Severn Trent Water's climate change adaptation report





# FOREWORD

As a water company we are acutely aware of the day-to-day impact that weather can have on our business. As well as being able to cope with the weather today, it is vital that we look to the future to understand the action we need to take to prepare for climate change.

We are already leaders in low carbon renewable energy generation and we have plans to go further by increasing our self-generation of green power to cover the equivalent of half our electricity needs. Equally we want to lead on climate change adaptation.

We are taking a customer focussed approach to climate change adaptation by concentrating on the outcomes that our customers care about the most. We aim to provide excellent water and sewerage services both now and in the future – and we want to be able to cope with the extreme and more volatile weather that climate change will bring.

This approach has helped shape our response to the climate change risks set out in this report. Since our last climate change risk assessment in 2010 we have delivered a lot to strengthen and protect our services and, as we enter a new regulatory cycle, we plan to go further:

- We've got an ambitious plan that builds our resilience to the impacts of climate change but doesn't push up customers' bills. We're proud that we've got the lowest bills in the land while still being able to invest to protect services for future generations.
- We're making our biggest ever investment to provide an alternative water supply to the city of Birmingham. This will provide resilience to over a million people and ensure one of our most important aqueducts continues to provide a low carbon and sustainable water supply into the next century.
- Our new Outcome Delivery Incentives (ODIs) mean that our financial performance is now more strongly linked to weather and climate change than ever before. This places greater focus on delivering adaptation action and managing climate related risks.



We are looking forward to delivering our plans for 2015-20. Climate change presents a big challenge to us, yet it is a challenge that we can respond positively to.

Liv Garfield, Chief Executive

# INTRODUCTION

Climate change adaptation is about coping with future changes to our weather. The focus of this report is how Severn Trent is doing this. The water sector is arguably the most vulnerable sector to the impacts of climate change; this is because almost all the activities involved in serving our customers are sensitive to the weather.

In this, our second formal Climate Change Adaptation report, we describe the actions we have undertaken over the last five years to adapt to climate change, present our review of the climate change risks across all aspects of our service delivery and set out our plan to make further progress in building climate resilience.

Our customers trust that we will supply them with an uninterrupted supply of clean water now and in the future. They also have confidence that we will remove their waste water and return it to the environment in a sustainable way. The work we did to compile this report has helped us better understand and plan for challenges that lie ahead and adapt the way we run our business to be able to cope with more extreme and unpredictable weather patterns.

There has been much change in water regulation over the five years since our first Climate Change Adaptation report. It has probably been the most significant period of change seen in the water industry since privatisation. Many of these changes align to the proposals we set out in our publication / Changing Course<sup>1</sup>, where we set out sensible steps to move the water sector into a better position to respond to the challenges presented by climate change.

There are two key changes in particular - the introduction of Outcome Delivery Incentives (ODIs) and the move from separate regulation mechanisms covering operating expenditure and capital investment to total expenditure (totex). These changes bring into sharper focus the need for Severn Trent to continue to successfully identify and address future risks before they impact on the services we provide. We explain the impact of these changes in more detail below, but the key point is that our ability to successfully identify and adapt to climate change is now intrinsically linked to our financial performance. Climate change adaptation is now further embedded into the way we do things.

#### Mitigating through reducing our emissions

We are also working hard to reduce our greenhouse gas emissions that contribute towards global climate change. We have ambitious targets to increase the amount of renewable energy we generate to the equivalent of 50% of our electricity needs, which will have a significant impact on our emissions. Although this is not the main focus of this report, we recognise that adapting to and mitigating climate change are both important.

## SEVERN TRENT WATER AND CLIMATE CHANGE

The water sector is extremely sensitive to the impacts of climate change. Weather impacts we face include:

Everything we do is impacted by the weather



The performance of our assets such as pipes are threatened by extreme weather.

The demand for our product rises significantly on hot days.



Hydraulic capacity of our sewers is impacted by temperature and rainfall.

Temperature and rainfall impact the condition of the environment to dispose final effluent.

Climate change also impacts the goods and services provided by others on which we rely. For example, we know that the power supply is vulnerable to extreme weather events. We have seen the impact of extreme weather first hand over the last few years:



We have seen the impact of extreme weather first hand over the last few years:

- The drought conditions through 2011 and the early part of 2012 led to an increased number of sewer blockages, as sewer debris built up in the dry conditions. This period also challenged our supply demand balance although we did not have to impose any restrictions on water use.
- Record rainfall levels and flooding in 2012 caused many problems for people across the UK. During this period we had to deal with a significantly higher amount of wastewater in our sewers and it proved a successful test of the defences we'd built at our water treatment works since the floods of 2007.
- The heat wave in July 2013 led to sharp increases in demand for water across our region, on average 20% more than normal. This placed significant pressure on the short-term storage capacity across our network.
- The storms of February 2014 affected the national power network in the west of our region. As a result, over 6000 of our customers lost water supply.

### OUR CLIMATE CHANGE RISK ASSESSMENT

We last published our climate change risk assessment in 2010 in our statutory adaptation report for the Secretary of State. We have updated this work by including new information on the emerging risks and reviewing each risk with subject matter experts. We then consulted with external and internal stakeholders to sense check our findings.

Climate Driver Ri	lisk	Description	Score
Hotter & Drier Fa summers CU	ailure to meet ustomer demand	Increased pressure on our water resources means more risk to service and higher cost to meet customers' needs.	40
Wetter Winters & Ex Increased Storminess	exceeding the sewer apacity	Runoff exceeding capacity of sewer system and storage, causing surface flooding which affects customers and can cause river pollution.	35
Hotter & Drier Al summers re	Abstraction estrictions	Reduced reservoir and river levels results in restrictions on the amount we can abstract from resources, increasing our costs as we use alternative sources and additional resources which can threaten customers' supply.	32
Wetter winters, Drier summers & Increased StorminessDe question	Decrease in raw water Juality	When it rains after long, dry periods, runoff from fields increases the amount of pesticides (including metaldehyde), pollutant concentrations, and sources of discoloration in water sources. Increased water treatment costs, and threatens compliance with water quality regulations.	29
Wetter Winters and Po Increased Storminess ex	Poorer customer experience	Increased resources required to react to high call volumes more frequently, increasing risk of negative impact on customer experience and more customer complaints.	29
Wetter winters, In Drier summers & m Increased Storminess	ncrease in land novement	Aqueducts/Pipes swept away affecting customers supply and costing money to fix.	27
Hotter & Drier Lo summers	ower river levels.	Lower river levels drop below environmental limits. Compensation from boreholes and raw water reservoirs is required to protect the river, reducing water available for customers and need to seek more expensive sources.	26
Increase in In temperatures ba	ncreased acteriological growth	Increased bacteriological growth, requires increased use of chlorine or organics removal at treatment works, increasing costs of water treatment or water quality deteriorates.	26
Hotter Summers & Bl Increased Storminess fl	Blockages causing looding	Lower average carry flows result in greater sewer deposits, causing blockages, and following intense rainfall events cause local sewer flooding and/or overflows causing environmental damage.	25
Increase in Ti temperatures co	ighter discharge onsents	Lower water quality in the environment, requires us to compensate and increase the treatment of our effluent to a higher standard with associated costs	25
Wetter Winters & Fl Increased Storminess	looding of water vorks	Flooding of our water treatment assets impacting our serviceability; threatens ability to supply customers demand. Damage to our equipment	25
Increase in <b>Re</b> temperatures	Reduced water levels	Increased evapotranspiration reduces recharge from current levels. Causing lower river, groundwater and reservoir levels. The amount we can abstract from resources is reduced, which increases our costs as we use alternative sources and additional resources and can threaten customers' supply.	23
Hotter & Drier Lo summers su	ow pressure water upply	Higher domestic demand on water. More customers experience low pressure incidents.	22
Wetter Winters & Fl Increased Storminess	looding to waste	Inundation of sewage treatment works can cause failure of treatment processes which can cause pollution and increase costs.	20

We have identified 14 direct priority risks (scoring over 20 out of 50) that climate change poses to our direct business.

#### Company objectives

We will provide water that is good to drink
We will ensure water is always there when you need it
We will safely take your waste away
We will provide you with an excellent customer service
We will have the lowest possible charges
We will help you if you struggle
We will protect our local environment
We will protect our wider environment
We will make a positive difference in the community
We will finance our business sustainably

### INDIRECT RISKS AND OPPORTUNITIES

There are a few climate change risks which we don't have direct control over that could potentially affect our business on a large scale. Our classification of indirect risks is not intended to suggest they are 100% out of our control. We know that we can take action to reduce the indirect risks.

Climate Driver	Risk	Description	Score
Wetter Winters and Increased Storminess	Power failure	Adverse weather causes damage to power infrastructure eg storm/flooding/overheating, causing risk to operational failure.	30
Warmer, wetter winters and drier summers including extreme rainfall events	Failures in supply chain	Suppliers are unable to procure materials or goods required for our processes or projects (eg Chemicals or building materials or insufficient water for processes/access restrictions). Increases costs to find alternative solutions/unable to find alternatives.	28
Storminess	Damaged ICT/ telecoms	Damage to ICT infrastructure and telecoms (eg mobile phone networks and internet), including remote control and telemetry. This reduces our visibility of how our network is performing and restricts our ability to respond effectively.	28

#### CHANGES TO OUR RISKS

As expected, the vast majority of the risks from 2010 remain on our climate change risks assessment. There are changes in their relative ranking which reflect both the work that's taken place in the last five years to manage the risks and new information on the potential impacts. The most significant increase is the risk to raw water quality from pollution that is washed in to water courses by more intense rainfall events. This has been driven in part by the increased use of metaldehyde, within slug pellets, that affects water quality. The most significant risk decrease is the risk of water supply disruption due to flooding. This is due to the investment in resilience we have delivered in the 2010-15 period.

#### **OPPORTUNITIES**

Climate change also presents opportunities as well as threats. We recognise it is equally important to understand where the opportunities lie so that we can fully release the benefits. For example, milder winters will lead to reduced levels of leakage and increased temperatures all year round will help reduce the costs of some of our biological sewage treatment processes. Although a major global threat, climate change has provided impetus for change, improvement and reform.

#### Increased value of effluent

The biggest opportunity we identified relates to the biggest risk of increased demand for water which may increase the value of our effluent.

#### Reduced leakage

Warmers temperatures are predicted to have a positive impact on leakage as averagely warmer winters will mean less frost to cause bursts.

#### Aquifer recharge

Higher precipitation may recharge groundwater aquifers allowing us to store water aiding the supplydemand risk.

#### Increased biological treatment

Increased temperature could improve our biological waste treatment process and also extend growing seasons for our energy crops.

## OUR APPROACH TO CLIMATE CHANGE ADAPTATION

We developed our adaptation strategy in 2012 to influence the preparation of our current five year plan. Although we have continued to refine and improve it, its three main elements remain unchanged:

- 1. Have the right mindset and behaviours in place to understand the issues, plan and implement action.
- 2. Systematically take action to reduce our priority climate change risks.
- 3. Actively seek wider opportunities to transform how and what we do.

Our risk assessment provides focus for delivering our strategy as it identifies and prioritises areas of our operations that are likely to be impacted by climate change. It is important to recognise that we don't consider climate change risks in isolation and we view them alongside all the challenges we face.

Our approach is to identify adaptation options that deliver multiple benefits, beyond climate change. The solutions can take different forms; for example they can be:

• Programmes that we would have carried out in the absence of climate change yet deliver climate change benefits (eg reducing leakage).

- Areas of existing work that we accelerate because of climate change (eg SUDS sustainable urban drainage systems)
- New areas of work that deliver benefits now and in the future (eg Birmingham resilience)

This multiple benefit approach significantly reduces the likelihood of what is known as maladaptation, that is investing in an adaptation option that is subsequently not needed. This acts to protect customers and is a sensible way of managing the uncertainty in future climate change scenarios.



### ACTIONS WE HAVE UNDERTAKEN SINCE 2010

The work we have done since 2010 to build climate resilience has had a positive impact on our services during periods of extreme weather. For example, our customers avoided restrictions on water use during the 2012-13 drought though the actions we took to move water around our network to help support our drier areas. The heavy rainfall in winter 2013-14 tested the flood defences of the Mythe Water Treatment Works at Tewkesbury in Gloucestershire. Our defences stood firm when tested against flood levels that exceeded the 2007 flood event that inundated the works.



#### **RESILIENCE IMPROVEMENTS SINCE 2010**

Our progress since 2010 towards increasing our climate resilience includes:

Leakage reduced by around 10% since 2009/10 and 38% of leaks fixed within 24 hours.	We are one of the most resource efficient companies, at 229 litres of water per person per day - down from 242 in 2009/10.	Protected 741 properties from internal sewer flooding and 360 areas from external flooding.			
77% of our customers now have a resilient water supply (they benefit from a second source of supply).	Increased the resilience and security of water supply to over 5.4m customers.	Achieved our best ever performance on the number of environmental incidents downstream of sewer treatment works.			
Reduced the average time that our customers are without supply from 16 minutes in 2013-14, down to 10 minutes in 2014-15.	Properties at risk of low pressure down to 230 in 2014/15 from 424 in 2009/10.	Maintained over 99.96% compliance with drinking water quality standards.			

- Exceeding our ambition for water efficiency by almost 50%. By 2014/15 we delivered 20Ml/d of savings through water efficiency measures. This helps build resilience to future pressure on our supply demand balance.
- Introducing an online weather portal that contains alerts and warnings that are tailored to our specific needs. These help us to better prepare for, and respond to, extreme weather events.
- Generating the equivalent of 28% of our energy needs. This reduces our dependency on grid electricity and increases our resilience to power failures.

## DRAYCOTE 'BIG BLUE PIPE'

Over the last 5 years we have taken dozens of individual measures to avoid any usage restrictions for our customers. These range from small changes to large network alterations. For example, the record low rainfall during 2011 and early 2012 meant that Draycote reservoir, which supplies water to customers in Rugby, was at lower than normal levels. So, we installed a temporary pipe to take water out of the river Leam to refill it. Thanks to this solution we were able to pump up to 12.5 million litres a day to safeguard supply for our customers.

## EMBEDDING ADAPTATION

Before looking at our 2015-20 plan, it is worth understanding the two changes in our regulatory framework which mean that our ability to successfully identify and adapt to climate change is now intrinsically linked to our financial performance.

The first of these is the introduction of Outcome Delivery Incentives (ODIs). Outcomes reflect the long term needs that our customers are seeking. Each outcome has performance commitments that reflect these needs and allow progress to be measured. Some of the performance commitments are underpinned by financial penalties and rewards – these are the ODIs.

Severn Trent's performance over 2015-20 will be measured through 45 performance commitments, 33 of which have ODIs associated with them. The majority of these ODIs are related to the weather either directly or indirectly and this creates a link between our financial incentives and the impacts of climate change. This is why the introduction of ODIs acts to further embed climate change adaptation into the core of our long term strategy. The second change is the move from separate price regulation mechanisms covering operating expenditure and capital investment to a single one covering total expenditure (totex). This change enables us to deliver our service through the most efficient and sustainable route, whereas the traditional route may have focused on delivery through capital expenditure.

This totex approach means our plan includes a wider range of solutions and innovation than ever before - including more catchment management, sustainable sewage treatment solutions, customer education, SUDS and improved operational effectiveness. Our plan does also include significant capital investment but the freedom of totex allows us to address climate change in the most appropriate and sustainable way. The range of solution types we are adopting is discussed further below.

#### OUR PLAN FOR 2015-20

We are now underway in delivering our plan for 2015-20. The three essential elements of our plan are:

**2** It's fair and balanced.

It delivers even better value for money.

We've long advocated a more socially, environmentally and financially sustainable water industry. This philosophy is at the heart of our plan. We've aimed to strike the right balance between keeping bills affordable for today's generation of bill payers and investing to keep bills affordable for future generations. We've found that in many cases investing for the future, for example strengthening our strategic grid during AMP5, also delivers benefits for today's customers.

# **3** It does the right thing for the long term.

We're proud to already offer our customers the lowest average combined water and wastewater bills in the country and we will continue to do so over the next five years. At the same time as reducing our bills, we're increasing the amount we invest in improving or safeguarding services for future generations. It's up from £2.6 billion in the 2010-15 price control period to £3.3 billion in this five-year period. We have done this by being ever more efficient and taking advantage of lower borrowing and financing costs.

#### HIGHLIGHTS

We have aligned the threats that climate change poses to our business into our company outcomes and summarised our 2015-20 plan to mitigate these risks.

We will ensure water is always there when you need itClimate change risksClimate change puts additional pressure on meeting our supply- demand balance. Hotter drier summers increase customer demand for water, but they also reduce the amount of water available to abstract, by lowering water levels, which could result in abstraction restrictionsMore extreme weather could pose a threat to our services through flooding of water treatment works or increased land movement. Heatwaves would lead to more customers with low water pressure.		We will provide water that is good to drink	We will take your waste away safely	We will protect your local environment	We will provide you with excellent customer service			
		Increased heavy rainfall events will accelerate runoff from land, increasing concentrations of pollutants such as pesticides and nitrates entering the watercourse and <b>decreasing raw water</b> <b>quality</b> . Increased temperatures may have an impact on our water treatment through <b>increased bacteriological</b> <b>growth</b> .	Climate change increases the likelihood of sewer flooding as a result of two different drivers; Wetter winters and more extreme rainfall events are likely to <b>exceed the capacity of</b> <b>our sewers</b> , and hotter drier summers will reduce carrying capacity and result in <b>blockages</b> <b>causing flooding</b> .	Climate change impacts both the quality and quantity of water in the environment. It is likely to mean <b>lower river and</b> groundwater levels and may require we treat our effluent to a higher standard, tightening discharge consents in order to protect the environment.	Adverse weather puts additional pressure on our networks, for example high rainfall events increase the volume of customer contacts and could result in <b>poorer</b> <b>customer experience</b> .			
2015-2020 adaptation actions	<ul> <li>We will reduce leakage by 6% and fix leaks within 24 hours.</li> <li>We will save 25Ml/d through water efficiency.</li> <li>We are investing around £250m in providing an alternative water supply for Birmingham and surrounding area.</li> <li>We are protecting vulnerable communities from failure of three sections of aqueduct at a cost of around £67m.</li> </ul>	<ul> <li>We are collaboratively working with land owners to improve water quality in 21 catchments, investing £21m.</li> <li>We are investing over £230m in our water treatment works to improve our treatment processes and reduce risk.</li> </ul>	<ul> <li>We are doubling the number of sustainable urban drainage projects</li> <li>We are aiming to reach over 125,000 people with our customer education programme about sewer misuse by 2020.</li> </ul>	<ul> <li>We are giving up around 85Ml/d of abstraction licenses which are currently deemed to be environmentally unsustainable, as part of the national environment programme.</li> <li>We are tripling the number of projects where we work with others to improve our local river environments.</li> </ul>	<ul> <li>We are using weather forecast information which is tailored to our region and our thresholds to plan our resources and maintain our service levels 365 days a year.</li> <li>We are becoming more digitally savvy, increasing the accuracy and speed of our information and response times in order to make better decisions during extreme weather events.</li> </ul>			

## ADAPTING THROUGH INNOVATION

Our plans for 2015-20 continue to build our climate resilience. Our most significant scheme is the Birmingham Resilience Project which is focussed on maintaining a strategically important asset while providing a resilient service. This not only helps reduce our climate change risks, but also mitigates our largest overall company risk.

Our plans are not only about capital investment in traditional hard engineering projects; instead we have developed a diverse programme of work which considers other, more innovative, types of interventions. These include a significant expansion of our catchment management work to improve water quality and a commitment to working in partnership to deliver more sustainable approaches to drainage. In addition, we will continue to challenge our processes in order to build our resilience; for example, we will continue to improve the way we respond to water supply interruptions to minimise the impact on our customers.

The chart opposite shows how our action is spread over a wide range of solutions. There is more activity in the top right quadrant than ever before. This quadrant represents the high impact "softer" solutions. The chart only shows key highlights from our plan. There is also a significant amount of business as usual activity which contributes to our overall climate resilience. We are also committed to a significant R&D programme which will deliver further innovation and improvements to cope with future climate change.

We are doing all this in the context of a bill that is decreasing in real terms over the next five years. Our plan demonstrates that you can strike the right balance between investing for the future while keeping bills low.

We recognise that we have to keep our risks and actions under review as we learn more and as new risks emerge. As discussed above, the majority of our ODIs are influenced by the weather and we have set ourselves challenging improvement targets over the next five vears. Any material underperformance that is related to the weather will act as an early warning indicator that will feed into subsequent reviews of our climate change risk assessment and action plan. Over time, our performance will show whether or not we are successfully adapting to climate change.

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**Business as usual** 

1	Reduce Leakage by 6%
2	Save 25Ml/d through water efficiency
3	Alternative supply for Birmingham
4	Protecting vulnerable communities
5	21 catchment management projects
6	Upgrading water treatment works
7	Doubling number of sustainable urban drainage projects
8	Expanding education programme
9	Giving up 85Ml/d abstraction licenses
10	Tripling number of partnership working
11	Bespoke weather forecasting
12	Digitally savvy

Future Proofing Severn Trent Water's adaptation report

### BIRMINGHAM RESILIENCE PROGRAMME

Securing sustainable water supplies now and in the future

The Elan Valley Aqueduct transports water 118km from mid-Wales to Birmingham, and has been serving our customers well for over 100 years. It is a critical asset for our customers and without it, a large number of our customers would be left without water.

Our studies shows that the aqueduct is at increasing risk from the impacts of climate change. Heavy rainfall events could cause flooding and increased river scour, affecting the support structures. As the aqueduct passes through steep terrain it is also at risk from landslips. Without major intervention the risks will continue to grow over time to an unacceptable level.

Our solution is to invest around £250m to build a new pipeline from the River Severn to Birmingham to act as an alternative water supply. This allows essential maintenance of the aqueduct to take place and acts as a back up in emergencies. This provides a resilient supply of water to Birmingham and surrounding communities for generations to come. It also secures an economical and low carbon source of water that is projected to remain relatively plentiful under future climate change scenarios.

## FARMERS AS PRODUCERS OF CLEAN WATER

Rewarding farmers for producing clean run-off water from their land

Our most valuable natural asset is clean water and farmers have a huge influence on what goes into the water we abstract to provide to customers. Water quality samples are taken at the top and bottom of a catchment and farmers rewarded where the water is kept free from pesticides.

This is an ecosystem services approach to managing pesticide concentrations and allows farmers to take ownership of the issue and the solution. Farmers can pick a management approach which is best suited to their farm rather than opting for a prescribed method. It also encourages whole catchments to work together with every farmer needing to be bought in to receive the highest rewards.

The scheme has been trialled in two catchments over the last two years – the Cound in Shropshire which feeds Trimpley Water Treatment Works (WTW), and Didgeley brook in Warwickshire which feeds Whitacre WTW. In 2013/14 metaldehyde peaks in Didgeley Brook were reduced by 90% whilst in the Cound 2014/15 results saw only one sample above the drinking water standard. The approach will be rolled out more widely in the River Severn and River Bourne/Blythe catchments during 2015-20.

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### FUTURE WIDER IMPROVEMENTS

We understand the importance of adapting our business to the impacts of climate change, and this report focuses on our own progress and planned actions. There are some issues where we believe wider reform would improve the way the water sector adapts to climate change. Our priority areas are:

- The Flood and Water Management Act has made a step forward in enabling adaptation and resilience to flood risk. However the legislative and regulatory framework still operates in favour of more connections to our sewers, at a time when the burden on our system is rising with climate change. We believe that either the automatic right to connect to sewer systems should be completely removed. or charges for connecting new developments reflect the full costs that they impose on the sewerage system. Both these options would lead to more sustainable urban drainage systems (SUDS).
- Currently there is a lack of certainty about the resilience of some of the services from other sectors that

we rely on. Common standards of resilience for the most critical national infrastructure, particularly electricity and communications, would help reduce interdependency risks.

- Reform of the water abstraction regime is urgently needed. Future water scarcity driven by climate change needs to be fully reflected within the allocation and pricing of abstraction licences. Flexibility also needs to be built in to facilitate a rapid response to extreme drought events.
- We are moving towards a more competitive water sector in the UK. Retail competition should encourage more adaptation by sharpening companies' understanding of the resilience needs of customers and also help deliver greater water efficiency. In the medium term further upstream competition is likely and some key areas, primarily those related to water trading, have to be implemented with sufficient long-term focus in mind.

We are strong advocates of reform in our industry and we would welcome the opportunity to work with government and regulators on these issues. We have set out further thoughts on some of these key issues in our 'Charting a sustainable course' publication.

We are keen to contribute to the wider efforts to help build the UK's climate resilience. We would welcome a role in helping to influence the forthcoming update to the UK's climate scenarios (currently called "UKCPnext") so that they can be designed in a way that is accessible and relevant to business users. We would also like to contribute to a wider conversation on the issue of precision and uncertainty within climate scenarios and how they can be used to inform business decisions. These are both critical areas because the majority of adaptation in the UK will be delivered by the private sector.

#### An overview of the main version of this report

In the main version of our climate change adaptation report we build on the risks and actions highlighted in this summary. Specifically we provide further details and background information on:

- Our climate change risk assessment process.
- The main areas where we have made progress in the last five years.
- Our plans for the next five years.
- Where we have identified any gaps or barriers to adaptation.

Future Proofing Severn Trent Water's adaptation report

# **NEXT STEPS**

Climate change poses a significant risk for Severn Trent Water. Climate change adaptation is essential for maintaining delivery of services to our customers now and into the future. This is why we have taken action over the last five years to embed adaptation in the way we do things.

We have committed to delivering further actions to build our climate resilience in our 2015-20 plan and will review our climate change risks and progress on adaptation with our Board each year.

We are keen to work with others in order to address our climate change risks in the most efficient and effective way possible. In particular, we will work with our supply chain to influence their actions to build climate resilience and we will continue to expand our partnership working to find joint solutions to common adaptation challenges. We would also like to help improve the regulatory regime, industry structure and wider policy landscape so that potential barriers to adaptation are identified and removed.

Our stakeholders made a valuable contribution towards the production of this report, and we commit to continued engagement on our progress and to share good practice. If you would like to comment on this document or are interested in working with us, then please get in touch at **adaptation@severntrent.co.uk** 

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