



Cambridge Water



South Staffs Water



South Staffordshire Water PLC

Climate change adaptation report 2024 – summary

Securing your water future



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1. Introduction

At the end of 2024, we submitted our technical climate change adaptation report to the Department for Environment Food and Rural Affairs (Defra).

The report is voluntarily submitted every five years as part of Defra’s adaptation reporting power under the Climate Change Act 2008. This is the fourth round of reporting and along with other water company reports, it will be used to inform the UK Government’s understanding of climate change risks in the water sector.

2. What are the challenges we’re facing?

We know that climate change will affect both the environment that we strive to protect and our capacity for service delivery. As a responsible, customer-focused and regulated business, we must maintain a balance between playing our part in delivering climate change resilience and restoring and enhancing the environment – all while keeping our bills affordable to customers.

Over the next century we are projected to experience:

Hotter, drier summers



- Cambridge – Maximum summer temperatures up to 42.8c
- South Staffs – Max summer temperatures up to 40.8c
- Summers are up to 60% drier depending on the region

Warmer, wetter winters



- Cambridge – Max winter temperatures up to 20.5c
- South Staffs – Max winter temperatures up to 20.1c
- Winters are up to 30% wetter depending on the region

More frequent and intense weather extremes



- Intensity of rainfall increases by up to 20% in summer and 25% in winter.
- Increased storm intensity due to combination of increased wind speeds, increased rainfall, and lightning during these events.

3. What are the long-term impacts?

We've assessed the long-term impact of these changes in climate and identified the following key risk themes:

	<p>Securing future water supplies</p> <p>Both our Cambridge and South Staffs regions are facing water scarcity in the long term because of increasing water consumption, particularly during prolonged periods of dry weather. This is further affected by our need to reduce groundwater abstraction rates.</p>
	<p>Delivering a resilient supply of good-quality water</p> <p>More frequent, intense rainfall events can increase pollutant run-off in the catchment and high temperatures can cause algae blooms in our reservoirs. The deterioration of raw water quality puts additional pressure on our treatment works to maintain high-quality drinking water.</p>
	<p>Maintaining asset reliability and resilience</p> <p>An increased likelihood of severe weather events, subsidence, flooding and extreme temperatures will accelerate the deterioration of our infrastructure and cause supply disruptions in the future.</p>
	<p>Minimising the impact of our activities on the environment</p> <p>Over the next 25 years, we need to reduce the volume of water we abstract from our existing groundwater sources to protect rivers from extremely low flows during hot, dry summers. Increased temperatures will also drive changes in habitat composition and the spread of invasive non-native species.</p>
	<p>Managing interdependent risks</p> <p>Increased variability and intensity of weather events, including heatwaves and flooding, will place additional stress on critical infrastructure such as energy and transport. This can further exacerbate the challenge of maintaining water services.</p>

4. The views of our customers

We have engaged with our customers to understand their views on our long-term ambitions for climate change adaptation.

Our research tells us they want us to prioritise investing in climate resilience now to mitigate future risks, despite recent shifts in priorities because of events like the COVID-19 pandemic. There is also a consistent preference for even bill profiles up to 2050, and that important investments should not be delayed.

Whilst we invest in climate resilience, we are also committed to making sure customers who are struggling to pay their water bill can access financial support.

As part of our long-term delivery strategy, we have looked at a wider affordability scenario, recognising the changing nature of affordability and our local challenges.

We will be monitoring and tracking levels of water poverty across both our supply regions to enable us to adapt our affordability strategy. This will ensure we deliver our ambition of eradicating water poverty and that our customers' water bills are affordable, both now and in the future.



Chalk stream in Cambridge region

5. What are we doing?

Adopting an **adaptive planning approach** that stretches over the next 25 years so that we can be prepared to manage the impacts of climate risks in a dynamic and timely manner.

Using **data models based on machine learning principles** to better predict the long-term impacts of climate change on our water resources and assets.

Monitoring climate risks and reviewing the lessons learned from climate events through our **governance** processes.

Creating our five-yearly **Water Resources Management Plans** and **drought plans** to ensure we are prepared for future changes in water availability due to climate change

Establishing emergency preparedness teams that can respond to supply outages at varying scales, providing targeted assistance to our most vulnerable customers.

Continuing **mains renewal and conditioning** to manage asset deterioration.

Installing **flood resilience measures** including flood defence barriers at multiple access points and flood alarms.

Emphasising **partnership and collaboration** to tackle climate change challenges.

Hosting '**systems thinking**' workshops using a wide range of expertise from across our business to review climate risks holistically.

Planning **built-in contingencies** such as bulk storage of materials and generators for use in the event of power cuts.

Looking at **demand management** including leakage reduction and water efficiency campaigns.

Reducing greenhouse gas emissions, with initiatives such as converting generators to biofuels and installing energy-efficient pumps and lighting.

Working with farmers and local landowners through our **catchment management** programme to improve raw water quality at source.



6. What else will we be doing in the future?



Reducing abstractions in our Cambridge and South Staffs regions to prevent deterioration of water bodies.



Implementing nature-based solutions, including chalk stream restoration in Cambridge.



Investing in additional supply sources in our Cambridge region including Fens Reservoir.



Investing into our treatment processes and raw water storage by 2050 to address water quality challenges.



Installing new boreholes, interconnecting mains and boosters to improve the resilience of our water supply during extreme weather events.



Artist's impression of Fens reservoir

7. Conclusion

At South Staffordshire Water PLC we will continue to actively integrate climate change risk into our governance processes and business planning so that we can mature our climate change adaptation approach.

Ongoing water supply and demand management, asset renewal and outage contingencies are maintaining our climate resilience in the short term. However, key actions including upgrades to our water treatment and storage, reducing water abstractions and investing in supply sources will be required if we are to meet our climate adaptation and operational ambitions long term.

There are ways you can help us too. Small changes to the ways you use water can make a big difference. There are lots of easy ways to save water in your home such as turning off the tap whilst brushing your teeth or using a washing-up bowl in your sink. We have a host of **tips about water saving available on our website**.

To help promote biodiversity, we also support and fund projects in our regions of supply that actively encourage habitat improvements and provide community benefits. Up to £10,000 of funding is available for projects through our **PEBBLE Fund**. If you are part of a local river interest group, an environmental organisation or charity, a community organisation, or a school, and you have an idea for a project that can help improve biodiversity in our region, get in touch with us.



Further information



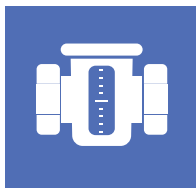
- Our full technical report is available on our website and includes case studies throughout which demonstrate our ongoing commitment to climate change adaptation



- Our long term vision to 2050
- Securing your future water Business Plan 2025 - 2030
- Customer engagement strategy and key insights



- Cambridge Water Resources Management Plan (WRMP)
- South Staffs Water Resource Management Plan (WRMP)
- Cambridge Drought Plan
- South Staffs Drought Plan
- Our environment policy



- Our asset management approach to best-value investment planning through 2025 – 2030 and beyond
- 'SSC32 Long-Term Delivery Strategy climate change impacts on raw water quality technical report'.

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