills.

Supporting our commitment to eliminate water poverty, and recognising that rising living costs are front of mind for millions of customers, we have a range of schemes to help customers pay their bills, including flexible payment plans and discounted tariffs. We are targeting zero water poverty by 2025 and bills continue to be lower than they were 10 years ago, driven by our continued focus on delivering improvements efficiently and effectively. And because we don't think anyone should worry about their water bill, we have a range of help available for those that need it. Our range of affordability schemes have unlocked £35 million of support, and are helping around 110,000 customers. Through our efforts and support, year on year, we get closer to our aim of zero water poverty.

As we look forward, we recognise that we need to increase the pace of investment. Boosting resilience, decarbonising, reducing leakage and removing spills will require a step change in the investment in our assets and how we operate. After 10 years of falling bills, the investment expected between now and 2050 will start to put upward pressures on bills.

We are very conscious that rising bills in the context of today's price inflation and rising energy costs will put yet more pressure on customers who struggle financially and that these pressures may be felt disproportionately in our region. We will need to do more to ensure that we can continue to provide affordable bills while delivering new large-scale investment. In addition to discounted tariffs, we are exploring new sharing mechanisms and progressive charges to help tackle this problem.

### Linked trends


**Accelerating climate change**


**Rapidly evolving customer expectations**


**Growing population and changing demographics**


**Higher environmental standards**


**Changing supply chain**


**Technological advances**


**Shifting government policy**


**Dynamic employment market**

Without mitigation, customer bills in our regions could

**double by 2050**

We are

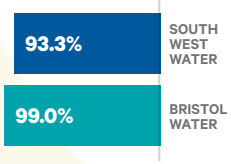
**on track**

for everyone to have an

**affordable bill by 2025**

**Affordability of bills in 2021**

(customers able to pay their bills)



## We must invest to provide greater capacity in our infrastructure so it can be resilient to the impacts of climate change and growth.

Our water supply capacity is driven by peaks in use of water during the summer, with high numbers of visitors to the region. Our wastewater systems also require new capacity to cope with the run-off of surface water from properties and roads when it rains.

To make sure the cost of this essential investment is recovered fairly, in the face of increasing bill pressures, we need to re-think how we charge customers. This will also help with the affordability of bills and also help reduce demand on our system.

Currently, water bills are regressive as those on higher and lower incomes pay the same rate for both essential and non-essential uses – which means that water bills are proportionally greater for those on lower incomes. Our customers have told us that they think poorer people spending more on their water bills as a percentage of their income is unfair. However, they recognise that the question of fair charging is complex, and that customers also need to play their part in using water responsibly. Alternative charging structures therefore need to be considered. Options being considered include:

- **Environmental tariffs** – which reflect the higher cost of peak summer demand, and encourage customers to use less water in the summer months, but provide discounts over the winter where there is less pressure on water resources;
- **Eco-tariffs** – where customers who have low consumption levels are rewarded by discounted tariffs for using only the water they need
- **Rebalancing of charges** – to reflect some of the unique challenges we face as a region and ensure the costs associated with sewerage and surface water drainage are spread fairly across those who use the service. For example the need for additional capacity in the summer months is reflected in properties which may not be occupied all year round.

Ultimately, we want to give customers a choice on the tariff they pay for the service they receive. This will help customers use water wisely and ensuring customers feel their bill represents great value for money.

**Smart metering**
puts customers in control of their bills and water use.

DID YOU KNOW?

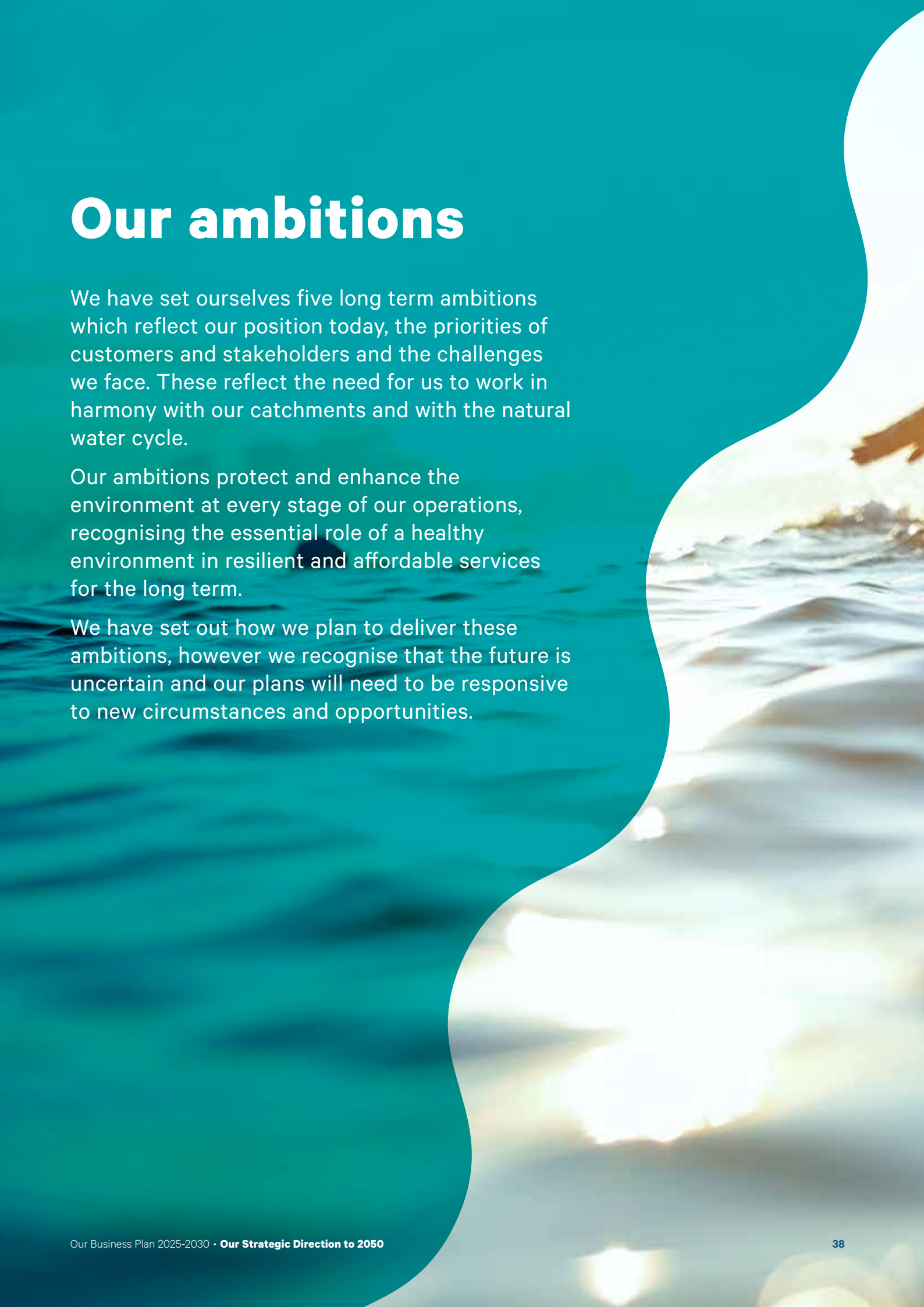
**c. 110,000 customers**
benefit from one of our affordability schemes

# Our ambitions

We have set ourselves five long term ambitions which reflect our position today, the priorities of customers and stakeholders and the challenges we face. These reflect the need for us to work in harmony with our catchments and with the natural water cycle.

Our ambitions protect and enhance the environment at every stage of our operations, recognising the essential role of a healthy environment in resilient and affordable services for the long term.

We have set out how we plan to deliver these ambitions, however we recognise that the future is uncertain and our plans will need to be responsive to new circumstances and opportunities.



# Ambitions to 2050
## Working with the water cycle

Water resources

### Resilient water resources through healthy catchments

**We meet future demand and boost resilience through connected water resources, whilst balancing the needs of customers and communities with those of the environment through careful management of our catchments.**

Water treatment & distribution

### Top quality drinking water

**Innovative low carbon treatment processes provide high quality water which is delivered to homes and businesses through resilient networks that continuously monitor water quality and minimise supply interruptions.**

Services to homes, businesses & our wider communities

## Trusted by customers, stakeholders & communities

**We work together with customers and stakeholders to create thriving, low carbon communities and an ecologically rich local environment. We create excellent customer and community experiences through every interaction with us.**

Wastewater collection

## Controlled & managed wastewater flows

**Resilient natural and built wastewater infrastructure that protects communities and the environment.**

Environmental benefit

## Delivering nature recovery & net zero

**Protected and enhanced natural resources and the wider value of water and wastewater to environment, society and the economy is realised.**

Water resources

# Resilient water resources through healthy catchments

### Our ambition to 2050

**We meet future demand and boost resilience through connected water resources, whilst balancing the needs of customers and communities with those of the environment through careful management of our catchments.**

### Why is this a priority for us?

Not having enough water in the future is not only a threat to the customers we serve, but also to the environment and to the economy of the South West. Our plans show that if we do nothing, there will be a deficit by 2050 of nearly 200 million litres per day by 2050. Whilst reducing demand is our primary course of action, this does not completely close the gap across all our supply zones. We must work in harmony with our catchments to secure resilient supplies into the future and to protect our lifestyles and the places that we love.

### What will we do?

## Protect and boost river flows

Take less water from rivers and optimise releases of water from our reservoirs, to manage river flows throughout the year and protect aquatic wildlife

Increase the use of recycled water, to recharge underground aquifers and irrigate landscapes

Retro-fit grey water recycling systems across customers properties to store and re-use water.

DID YOU KNOW?

**During dry weather we release water from our reservoirs to maintain river flows and during wet weather our reservoirs help to prevent flooding.**

## Create greater capacity through a diverse portfolio of water resources and interconnection

Collaborative regional planning, considering the long term needs of all users of water across water company boundaries

Increase interconnection, boosting our ability to move water around the region in response to changing weather patterns

Build new strategic reservoirs for the region to boost raw water storage and provide resilience to climate change

Build local effluent re-use schemes across our region so that fully treated wastewater is transformed into a source of potable water, particularly where water is scarce and the environment is over-abstracted.

## Reduce leakage in the network and at customers homes

Drive improvements in pinpointing leakage, including loggers and sensors, satellite imaging, drones, and innovations in acoustic equipment

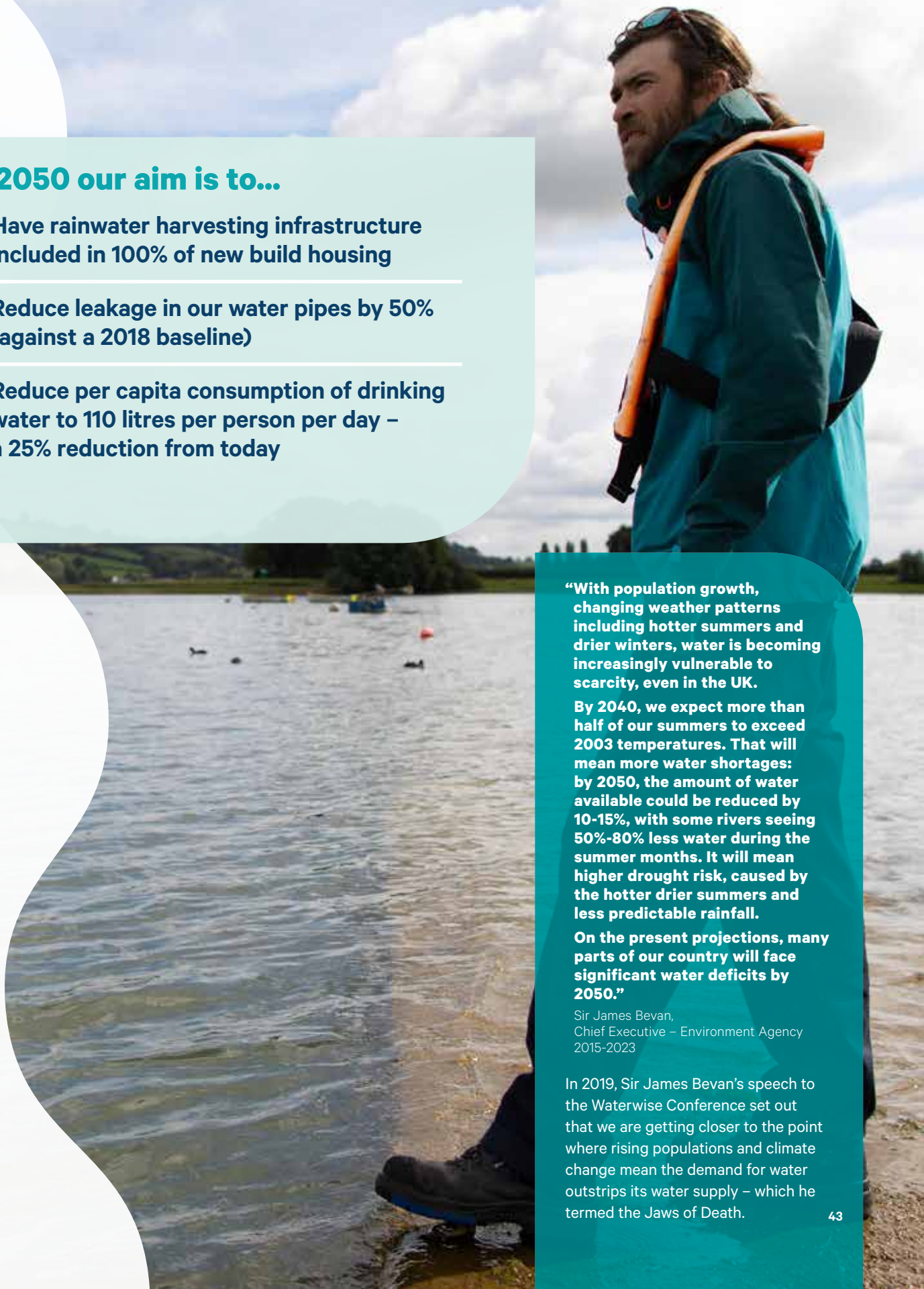
Install smart meters to improve our understanding of water consumption trends, help customers to monitor usage and identify leaks

Use targeted asset renewals and mains replacements to fix leaks and prevent future leaks

Develop data analytics to improve our understanding of customer side leakage rates, dovetailed with targeted repair programmes.

## By 2050 our aim is to...

- Have rainwater harvesting infrastructure included in 100% of new build housing
- Reduce leakage in our water pipes by 50% (against a 2018 baseline)
- Reduce per capita consumption of drinking water to 110 litres per person per day – a 25% reduction from today



**"With population growth, changing weather patterns including hotter summers and drier winters, water is becoming increasingly vulnerable to scarcity, even in the UK.**

**By 2040, we expect more than half of our summers to exceed 2003 temperatures. That will mean more water shortages: by 2050, the amount of water available could be reduced by 10-15%, with some rivers seeing 50%-80% less water during the summer months. It will mean higher drought risk, caused by the hotter drier summers and less predictable rainfall.**

**On the present projections, many parts of our country will face significant water deficits by 2050."**

Sir James Bevan,
Chief Executive – Environment Agency
2015-2023

In 2019, Sir James Bevan's speech to the Waterwise Conference set out that we are getting closer to the point where rising populations and climate change mean the demand for water outstrips its water supply – which he termed the Jaws of Death.

Water treatment and distribution

# Top quality drinking water

## Our ambition to 2050

**Innovative low carbon treatment processes provide high quality water which is delivered to homes and businesses through resilient networks that continuously monitor water quality and minimise supply interruptions.**

## Why is this a priority for us?

Our customers rightly expect high quality water drinking water to be there when they turn on the tap.

We will improve drinking water quality and maintain customer confidence by reducing water quality risks from source to tap.

We will focus on addressing issues in source waters and therefore allow us to promote the most sustainable level of treatment in the future.

We plan to continue to innovate in our water treatment processes to provide the best possible performance and fit with our low carbon future. We also plan to continue our programme to tackle lead pipes on our network and in customers' homes and work places to reduce the small risk to public health.

We plan to create smarter water networks which can remotely and continuously monitor water flows and quality, and diagnose emerging problems. Combined with smart metering at customers' properties, this will help to identify water quality issues quickly, and prevent small issues from escalating into problems which impact on our customers. They will also help us to reduce energy use by optimising flows around our network.

And we will continue to champion extending our networks to residents who are private supplies – so they can have access to world class drinking water.

**Maintaining safe drinking water**
is our customers' number one priority – it always has been, it always will be

**What will we do?**

## Ensure world class drinking water that meets stringent water quality standards

Upgrade works, work with local communities, and continue our innovation programmes – to ensure we can address contaminants in surface water sources that can threaten drinking water supplies

Ensure we protect drinking water quality from potential new and emerging chemical and biological pollutants

Deliver programmes of asset maintenance and renewal to maintain asset health and plant availability at water treatment works

Extend our smarter healthier homes initiative to remove lead pipes to the customers' taps to reduce risk to public health.

## Progressively address emerging risks

Keep our water supply networks clean and clear, whilst upgrading the oldest and highest risk parts of our networks to ensure customers consistently receive high quality water

Invest in network improvements and connectivity to increase resilience to extreme weather events and sustained power outages

Offer isolated communities the opportunity to connect to our network and receive world class drinking water for the first time.

## Create resilient, smart networks with real time tracking and management of water pressure, flow and quality

Expand our network of water quality monitoring capability in order to identify changes in water quality before our consumers are inconvenienced

Utilise emerging technologies to improve process automation, real-time remote control, and event forecasting

Monitor and manage pressures in the network as part of 'network calming' to control bursts and leakage, prevent discolouration from ingress, and reduce disruption to customers.

## By 2050 our aim is to...

- → Have smart technology operating throughout our networks
- → Remove and replace all lead pipes
- → Connect all isolated communities to our network

Services to homes, businesses and our wider communities

# Trusted by customers, stakeholders & communities

## Our ambition to 2050

**We work together with customers and stakeholders to create thriving, low carbon communities and an ecologically rich local environment. We create excellent customer and community experiences through every interaction with us.**

## Why is this a priority for us?

The challenges of the future are great and we need to come together in society to resolve them together. We will encourage active participation through education and through customers and communities having a stake in our success and a direct say in our business.

To do this, customer and stakeholders need to be better informed. This is why we will be open with our data through online publication, which will help to stimulate new ideas and partnerships so we can provide better services for customers and protect the environment.

High levels of investment to meet statutory requirements will create significant upward pressures on our bills. We will seek to be innovative and efficient to reduce bills as far as possible, as well as phasing investment to fit with customer and stakeholder priorities. We will also seek new ways to manage affordability through additional forms of support and by changing the way in which we charge for our services.

We recognise that we need to be trusted by customers to ask them to make changes like reducing consumption. We need to continue to earn trust, through delivering great service, demonstrating transparency and listening to the changing needs of our customers.

## What will we do?

### Drive engagement with customers and communities

**Listen to our customers and expand ways to share progress and success and ensure customers have a strong voice, building on our unique WaterShare+ open forum quarterly public meetings and our annual Customer AGM**

**Be open and transparent about our performance, plans and the progress we are making**

**Look at ways to provide additional, relevant and targeted support and value to the communities we serve**

**Continually review changing customer demands and provide tailored and personalised services, specifically recognising the needs of vulnerable customers.**

**What will we do?** continued

## Make it easy for customers to reduce their water consumption and manage their water bills

Help homes and businesses reduce their water consumption by providing water efficiency devices, leveraging smart meter data to put customers more in control and deploying flow control devices to manage customer demand without impacting on service

Support customers re-use of water and rainwater for non potable use such as agricultural irrigation, which can use large volumes of water

Continue to build strong partnerships to create multi-utility and broader support for energy and water efficiency and deliver wider customer and community benefit beyond the water cycle

Invest to prevent an unfair burden of cost on future generations by continually improving water quality.

## Promote progressive charging so that every customer has a fair and affordable water bill

Promote changes to how water bills are calculated to ensure fair charging

Drive every opportunity to reduce water consumption and cost for customers

Ensuring all those at risk of water poverty have access to social tariffs and wider debt advice and support.

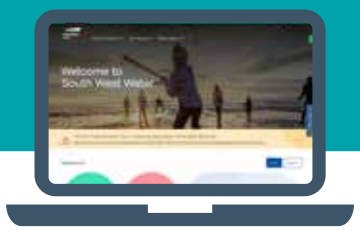
## Ensure our services are resilient to emerging threats including cyber and criminal

Ensure that events such as flooding, storm events or cyber attacks have no impact on services

Provide an effective and rapid response when things do go wrong, investing in our people, processes and systems to make sure that we are able to restore service with minimum disruption.

**We have started a major programme which aims to digitally transform the way that we work and interact with customers.**

**We have already provided additional digital contact channels to meet changing expectations. We have started a programme of work which will further enhance digital self-service for customers and embrace automation to make services more efficient and personalised.**



## By 2050 our aim is to...

- → Have zero customers in water poverty, with bills which are affordable for all
- → Have water bills which are fair for all through new ways of allocating charges across those who benefit
- → 100% customer and community satisfaction with our services

Wastewater collection

# Controlled and managed wastewater flows

### Our ambition to 2050

**Resilient natural and built wastewater infrastructure that protects communities and the environment.**

### Why is this a priority for us?

As we install technology and learn more from our monitors, the more we discover about the limitations of the Victorian sewage system in our region and the reliance on safety valves in the network, it's clear we need to evolve our water recycling and sewerage system into one that future generations can be proud of.

We plan to significantly reduce sewer spills to rivers and sea by increasing the capacity of our sewers and adopting nature based solutions to attenuate surface water input from rainfall and ensure there is zero harm to rivers from our operations.

## By 2050 our aim is to...

- → Have minimal, if any spills, from storm overflows at all locations
- → Have sustainable drainage in all new properties and retrofit programmes in place for existing homes
- → Achieve a 30% reduction in pollution incidents and reduce the risk of pollution across our asset base

DID YOU KNOW?

**We maintain over 23,000km of sewers! Customers can help by being careful what they flush down the toilet or pour down the sink – each time we flush a wet wipe or pour cooking oil down the sink, the end result is the risk of a pollution of some sort.**

**What will we do?**

## Evolve our water recycling and sewerage system to meet the needs of our communities and the environment

Keep sewers clean and clear, by addressing sources of rainwater infiltration and trialling new ways to address non-flushable and plastic-containing wet wipes to prevent blockages

Understand and map hazards to allow for targeted maintenance to control and manage drainage and prevent pollution incidents

Boost our schools and education programme – WaterFit Warriors – to inspire everyone to help protect rivers and seas through being careful what we flush or drain.

## Enhance sustainable drainage to reduce risk of flooding and pollution

Increase surface water storage in the network and at treatment works to cope with heavy rainfall

Use nature based solutions as much as possible to reduce the load to our wastewater treatment works – whilst employing engineering solutions when more urgent interventions are required

Work with housebuilders to build drainage and provide an important supply of water to use in the garden – such as water-butts, permeable paving, rainwater harvesting systems, and green or blue roofs.

## Create resilient smart wastewater networks with real-time tracking and management of capacity

Working with our innovation partners to develop and implement technology to improve visibility and remotely control our network

Proactive interventions across our network to reduce sewer flooding and pollution incidents.

**The government published its Storm Overflows Discharge Reduction Plan in August 2022, setting out steps to eliminate sewage spills no later than 2050, with high priority areas such as bathing beaches and environmentally sensitive rivers tackled first.**

**In meeting these requirements we need to look for the best value solutions for customers and the environment and accelerate plans where possible.**

Environmental benefit

# Delivering nature recovery & net zero

## Our ambition to 2050

**Protected and enhanced natural resources and the wider value of water and wastewater to environment, society and the economy is realised.**

## Why is this a priority for us?

Despite the stunning coastlines and diverse landscapes, biodiversity in our region is in decline and we are particularly susceptible to the impacts of climate change. Achieving net zero emissions and reversing the decline in nature is crucial to preserve the region's natural beauty, protecting its vulnerable ecosystems, and ensuring the welfare of our communities. The South West can lead the way in creating a resilient and environmentally friendly region and by embracing net zero and enhancing biodiversity can attract investment, create green jobs and improve the overall quality of life for our communities and visitors.

We are committed to ensuring that our operational activities – where we take water from the natural water cycle and return when it is safe to do so – support the natural environment helping our wildlife and habitats to survive and thrive and reduce our operational carbon emissions, all of which helps to provide resilience to our changing climate.

To support nature recovery we will protect the best species and habitats that we have on our landholdings and we will take action to enhance biodiversity across the rest of our estate. We will continue to collaborate and work in partnership to create a nature recovery network, through creating woodlands, restoring peatlands, and planting hedges. We need joined-up action across the public, private and third sector and have a long established history of successfully delivering biodiversity enhancement in collaboration with others which we will continue to build on.

By striving for net zero, we can play a significant role in mitigating climate change and creating a more sustainable future. We will identify and reduce our emissions from water treatment, distribution, and waste management processes and will implement more efficient technologies and practices to minimise our carbon footprint and contribute to the overall goal of net zero.

We will continue to invest in renewable energy sources including solar and wind power and invest in our assets to identify opportunities to reduce our energy consumption, reduce our reliance on fossil fuels and decrease carbon emissions, helping to achieve net zero and support the growth of the green economy.

Our investment in bioresources will ensure we meet higher standards for emissions to air, water and land, prevent diffuse pollution to water from applications of biosolids to land and significantly increase our renewable energy generation. We will ensure we continue to have sufficient capacity to treat bioresources that result from population growth and quality improvements at our wastewater treatment works.

By working closely with our suppliers and encouraging sustainable practices, we can minimise our environmental impact throughout the entire value chain.

We will foster a culture of sustainability and environmental responsibility among all our employees, stakeholders and customers through raising awareness, providing training and encouraging sustainable behaviours both within South West Water and the wider community.

**We are committed to taking action to deliver nature recovery and net zero across our operations and to working in partnership to achieve the greatest possible impact.**

**What will we do?**

## Increase biodiversity, through further habitat creation and improvement

Create and improve habitats to enhance biodiversity, reduce flooding and support Net Zero

Expand our award winning 'Upstream Thinking' programme – working with local stakeholders to manage agricultural land to restore habitats and protect water quality for both drinking water and the environment

Carry out river restoration schemes across our catchments to boost habitats and water quality, such as removing weirs and bank reinforcements, adding fish passages, replanting vegetation and trees, and restoring natural flows

Develop innovative ways to engage and support delivery partners to improve catchment water quality, through developing new partnerships and increasing match funding contributions.

## Decarbonise our operations and achieve net zero emissions

Reducing emissions through changes to operational practices, increasing energy efficiency, and switching to lower carbon fuel sources

Work with stakeholders to integrate green spaces, trees and natural drainage in urban areas

Work with our partners to reduce emissions throughout the supply chain.

## Return treated water safely to the environment

Maintain 100% compliance with wastewater treatment standards to protect rivers and seas.

Add screens to overflow discharge points to prevent sewage litter in rivers and seas

Use technology to improve the quality of the biosolids produced as part of our wastewater treatment process.

## Use our land and resources to increase renewable energy generation

Increasing renewable energy generation and transitioning to renewable energy sources by shifting from fossil fuels to renewable energy sources to power our assets

Delivery of floating solar and Photovoltaic (PV) generation

Committing to the development and ongoing use of Combined Heat and Power (CHP) technologies to harness and re-purpose the production of bioresources.

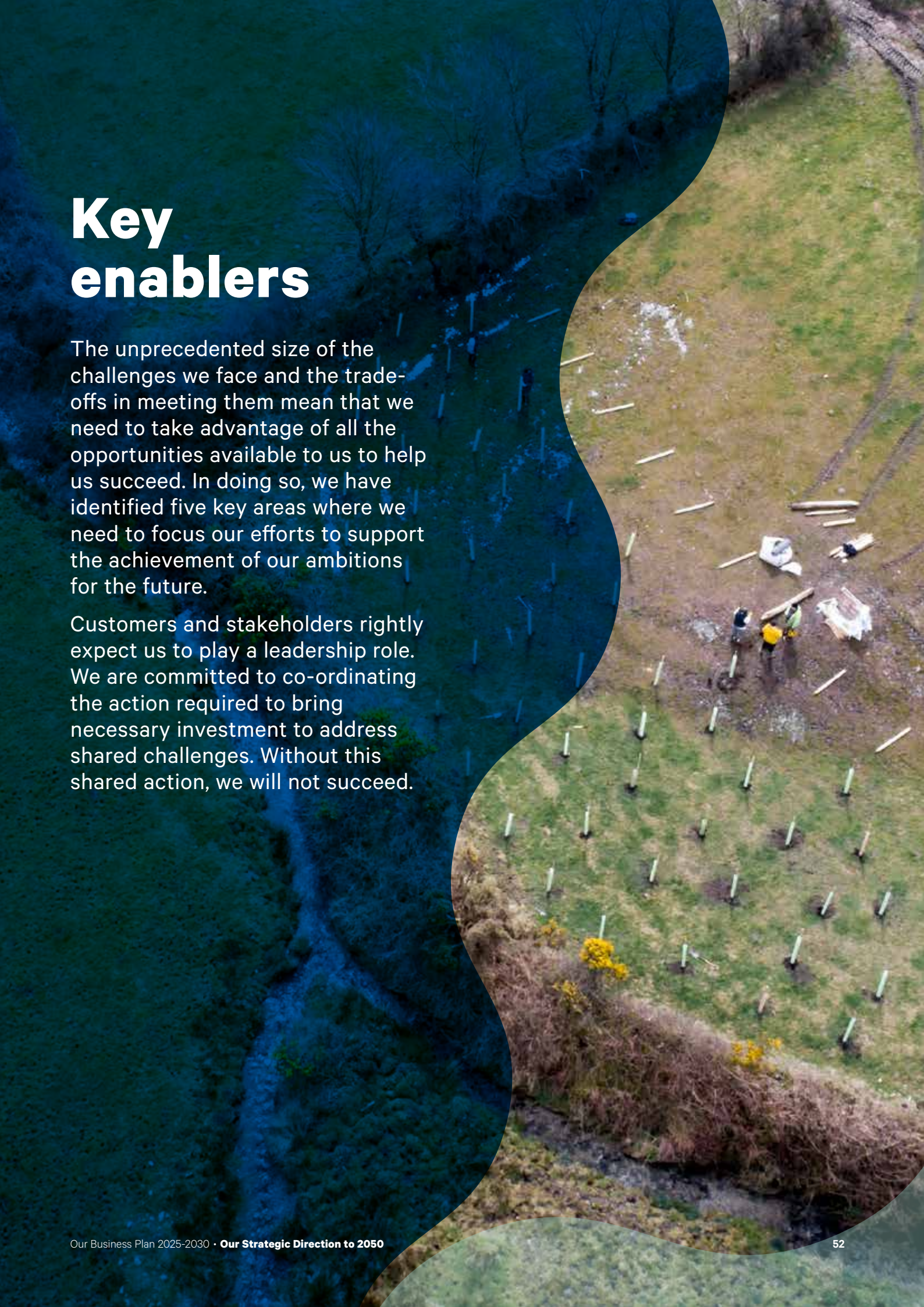
## By 2050 our aim is to...

- → Maintain the biodiversity value of the special habitats and sites that we manage and achieve a measurable biodiversity net gain across the rest of our remaining operational estate and beyond
- → Achieve carbon net zero status with any residual emissions offset through the creation and restoration of native habitat
- → Have no negative impact on rivers or seas from our operational activities

# Key enablers

The unprecedented size of the challenges we face and the trade-offs in meeting them mean that we need to take advantage of all the opportunities available to us to help us succeed. In doing so, we have identified five key areas where we need to focus our efforts to support the achievement of our ambitions for the future.

Customers and stakeholders rightly expect us to play a leadership role. We are committed to co-ordinating the action required to bring necessary investment to address shared challenges. Without this shared action, we will not succeed.



# The changes we will make

## Advance catchment thinking

Our strategic direction recognises the importance of re-connecting the water cycle, and how the water cycles operate within a catchment. Water is abstracted and stored, treated and distributed, used by customers, before being taken away from homes and businesses through our sewer network for treatment. Water is then returned to rivers and the sea, with leftover solids being used to fertilise agricultural land.

Catchments are the natural way to consider the marine environment. Better coordinated action at the catchment level by those who use water or nearby land is a great enabler for change.

Engagement and collaboration are at the heart of catchment based approaches. Catchment work requires joint delivery by all stakeholders within a catchment, supported by regulators and policymakers. This would ensure we address all pressures placed on the water environment including from water company activities, but also diffuse pollution from both agricultural and urban sources.

## Create resilient, smart and fit for future infrastructure

The demands placed on our infrastructure will be significantly higher in the future than they are today. This is because climate change is already disrupting the rainfall and temperature patterns, which all of our operations are so closely connected to. In addition, there will be more people using water and creating wastewater in our region as our population grows.

And yet some of our assets were built over 100 years ago, when times were very different. We will need to optimise investment in asset health and resilience, through integrated long-term planning that will deliver the right level of investment to ensure that our assets and networks are able to cope with more extreme weather and demand. We will need to work collaboratively in the building of new developments in our region, optimising local water cycles through investing in re-use and recycling of water, as well as natural assets.

Not only do we need to think about our infrastructure, but also how it is impacted by the services we rely on – such as electricity to power our pumps and treatment processes. We have developed a systems 'thinking' approach to consider the resilience of our operations in the context of this wider system.

We aim to plant
**250,000 trees by 2025**
to improve our catchments. We are already over half way against our target.

## Drive technology, leveraging data and the supply chain

The significant challenges of the future call for radically different ways of working. Everything we do starts with good data. We will need to collect and analyse more data to better understand and manage our systems in real time. We will make more data publicly available as a way of stimulating new ideas and partnerships so we can provide better services for customers and better protection of the environment.

We need to think ahead and get on the front foot for future challenges, developing research, investigations and pilot projects and trials to help identify the best solutions before impacts fully materialise. We will continue to work with our colleagues across the sector in shared research and learning through organisations such as UK Water Industry Research (UKWIR).

At the very heart of our approach is intelligent asset management. We will invest further in our Telemetry, Operational Control systems, meters and network sensors to provide greater automation, real-time system feedback and inform decision-making. We will also replace our asset and work management systems and data analytics capabilities to provide more actionable insight, both for us and our customers.

## Create the culture for our people to develop, enjoy their work and succeed

The need for a diverse, vibrant workplace, where people can learn and grow whilst loving their work has never been greater.

We plan to harness energy and creativity by creating great spaces to work and promote diversity to bring together a mix of minds and representation of the communities we serve.

We recognise the need to deliver on total wellbeing by being at the forefront of mental health and holistic wellbeing, as well as being a leader in health and safety performance and offering the most flexible family friendly and lifestyle benefits of any water company.

We will continue to work with schools, colleges and universities in our region to create Pennon-sponsored skills academies to lead on the skills agenda in the region and across the wider supply chain in building emerging talent pipelines.

## Develop markets, create value

There are many opportunities linked to new market mechanisms which could provide better outcomes for customers and the environment.

Market mechanisms could unlock new funding routes and improve cross sectoral co-ordination, as well as promoting economic and behavioural signals around water use and sewer misuse.

We believe that water companies should be able to competitively procure and finance large infrastructure project across the country to provide significant benefits for customers.

# How we will work with others
# Collective action

## Changes to behaviours and mindsets

We need substantial and lasting changes to the way people think about and manage their water usage. Consumption needs to become mindful – with everyone actively managing how much they use to help protect the environment and ensure that there is enough water for everyone.

We can help through education partnerships and by providing incentives and rewards for customers and communities who conserve water. Smart meters will provide customers with the information they need to track water usage in their home and identify small changes to the way they use water which make a big difference overall.

We also need customers to better understand what happens to their wastewater once it leaves their home, so they can modify their behaviours and attitudes to waste.

**Examples of behavioural changes which are required**

- Taking shorter showers
- Choosing water efficient white goods
- Collecting rainwater and re-using water (for example, using bath water in the garden)
- Being careful what is drained and flushed
- Shifting customer perception to recognise the benefits of biosolids to land.

## Supportive customers and communities

Supportive customers and communities, active in our decision-making and delivery processes brings new ideas, experiences and expertise. This in turn motivates the development of alternative solutions and increases the chances of success.

We will continue engaging with our customers and communities about their day-to-day interactions with us and on our future plans and strategies. There is not a single way to reach everyone, so we will continue with a range of channels such as customer satisfaction surveys, focus groups and our customer AGM.

**Examples of how communities can help achieve our shared ambition**

- Developing community water re-use and sustainable drainage solutions
- Helping to maintain natural capital solutions such as ponds and reedbeds
- Working with us to find shared solutions to community water and wastewater challenges.

## Stronger partnerships

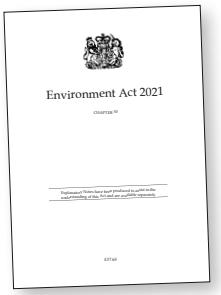
Water provision and wastewater disposal are services which impact on every aspect of our local community and environment. Community partnerships with local authorities, NGOs, charities and environmental organisations are required.

We recognise that at the heart of any co-operation is trust, sharing information and resources and regular honest communication.

**Examples of stronger partnerships required**

- Growing existing catchment partnerships for shared funding approaches
- Working with local authorities and planners to disconnect surface water flow from our sewers and increase urban green space and sponges

## Supportive regulation, competition and government support




Over £13 billion of much needed investment has been made by us in our region, and service levels have drastically improved as a result, with 100% bathing water quality. Despite this, public scrutiny has never been higher. Without significant further investment, the major programmes required to further transform our region will have a potentially detrimental impact on customer bills, at a time when affordability concerns are at an all time high.

Whether it's delivering on plans to reduce the use of storm overflows, Net Zero, mitigating the impacts of climate change, or projects to improve drinking water quality and protect public health, we need to continue to attract investment. Green investors specialising in sustainable financing welcome opportunities to support projects that have a longer-term benefit, and we therefore need a regulatory framework that supports high quality business plans, that are in the best interests of customers and communities, as well as responds to government legislation such as the Environment Act 2021.

We also need a framework that brings together interested parties on a regional basis, whether that's to fund water management, flood management, carbon sequestration or carbon-offsetting, ensuring we collectively prioritise the needs of all stakeholders.

We need the government to actively pursue the policy changes required for all water companies to meet the future needs of their customers and the environment.

**Examples of policy changes required**

- Transfer of ownership of customer supply pipes to water companies to support leakage reduction and lead pipe removal
- New builds required to be more water efficient and manage drainage sustainability e.g. rainwater harvesting required in new build properties
- Ability to compulsorily meter across our own regions (not just in regions identified as water stressed)
- White good manufacturers to innovate and improve labelling for water efficiency and adopt microplastic filters on wastewater outlets of white goods
- Flexibility to agree new ways of charging for water to support customers and communities
- Support for the beneficial use of biosolids through recycling or creation of products that support the circular economy.

# Thank you for reading our Strategic Direction to 2050 document.

For further information about our detailed plans for 2025 and beyond please visit our website **www.southwestwater.co.uk**

South West Water is supporting the lives of people and the places they love for generations to come.

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