Creating a better environment for our communities

Five-year Business Plan
2025–30

from Southern Water®

Contents

Document map

Business plan

(This document)

This is our £7.8 billion plan for 2025 to 2030 to improve our services, enhance our environment and increase our support for the most vulnerable.

Customer summary

We have highlighted the things our customers are most interested in - the improvements we'll deliver for them and our region and what it means for their bills.

Find it on our website here

Chapters

These are in this document and summarise our plans in each of Ofwat's key areas.

1 **Executive Summary**
This is an overview of our plan with introductions from our Chair and CEO.

2 **Long-term Delivery Strategy**
Our Long-term Delivery Strategy includes the investment we think we'll need in the next 25 years. Our business plan is the first five years of this strategy.

3 **Customer Acceptability**
More than 25,000 customers spent over 8,000 hours telling us what they think to help us develop our plan. This chapter explains how we engaged with them and what they told us.

4 **Costs and Outcomes Approach**
This chapter explains how we made sure our plan is efficient and how we decided the outcomes we will deliver for our customers.

5 **Wholesale Water (Costs and Outcomes)**
This chapter explains how we will invest £3.4 billion to maintain reliable water supplies, improve water quality, reduce leakage and start building the new sources we need.

6 **Wholesale Wastewater (Costs and Outcomes)**
This chapter explains how we will invest £4.1 billion to protect and enhance our environment, reduce our use of storm overflows, improve water quality in 1,000km of river and make sure we can support new homes.

7 **Customer-Household and Non-Household (Costs and Outcomes)**
This chapter explains how we will improve the services we provide for our household and non-household customers and developers.

8 **Affordability**
This chapter explains how we will increase the support we provide the most vulnerable and how we're keeping bills as affordable as possible.

9 **Deliverability**
Our plan is the biggest in our history. This chapter explains how we're preparing to deliver it.

10 **Risk and Return**
This chapter explains how we have balanced the financial risks we face with the returns we could make if we deliver for our customers.

11 **Data and Assurance**
This chapter includes our Board assurance statements and explains our approach to assurance and compliance.

You can find all our documents on our website
www.southernwater.co.uk/our-story/our-plans/our-plans-2025-30

Document matrix

All our documents can be found **here**

This matrix shows how our documents are linked together - and how they link to Ofwat's Test areas.

Key

- Direct link to Chapter and Ofwat Test
- Indirect link to Chapter and Ofwat Test
- Belongs to Chapter
- Linked to SRN19 Botex
- Linked to SRN36 Bioresources Strategy
- Linked to SRN38 WINEP
- Linked to SRN48 Operational Resilience

Technical Annexes		1. Executive Summary SRN01	2. Long-term Delivery Strategy SRN02	3. Customer Acceptability SRN03	4. Costs and Outcomes Approach SRN04	5. Wholesale Water (Costs and Outcomes) SRN05	6. Wholesale Wastewater (Costs and Outcomes) SRN06	7. Customer - Household and Non-Household (Costs and Outcomes) SRN07	8. Affordability SRN08	9. Deliverability SRN09	10. Risk and Return SRN10	11. Data and Assurance SRN11
SRN12	Long-term Delivery Strategy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SRN13	Reputation, Trust and Transparency	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SRN14	Customer Insight	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SRN15	Cost and Option Methodology	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
SRN16	Real Price Effects and Frontier Shift	✓			✓	✓	✓	✓	✓		✓	✓
SRN17	Direct Procurement for Customers and Alternative Delivery Model	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
SRN18	Performance Commitment Methodologies	✓	✓	✓	✓	✓	✓	✓				✓
SRN19	Botex	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
SRN36	Bioresources Strategy	✓	✓	✓	✓		✓		✓	✓		✓
SRN38	Water Industry National Environment Programme (WINEP)	✓	✓	✓	✓	✓	✓		✓	✓		✓
SRN46	Net Zero Carbon	✓	✓	✓	✓	✓	✓					✓
SRN47	Resilience in the Round	✓	✓	✓	✓	✓	✓	✓			✓	✓
SRN48	Operational Resilience	✓	✓	✓	✓	✓	✓	✓			✓	✓
SRN54	Innovation	✓	✓		✓	✓	✓	✓	✓	✓		✓
SRN55	Affordability Model Methodology	✓							✓		✓	✓
SRN56	Deliverability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SRN57	Risk	✓	✓		✓	✓	✓		✓	✓	✓	✓
SRN58	Uncertainty Mechanisms	✓	✓		✓	✓	✓		✓	✓	✓	✓
SRN59	Past Performance (PR19 Reconciliation Mechanisms)	✓			✓	✓	✓	✓	✓		✓	✓
SRN60	Financeability	✓							✓		✓	✓
SRN61	Cost of Equity	✓							✓		✓	✓
SRN62	Cost of Debt	✓							✓		✓	✓
SRN63	Executive Pay and Dividend Policies	✓		✓							✓	✓
SRN64	Cost of Capital	✓							✓		✓	✓

All our documents can be found **here**

			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Enhancement Business Cases													
Water	SRN25	Supply Resilience Enhancement Programme	✓	✓	✓	✓	✓			✓	✓		✓
	SRN26	Water Resources - Supply	✓	✓	✓	✓	✓			✓	✓		✓
	SRN27	Water Resources - Demand	✓	✓	✓	✓	✓			✓	✓		✓
	SRN28	Water Resources - Smart Metering	✓	✓	✓	✓	✓		✓	✓	✓		✓
	SRN29	Water resources – Strategic Resource Options	✓	✓	✓	✓	✓			✓	✓		✓
	SRN30	Raw Water Deterioration	✓	✓	✓	✓	✓			✓	✓		✓
	SRN31	Lead	✓	✓	✓	✓	✓			✓	✓		✓
	SRN32	Reservoir Safety	✓	✓	✓	✓	✓			✓	✓		✓
	SRN33	WINEP – Supporting Water Abstraction	✓	✓	✓	✓	✓			✓	✓		✓
	SRN34	Network and Information Systems (NIS)	✓	✓	✓	✓	✓	✓		✓	✓		✓
	SRN35	Security and Emergency Measures Direction (SEMD)	✓	✓	✓	✓	✓	✓		✓	✓		✓
Wastwater	SRN37	Industrial Emissions Directive (IED)	✓	✓	✓	✓		✓		✓	✓		✓
	SRN39	WINEP - Enhancing Waste Treatment	✓	✓	✓	✓		✓		✓	✓		✓
	SRN40	WINEP - Storm Overflows	✓	✓	✓	✓		✓		✓	✓		✓
	SRN41	WINEP - Monitoring	✓	✓	✓	✓		✓		✓	✓		✓
	SRN42	WINEP - Wider Environmental Enhancement	✓	✓	✓	✓		✓		✓	✓		✓
	SRN43	WINEP - Bioresources Cake Storage	✓	✓	✓	✓		✓		✓	✓		✓
	SRN44	Wastewater Growth	✓	✓	✓	✓		✓		✓	✓		✓
	SRN45	First Time Sewerage (s101a)	✓	✓	✓	✓		✓		✓	✓		✓
Resilience	SRN49	Resilience - Power	✓	✓	✓	✓		✓		✓	✓		✓
	SRN50	Resilience - Infiltration	✓	✓	✓	✓		✓		✓	✓		✓
	SRN51	Resilience - Heat	✓	✓	✓	✓		✓		✓	✓		✓
	SRN52	Resilience - Flooding	✓	✓	✓	✓	✓	✓		✓	✓		✓
	SRN53	Resilience - Coastal	✓	✓	✓	✓		✓		✓	✓		✓
Cost Adjustment Claims													
	SRN20	Coastal population	✓		✓	✓		✓		✓			✓
	SRN21	Advanced Digestion	✓		✓	✓		✓		✓			✓
	SRN22	Network & WTW Growth	✓		✓	✓		✓		✓			✓
	SRN23	Regional Wages	✓		✓	✓	✓	✓		✓			✓
	SRN24	Meter Replacement	✓		✓	✓	✓		✓	✓			✓

Chapter SRN01

Executive Summary

Chair's Foreword

Keith Lough, Chair

We face unprecedented challenges and demands for change. The region we serve is densely populated with unique water environments and more than 700 miles of coastline.

The South of England is already water-stressed and subject to drought risks. Climate change brings much greater volatility and intensity in our weather, which places additional strain on water resilience. Larger volumes of water and localised flooding challenge the capacity of our sewer networks as never before. Demand for water and wastewater services will grow as the population grows. At the same time, in Hampshire we have a legal duty to replace 30% of our water sources in the next five years to reduce abstraction from our chalk streams and protect the natural environment. Our communities have been very clear that they want resilient supplies of clean drinking water. They also want better environmental standards applied throughout the water cycle, backed by good regulation and by our collective ambition to improve key river and marine environments.

This combination of challenges and opportunities is, we believe, unique in the industry in its extent and, therefore, in the need for investment and for changes in the ways we deliver it.

We are continually improving our performance in dealing with wastewater and sewage. We are tackling shortcomings in past performance.

No dividends have been paid to external shareholders since 2017 and we have approached and will continue to approach executive pay with prudence. This plan does not ask our customers to pay again for enhancements they have paid for previously.

Our current investment plans, with significant support from our shareholders, will see us spend well beyond the financial allowances in our Ofwat Final Determinations and we will continue to make significant investment in strengthening the resilience of water supply and in reducing pollution. The Board is committed to its stewardship and to the completion of our Turnaround Plan, which lay the foundations for the further investment proposed in this plan.

Our plan for the next regulatory period sets an ambition beyond anything attempted by the company before. Both the Board and our customers are mindful of the significant delivery risks that this brings. The plans do not sit easily within Ofwat's standardised model, and we ask Ofwat to recognise the uniqueness of our situation; discussions will need to continue with regulators as to the final extent and timing of investments. The Board is also determined that we should take the time to test and learn from new nature-based and combined solutions. We need to do things differently for water resilience, for surface water management, for the environment and for customers and to remain agile as we learn. Taken together, this means that the proposed plan has a number of uncertainties that we expect to be further determined over the five-year investment period to 2030.

This is a plan sponsored by our customers and shareholders. We have listened carefully to customers about their priorities for investment and their views on affordability and assistance for those in vulnerable circumstances. Bills will need to increase substantially to fund the investment in this plan. More will be done for a wider group of vulnerable customers than ever before. The Board is pleased that our support will reach more customers in need than we originally targeted in AMP7.

The Board also needs to ensure sustainable access to new investment capital and we support the proposals to align expected returns to investors with the risks that this plan represents.

The Board has debated carefully what we can and cannot do in the period and taken our lead from our deep engagement with customers in deciding trade-offs. We support the testing and use of innovative alternative delivery mechanisms to achieve some of our plans. We will need to remain in discussion with our regulators as we progress through the investment period.

The Board endorses the plan and gives its support to the proposals contained in it. Our endorsement, reflected in the Board assurance statements which are necessarily qualified by the plan's inherent uncertainties, comes after reviewing extensive internal and external scrutiny and significant testing and challenge: have we fully addressed our key risks and our customers' ambitions; can they be delivered; are we laying foundations for a future in which water is valued as a scarce resource and critically, can the plan be sustainably funded by customers and shareholders?

Taken together, the Board believes that our plan is customer-led, affordable, supportive of the vulnerable, financeable and deliverable. It has water resilience, surface water management and the environment at its heart and delivers what our regulators, customers and stakeholders expect. We ask for their trust in allowing us to move forward and to continue their engagement with us as we deliver, so that our customers and our environment experience the major benefits that will follow.

CEO Introduction

Lawrence Gosden, CEO

We know that our past performance has not lived up to our customers' and our regulators' expectations. We acknowledge those failings and are doing everything we can to address them. In our published 2023–25 Turnaround Plan, I set out how we will deliver a short, sharp, ambitious performance improvement by 2025. That has been enabled by making huge changes to our business, improving transparency and embedding a new culture centred around a Code of Ethics that is driving our day-to-day decision-making. The £1.6 billion of new investment into our group by funds managed by Macquarie Asset Management has provided much needed financial stability. It has also supported a step-change in investment in operations and infrastructure by Southern Water of £1 billion above the 2020–25 regulatory allowance, which in turn underpins our performance improvement plan. We will invest equivalent to £1,500 per household over the period.

As a company we have had to rethink our role. We can no longer see our task as simply to provide clean water and to treat wastewater. We must take a leadership role through the whole water cycle as we seek to improve the environment. This approach is evident in our systems thinking across our business – in the Water Industry National Environment Plan, the Water Resources Management Plan and the Drainage and Wastewater Management Plan, as well as across carbon reduction and natural capital strategies. To this end we will work in partnership with government, local authorities, other public agencies, business and our communities.

This plan for 2025–30 and beyond builds on our transformational foundations. We have engaged in significant consultations with our customers as we prepared this plan and it is clear that as we rebuild trust and confidence through our focus on transparency and operational improvements, they rightly expect more of us. Of course, maintaining services is a priority for them. But there has been a real shift in expectations about the environment where our customers now demand much higher standards.

Our plan sees a near doubling of investment over the next five year period. It will deliver major improvements in water resilience, in the way we surface and treat wastewater and to customer service. It will produce significant improvements to the environment in our region, with its unique combination of coastline, bathing waters, chalk streams and diverse habitats.

Our engagement with customers has shown support, which we must continue to earn, for the scale and ambition of our plans. We recognise, however, that they involve significant bill increases. Water and wastewater charges have been comparatively low alongside many other English utilities and we know that increases will be hard at a time when the costs of living continue to rise. We will mitigate the effects by spreading increases over the regulatory period. We will extend our social tariff to nearly twice as many customers as are now eligible. We will increase our hardship fund fourfold. We will extend our Priority Services Register.

The issues we are tackling are long term and go beyond this five-year plan. We have looked out to 25 years and developed a core pathway and alternatives to respond to changes in the demands on us. We see this plan as the first step towards a 25-year plan.

We know there will be major challenges in delivering the plan, and its design has sought to balance ambition and affordability alongside those challenges. We will act efficiently and with purpose to carry this plan through to action. We know that this is right for our environment, for our communities, for our company, for our investors, and above all for our customers.

Finally, my dedicated colleagues from right across the business support our Turnaround Plan and our ambition for the future. I look forward to working alongside them all – scientists, engineers and industry professionals – to ensure we deliver for our customers and the environment.

1. Executive Summary

Our plan marks the next stage in the company's transformation

Our purpose remains constant:

> **We provide water for life** to enhance health and wellbeing, protect and improve the environment and sustain the economy – this is why we exist. It is our priority to ensure everyone has access to clean, safe and affordable water and effective and efficient wastewater services.

Our plan shows how we will secure our purpose over the five-year regulatory period 2025–2030 and looking beyond that to 2050. We will make a significant investment and take a leading role in securing water supply for future generations and protecting the environment.

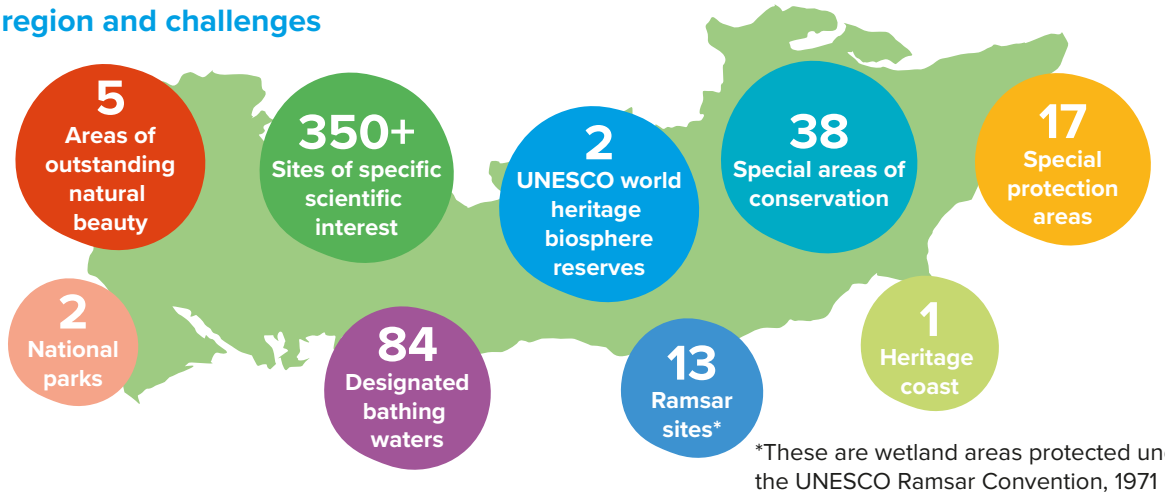
We are building on improvements and investments made over the last two regulatory periods. We are committed to completion of our Turnaround Plan and are seeing real improvements in performance, supported by significant new investment, which will continue to the end of the current regulatory period. These lay the foundations for our plan for the next five years and beyond.

As part of our environmental ambition, we have already set out our plans and begun to make progress toward reducing operational carbon emissions by 2030. Our plans expand on this and set us on a trajectory to reach our ambition of Net Zero by 2050, in-line with the Ofwat Strategic Priorities. These long-term plans include reducing process emissions, improving our self-generation capacity and using our biogas in new and innovative ways.

Our region faces profound challenges

We supply essential services to 4.7 million customers across dozens of diverse communities. Our region is home to major towns and cities, more than 700 miles of coastline, 84 bathing waters, 3,400km of river, and hundreds more environmentally significant sites. It also has some of the world's most iconic chalk streams – these are rare habitats for a diverse range of species and a crucial source of our drinking water.

Our region and challenges



*These are wetland areas protected under the UNESCO Ramsar Convention, 1971

Figure 1: Our region and challenges

Water scarcity

- Our region is already water-stressed and will become more so
- In Hampshire we are going to reduce water abstraction from 181 million litres a day in 2024–25 to 132 million litres a day in 2049–50, of which almost all will be seen through reductions in the amount we abstract from the iconic Test and Itchen chalk streams
- We must be custodians of these fragile and precious habitats and ensure they are protected for future generations while providing longer-term solutions for more sustainable water supplies

Population growth

- We expect our region's population to grow by up to 25% by 2050
- More than 800,000 new homes will be connected to our wastewater networks by 2050. In some areas, new housing growth has already stalled because of the impact it could have on local waterbodies – both in terms of water removed through abstraction and the levels of nutrients from water treatment
- By 2050 we estimate that demand for water may have grown by 70 million litres a day from today's 440 million litres per day

Climate change

- Climate change will increase the demand for water. 2022 was the warmest year on record. This increased demand for water, at the same time as we had significantly lower than average winter rainfall
- Droughts will become more severe and frequent in the future, changing the shape and health of some of our most precious resources, including Hampshire's chalk streams
- Overall, climate change will also decrease the amount of water available in our environment by up to 55 million litres per day by 2050
- Increasing temperatures can also impact water quality, changing nutrient levels in rivers and streams – making treatment harder and more expensive. More intense storms can cause more pollutants to wash into waterbodies
- More frequent, more severe storms mean our networks and sites can become overwhelmed by rainfall, groundwater infiltration and flash flooding leading to flooding and pollution. Some of our sites are also vulnerable to power failures, caused by these storms

The patchwork of different water companies across our region has historically presented challenges in terms of the management of these resources. Through Water Resources South-East, we are better able to coordinate regional solutions and collaborate on their delivery. This includes working with Portsmouth Water on Havant Thicket reservoir, as well as with Thames and Affinity Water on new regional infrastructure.

Our customers expect us to maintain core services and to protect the environment

Over the past two years we have increased the quality and frequency of our regular customer engagement. More than 25,000 customers spent over 8,000 hours telling us what they think to enable us to develop our plan and we thank them for their valuable time and contribution. This included dozens of different audiences, segments and communities. Our panels of current and future customers, businesses and vulnerable communities gave us their views on our plans.

We have used this and other data from our listening to our customers to give us deep and unique insights. This has helped us define our long-term priorities, shape our ambition, and direct our investment programme.

Our customers' priorities are clear:

- We must maintain our core services – for customers this is the most important thing, especially maintaining a reliable supply of high-quality water
- We should significantly improve how we care for the environment – reducing pollution, storm overflow use and leakage are their highest priority areas for improvement
- We should be more ambitious in some areas such as storm overflows and leakage – but customers asked that we be less ambitious in other areas so we could focus on delivering their priorities
- We should use nature-based solutions first, wherever we can, before relying on traditional infrastructure. Customers understand that this is not always possible and want a balance
- We should address the root causes of problems, fixing things first time and being honest and transparent when things go wrong
- Our customers also tell us that they are willing to pay more for the right investments, and do not want us to pass the problem to future generations. However, the cost of living is hitting many customers hard and they tell us that we need to make sure we protect the most vulnerable from bill increases

We have shared our plan with customers. This in-depth testing shows that more than two-thirds of them think it is acceptable because it focuses on the things that matter most to them. However, we have to continue winning their trust to deliver it. Our plan sets out our determination to do so.

Our five-year plan provides for significant investment across our business and for the environment

Our plan for 2025 to 2030 is our biggest ever investment programme. At £7.8 billion overall (including retail), it is nearly twice the size of our previous programme and will deliver the single biggest enhancement investment in our environment – £3.3 billion – in our history, and one of the largest in the sector.

We will deliver significant, lasting improvements to our performance and environment. To ensure affordability, we will increase the support we provide for customers in the most vulnerable circumstances and make our services more accessible for all our customers.

Some improvements will be gradual. We will achieve them by improving how we work every day – finding and fixing more leaks, maintaining and upgrading our equipment, further improving the reliability of our assets, and investing in our people and their skills. This is our base plan.

Others require a step-change in our capabilities and capacity. This includes new ways of working, innovative technology, redesigning sewer networks, building new wastewater treatment works, creating new water supplies and upgrading our four largest water supply works. This is our enhancement plan.

Our long-term investment programmes strike the right balance between our customers' and communities' priorities, affordable bills and our ability to deliver. Each of our enhancement business cases explains how we've chosen the best option for customers.

The plan has three main areas of focus:

1. We will provide a reliable supply of high-quality water to our customers

This is a significant priority for our customers. We face severe shortages over the short and long term and must act now to address the issues.

Key priorities

- We will plan alongside our neighbouring water companies in the South-East
- We will upgrade our four largest water supply works and invest in new sources, like water recycling plants and a new reservoir to keep taps running now and in the future
- Recognising the technological limitations to repair leaks by traditional means, we will innovate to reduce leakage on our network. We will replace cast-iron with plastic pipes, we will install more than one million smart meters to help customers have a better understanding of how much they're using so they can save more, and we will develop asset management systems to support a data-driven approach to our water resource management
- We will safeguard our water resources by reducing the amount of water we take from the environment while making sure our customers have access to a supply of high-quality water

Key investment plans

- Overall, we will invest £3.4 billion on our water services between 2025–30, an increase of 90% over the 2020–25 period
- We will reduce the amount of water we take from the environment – by 50 million litres a day by 2030, a 10% reduction compared with 2022
- We will spend £320 million modernising our four largest water supply works benefitting 62% of our customers
- We will deliver more than 189 million litres per day of new capacity by 2035 through the construction of water recycling plants and new pipelines, 40% of average demand during 2022
- We will install more than one million smart meters, helping our customers save more water by providing tailored support and advice through our Target 100 programme
- We will also design and plan the longer-term infrastructure we need including a new reservoir, water recycling plants and transfers from other regions
- We will invest £517 million in leakage reduction activities, including mains replacement and smart metering. Already one of the leading companies with a water leakage rate of 17% today, this will reduce further to 13% by 2030 and our 25-year plan will see leakage fall to 10% by 2050. This will also reduce water supply interruptions

2. We will provide trusted and easy customer service

We want to support our customers with easy service and transparent communications that show we care for our communities. This means spending time with our customers to understand their needs and tailoring our services where we can.

Key priorities

- We will provide excellent end-to-end customer service
- We will improve how we respond if things go wrong. By talking to our customers after an event we will continuously improve how we respond and communicate with them, updating our processes, getting our people to the right places, and making our communications clearer
- We will better understand how customer priorities change over time through continuous engagement and face-to-face events
- We will play a bigger role in their communities by increasing our outreach and education programmes, supporting more charities, and providing more community spaces
- We will work closely with developers and our non-household retailers to improve their services, making it easier for them to connect to our networks. We are automating processes and will create regional hubs to give them a more personalised service with deep local knowledge

Key investment plans

- Overall, we will invest £348 million between 2025 and 2030 to provide trusted and easy-to-use customer services
- We will invest in a new customer relationship management and billing system – making our services more responsive, providing easier to access for all our customers and supporting real-time data from our smart meters to enable water-efficient choices
- Our smart metering, asset management capabilities and network support teams will improve the water and wastewater services our customers receive in their homes

3. We will protect and improve our environment, particularly our rivers and seas

Our customers have asked us to protect and improve our environment, focusing on our rivers and seas.

Key priorities

- We will reduce our use of our storm overflows at 179 sites including those located close to shellfish and bathing waters along our coastline
- We will reduce pollutions and bursts by installing new mains and upgrading our pumping stations and continuing to harness innovative technologies to improve monitoring of our networks
- We will improve water quality in 1,000km of river by upgrading our wastewater treatment works to meet tighter standards set out in the Environment Act and other regulations. We will remove more potentially harmful nutrients from wastewater, improve our treatment works compliance and work with partners to prevent pollution at source
- Where we can, we will use nature-based solutions first, such as reed beds, wetlands, and sustainable drainage systems. In some areas, to meet specific standards, we need to invest in more traditional solutions or use new technologies

Key investment plans

- Overall, we will invest £4.1 billion in our wastewater services between 2025 and 2030, an increase of 29% over the 2020–25 period
- We will invest £682 million to reduce our use of storm overflows overflows across 179 priority sites by 40% compared with 2020 levels
- We will reduce overall pollution incidents by 50% and eliminate serious pollution incidents by installing new mains and increasing power resilience at our pumping stations and continuing to install monitors across our network
- We will also invest £600 million to upgrade 38 wastewater treatment sites to improve the recycling of wastewater to remove harmful nutrients and improve the quality of water we put back into the environment. This will help us accommodate over 60,000 new homes by 2030, including a new treatment works at Whitfield near Dover
- We are fully committed to statutory compliance. Our WINEP programmes have been phased over 8 years to balance affordability and deliverability. The final WINEP phasing will be concluded through the regulatory process to maintain full statutory compliance. Rephasing from 8 years to 5 years would add £100 to bills per household over the PR24 period

Our plan looks to the longer term and the investment which will be needed beyond 2030

Many of the challenges we face are long term and require appropriate planning and investment. We have looked beyond the next five-year investment period to 2050. We know that we will continue to face population growth, further pressure through climate change, and further restrictions on the amount of water we can abstract from rivers. We have modelled a number of scenarios about future demand and developed a core pathway and a set of alternative pathways. The key issues are about what we have to build and when, to preserve our environment for generations of customers to come. We have identified a number of issues which would trigger different pathways. We have also looked at some underlying assumptions in our wider economic and socio-political environment that could affect our plans.

Inevitably there are considerable uncertainties when we look so far ahead, but the broad trends of increasing demands are clear to see. It is an adaptive plan. It may change over time depending on the impacts of climate change and population growth – as well as how technology changes, the benefits of nature-based solutions and potential regulatory changes.

Our plan for the next five years is in effect the first stage of plans required for a 25-year time horizon. More detailed investment plans will be set out in future price review submissions, but the nature of the challenges we face and of the solutions to them is that they span across these regulatory periods. This will require us to have continuing dialogue with our regulators about how we manage not just for the next five years, but for the longer term.

Bills will rise to support this enhanced investment programme but so will our help to those in need

Since 2020, our customer bills reduced by around 6% per year because of performance penalties and bill rebates to repay our customers and communities for shortcomings between 2010 and 2015. From 2025, these reductions will no longer apply. Our investors, not our customers, have paid these and other amounts that have been required to remedy these shortcomings.

We also need to significantly increase how much we invest to improve performance, transform our services, and enhance our environment. By the end of 2030 our bills will need to increase to pay for this. Excluding the impact of the penalties and rebates, water bills will increase 69% and sewage bills 27%. For the combined water and sewage bill, this equates to an average increase of 44% between 2025 and 2030.

We have involved our customers in the development of our plan and they want us to invest to make improvements – but they expect us to make bills as affordable as possible and make sure we protect our customers in the most vulnerable of circumstances. We know that with cost of living increases and wider inflation this will be especially hard for some of our customers and we have given much thought to how we can support them in the most effective way.

We will maintain our social tariff discount at 45% and more than double the extent of our support. Up to 182,000 customers will benefit, compared to 123,000 today. We will also increase the value of our Hardship Fund from £250,000 annually to £1.25 million while increasing the number of customers we support through our capped tariff and debt matching schemes.

Alongside our financial support, we will expand the reach of our Priority Services Register from just over 8% to more than 20% of our customers. This means customers who need additional support will receive it.

We will also look to make more innovative tariffs and pricing structures, for example to incentivise saving water.

We have made our costs as efficient as possible. We are also committed to finding further efficiencies of 1% per year.

The plan is deliverable but carries risks

Our plan for 2025 to 2030 will see a doubling of our current investment programme. We know delivering investment at this scale and pace will be a challenge – and that our performance and delivery has not been where it needs to be.

Increased investment programmes across the water sector will lead to heightened demand on the supply chain. We will need to ensure careful co-ordination and collaboration to ensure sufficient capacity and capability. We must also work hard to drive best value.

Our plans for the period include the use of more advanced solutions and technologies, which will require specialist skills. We will face challenges in attracting and retaining key people, from our field force to skilled environmental scientists, in a highly competitive region of the UK.

To address these challenges we will put in place four strategies

Supply chain strategy: We are establishing strong relationships and agreements with suppliers ahead of the next investment period and we will complete procurement of our delivery partners early in 2024.	**Portfolio execution plan:** We have developed clear plans and priorities across the portfolio, aligning planning, delivery, and other business areas to ensure efficient execution and effective resource allocation.
Portfolio delivery and performance management: We are enhancing our programme management capability and capacity to track performance, implement the plans and oversee delivery.	**Strategic workforce:** We are committed to retaining, finding and training the right people. Strategic workforce planning will address capability gaps and ensure a skilled workforce is in place.

The plan can be financed

We have assessed our plan and can confirm that it can be financed.

Our assessment is against the background that:

- The financial resilience of the company is improving, supported by equity injections into the group from our shareholders amounting to £1.65 billion in the current investment period. This provides a solid foundation for our operations and performance improvement through the Turnaround Plan and ensures that we can accelerate performance to meet the demands of our 2025–30 plan
- In this five-year period we have already invested £1.174 billion more than our regulatory allowance as part of our commitment to ongoing transformation. The company has not paid dividends to external shareholders since 2017
- Over £400 million of allowed returns, in the PR24 period, will be retained in the company to support the planned investments
- Our track record showcases our dedication to delivering long-term value for our customers.
- Key elements of our Water Industry National Environment Plan will need to be delivered over an eight-year period, rather than five

To help secure the plan we will use a number of alternative delivery strategies over the period and other methods of finance.

For the future, it is important that there continues to be a reasonable balance of risk and return which in turn incentivises investment and operational improvements into the sector, and limits shareholder reward if they are not met. The plan expresses our concern about the risk exposure in Ofwat's methodology, as well as the proposed return. In the interests of customers, we are making some alternative and innovative proposals which will require support from Ofwat and continuing discussion with all of our regulators as the regulatory period progresses.

Overall, the plan will deliver required regulatory outcomes, improvements to service and improvements to the environment

The plan shows how we will meet targeted regulatory outcomes.

The plan gives us a clear pathway forward underpinned by an investment programme of unprecedented scale. We will deliver the plan, overcoming the major challenges it presents. It is what our customers are asking for. We believe that it will bring major benefits for future generations, for our customers, our stakeholders and for the environment.

Chapter SRN02

Long-term Delivery Strategy

2. Our Long-term Delivery Strategy

2.1. Executive summary

In the next 25 years climate change and population growth will radically alter the world we live in. Water and wastewater services need to be in the vanguard to adapt and to ensure that these essential services continue to deliver for our customers and environment.

We need to continue delivering safe water every day while safely disposing of wastewater. We need to ensure our chalk streams, rivers, coastlines, estuaries and beaches are protected. This will be challenging and requires new approaches. The costs of delivering resilient services will be significant.

To deliver best value services we need to avoid unnecessary or inefficient investment. It is essential that our planning processes anticipates the uncertainties we could face, and we are able to make decisions at the right time to ensure the delivery of our critical infrastructure when it is needed.

Our Long-term Delivery Strategy (LTDS) explains how we will respond to these challenges over the next 25 years. It sets out how we have used an adaptive planning framework that identifies the range of investments we could need to meet the future challenges.

Our LTDS is built up from our core pathway. This details the low and no regrets investments we need to make to meet the challenges we are facing. Our LTDS also includes eight adaptive pathways – with additional investments to respond to climate change, new environmental challenges or higher levels of population growth.

Our Business Plan is the first five years of our LTDS core pathway. The investments we will make will ensure we meet the short-term challenges and allow us to move to any of our adaptive pathways should we need to.

Following our core pathway between 2025 and 2050, we will invest £15.5 billion on low or no-regret activities to enhance our services and protect and improve our environment. We have also identified up to £11.5 billion of additional investment we might need, depending on which of our adaptive pathways we may need to adopt.

Our plans are based on our customers' and communities' expectations. Customers want us to be ambitious, show leadership and make the right investments for the future. They want us to invest in nature-based solutions first wherever possible, focus on delivering their priorities and support phasing investment to deliver the biggest benefits first while protecting the most vulnerable.

We have listened to our customers and adapted our outcomes and plans to reflect their priorities.

Our LTDS is based on our five long-term priorities[1]:

- Ensuring a reliable supply of high-quality water for the future
- Protecting and improving the environment
- Becoming a renewable power generator
- Understanding and supporting our customers and communities
- Enabling and empowering our people

We have grouped investment and outcomes under nine strategic delivery themes – explained in more detail below. The table below shows some of the largest areas of investment within our plan:

Table 1: Our long-term priorities

Ensuring a reliable supply of high-quality water for the future	Protecting and improving the environment	Becoming a renewable power generator
• Working with Portsmouth Water to build Havant Thicket Reservoir • Building other new supplies including a new reservoir, water recycling, desalination and transfers with other water companies • Supporting major supply schemes outside of region and building transfers to move water from them • Reducing leakage and helping our customers save more water	• Working with nature and our communities to prevent rain entering our sewer networks – and separating stormwater and wastewater sewers • Improving our wastewater treatment capacities and capabilities – and enhancing our maintenance programmes • Building storm water storage tanks if we need additional capacity in the future • Changing how we work to move towards net zero	• Taking advantage of new technology to build more advanced digestors and create more renewable energy

1 In Summer 2022 we consulted on four long term priorities. Since then the Board has concluded we should add another on renewable generation. We intend to update our published version later this year.

Our other two priorities are Understanding and Supporting our Customers and Communities and Enabling and Empowering our People. These are important areas, although the majority of the investment falls outside of the LTDS scope which covers our wholesale business.

Our core pathway provides the capacity necessary in the less severe predictions for future demand for water, climate change, abstraction reduction, bioresources regulation and high performing technology development. We have developed a monitoring plan that allows us to identify when the core pathway will not deliver ambition and the process to move to one of our adaptive pathways.

Most pathways have decision points after 2028 and we are implementing the structures and governance to ensure that decisions are taken in a timely manner based on the best evidence available. We have identified an adaptive pathway for bioresources to respond to changes to the Farming Rules for Water that may occur before 2028.
(See chapter SRN05: Wholesale wastewater (costs and outcomes)).

All of our proposed adaptive pathways are designed to ensure that customers' priorities and regulators' expectations will be met in an efficient and effective manner. The table below shows some of the long-term outcomes we will achieve and by when.

Table 2: Our long-term outcomes

By 2040	By 2050
• By 2035: we address 75% of priority storm overflows • By 2038: Reduce effluent phosphorous load by 80% • By 2040: Reduce all asset failure pollution incidents to zero • By 2040: Renew bioresource asset infrastructure and develop enhanced power generation capability • By 2040: increase our resilience to withstand 1 in 500-year drought	• By 2050: reduce leakage by over 50% • By 2050: reduce average personal water use to below 110 l/p/d. • By 2050: reduce our use of storm overflows by over 80% • By 2050: Net zero operational emissions and embedded carbon

Our customers want us to invest now and deliver our promises. They do not want to pass the challenges to future generations – but they expect us to make sure bills are affordable. We need to balance the need and support for additional investment, with keeping bills affordable and protecting the most vulnerable.

To make sure our plans are deliverable we're planning a mixture of financing and delivery options including:

- Direct Procurement for Customers
- Alternative Delivery
- Partnership working
- Co-funding

We will always choose the best value option – balancing the needs of our customers, communities and environment.
(See chapter SRN04: Costs and Outcomes Approach for how we developed the options in our plan).

This is an ambitious plan that delivers our customer priorities despite the challenges of:

- Continuous delivery of infrastructure (£2 billion to £4 billion per AMP)
- Significant climate change and abstraction reductions
- Financeability
- Customer affordability

This chapter is a summary of our main chapter SRN12: Long-term Delivery Strategy.

2.2. Our long-term priorities and their context

Our vision is to create a resilient water future for our customers.

In 2022 we shared our Long-term Priorities[2] to achieve this – based on our understanding of the long-term trends, challenges and enablers we've identified.

We have reflected on what our customers told us and added an extra priority to become a renewable energy generator. Figure 1 below shows our long-term priorities in their strategic context.

Figure 1: Our long-term priorities in context

2 5951_long-term_strategic_plan_v12.pdf (southernwater.co.uk)

2.2.1. Our long-term priorities

Our five long-term priorities are:

1. **Ensuring a reliable supply of high-quality water for the future –** Our customers and communities expect to turn on the tap and receive a high-quality, reliable supply of drinking water, all day, every day whatever the weather, whatever the challenge.
2. **Protecting and improving the environment –** We believe it is important to protect the environment. We also know how important it is to go further and look to improve and enhance it where we can. We must be responsible when we take water from our rivers and streams and keep those same rivers and streams free from pollution. We also need to protect our beaches and bathing waters from storm overflows during heavy rain.
3. **Renewable power generator –** We are committed to reducing our carbon emissions and have a target to generate 25% of our energy from renewable sources by 2025[3]. By investing in new technology, we can increase the amount we generate for our own use or supplying the grid and supply our local communities with renewable power. Customers will benefit from lower bills as we will only invest in projects that deliver value to customers.
4. **Understanding and supporting our customers and communities –** Customers want us to deliver great service – whatever the issue and whenever it happens. From billing queries, to responding to burst mains and blocked drains and sewers, our service will be easy, quick, seamless and sympathetic.
5. **Enabling and empowering our people –** to make sure we're fit for the future we'll continue investing in our people and systems so we're resilient to cope with future challenges and fluctuating prices and availability of goods and resources.

Household and future customers supported our long-term priorities, which they felt represented their issues well.

> *"I think this accurately reflects the importance which should be weighted towards long term sustainability from large companies. If everyone plays their part, especially those like Southern Water who directly interact with the environment given the nature of supplying water, then change can happen."*
>
> **Future Customer**

Our LTDS focuses on the first three of our long-term priorities, as we need to enhance our services to deliver them. Chapter SRN07: Customer – Household and Non-Household (Costs and outcomes) explains how we will change our retail services and engage better with our customers and communities.

We have grouped our water and wastewater investments into strategic delivery themes, which link to our long-term performance commitments.

2.2.2. Trends

Our consultation in 2022 identified six key trends that will change how we work and the services we provide for our customers and communities.

Growing demand

We are expecting significant population growth in our region over the next 25 years. By 2050 the population in the South-East is predicted to grow by between 19% and 25% from 2020. Population growth will increase demand for our services. This means we will need to invest in new sources of water and enhance our wastewater networks to support new growth.

Housing growth will also mean increased urbanisation – increasing the potential for rainwater to overwhelm our networks, cause flooding and lead to pollution.

Changing shape of communities

Our communities are changing. Our customers are getting older[4] and there is a growing focus upon health and wellbeing. For example, the proportion of people over 65 in the Isle of Wight is forecast to grow by 10% by 2043. With more people living alone and the lasting changes to how we work after the pandemic, demand for our service is also anticipated to increase.

Evolving customer expectations

Customers' expectations are changing. Increasing speed of service expectations are rising due to enhanced customer experiences in other industry sectors driven by digitalisation and real time access to services wherever and however customers prefer. Their expectations on protecting the environment and storm overflows have developed significantly since PR19.

Our customers expect us to deliver a reliable high-quality service, be proactive and prevent issues from happening. And when something goes wrong, they expect us to fix it quickly and it to not happen again.

3 Southern Water – Annual report – page 5
4 Subnational population projections for England - Office for National Statistics

Increasing use of technology

Our customers and communities expect to see near real-time information about how we are performing, especially our impact on water quality. We are committed to becoming more transparent and were the first company to share live information about storm overflow releases through Beachbuoy. This is now a reference site for our region that allows councils, local groups and stakeholders to make informed decisions about their water activities such as swimming.

Increasing our use of sensors, machine learning and AI will enhance how we monitor our network and become more proactive at preventing issues – and responding quickly when they occur. We have installed 24,000 sewer monitors which will allow us to detect blockages and fix the problems before they cause flooding.

Rising concerns about the environment

Improving our environmental performance is our customers' highest priority. No pollutions are acceptable to them – and they include our use of storm overflows in this category. Nearly 800,000 people in the South-East participated in open water swimming in 2022[5] and they expect to be able swim safely in our seas and rivers.

We rely on rare, fragile chalk streams for much of our water in Hampshire and the Isle of Wight. We have already reduced how much we take from them to protect them for future generations – and expect to reduce this even further in the future.

Climate emergency

Climate change is impacting our environment and, in some cases, making it more challenging to deliver our services.

We are already experiencing more extreme weather than we did in the past. Droughts and storms will become more extreme and more frequent, challenging our ability to provide water and wastewater services while protecting and improving our environment.

Some of our sites are becoming more vulnerable to coastal erosion and power failures caused by extreme weather. We have identified vulnerable sites and equipment and started a long-term programme to improve resilience.

2.2.3. Challenges

We have identified seven long-term challenges we need to overcome:

Water scarcity

Our region is water stressed and we need to leave more water in our environment to protect it for future generations. This challenge is biggest in Hampshire where we rely on sensitive chalk streams for much of our water.

As our population grows and we experience more extreme weather we need to make sure our networks and supplies are resilient. This includes ensuring we protect our existing sources from the impacts of climate change, and enhancing how we treat water to respond to new challenges.

Increased flooding

We are already experiencing more extreme storms and expect this to get worse in the future. These can cause our sewers to be overwhelmed by rainwater, knock out power supplies to some sites or cause flooding at our works. These can all lead to pollution.

We need to adapt our services to meet this challenge, while reducing our use of storm overflows – the traditional safety valve for our networks.

40% of our customers live in coastal communities[6], higher than all other water companies, meaning many of our assets are near the coastline. This places them at higher risk from coastal erosion and rising sea levels.

Meeting customers' expectations

Our customers have clearly told us what they expect from us. They expect us to maintain our core services and make major improvements to our pollution and leakage performance – putting the environment first at all times.

We also need to improve how we respond to incidents – making sure we resolve things quickly and get fixes right the first time.

Keeping bills affordable

We may need to invest up to £27 billion over the next 25 years.

Our customers have told us we should invest now for the long-term and not pass the problem to future generations. However, we need to make sure our bills are affordable for all and we protect the most vulnerable customers.

5 Active Lives | Results (sportengland.org)
6 See SRN20: Coastal population Cost Adjustment Claim

Decarbonisation

We are committed to reducing our carbon emissions and achieving net zero operational and embedded carbon. Reflecting what our customers have told us, we are now committed to achieving this by 2050 – in line with government's net zero target.

We will continue reducing our emissions by improving our treatment processes, using electric vehicles and increasing how much renewable energy we generate.

Building trust

We know our performance has not been where our customers, communities or regulators expect – and that this has damaged trust.

We know our customers want to trust us again and are lending their trust to us to deliver their priorities. We need to deliver our commitments – and increase how transparent we are – to regain their trust for the long-term.

Our SRN47: Resilience in the Round technical annex identified shorter term challenges we need to respond to: population growth and climate change, drought, aging assets, cyber security and the transition to net zero. Aging assets and cyber security will be addressed via our AMP8 and future plans. The other challenges to resilience and meeting expectations continue in the longer term.

Delivering our ambition

Our ambition and our customers ambition will require us to change from being just a water processing and treatment company. To successfully deliver the outcomes we must manage our business to balance:

- **Affordability –** Achieving a mixture of increased income through government, bill income and alternative income sources
- **Adaptability –** Adapt to a future with potentially high climate change impacts and increasing environmental protection regulation
- **Deliverability –** Delivering the required infrastructure over the 25-year LTDS period
- **Financeability –** Securing the necessary corporate or government investment through the demonstration of a reasonable income stream and agreed rate-of-return

2.2.4. Long-term Delivery Strategy interconnectedness with other strategic plans

Our Long-term Delivery Strategy integrates our short, medium and long-term plans into one long-term strategy.

It includes the investment we have identified through our Water Resources Management Plan (WRMP), our Drainage and Wastewater Management Plan (DWMP) and our Water Industry National Environment Programme (WINEP) – as well as the long-term water quality risks we have identified. We have included other strategic plans, including our plans for bioresources, resilience, net zero and the environment.

The graphic below shows how all our plans are linked through our Long-term Delivery Strategy.

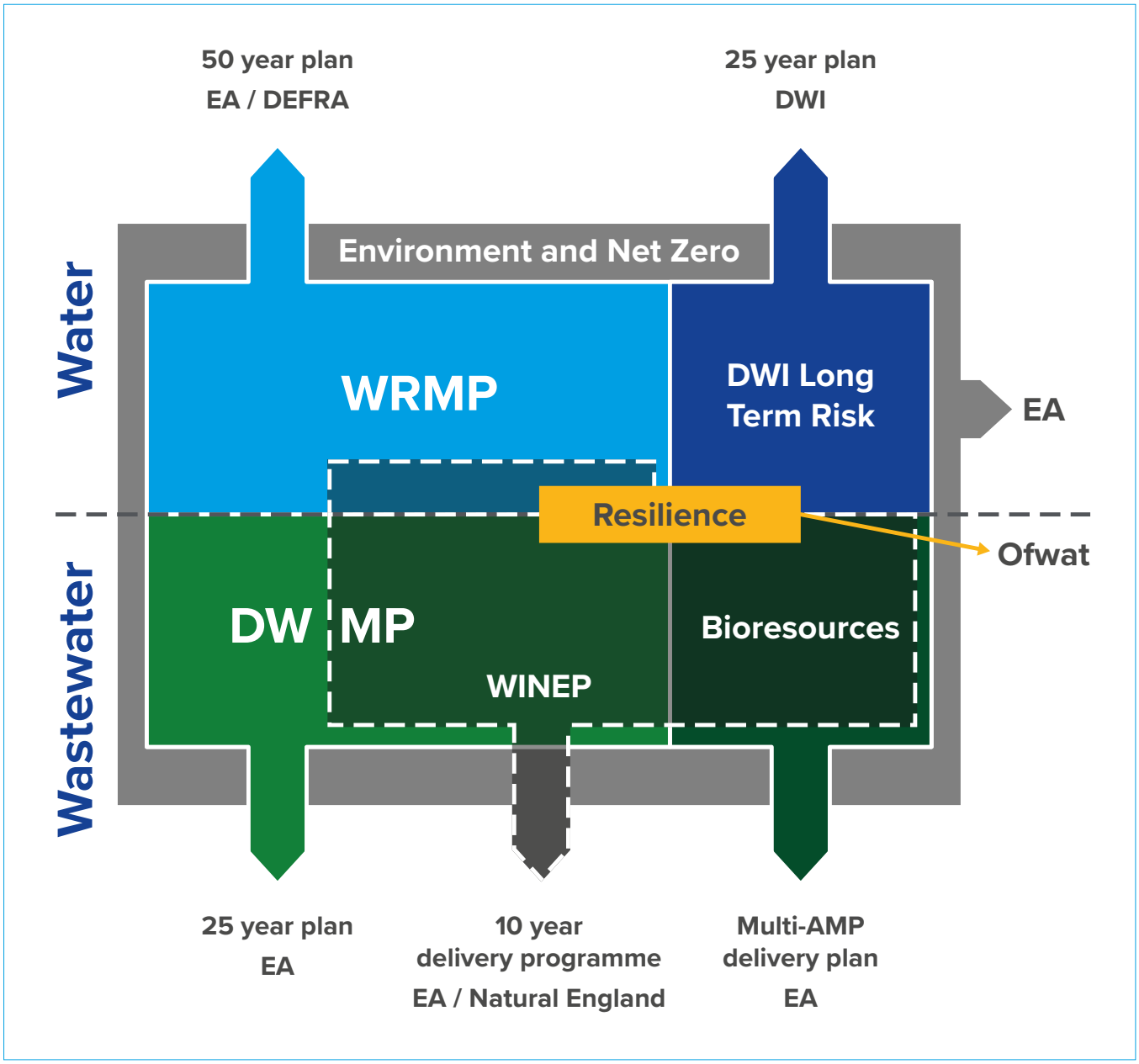


Figure 2: How our plans link together

2.2.5. Customer and Stakeholder insight

Our plan is informed by our most detailed customer engagement ever. More than 25,000 customers spent over 8,000 hours from over 190 different reports telling us what they think to develop our plan. We combined this with over 10 million data points from sources such as contacts, complaints, social listening and other sources.

We used deliberative insight across multiple stages and audiences to develop and refine our long-term strategy. This insight has shaped our ambition as well as how we will deliver the improvements our customers and communities expect. (More information about our customer engagement is in chapter SRN03: Customer Acceptability and SRN14: Customer Insight technical annex).

Our customers, stakeholders and communities expect us to plan for the future and make sure we can provide resilient water supplies for future generations while protecting our environment from damage. Maintaining a reliable supply of high-quality water is our customers' highest priority.

They want the right, long-term solutions that balance looking after our current supplies and developing new sources. Our future water resources should be a blend of solutions and scalable. This is so consumption can be fairer to future generations and ensure we all have access to the reliable services.

Our customers and communities want us to be ambitious and enhance how we protect and improve our environment. They expect us to work with nature first, wherever possible, and look for ways to deliver wider environmental benefits – including by being more innovative. Our customers want us to be more ambitious in some areas, like storm overflows, but not at the detriment of our core services – even if that means being less ambitious in other areas.

Customers want us to invest in the right long-term solutions for the challenges we face and do not want us to shift the burden to future generations. They expect a blend of solutions that think about best value for the long term and show credible progress in the short term.

Bills need to be affordable with support for those that need it most. However, they are prepared to invest now for future generations, provided we show leadership.

Customers want to see us collaborating and using technology at pace – and we need to be seen to do our part. Collaboration is key with regulators, neighbouring water companies, local authorities and other organisations. Our stakeholders and communities want us to work together on new housing and population growth.

The table below shows some of the ways customers' priorities have influenced our plans. More detail about how customers' views have been reflected throughout our plan. (More information about how customers' views are reflected in our plans is in chapter SRN03: Customer Acceptability and SRN14: Customer Insight technical annex).

Table 3: Customer prioitities

Customers told us...	So we...
reducing storm overflows and pollution are the most important thing. They want us to be ambitious, and pushed our original plans further...	...added the top spilling overflows, additional bathing water overflows and stretched our pollution target
...a reliable supply of high-quality water is the most important thing we should do	...focussed our plans on making sure we can provide Water for Life now and in the future
to prioritise environmental benefits above everything else and work with others to improve our environment – especially when we are not the only ones responsible...	...developed our best value plan to prioritise environmental improvements and are leading partnerships like our Three Harbours Strategy
...to plan for the future and invest now so problems are not passed to future generations	...will start investing in the new sources we need for the future, including starting work on some now that will deliver benefits after 2030
we should invest in the right long-term solution – putting nature first, working in partnership and embracing new technology – but only 41% trust us to design the right solution...	...developed a best value plan for storm overflows that delivers wider benefits, using best-practice guidance. We are learning from our experience, testing what works and investing in the right long-term solutions
...we should use a mix of sources, and make sure we maximise environmental benefits where we can	...have included a mix of sustainable sources in our long-term plans, like desalination and water recycling, as well as transfers from other companies – as well as using nature-based solutions to protect our existing sources
increasing our resilience to climate change, coastal erosion and power failure is important – but expected us to have done some of this already	...increased our investment in operational resilience to meet new challenges – while addressing our previous performance through Botex
we should innovate and change how we work, especially to avoid incinerating bioresources, even if the technology has been used elsewhere already...	...developed our Bioresources Strategy to avoid having to incinerate bioresources and generate more renewable energy
we should invest now and not push problems to future generations – but we should keep bills affordable by focussing on delivering the biggest benefits first	...have phased some parts of our programme over eight years – delivering some short-term improvements and keeping bills fair for current and future customers

Customers told us our strategy feels genuinely customer-centric, and directly addresses the big issues of today in storm overflows and affordability, as well as tackling longer term environmental and infrastructure challenges.

> *"I am impressed in that I think they have covered everything that is a concern in their priorities... they are listening to customers and....planning for the future."*
>
> **Household Customer**

2.3. Our ambition

Our Long-term Delivery Strategy sets the investments we will make to our services and environment – and how we'll deliver them. It is based on our understanding of the challenges we face, the opportunities open to us, what our customers and stakeholders have told us – and government's long-term targets.

In some areas, like Net Zero and drought resilience, we've decided to meet government targets rather than exceed them. Customers told us it is important we balance enhancing our services with getting the basics right.

2.3.1. Our strategic themes

We've grouped our key enhancement activities into nine strategic delivery "themes" – five for water, four for wastewater.

Our water strategic themes are to:

- **Provide extra water supply** to meet future population growth and offset abstraction reductions from environmentally sensitive water sources
- **Make our supplies more resilient to severe drought** because we anticipate drought conditions may become more prevalent in the future
- **Reduce leakage** to make our service more efficient and demonstrate our willingness to prioritise customer concerns
- **Lower water use in homes and businesses** so that a successful balance of water supply against demand can continue to be achieved over the long-term
- **Improve water quality** in the face of increasing treatment challenges due to rising levels of environmental pollution

Our wastewater strategic themes are:

- **Network flow management to reduce flooding and spills** which prioritise surface water separation and nature-based solutions to reduce the use of storm overflows and build resilience to flooding
- **Recycling wastewater and nutrient removal** which includes how we improve the quality of the wastewater that we return to our environment
- **Asset health and resilience** which focuses on how we ensure our aging assets perform effectively and efficiently throughout their anticipated lifespan
- **Bioresources** that details how we can utilise the opportunity to utilise new technologies to extract gas or electricity from our waste product and feed that energy back into the national grid

2.3.2. Our long-term water performance commitments

Strategic themes	Ambition outcome/ Performance commitment	Mandatory regulatory requirement	Customer priority	Ambition target (beyond mandatory)	
1 Provide extra water supply	Deliver modular approach to new infrastructure build (Core plus adaptive planning)	Legal requirement to sustain population water supply	✓	–	Ambition is **same** as Mandated Targets
2 Make our supply more resilient to severe drought	Drought resilience	Withstand 1 in 500 year drought event in 2040	–	–	
	Unplanned outage	–		Percentage unplanned loss of peak week production capacity over the year – 2%	
3 Reduce leakage	Reduce leakage	By 50% in 2050	✓	WRMP target 51.5%	Aligns to WRMP
	Mains repairs	–		No. of mains repairs per 1,000km 98.1	
4 Lower water use in homes and businesses	Reduce personal water usage	Reduce personal usage to 110 l/p/d by 2050		Reduce personal usage to 105.6 l/p/d by 2050	Ambition is **greater** than Mandated Target
5 Improve water quality	Exceptional water quality	Compliance Risk Index at zero with margin less than one	✓	–	Ambition is **same** as Mandated Target
	Lead reduction	–	–	Lead free network by 2050	Ambition aligns to DWI aspiration

Figure 3: Water: Performance commitments to 2050

2.3.3. Our long-term wastewater commitments

Strategic themes	Ambition outcome/ Performance commitment	Mandatory regulatory requirement	Customer priority	Ambition target (beyond mandatory)	
1 Network flow management to reduce flooding and spills	Reduce storm flow overflows	Deliver < average 10 spills per overflow by 2050 (80% reduction)	✓	–	
	Reduce bathing water pollution	Protect bathing waters by ensuring < 3 spills per season	✓	Improve all bathing areas to excellent standard (< 2 spills per season)	Ambition is **greater** than Mandated Targets
	Reduce shellfish water pollution	Protect shellfish waters by ensuring < 10 spills per annum	✓	–	
2 Recycling wastewater and nutrient removal	Comply with discharge permits	Deliver 100% WPS permit compliance by 2028	✓	–	
	Nutrient neutrality	Reduce phosphorous load reduction by 80% by 2038, ensure nitrogen treatment to TAL where receiving water course unsatisfactory by 2030		–	
3 Asset health and resilience	Reduce pollution	Zero serious pollution incidents by 2025	✓	Reduce all pollution incidents to zero by 2040	Ambition is **greater** than Mandated Targets
	Sewer collapse	–		Sewer collapses per 1,000km sewers 5.61	No mandated targets
	Internal sewer flooding. External sewer flooding	–	✓	Flooding incidents per 10k properties 0.78 4.6	
4 Bioresources	Renew bioresources infrastructure			2040	
Net zero	Reduce carbon	Achieve net zero operational carbon and embedded carbon by 2050		–	

Figure 4: Wastewater: Performance commitments to 2050

When setting our-long term performance commitments to 2050 we have considered the regulated and government targets where applicable and aimed to achieve these at the required date. In some circumstances where customers are demanding swifter action we have accelerated our delivery, for example storm overflows and pollution incidents. In areas where there are no mandated targets and customer engagement has indicated a lower priority we have aimed for a level of performance that we forecast is achievable without significant additional investment.

2.4 Our strategy – core pathway

This section explains what is in the core pathway of our Long-term Delivery Strategy. Our business plan is the first five years of our core pathway.

The core pathway is our best value plan comprising of low and no-regret enhancement activities. It includes enhancement schemes that are required to meet:

- Ambition outcomes and performance commitments
- Legislative and regulatory requirements

It includes activities that are required across a wide range of plausible scenarios; to meet short-term requirements; or to keep future options open, such as enabling work or learning and monitoring, where possible, or to minimise the cost of future options.

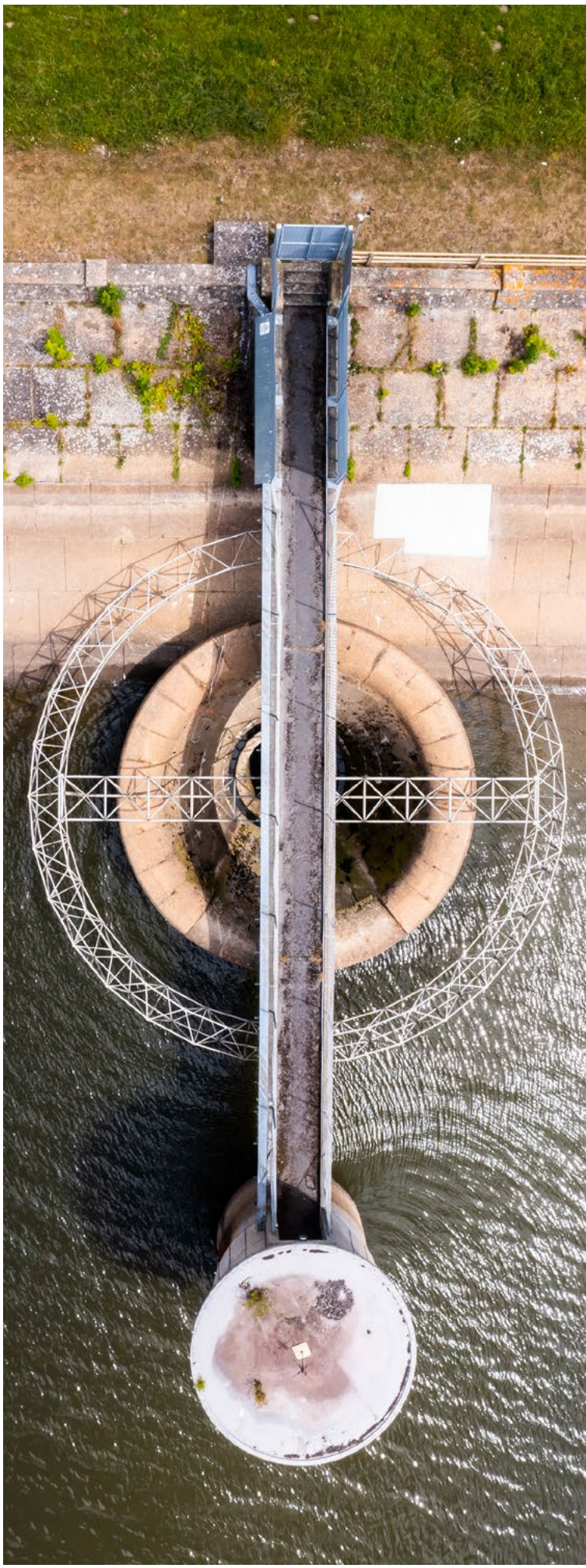
Our core pathway is able to deliver our ambition over a range of lower impact plausible futures.

The next two sections explain what is in our core pathway for water and wastewater.

2.4.1. Enhancing our water supplies

Our core pathway for water includes those schemes we identified in our WRMP as low or no regrets and preparatory work for options. It also includes long-term actions to protect water quality and increase the resilience of our supply network.

The graphic on the next page shows our core pathway enhancement activities, grouped under our strategic delivery themes.



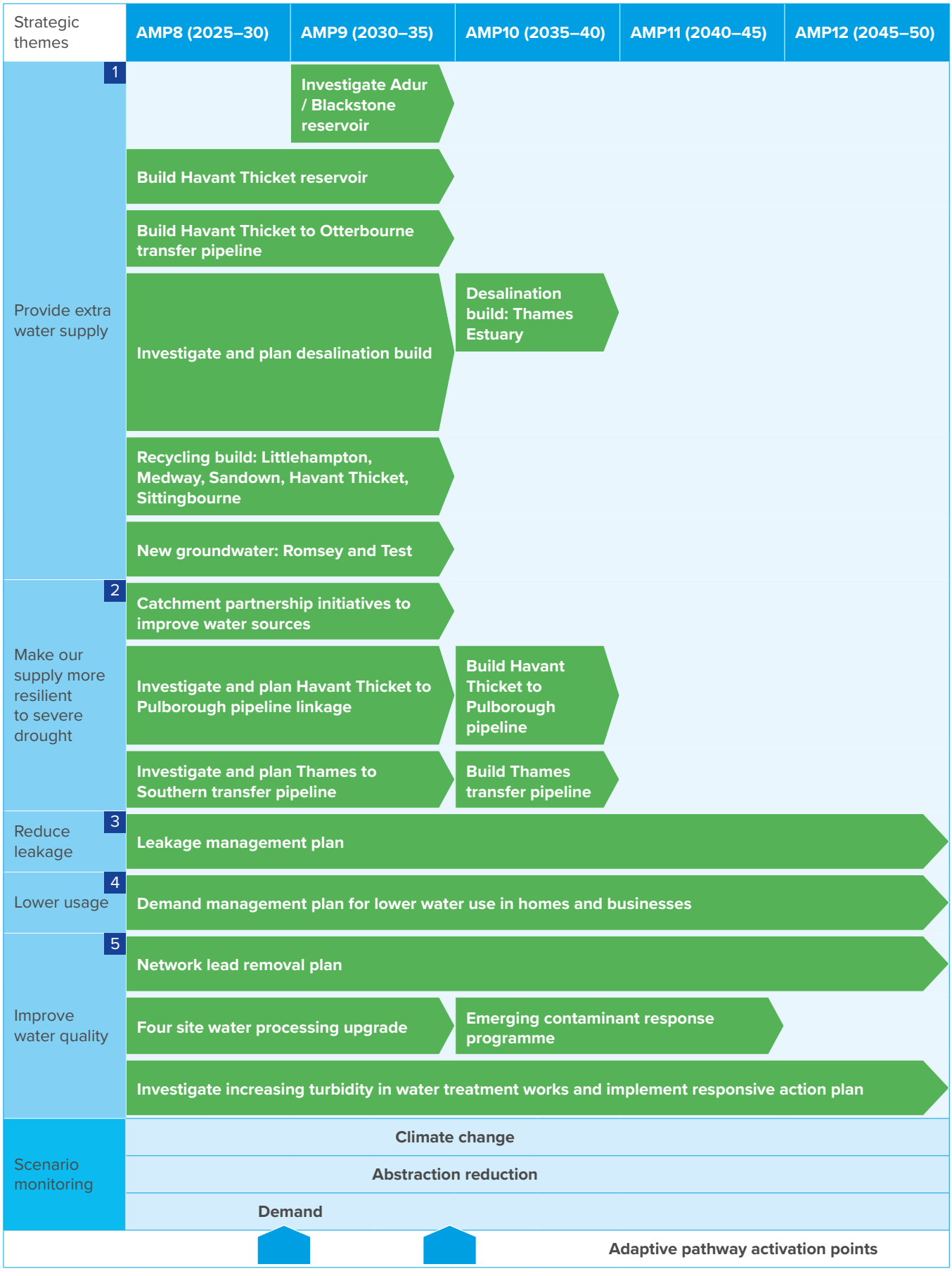


Figure 5: Water: Core enhancement activity pathway (WRMP Situation 6) roadmap

To **provide extra water supply** we will:

- Jointly deliver Havant Thicket Reservoir with Portsmouth Water, build a water recycling plant and a new transfer pipeline as part of Water for Life Hampshire
- Build new recycling plants at Littlehampton, Medway, Sandown, Havant Thicket and Sittingbourne
- Invest in other new sources including a new groundwater source in Hampshire, a new reservoir in Sussex and desalination plants on the Kent coast

To **make our supplies more resilient to severe drought** we will:

- Continue working with neighbouring water companies to improve how we move water around the region to where it is most needed
- Take a bigger stake in a new reservoir being developed by Thames Water and take the lead on a new strategic pipeline which could transfer up to 120 million litres per day into Hampshire
- Develop a new transfer pipeline from Havant Thicket to Pulborough
- Strengthen partnerships with farmers, landowners and environmental groups to protect water sources from over abstraction and pollution

We'll **reduce leakage** by:

- Replacing 300km of mains by 2030 and 3,800km more by 2050 – in addition to our everyday work to find and fix leaks
- Creating a smart network by installing more sensors and using machine learning and AI to improve how we manage our networks, identify problems before they happen and fix them quickly when they do
- Use developments in technology such as drones, thermal imaging, satellite imagery and fibre optics to improve leak detection methodology

We'll help customers **lower water use in homes and businesses** by:

- Installing more than 1 million smart meters by 2030
- Continuing our Target 100 campaign and running information and education campaigns to encourage water efficiency
- Introducing innovative tariffs that incentivise water efficiency and reflect the value of water

We'll **improve water quality** by:

- Improving our resilience to water quality and supply interruptions through improvements to our major water treatment sites
- Investing in additional water treatment at sites where raw water quality is deteriorating
- Investigating the impact of climate change on our sources, particularly which supply works are at risk from increased turbidity – and using the results to design and deliver the right solutions after 2030 – using nature-based solutions first wherever we can
- Removing lead communication pipes from public buildings in high-risk areas and where we find them as part of our mains renewal programme
- Implementing a sampling and monitoring programme to identify new and emerging contaminants by 2030, and then piloting and delivering the right treatment options from 2030

2.4.2. Enhancing our wastewater services

Enhancing how we protect our environment is our customers' biggest priority for us to improve, and the biggest driver of investment across our plans.

Our core pathway for wastewater focuses on our Drainage and Wastewater Management Plan (DWMP) and WINEP. It also includes how we will continue safely and sustainably treating and recycling our bioresources.

The graphic on the next page shows our core pathway enhancement activities, grouped under our strategic delivery themes.

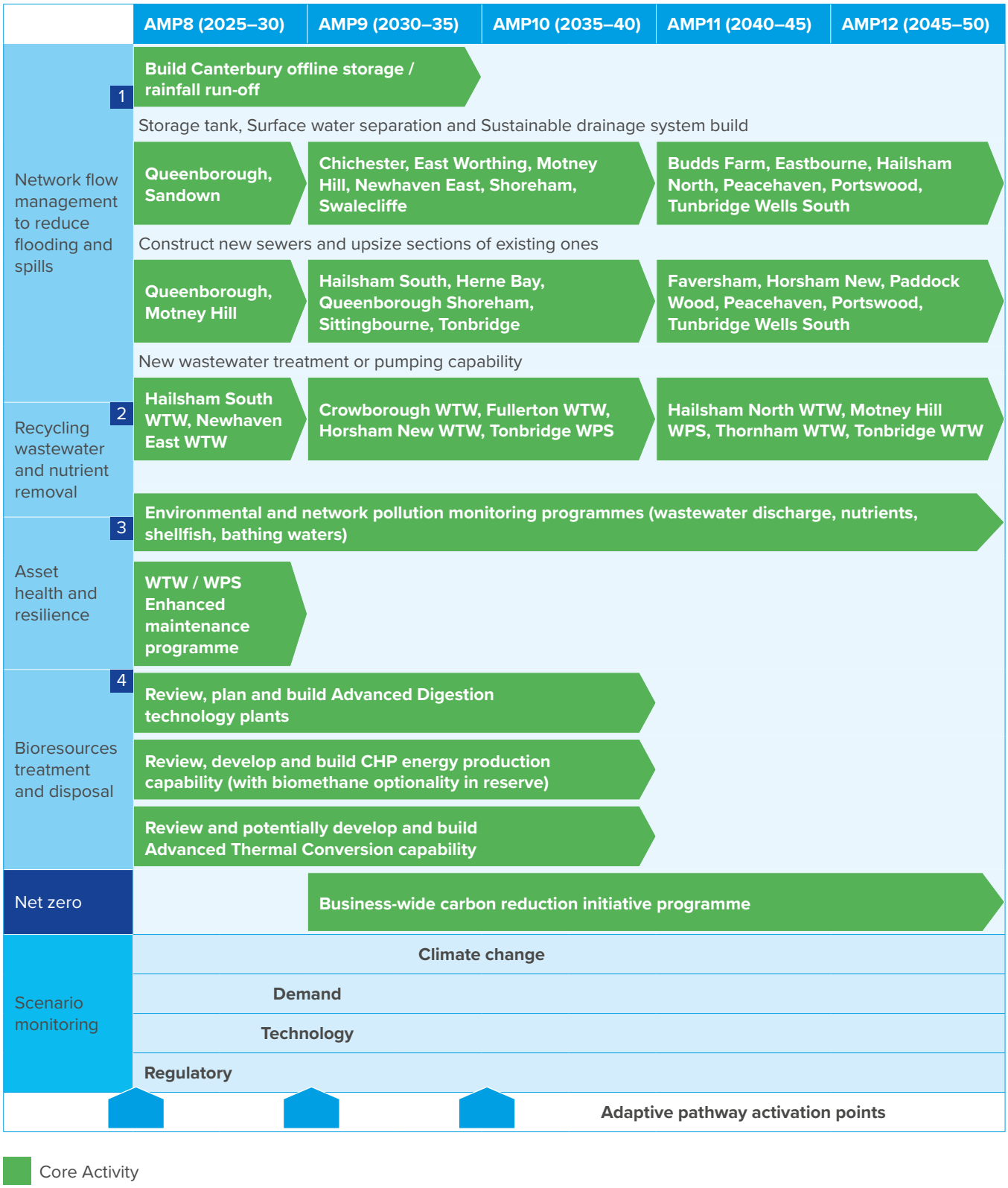


Figure 6: Wastewater: Core enhancement activity pathway roadmap

We will improve **network flow management to reduce flooding and spills** by:

- Using sustainable drainage systems, such as swales, raingardens, ponds, to slow the flow of water to allow existing drainage systems to drain water away over a longer period of time
- Building new, or increasing the capacity of existing, storage tanks after we've used nature-based solutions as much as we can
- Increase the capacity of our wastewater pumping stations and sewers – including building new ones if we need to

We will enable **recycling wastewater and nutrient removal** by:

- Increasing and enhancing treatment capacity to meet new and emerging environmental standards
- Testing and adopting nature-based solutions and innovative treatment processes

Developing stronger partnerships to develop long-term action plans to improve water quality – including through our Three Harbours Strategy (See chapter SRN06: Wholesale wastewater (costs and outcomes)).

We will increase our **asset health and resilience** by:

- Delivering a step-change in the use of monitors and artificial intelligence to identify emerging issues before they cause pollution or flooding. For example, we have installed 24,000 sewer level monitors so we can proactively identify blockages and failures
- Carrying out a full review of our asset maintenance programmes, revising our maintenance strategies and care plans to improve the resilience of our treatment works and pumping stations and reduce the risk of breakdowns
- Taking a proactive approach to identify future resilience risks, developing and delivering targeted enhancement business cases where we are vulnerable to future shocks and stresses

2.4.2.1. Bioresources

Bioresources, or sludge, is the treated, dried byproduct from wastewater treatment. It is a valuable resource for farmers and, currently, all our bioresources are recycled to agricultural land. We use the gases created during the treatment process to generate renewable energy and have a target to generate 25% of our energy by 2025.

Our bioresources asset base is ageing and as they become due for replacement we can upgrade them to take advantage of more advanced and innovative technologies. This will allow us to improve the quality of our bioresources and generate additional renewable energy.

By 2030 we will consolidate our asset base in Kent where we plan to consolidate seven conventional digestion sites into two modern advanced digestion sites. By 2040 across our region we will consolidate the remaining existing digestion sites to seven advanced digestion sites.

Advanced anaerobic digestion (AAD) will provide more resilience to our operation and mitigate immediate threats as it reduces the amount of biosolids recycled to agriculture, opens up additional farmland for spreading and is a more stable product less likely to cause public nuisance. Additionally, it enables additional power generation.

Between 2025 and 2030, we'll explore Advanced Thermal Conversion technology which builds on the AAD technology. Should research and trials prove successful, it could result during AMP9 and 10 in the commissioning of this new capability at a number of sites. Adoption of this technology would improve process efficiency reducing costs to the customer, lower carbon emissions and better extraction of renewable products such as bio-gas.

2.4.3. Delivery from base

In developing our strategy and achieving our ambition we have considered the performance we could deliver from our base allowances. We have combined a mix of approaches in forecasting what base buys after 2030 depending on the framework guidance on how to develop the solutions and options for the problem characterisation. These were generated by a combination of historic performance and using risk assessment methodologies. The slightly different approaches are identified below:

- Final methodology approach. For some PCs we have continued with our approach for PR24 delivery. This has been used mainly for outcomes that fall outside of the frameworks that have specified approaches. A bow-tie analysis was the starting point for the assessment of actions against cause to event and event to consequence is effective, and that factors that could cause failures are recognised
- WRMP framework. Our WRMP used the following approach:
  - Problem Characterisation, to assess the risks following the UK Water Industry Research (UKWIR) guidance (UKWIR, 2016a and UKWIR, 2016b) for risk-based planning
  - Options development and appraisal, that started with unconstrained list and then refined through to solutions to best value

- DWMP framework. Our DWMP uses a risk based approach to our planning objectives. This approach followed the national guidance and followed a:
  - Risk Categorisation into 3 bands, not significant, moderately significant and very significant risk
  - Problem Characterisation, to explore the causes of the risks and those with the highest levels of concern
  - Options development and appraisal, that started with unconstrained list and then refined through to solutions to best value

We have grouped the outcomes into three categories based on our forecasts of delivery; improving performance, flat performance and deteriorating performance from base expenditure.

Improvements

Over the next 25 years we consider that only one outcome will continue to see improvement from base performance.

- Mains repairs

Maintained performance

We can maintain most of our outcomes from base expenditure. This has been evaluated with consideration to the deterioration of the external environment including demand and climate change offset by efficiencies and technology. This base performance is below our ambition, environmental and government targets and we will need enhancement investment to achieve these goals.

- Compliance risk index
- Water supply interruptions
- External sewer flooding
- Biodiversity
- Leakage
- Pollution Incidents
- Discharge permit compliance
- Bathing water quality
- River water quality
- Storm overflows
- Unplanned outage
- Sewer collapses

Deteriorating performance

We have identified that for some outcomes base expenditure would be unable to maintain performance due to the deterioration of the external environment including demand and climate change which would not be offset by efficiencies and technology. This forecast base performance is below our ambition, environmental and government targets and we will need enhancement investment to achieve these goals.

- Water quality contacts
- Internal sewer flooding
- Operational GHG
- Per capita consumption
- Business demand

(Further details on how these have been evaluated is in our SRN18: Performance Commitment Methodologies technical annex).

2.4.4. Costs and bill impacts

Total 2025–50 enhancement spend for our core pathway has been estimated at £15.5 billion.

Our £15.5 billion core pathway enhancement spend across all AMPs is split between £9.2 billion for our Water business and £6.3 billion for our Wastewater business.

Table 4: LTDS Total core enhancement expenditure (2025–2050)

	AMP8 £m	AMP9 £m	AMP10 £m	AMP11 £m	AMP12 £m	ALL AMPS £m
Water core pathway	1,466	2,511	2,426	1,338	1,445	9,186
Wastewater core pathway	1,619	1,565	1,421	884	780	6,269
Core pathway	3,086	4,075	3,847	2,222	2,225	15,455

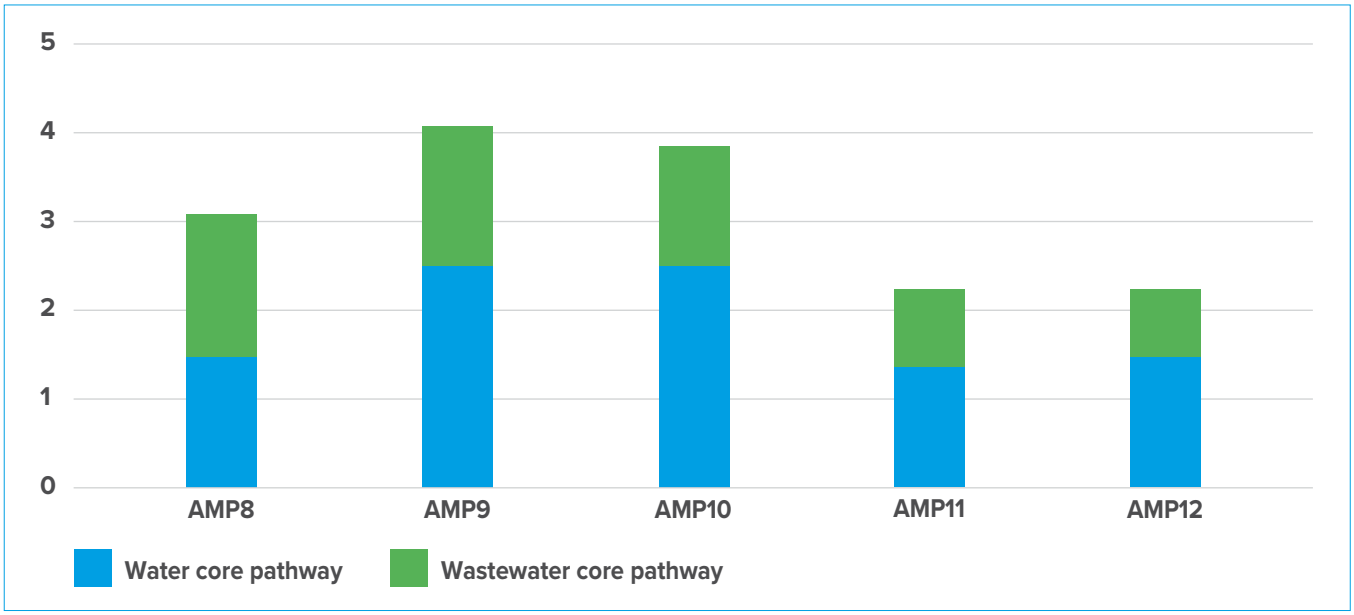


Figure 7: LTDS Core pathways: Total enhancement cost (£bn)

The impact upon bills from our planned enhancement costs can be seen from the chart below.

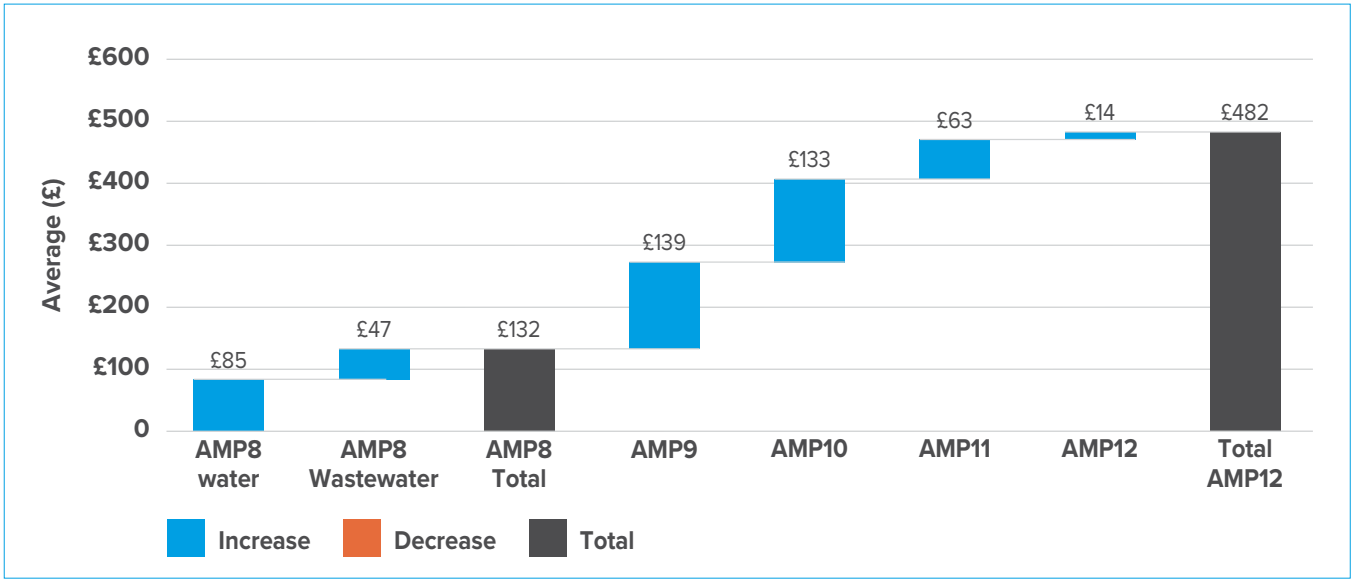


Figure 8: Enhancement Impact on Average Customer Bills to 2050 (22/23 prices)
Note: Average bill impacts have been calculated in accordance with the Ofwat Long Term Delivery guidance and Final methodology. These impacts are based on Enhancement spend only after AMP7 and detailed figures are in LS7.

The impact upon our bills of our water-related adaptive pathways can be seen below.

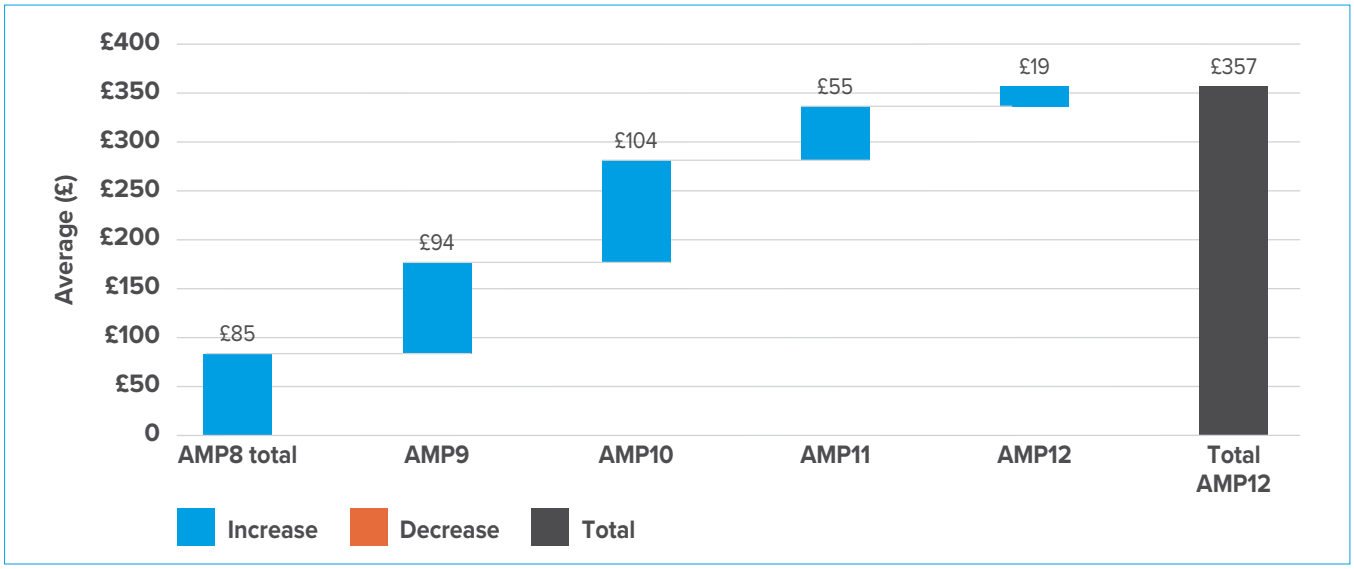


Figure 9: Water Enhancement Impact on Average Customer Bills to 2050 (22/23 prices)

The impact upon our wastewater bills of our wastewater-related adaptive pathways can be seen below.

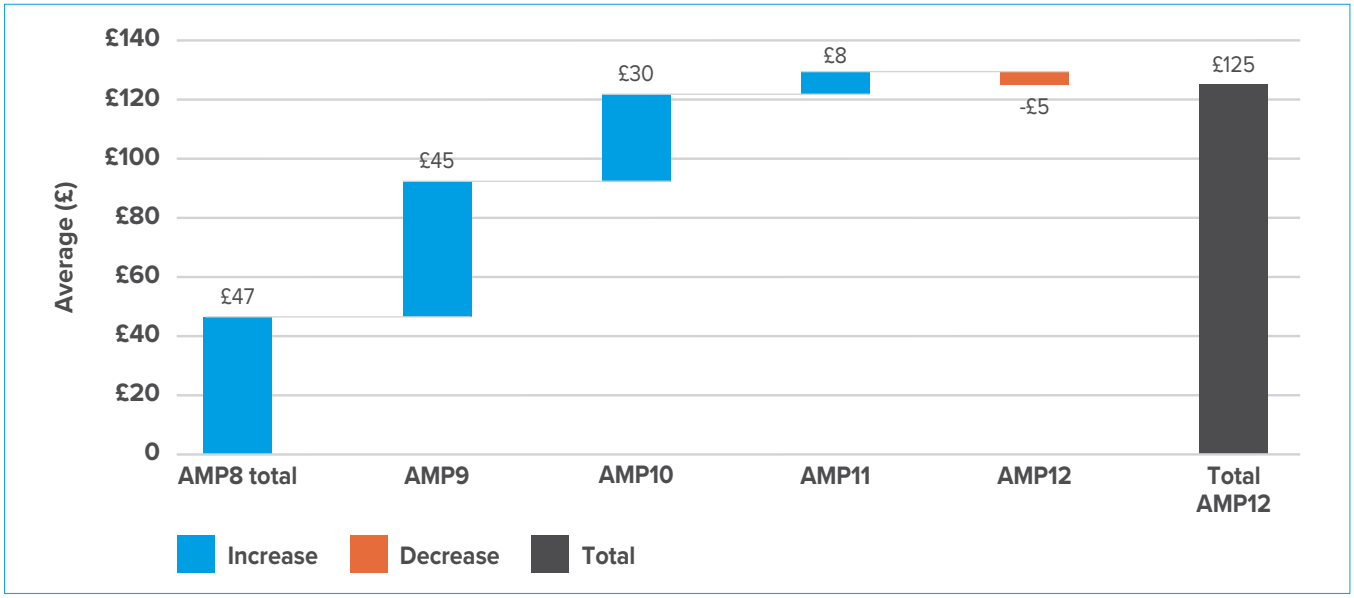


Figure 10: Wastewater Enhancement Impact on Average Customer Bills to 2050 (22/23 prices)

2.5. Adaptive planning

2.5.1. Our adaptive pathways

We know the future contains lots of uncertainty. We have identified eight adaptive pathways to respond to:

- Changes to the Farming Rules for Water which may mean farmers cannot use our bioresources anymore
- Whether the new technology we have assumed will work is viable and we can use it in time
- How much more water we need to leave in our environment
- Increased demand for our services from population growth
- The impacts of climate change

Two adaptive pathways relate exclusively to water, six relate exclusively to wastewater.

The graphic below summarises our adaptive pathways and when we might need to follow them.

We will not need to follow all of our adaptive pathways as some cancel each other out. For example, our DWMP assumes higher spending may be needed than our core pathway after 2030 – but the decision on future pathways will be taken at that point.

If we only see moderate increased demand, then we will follow Adaptive pathway 3. If demand is much higher – our adverse scenario – then we will follow Adaptive pathway 5. We cannot follow both.

A full explanation of our adaptive pathways, how we developed them and our trigger and decision points is in Sections 2 and 3 of our Long-term Delivery Strategy technical annex.

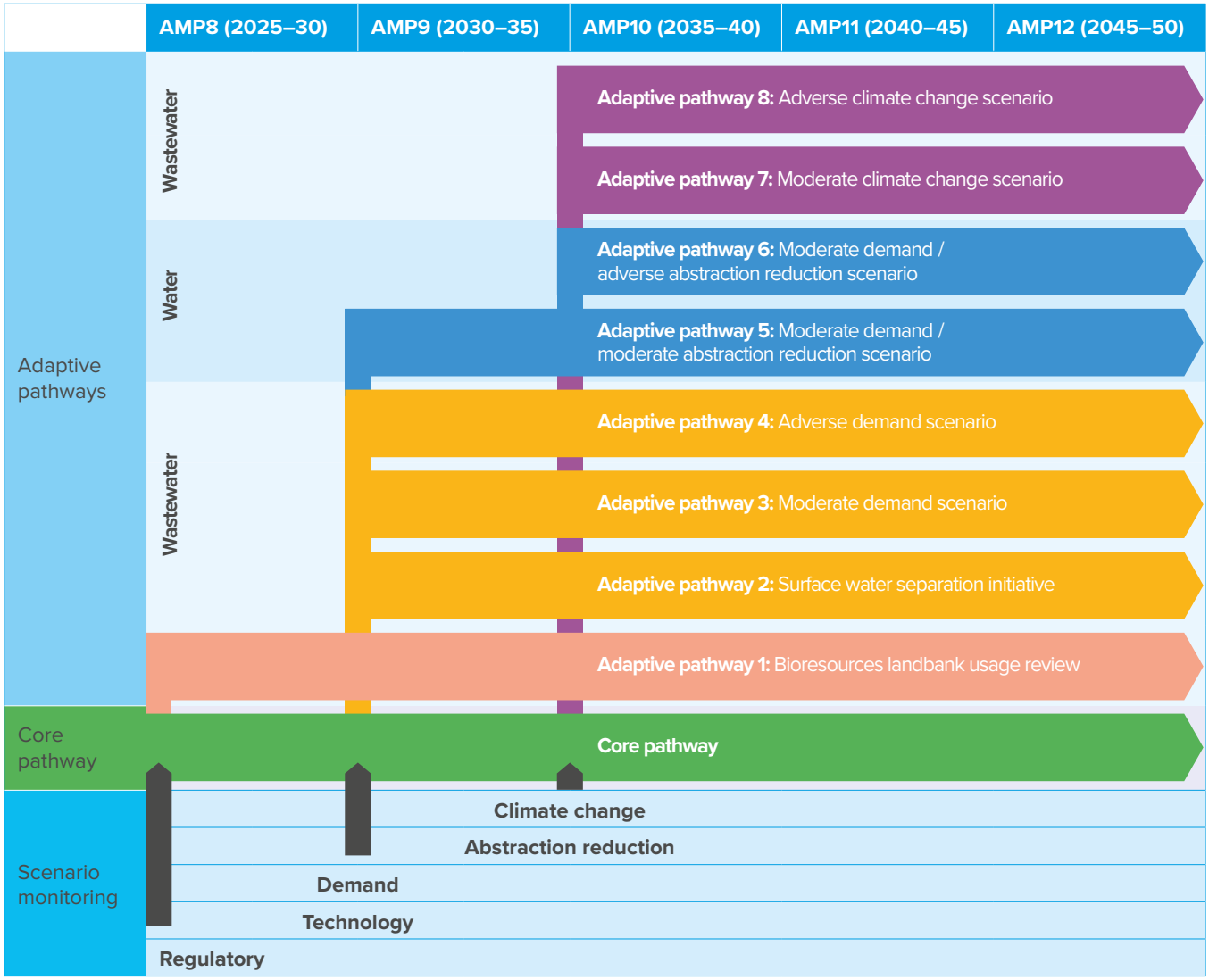


Figure 11: LTDS: Holistic adaptive pathway overview

2.5.2. Outline of adaptive pathways

We have two adaptive pathways that relate directly to water:

- **Adaptive pathway 5:** Moderate demand increase and moderate abstraction reduction scenario. This pathway delivers additional freshwater supply capacity to address the demand and abstraction reduction challenges. We anticipate that the earliest trigger could occur in 2030.
- **Adaptive pathway 6:** Moderate demand increase and a high abstraction reduction scenario. This pathway delivers further freshwater supply enhancement to address the demand and abstraction reduction challenges. We anticipate that the earliest trigger could occur in 2030.

We have six adaptive pathways that relate directly to wastewater:

- **Adaptive pathway 1:** Bioresources landbank usage review. This pathway addresses a potentially adverse outcome of the DEFRA and EA review which would reduce our ability to utilise farming as a disposal route for our waste product. We anticipate that the earliest trigger could occur in 2025, though the timing of the decision is itself uncertain.
- **Adaptive pathway 2:** Surface water separation initiative. This pathway addresses the possibility that innovative surface water separation techniques to address storm water flow are not as effective as anticipated. We anticipate that the earliest trigger could occur in 2030.
- **Adaptive pathway 3:** Moderate demand increase scenario. This pathway delivers additional treatment capacity to address notably increased population growth above the benign scenario utilised for the core pathway. We anticipate that the earliest trigger could occur in 2030.
- **Adaptive pathway 4:** Adverse demand increase scenario. This pathway delivers further additional treatment capacity to address an adverse population growth increase above the benign scenario utilised for the core pathway. We anticipate that the earliest trigger could occur in 2030.
- **Adaptive pathway 7:** Wastewater moderate climate change scenario. This pathway delivers increased investment for additional wastewater storage tank and network flow capacity to absorb more frequent and more intense climate change driven stormwater surges. We anticipate that the earliest trigger could occur in 2035.
- **Adaptive pathway 8:** Wastewater adverse climate change scenario. This pathway delivers further climate-driven enhancement along the same parameters as that of adaptive pathway 7. We anticipate that the earliest trigger could occur in 2035.

2.5.3. Total potential enhancement impact of adaptive pathways

2.5.3.1. Water

The graphic on the next page shows the additional water enhancement schemes we'll need if all our adverse scenarios happen.

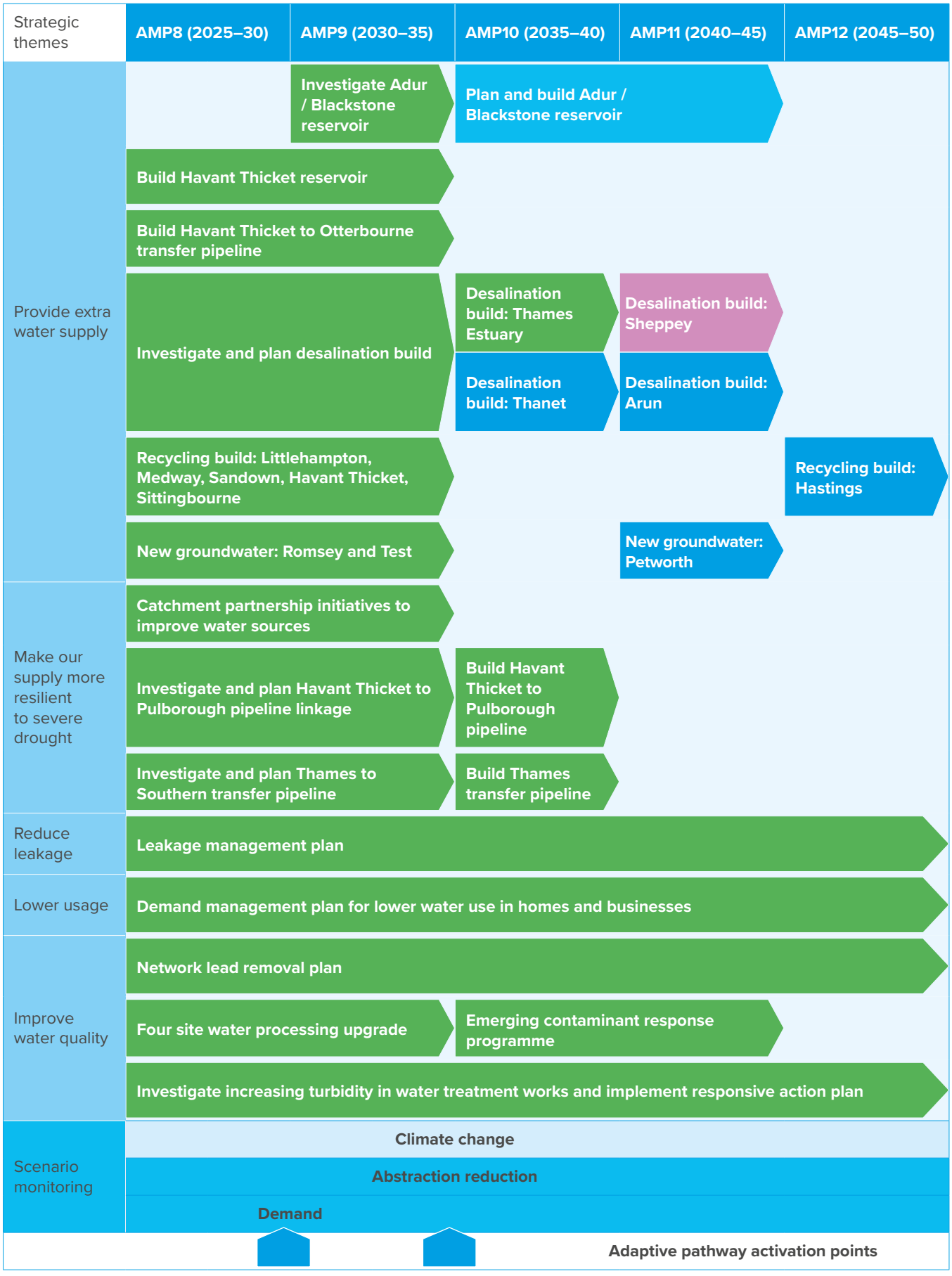


Figure 12: Water: Total potential enhancement impact of adaptive pathways

2.5.3.2. Wastewater

The graphic on the next page shows the additional water enhancement schemes we'll need if all our adverse scenarios happen.

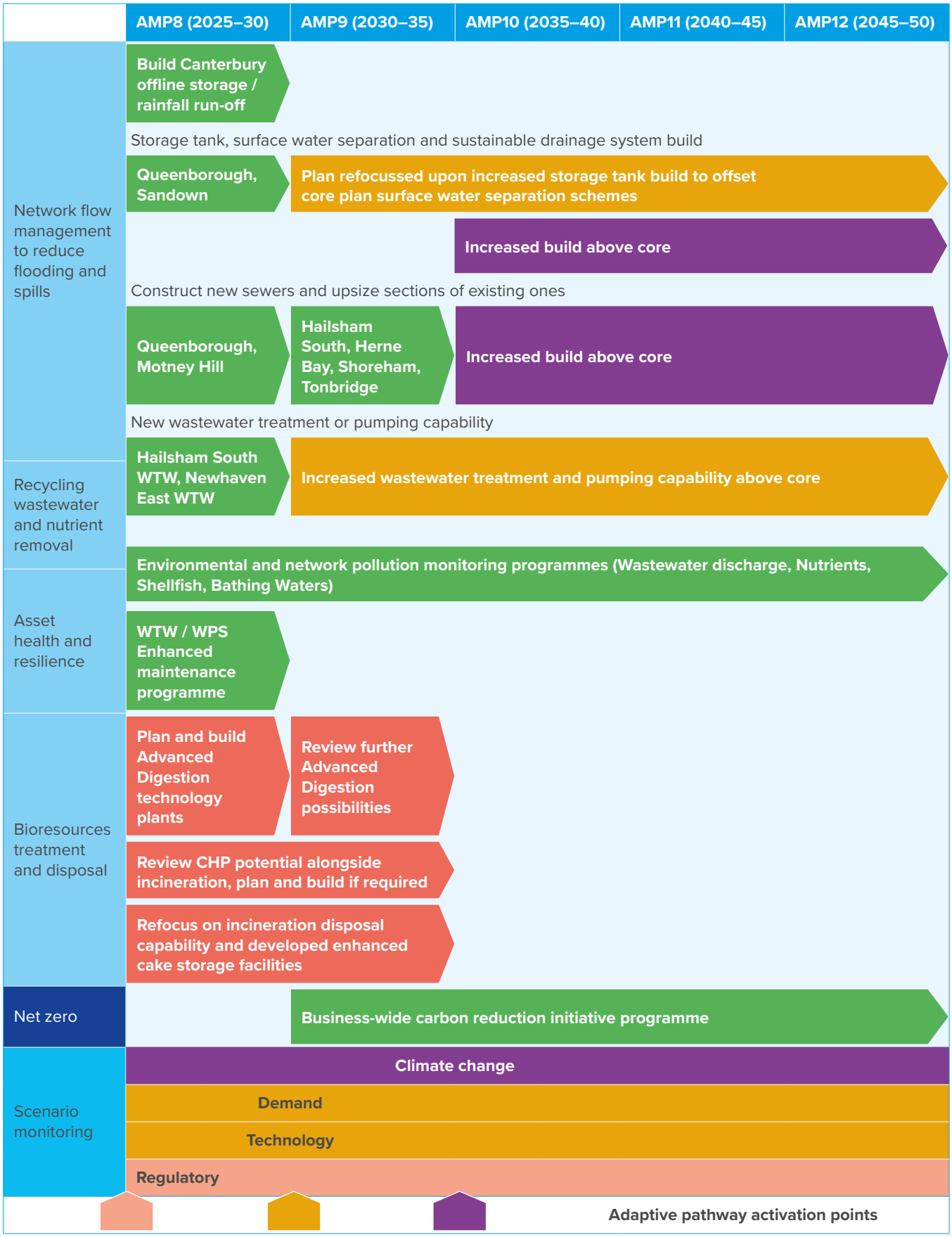


Figure 13: Wastewater: Total potential enhancement impact of adaptive pathways

2.5.4. Costs and bill impacts

In addition to the £15.5 billion planned for our core pathway, we also have an additional £11.5 billion identified as part of our adaptive planning process which has considered a number of key uncertainties. Should all adverse uncertainties come to pass (which we do consider to be unlikely) then our plan contains a full enhancement spend of £27 billion.

Adaptive pathway enhancement spend initially becomes noticeable in AMP9. However, beyond AMP9, our core plan could be significantly impacted should long-term adverse uncertainties be realised that require us to consider activating one or more of our adaptive plans.

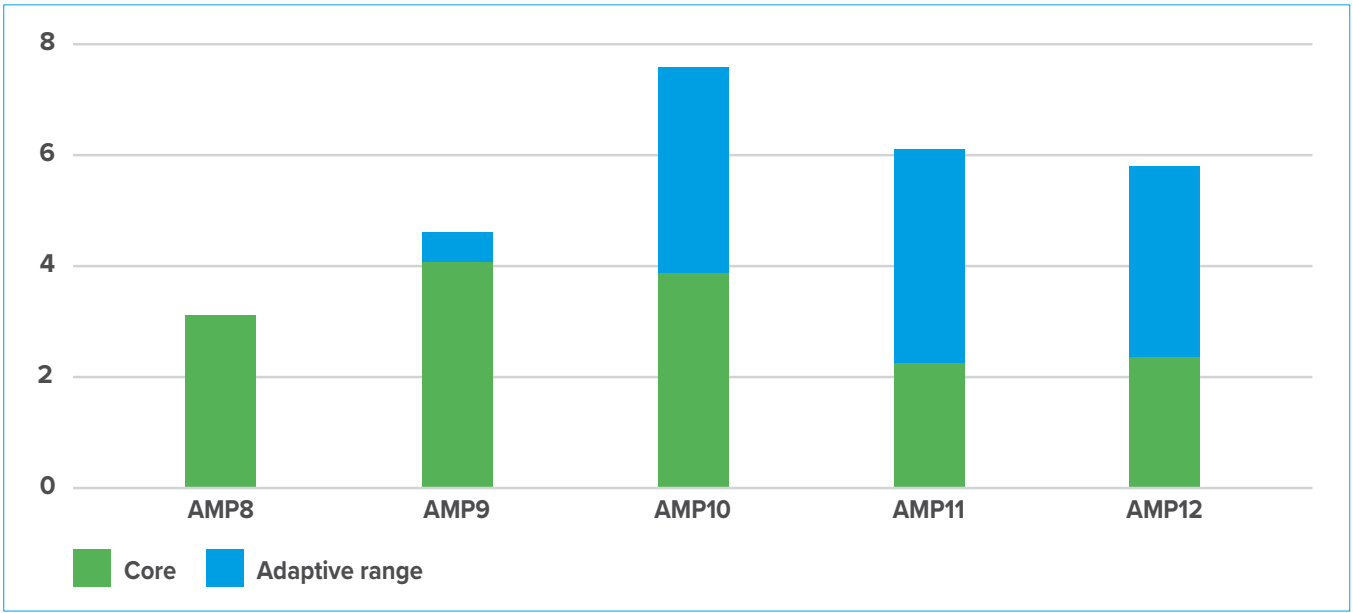


Figure 14: LTDS Core and adaptive pathways: Total enhancement cost (£bn)

Full details of our core and adaptive pathway enhancement costs can be found in the table below.

Table 5: LTDS Total enhancement expenditure (2025–2050)

	AMP8 £m	AMP9 £m	AMP10 £m	AMP11 £m	AMP12 £m	(All AMPs) £m
Water core pathway	1,466	2,511	2,426	1,338	1,445	9,186
Wastewater core pathway	1,619	1,565	1,421	884	780	6,269
Core pathway	**3,086**	**4,075**	**3,847**	**2,222**	**2,225**	**15,455**
Adaptive pathway 1	0	141	-190	0	0	-49
Adaptive pathway 2	0	309	134	36	-7	472
Adaptive pathway 3	0	4	4	2	2	11
Adaptive pathway 4	0	5	5	3	3	16
Adaptive pathway 5	0	13	565	92	105	774
Adaptive pathway 6	0	28	781	832	562	2,203
Adaptive pathway 7	0	0	666	663	660	1,989
Adaptive pathway 8	0	0	2,980	2,977	2,974	8,931
Total adaptive	**0**	**487**	**3,714**	**3,849**	**3,533**	**11,583**
Full total	**3,086**	**4,562**	**7,562**	**6,071**	**5,758**	**27,039**

Note 1: Adaptive pathway 6 includes costs for Adaptive pathway 5
Note 2: Adaptive pathway 8 includes costs for Adaptive pathway 7

The enhancement activity and relevant costs associated with each adaptive plan is illustrated below.

Linkage to business area		Total additional cost £bn	Total cumulative cost £bn	Associated adaptive pathway activity (above core)
Wastewater (Network flow management)	Adaptive pathway 8	5.7	27.2	Increased and then significantly increased investment associated with additional wastewater storage tank and network flow capacity to absorb more frequent and more intense stormwater surges.
	Adaptive pathway 7	1.5	21.5	
Water (WRMP Situation 4)	Adaptive pathway 6	0.4	20.0	Further increased investment in water supply capacity, alternate sources and focus on demand management.
Water (WRMP Situation 5)	Adaptive pathway 5	2.3	19.6	Increased investment in water supply capacity, alternate sources and focus on demand management.
Wastewater (Recycling wastewater and nutrient removal)	Adaptive pathway 4	0.1	17.3	Further increased investment in wastewater treatment capacity.
	Adaptive pathway 3	0.5	17.2	Increased investment in wastewater treatment capacity.
Wastewater (Network flow management)	Adaptive pathway 2	1.8	16.7	Shift in focus from rainfall separation to additional storage options.
Bioresources	Adaptive pathway 1	-0.1[1]	14.9	Shift in focus to incineration as a primary disposal mechanism(cheaper than preferred “core” option).
	Core pathway		**15.0**	Note: Prices in 22/23 price base

Figure 15: LTDS: Additional adaptive pathway cost and activity core

The impact upon bills from our planned enhancement costs can be seen in the chart below.

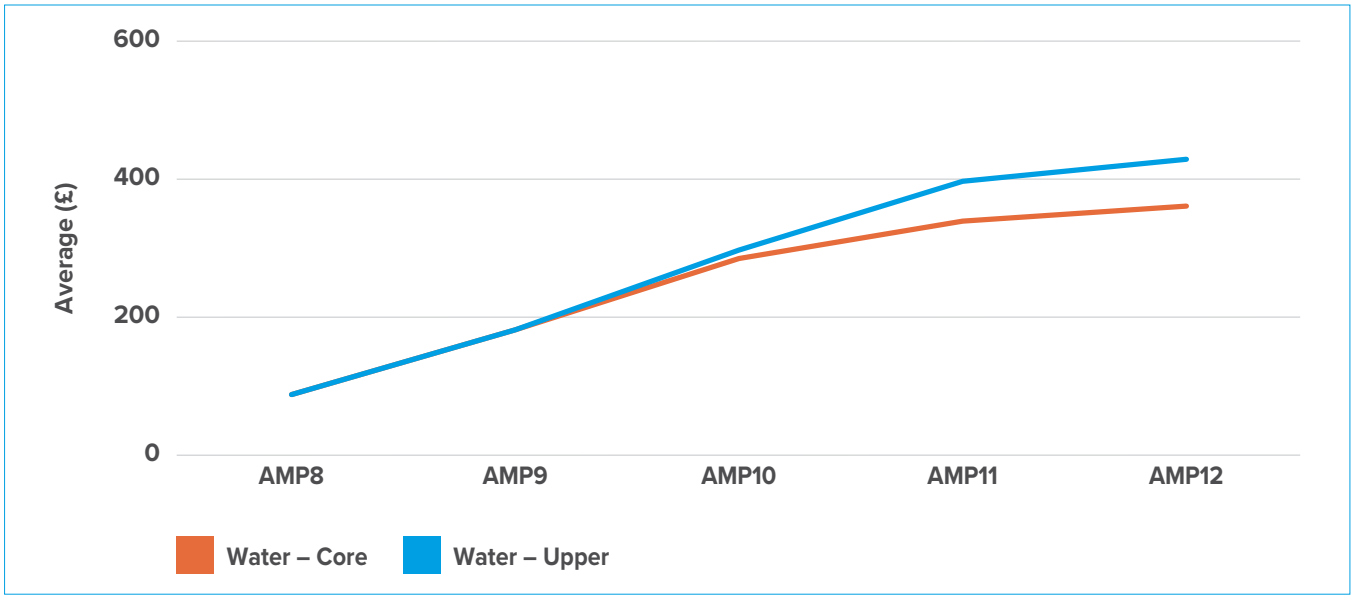


Figure 16: Water Enhancement Adaptive Pathways: Imapct on Average Customer Bills to 2050 (22/23 prices)

The impact upon our wastewater bills of our wastewater-related adaptive pathways can be seen below.

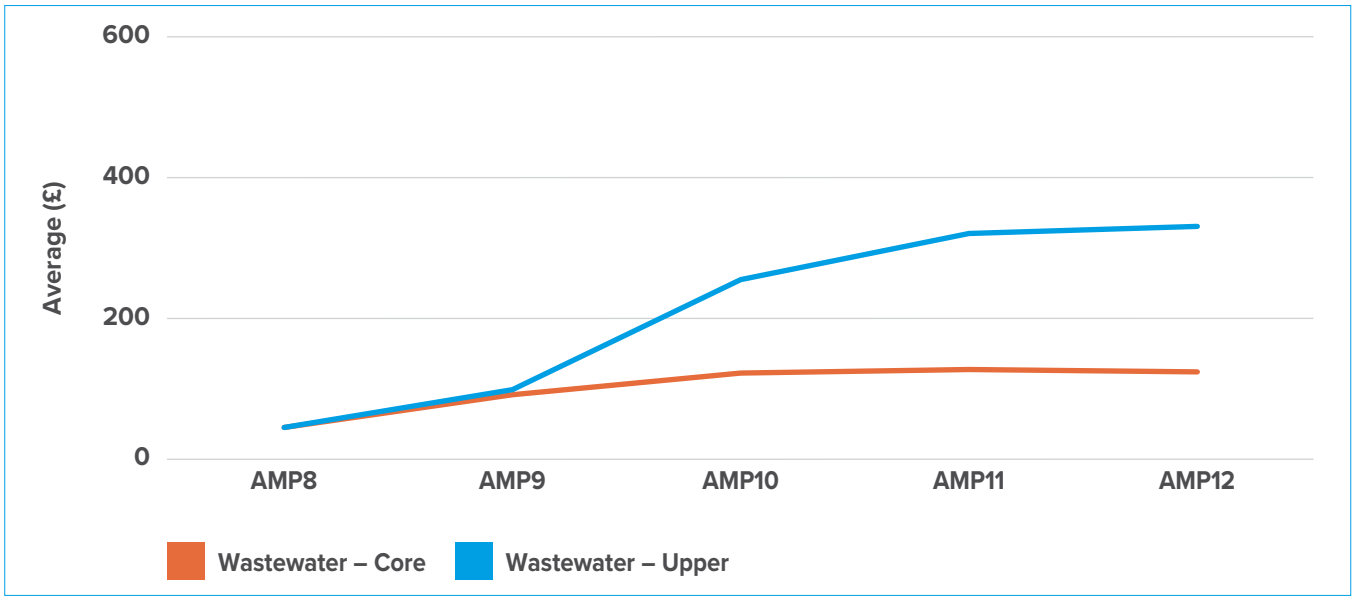


Figure 17: Wastewater Enhancement Adaptive Pathways: Imapct on Average Customer Bills to 2050 (22/23 prices)

2.6. Long term use of markets and alternative delivery

Our plan for 2025 to 2030 is our largest ever and we plan to deliver £1.3 billion of investments through DPC and alternative methods – including our smart metering and bioresources programmes, which fall outside of Ofwat's DPC model. Taking this approach will reduce spending between 2025 and 2030 and defer and reprofile impacts to customers' bills.

For example, the Hampshire Water Recycling and Water Transfer project (the largest part of our Water for Life Hampshire programme) is included in our core pathway and will create 90 million litres of water a day by 2034.

We intend to award a DPC contract to a Competitively Appointed Provider (CAP) between 2025 and 2030. This provider will then build, maintain and operate our new asset over 25 years.[7] The CAP will incur the capital costs between 2025 and 2030 and we will start paying for the asset when it is in service. Customers' bills will increase from 2030 when they start receiving services from the new asset.

This approach will improve the profile of bills to align better with when we will be providing the extra services for our customers. It also means we can take advantage of innovations and possibly lower financing costs from alternative providers. It also lowers our deliverability burden – meaning we can focus on customers' other priorities and our core services.

Several large projects in our core pathway would default to DPC because of their size or because they are following the Strategic Resource Option (SRO) process[8]. This includes the Thames to Southern transfer from the South-East Strategic Reservoir Option (SESRO). We also expect to follow alternative delivery routes for other projects that are not eligible for Ofwat's DPC process.

Our LTDS includes these projects at their full capital cost, to ensure we identify the total likely costs we might need to incur. (More details about our approach, including the investments being considered for Alternative Delivery are in SRN17: Direct Procurement for Customers and Alternative Delivery models technical annex).

7 We are currently considering whether the scope for this DPC project should be DBOFM or DBFM.

8 The RAPID gated process and the proposed water resource solutions - Ofwat

Chapter SRN03

Customer Acceptability

3. Customer Acceptability

3.1. Executive summary

Our plan is customer-led. It is informed by our most thorough engagement programme to date and reflects the priorities of our customers, communities and stakeholders.

More than 25,000 customers spent over 8,000 hours from over 190 different reports telling us what they think to develop our plan. We profiled and engaged our region to speak with representative audiences from our communities.

Our panels of current and future customers, businesses and vulnerable communities gave us informed views at every stage of plan development.

Bespoke research engaged on the range of issues in developing our plan, we partnered and shared with other water companies, and followed regulatory guidance on testing our plan.

Wider sources of insight gathered through analytics of customer data, community events and stakeholder groups brought together a more holistic understanding.

Our customers are clear on their biggest priorities. Their top priority is a continuous supply of clean, safe and wholesome water. Customers expect us to provide reliable services now and for future generations – while protecting and improving our environment. We need to reduce leakage and our use of storm overflows – but make sure bills remain affordable.

By continuously listening to our customers, we have seen how this has changed. Improving and restoring the environment is more important to them than ever before.

They expect us to collaborate, show leadership and embrace innovation and new technology. They want us to use nature-based solutions wherever we can but understand this is not always possible.

Changes to how we live and work because of the pandemic mean customers are more connected to their environment and can adapt to new technology and ways of working quicker than before. They also appreciate the need for proactive long-term planning to prepare for what the future might hold.

We are experiencing more scrutiny from customers than before – particularly on our performance, linked to significant fines from our regulators and our use of storm overflows. This has damaged the trust our customers have in us. They want to trust us again but demand rapid improvements. The cost-of-living crisis has heighted the need to keep bills affordable and protect those that need it most.

We used in-depth ethnographic research and data to understand the uniqueness of our communities and develop regional profiles.

We know our customers feel more connected to our coastline than in other regions and this is crucial for their wellbeing and the pride they have in their communities. Our environmental performance and the perception they have of our services is damaging their ability to enjoy our coastline and bathing waters.

Many of our communities feel their way of life is threatened by the impact of housing growth and that infrastructure, including water and wastewater services, has not kept up. We need to make sure we meet the needs of new housing and protect our environment

We have tracked these trends, and by combining research, data, external feedback and expertise we better understand our customers and can act on what matters to them.

What our customers want is clear. They expect us to:

- Get the basics right and focus on credible and deliverable improvements where it matters
- Maintain our core services – especially a reliable supply of high-quality water
- Significantly improve how we care for the environment – reducing pollutions and storm overflow use and reducing leakage are their highest areas for improvement
- Be more ambitious in some areas – such as storm overflows and leakage – but that we should be less so in other areas to focus on delivering their priorities
- Use nature-based solutions first, wherever we can, before relying on traditional infrastructure

They are willing to pay more for the right investments and do not want us to pass the problem to future generations – but we need to make sure we protect the most vulnerable from increases.

Our customers have leant us support for our proposed plan. They feel it puts the environment at the centre and prioritises the areas that matter to them. Most are concerned with previous performance and credibility, and for some this means they do not currently support the plan. We need to demonstrate tangible improvements and deliver on what we say to help rebuild the relationship.

We have responded to what our customers have told us. We are:

- Focusing on the core areas of service to our customers – future water resilience and the environment
- Prioritising the reduction in storm overflows in high spilling areas and going further in key bathing water areas
- Using natural solutions to target the root causes of overflows. We are expanding financial support to more customers
- Digitising our network to proactively identify issues
- Targeting mains renewals and smart meters to reduce leakage

Our insight was rated as high quality from independent external assurers[1] who, alongside our challenge groups and customers, help us continually improve how we engage. We used assured, robust triangulation methodologies, following best practice, to reflect our customers' priorities in our investment programme.

3.2. Customer Engagement

3.2.1. Lessons learnt from PR19

Following PR19 we ran a session with our Customer Challenge Group (CCG) for lessons learnt. They had 3 main recommendations about how to improve the way we run insight[2], shown in the table below.

Table 1 - Feedback from our CCG

CCG feedback:	So we:
Greater segmentation – understanding of all relevant customer groups, especially in hearing from younger audiences	• In 2020 we created a data led household customer segmentation • We launched our young person's group in 2020 • Deep dive research project into customers with affordability concerns in 2021 • In 2021 we engaged with diverse cultures where English wasn't their first language • In 2021 we launched our household customer panel (Water Futures 2030) using our segmentation, demographics and regional differences to ensure a representative sample • In 2022 we launched the business, vulnerability and diverse culture community representative panels
Informed vs uninformed biases – play stronger attention to the biases and differences	For all main projects or steps in the PR24 process (e.g. identifying priorities, testing long term strategies, testing plans etc) we engaged with: • Large waves of quantitative research (1,000 customers representative of our region) – to bring in a less informed view • Additional robust qualitative research with fresh customers to bring together less informed views • Presented findings from the research to a smaller 'committee' of our household panel to help assure and triangulate the results • Brought together households and future customers in a live session with Southern Water teams on long term strategy and priorities
Insight approach – ensuring that a consistent level – across all areas	• Ran early assurance from 2021 to provide expertise on our insight approach and recommendations. This enabled us enough time to identify gaps and act on them. • Used our panels to identify areas of interest from open discussion – so we could then follow up and dive into areas that mattered most • Integrated the use of data – from social media, contact, complaints, other water companies and industry and many other sources

1 See section 3.6 of this chapter or section 5 of SRN14: Customer Insight technical annex for more detail

2 SRN14: Customer Insight technical annex, Section 1: Index, 133 – Lessons Learned at PR19 – Sep '18

3.2.2. Our always-on insight

We are better at listening and acting on what our customers tell us than ever before. In October 2018, we launched our Customer Participation Strategy. The strategy was developed with our Customer Challenge Group from PR19 and endorsed by our board and executive team. The strategy focuses on 12 key principles[3] which are applied in our approach to insight.

Since 2018 we have been working every day to deliver that strategy.

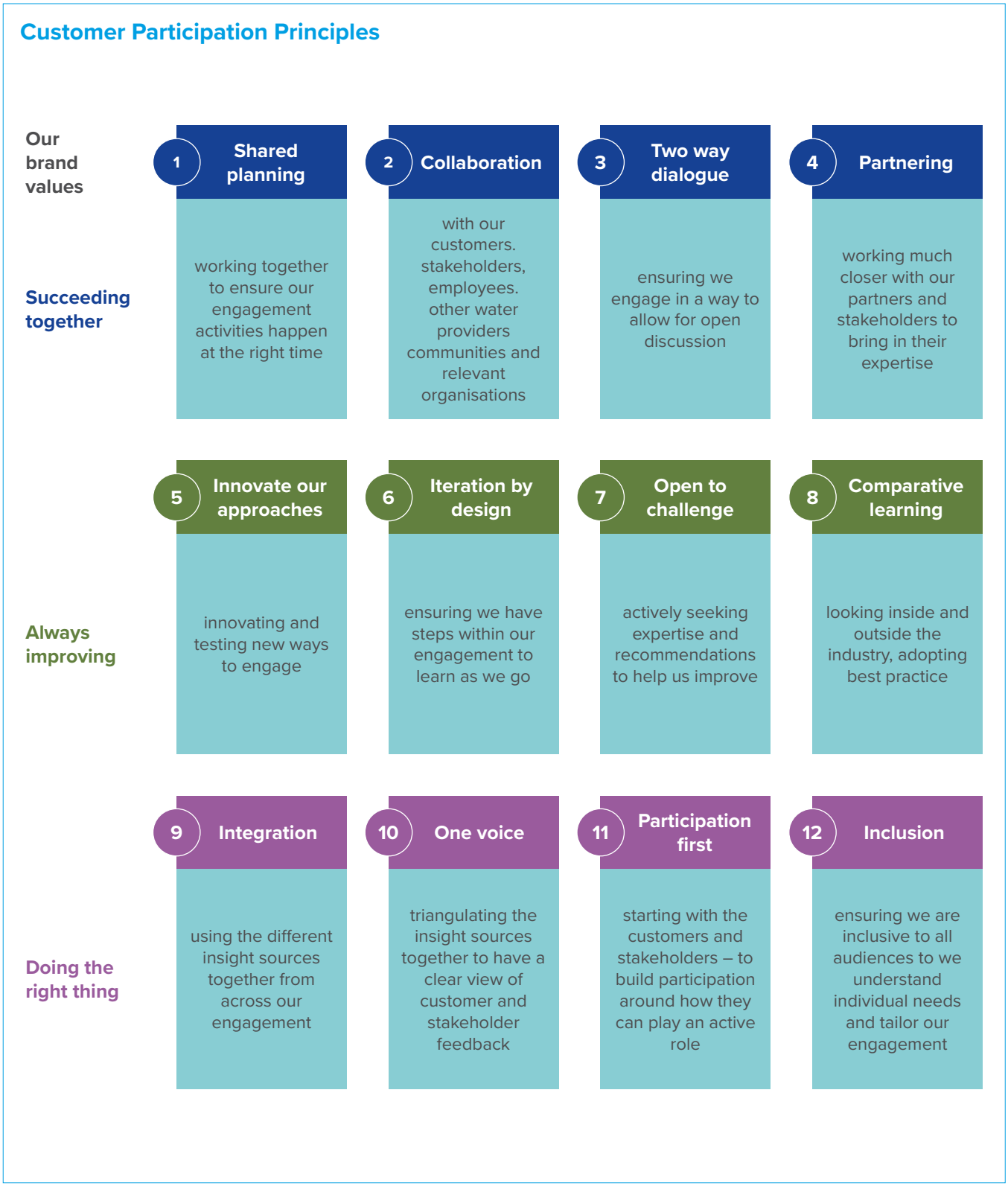


Figure 1: Our 12 Customer Participation Principles

3 See section 2.1 of SRN14: Customer Insight technical annex

We started building from the foundational insight we gathered at PR19 to fill the gaps in our understanding. The water industry is complex, and many customers do not regularly engage with some of the industry challenges. We used industry best practice[4] to have informed customers at the centre of any major programme. Then we started to reach a more inclusive range of customers and covered greater breadth and depth of topics. This 'always-on' engagement has step-changed how the voice of the customer drives improvements. With this rich insight we can now have a much greater impact on the services our customers receive.

We define our customers[5] as anyone who benefits, or has a role to play within, the services we provide. This includes bill paying households and businesses, future customers, vulnerable audiences, those from more diverse cultures, stakeholders and our wider communities.

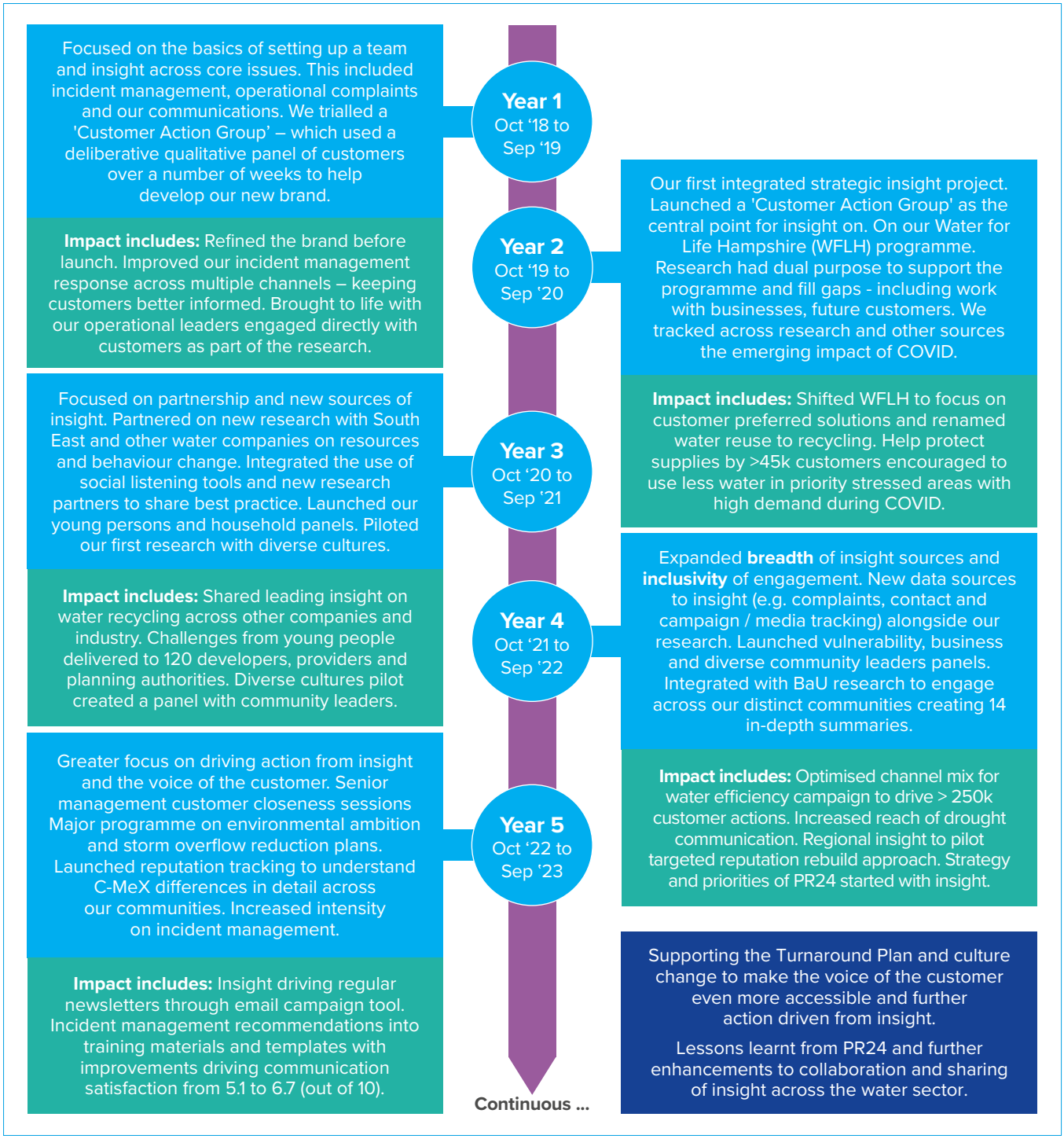


Figure 2: Overview to Progress for Always On Insight

4 https://www.ccwater.org.uk/research/engaging-water-customers-for-better-consumer-and-business-outcomes/

5 For more information on the definition of our customers see section 2.2 of SRN14: Customer Insight technical annex

3.2.3. How we approached PR24 engagement

More than 25,000 customers spent over 8,000 hours across over 190 different reports telling us what they think to develop our plan. We combined this with over 10 million data points from sources such as contacts, complaints, social listening and other sources. We used a customer segmentation, demographic data for 4.5 million customers and in-depth ethnographic research into our communities to have both breadth and depth of insight.

Our engagement is high quality. External and independent assurance has rated it highly against Ofwat standards[6]. Our 12 Customer Participation Principles helped us ensure all our insight comes from high-quality engagement and follows recommendations from CCW[7] following PR19. Our principles provided the direction to improve our insight over the last 5 years and set foundations which we will continue from 2025–2030 onwards. They also align with position paper on customer engagement[8] published by Ofwat in February 2022. We used the insight from this engagement to develop our 2025-2030 business plan.

We designed our direct engagement for PR24 with 6 key phases[9]:

1. **Insight 365 –** our always-on use of insight, such as research, learning from PR19, social listening, customer contact and complaint data, and industry reports.
2. **Understanding what matters –** deep dives into existing insight and open, customer-led deliberative engagement about their priorities, how these were changing and how they differed in the region.
3. **Emerging priorities –** using customers' own language and definitions to robustly understand relative scoring across priorities and develop an assured triangulation model using over 30 different data sources from thousands of customers.
4. **Key drivers –** range of deliberative and robust research and data analysis to understand the rational drivers of differences by audiences and regions.
5. **Designing the plan –** range of deliberative research into bespoke elements of the plan and enhancements to shape the plan and provide the boundaries / parameters of options.
6. **Testing and refining the plan –** using Ofwat and CCW approaches to test our plan and going above the minimum standards to increase inclusivity and piloting early to allow for iterative improvement.

6 See section 5 of SRN14: Customer Insight technical annex for more information

7 Improving customer engagement for PR24 - CCW

8 PR24 and beyond: Customer engagement policy – a position paper – Ofwat

9 The engagement numbers included refer to Southern Water customers engaged. Insight was also gathered from regulator, national and other company research. For full details see Section 1 of the SRN14: Customer Insight technical annex

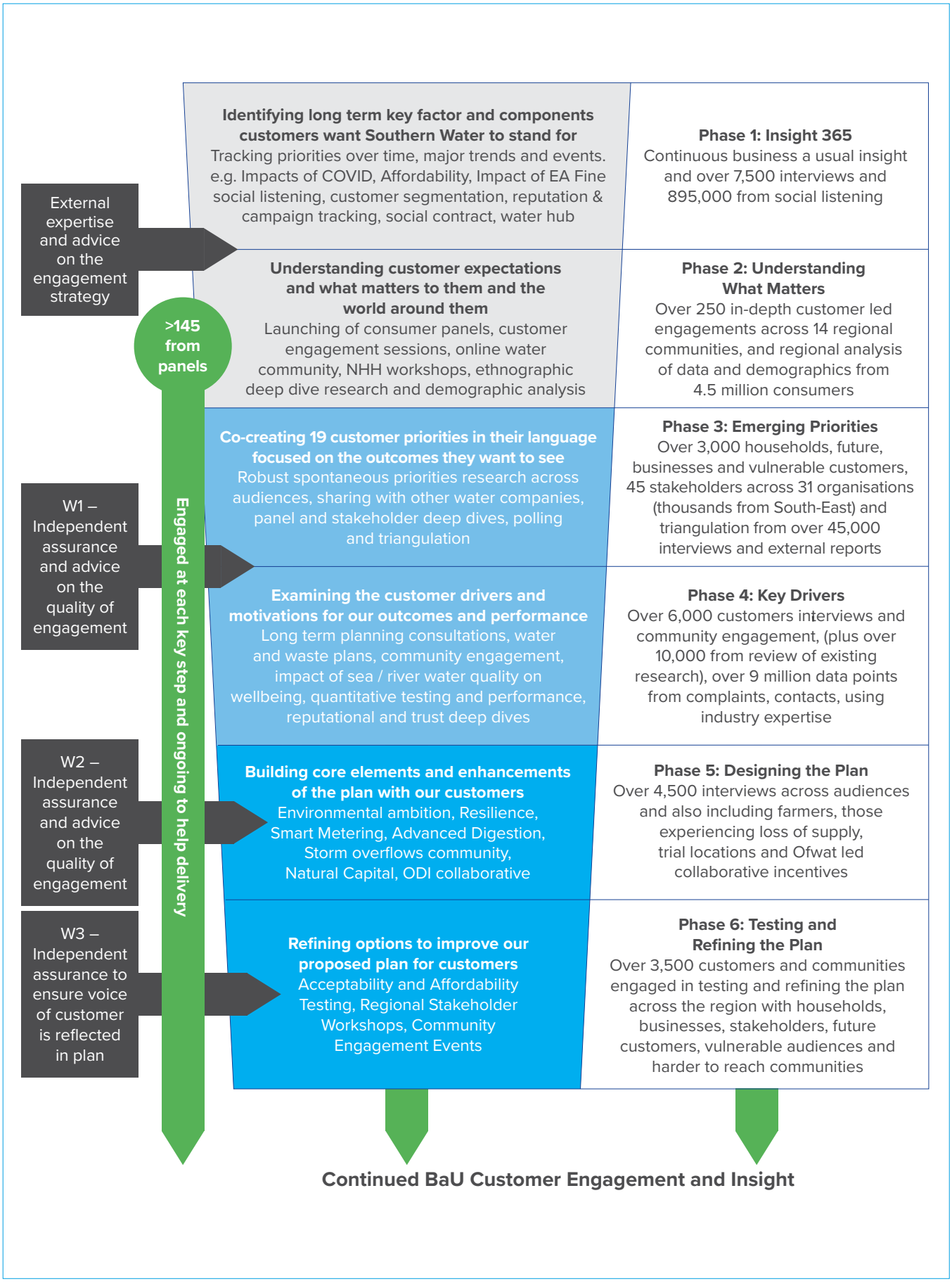


Figure 3: Overview to PR24 Engagement

3.2.4. Ensuring our engagement is high quality

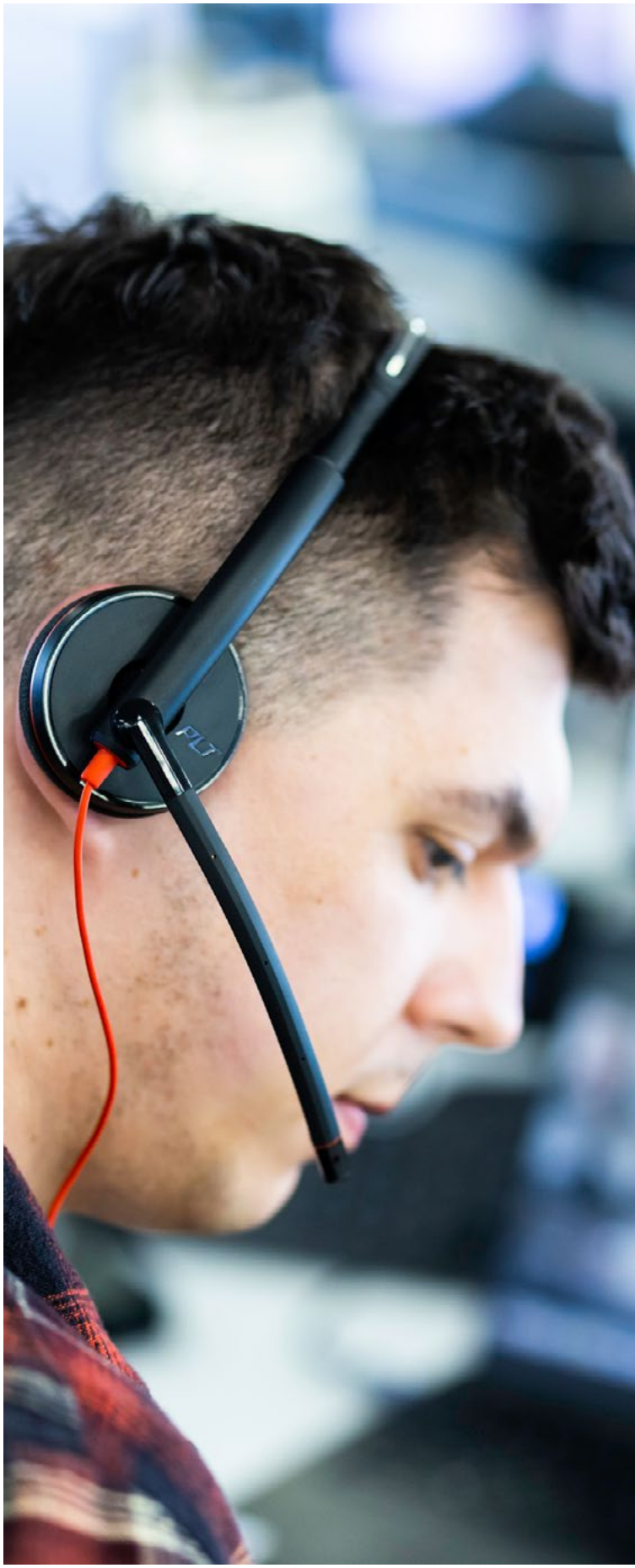
Our 12 Customer Participation Principles provided us with guidance to ensure insight comes from high quality engagement. The principles have provided the direction to improve our insight over the last 5 years and set foundations of which to continue from 2025–2030 onwards.

In February 2022 Ofwat published a position paper[10] on customer engagement, which set out core elements to ensure engagement was high quality. When the paper was published we:

1. Reviewed the paper to ensure our principles broadly aligned
2. Introduced a 'PR24 Objective Reporting Template' our research partners complete following key projects
3. Used the minimum standards as the central guidance of our independent external assurance

Our Participation Principles aligned in the design and way insight was used but did not specially call out governance areas such, as the ethics and assurance. In 2020 we introduced a framework with 7 research partners which ensures all partners are Market Research Society (MRS) accredited. Our research partners have completed the 'PR24 Objective Reporting' for major projects, which used the 8 standards set in the Ofwat position paper.

External assurance[11] has rated our engagement as high quality. The feedback from our independent and external assurance provided a 'green' rating from a RAG rating system for our engagement against the Ofwat minimum standards.



10 PR24 and beyond: Customer engagement policy – a position paper – Ofwat

11 See Section 5 of SRN14: Customer Insight technical annex for more information

Table 2: How our engagement meets Ofwat's standards

How our engagement meets Ofwat's standards	
Useful and contextualised	**Our customers have gone through a deliberative approach.** We provide wider context reading, customers review Southern Water, other water company, industry, regulator, positive and negative media stories relating to topics. They see performance data from websites such as Discover Water and CCW. We ask them to engage with friends and families on topics to bring in other viewpoints. We engage on all the major areas to our customers.
Neutrally designed	**Each project starts with the customer.** We start with open ended discussions to let customers lead their views, before we review specific topics. Because of deliberative approaches, if customers want to explore certain areas we then ensure this is done in future waves of work. For example, in November 2021 we ran a bespoke direct engagement session with our Environment Director, senior leaders and customers on the issues of storm overflows at the request of our household panel.
Fit for purpose	**We use high quality research partners on the topics that matter**. Our framework enabled us to play to a range of strengths with research agencies. Some specialise and have expertise in the water industry, others bring behavioural thinking while others bring a fresh consumer view. The range of partners helps us to try out new innovative techniques and learn from other industries. As independent experts they ensure customers clearly understand any engagement and questions being asked.
Inclusive	**We engage with an inclusive and representative audience.** Our engagement has had central panels at key stages which includes households, businesses, vulnerable audiences, future customers and community leaders representing diverse cultures. All these groups are recruited from across the region with a range of demographics and segments. We also engaged in deep dive sessions to understand the regional differences for our 14 main communities. Additionally we have engaged through community events, regular stakeholder workshops, customer closeness sessions and integrated real data from interactions, complaints, social media and many other sources.
Continual	**Customer insight is embedded and continuous.** The use of insight has become central to all our major programmes of work as well as used at very local issues day to day. From tracking social media sentiment, our response to incidents or selecting the major investment programmes – we listen to our customers.
Independently assured	**Expert and independent assurers have reviewed our engagement.** Using a structured process that follows Ofwat standards we have used experts to assure over 30 key reports and outputs. These cover a range of our framework providers, and the feedback that has influenced our plan the most.
Shared in full with others	**We share across water companies and colleagues.** We have a shared folder from South East water companies where key outputs from projects are stored, which has been shared across insight leads for the 17 water companies. When sharing we also share in full our reports and available summaries. (For more information on our partnership and sharing please see here: Collaboration and Partnership section of this chapter)
Ethical	**We work with accredited and ethical research partners.** The MRS has a code of conduct[12] which agencies must follow, to ensure ethical research. We have also run several programmes of assurance using external and independent experts.

12 Code of Conduct | Market Research Society (mrs.org.uk)

3.2.5. Methods of engagement for PR24

As well as the stages of engagement at PR24, our methods of engagement are broadly defined into three main areas:

- **The use of continuous panels –** to help put the customer at the centre of our plan, ensure greater inclusivity and be challenged by those more informed
- **Bespoke research –** targeted research into key elements of the plan to bring fresh, representative and robust views
- **Wider engagement –** other methods and analysis to bring 'in the moment' data and insight from customers

3.2.5.1. The use of continuous panels – building on best practice for customers to be central to our planning

We know the detailed working of the water sector can be complex. We also know customers want to participate in the decisions we make on their behalf and once engaged they become highly involved. Between October 2019 and August 2021 we trialled a Customer Action Group to help with our Water for Life Hampshire programme. The Group was made up of 40 customers from across the region that engaged through a series of 20 in-depth research waves to provide insight as our plans developed.

The trial was a success. The level of continuous engagement provided us with rich insight at every step of the programme. They helped with major decisions such as:

- Choosing what we called water recycling (from water reuse) as it better reflected expectations
- Assessing the criteria testing we used in our modelling to select the recommended solution
- Reviewing consultation materials – which we amended them before being used publicly
- Challenging our executive and technical teams in direct facilitated sessions
- Helping day-to-day decisions where an ordinary project would take too long or be too expensive (e.g. water efficiency campaigns or reviewing billing materials)

3.2.5.1.1. How each panel for PR24 worked

We wanted greater inclusion than previous research. By taking lessons learnt from the trial, a review of PR19 engagement by CCW and feedback from our previous Customer Challenge Group (CCG) we created a number of continuous panels. The approach and frequency of each varied depending on how best to keep members engaged.

We were careful to make sure each group remained independent and unbiased. At every stage we would show our plans, alongside industry materials, regulatory statements or reports, other water companies' viewpoints, and positive and negative media stories. In many exercises we asked members to discuss with their friends and family to reach a wider audience and ensure feedback was not too influenced by their level of engagement.

We asked [redacted], an independent research company who run our household panel, to provide their feedback on the use of a panel approach. Their feedback told us a panel approach provides greater collaboration, quality over quantity and a space for customers to confidentiality and credibly challenge Southern Water[13]. Customers led much of the discussion and the panels followed a deliberative process to help build their knowledge. Open questions allowed us to explore what matters to customers first before asking prompted questions on particular areas or options. Our independent research partners would then help triangulate views and present a holistic view of their feedback.

13 See section 3.1 of SRN14: Customer Insight technical annex

Each panel had an early wave focusing on what really mattered to them and their priorities. Other waves then included reviews of longer-term plans (such as the Water resources plans, drainage and wastewater plans and Long-Term Delivery Strategy). The most recent waves spent time assessing acceptability and options within our proposed business plan.

Over 145 customers have been part of the panels. We want to further improve by ensuring greater two-way dialogue, robustly demonstrating to these customers their positive impact. Further detail of the methodologies for each panel can be found in section 3.1 of SRN14: Customer Insight Technical Annex. The current use of panels for PR24 includes:

Household customer panel – 40 customers to represent our segmentation, region and range of demographics. 20 waves since April 2021. Engagement was mainly led through an online community and number of challenge discussions with technical leads and executive members.

Future customer panel – 40 future customers to represent our region. Nine waves of since November 2020. A spread of demographics and ages (14+ at school, further education and first time bill payers). Engagement included plenary sessions to help guide younger people to through the tasks, online communities and focus groups.

Business customer panel – 40 businesses responsible for water at their business. (20 from businesses reliant on water for their end-product, 20 wider water users). A range of industries and smaller to medium businesses. 3 waves since May 2022. Engagement included in-depth interviews and online tasks to allow for detailed discussions on business impacts.

Vulnerability customer panel – 20 customers with vulnerable circumstances from across the region. A range of different support needs and situations. 3 waves since May 2022. Engagement was through in-depth interviewing to allow independent moderators to help guide participants through the tasks.

Diverse cultures community representatives – 10 community leaders and stakeholders who represent communities from diverse cultures, where English isn't their first language. Community representatives as an approach was selected after a trial in 2021 that engaged with households where English was not their first language. 5 waves since April 2022. Engagement was through in-depth and small groups to allow for deep diving into specific needs of the audience.

"I have found my involvement with this engagement surrounding how Southern Water can improve its services to the communities (Muslim and migrant communities) that I represent very interesting, eye-opening and engaging. My knowledge of the challenges of water sourcing, processing, supply, wastewater disposal and issues surrounding protecting the environment has expanded, and the concerns of my communities were listened to because I was enthused by this engagement and felt free to speak vigorously to challenge Southern Water to improve on its services and addressing the concerns of the communities I represent."

Community Representative

3.2.5.2. Bespoke research programmes focused on key areas

To build on the reach of our panels we engaged fresh customers and relevant audiences to provide more holistic insight on key topics. For a full list please see our index in section 1.1. of SRN14: Customer Insight Technical Annex. For the examples below you can see more detail in section 3.2 of SRN14: Customer Insight Technical Annex.

1. **Long term planning**[14] **–** New customers from different demographics across the region were recruited to take part into two phases of research into our WRMP, DWMP and Long-Term Delivery Strategy. This aligned with public consultations of these plans. We integrated this research so customers could provide feedback across long-term plans, not on isolated components. The robust combination of our panels and fresh insight through iterative approaches meant our long-term priorities were co-created and supported by all customer groups. Projects included 4 community events held in target areas for new water resource locations to understand the local considerations of construction, an 'average person on the street' survey that recruited customers to take part in the consultation and joint work with Portsmouth Water on drought planning with households, vulnerable customers, businesses and stakeholders.

14 SRN14: Customer Insight technical annex, Section1: Index, 135 – LTS and DWMP Report – September '22

Figure 4: Co-creating our Long-term Delivery Strategy with our customers

2. Environmental ambition[15] **–** we heard in our pilot testing of our PR24 plan the concerns around affordability and the importance of the environment, so we needed to understand the right level of ambition for our customers. We used an innovative approach with over 1,600 customers for a 6-stage research sprint to gather the insight robustly and quickly for our plan. Our external assurance[16] of the final report scored top marks using the Ofwat quality assessment framework. The 6 stages we ran were:

1. initial qualitative research discussions groups with 12 customers from our household panel and 14 customers who had been through our Acceptability testing pilot. This followed a best-practice approach to deliberative research.
2. stakeholder workshop with members of our Independent Environment & Climate Change Group to ensure the options, language and emerging story were accurate.
3. survey with 501 customers to rank and compare options and provided initial ranking.
4. conjoint statistical analysis with 1,000 customers to trade-off between options (including cognitive testing).
5. 165 customers from our Acceptability testing reviewed some options of environmental ambition as part of the plan options.
6. reconvened 40 customers from our Acceptability testing for deliberative focus groups to review the environmental phasing in detail.

The insight showed us:

- **Storm overflows –** customers want the right long-term solution using nature-based solutions where possible to address the root cause. Ambition is needed
- **Resilience and sewer infiltration –** there is belief this will only get worse if not addressed, and therefore higher costs in the long term. Some concern over whether this should have already been funded[17]
- **Nutrient removal –** less known than some areas but felt responsibility should be shared because of the other parties involved. Customers want high environmental benefits prioritised and phasing of lower benefits

15 SRN14: Customer Insight technical annex, Section1: Index, 107 – Environmental Ambition Results FINAL Report – June 2023
16 See SRN14: Customer Insight technical annex for more details on assurance
17 More information available in the SRN53: Coastal Resilience, SRN49: Power Resilience and SRN50: Infiltration enhancement business cases

- **Net zero –** is an important area. Felt to be more the responsibility of government. Schemes (such as EVs) will come in naturally. Customers already fund through taxes and behaviour change, and do not want to pay through their water bill too

We presented the outputs from the research to our executive, board and technical planning teams who used this to re-phase our proposed plans. This included the addition of targeting bathing water overflows, sewer infiltration and increasing resilience becoming part of the proposed plan and we have looked at phasing for net zero and marginal nutrient removal schemes (across eight years rather than five).

3. **Water Resilience strategy**[18] **–** the research was to provide feedback on the enhancement case for resilience to four of our major water supply works. We engaged our household panel, boosted with fresh customers who had been involved in our Acceptability testing and those who had recently experienced a loss of supply event. We saw 78% supporting the plans with only 3% not supporting. The insight provides us a clear framework and unique considerations on how best to engage customers when delivering our plans.
4. **Advanced digestion**[19] **–** we needed to understand key considerations around how to introduce advanced digestion. We worked with farmers through a two-stage qualitative and quantitative project to understand their use of biosolids and their requirements for bringing in the technology. We also engaged our household panel to ensure they supported funding it. Customers support the use of this technology and farmers provided us with the insight needed to develop our plans.
5. **Water Futures 2030 quant waves**[20] **–** four quantitative waves from Jun 2022 to Aug 2023 (1,000 customers per wave). The surveys included a core set of questions tracking key trends of perceptions of us, media influence and concerns of the cost of living and affordability. Other topics were identified from our household panel feedback, such as diving deeper into wider issues impacting the use of our seas and beaches.
6. **Acceptability**[21] **and Affordability testing**[22] **–** our Acceptability testing followed the Ofwat and CCW guidance. We piloted the approach in early 2023 to ensure we met best practice. Our core testing engaged with 165 households, vulnerable, business, and future customers. We also included the digitally disengaged and lower income households. This included dual customers and wastewater only customers with South East Water. Whilst timings didn't align to run jointly with South East Water, we have both shared bill impacts and findings across companies to provide further robustness. We engaged a further 58 wastewater only project with joint research with Portsmouth Water. Additionally, we used the stimulus and approach to engage our household, vulnerable, business, future, and diverse culture panels. This helped provide a more robust and inclusive testing of our proposed plan.

Our Affordability testing also followed the guidance and was independently assured. We engaged with 969 dual households and 200 businesses. These interviews included vulnerable, lower income and digitally disengaged customers. Emails and letters were sent to a random sample of customers, with many requesting paper copies to complete the survey. As with our Acceptability testing, we also spoke with 582 households and 133 businesses with a joint project with Portsmouth Water. For our wastewater only South East Water customers we used an online panel and managed to reach 250 customers. We also ran a shadow survey with 500 dual customers using a panel methodology. This was to understand any difference between approaches, should we wish to re-run the research with changes to our plan in the future. Following the completion of the project, we ran a wave of research with our household panel to help better understand the results.

All our Acceptability and Affordability testing materials went through review stages and external assurance to make sure they were neutral and unbiased. We chose not to present our Turnaround Plan to customers as we felt it could positively influence customer feedback on our business plan. Following the Acceptability testing, we heard from customers our Turnaround Plan was an important piece of the puzzle and they were reassured by it.

You can see how we have responded to the feedback from customers on the plan testing in section 3.4 of this chapter.

"Southern Water's approach and materials for PR24 Affordability and Acceptability Testing meet Ofwat and CCW's prescriptive guidance"

Assurance statement from Independent External Assurers

18 SRN14: Customer Insight Technical annex, Section1: Index, 161 – Water Resilience Strategy – Aug '23
19 SRN14: Customer Insight Technical annex, Section1: Index, 108 – Sludge Debrief combined quant and qual – Feb 2023
20 SRN14: Customer Insight Technical annex, Section1: Index, 201a to 201d (Water Futures Quant Wave 1 to 4)
21 SRN14: Customer Insight Technical annex, Section1: Index, 207a to 207h Testing of the Business Plan
22 SRN14: Customer Insight Technical annex, Section1: Index, 207a to 207h Testing of the Business Plan

3.2.5.3. The use of wider engagement to understand our customers

Our communities are unique and we want to understand their bespoke needs and drivers. We first piloted a qualitative piece of research exploring differences between North Sussex, Southampton and Chatham. Pilot results showed differences in insight we could apply, such as a bespoke engagement campaign in North Sussex to track impact on C-Mex. We then expanded the research to an additional 11 locations. We used innovative approaches such as photo mood boards that help customers explain their feelings and are shared internally to help bring the insight to life[23].

We then analysed contact data, complaints and operational performance across these regions, and combined it with demographic data (such as income, ethnicity, customer segmentation) and satisfaction data from our Reputation tracking[24]. This insight helps us be more targeted with our communities by understanding them better, focus on key drivers of priorities and to rebuild trust and reputation by taking actions relevant our customers. For example, it allows our vulnerability teams to focus their attention on areas with the greatest deprivation.

23 SRN14: Customer Insight technical annex, Section1: Index, 123 – Updated regional insight brochure final and 145 – Regional Focus April 2023 Key Findings Report – April '23

24 SRN14: Customer Insight technical annex, Section1: Index, 26 – Southern Water – Reputation Tracker

You can see some of the detailed feedback we hear from our unique communities below:

North Hampshire

Many with family ties and connection to the area. Countryside, tranquility, walking areas and picturesque make the area unique.

Concerned: about lack of affordable housing and new developments in the area.

Key priorities: affordable bills, reliable water for the future, fixing leaks and supporting water efficiency.

North Sussex

Sense of community/ belonging. Strong links with nature and to cities like London and Brighton. Good balance of both with a real link to the coast as well.

Concerned: with influx of people moving to the area and new housing stretching infrastructure.

Key priorities: resilience of supplies and protecting the environment.

Chatham

Links to London and cheaper housing have led to a diverse community.

Concerned: was once a thriving area but now more deprived – lack of investment and lack of pride in the local area.

Key priorities: affordability, infrastructure keeping pace and better education.

Swalecliffe

Influx of new people choosing to live by the sea, especially with working from home. The sea and beaches are what draws people in.

Concerned: sewage entering the sea and impact on tourism and oyster farms.

Key priorities: preventing wastewater into the seas, affordability and supporting vulnerable customers.

Thanet

Many were born there or moved due to links with London. The sea and beaches and community spirit are perceived to make Thanet unique.

Concerned: about lack of investment and area looking run down. Town hasn't kept up with population growth.

Key priorities: storm overflows and bathing water quality.

Deal

Many were born there or grew up there, however many were also charmed by the quaintness of Deal.

Concerned: about lack of infrastructure and the lack of affordable homes being built.

Key priorities: storm overflows, bathing water quality and growth.

Central Kent

Grew up there or moved for links to London and is surrounded by beautiful countryside with great schools – best features.

Concerned: about lots of people and lack of infrastructure.

Key priorities: resilience of supply, tackling wastewater, supporting vulnerable customers.

Winchester

Many grew up here or stayed after studying. It's the setting of Winchester that is so special and unique.

Concerned: about high process and older demographics stuck in their ways, as well as new homes being a strain.

Key priorities: Low/ stable bills, storm overflows and improving the local environment.

Southampton

Best of both worlds – large city & local environment with a strong maritime connection.

Concerned: about loss of green space and impact of growth / development.

Key priorities: Future resources, protect environment and tourism.

Isle of Wight

Many grew up here or moved away from the mainland – being an island makes it special and its community feel.

Concerned: about travel being expensive, a bit run down, low wages and lack of opportunities.

Key priorities: Future resources of the Isle Environmental issues were key for the residents.

Portsmouth

Described as an 'island city', with the community naval history and connection with the sea is what makes it special.

Concerned: lack of investment in the city holding it back from its full potential.

Key priorities: prevention of wastewater entering the sea, protecting rivers/ beaches and customer service.

Worthing

Some that grew up there and some moving for a better life by the sea. The beach, South Downs and close to Brighton with more affordable housing.

Concerned: rising house prices and infrastructure keeping up.

Key priorities: affordable bills, reliable water supply and preventing wastewater spilling or polluting.

Brighton

The people and the feel of Brighton make it unique. The location and amenities of Brighton are the best thing about it.

Concerned: about prices, living up to its green status and homelessness.

Key priorities: tackling wastewater, affordability and protecting the vulnerable.

Hastings

Many were born and grew up here. The seafront and the things that make Hastings special. Equally it is the sea and what goes on there that makes the town.

Concerned: about the town being underfunded, poverty and anti-social behaviour.

Key priorities: low bills, bathing water quality and storm overflows.

Figure 5: Our regional profiles

Our index in technical annex SRN14: Customer Insight technical annex, section 1 outlines over 190 customer reports and analysis used in the development of our plan. Some examples of areas that help us have a more holistic understanding of our customers are:

Community engagement[25] **–** as well as the in-depth research into our communities mentioned above, we took our proposed plan across nine locations around our region. We used pop-up stands in high footfall areas to reach a broad range of customers. Whilst the overall theme was what customers expect from us, the detailed issues discussed were highly targeted. This allowed us to take away specific actions on customers issues to help resolve. We were also able to offer information on our social tariff or support for the most vulnerable.

Regional stakeholder workshops[26] **–** stakeholder engagement is part of our business-as-usual activity. Our regional managers engage proactively through meetings, regular newsletters and helping on local issues. We ran a series of bespoke regional sessions across our counties to share and discuss our proposals. Short presentations followed by moderator sessions allowed us to engage directly and answer challenges on our water and wastewater services and wider issues. Our DWMP received positive feedback, especially from stakeholders on the breadth, depth, and frequency to engage throughout the development process.

Developer, SLP and NAV workshops[27] **–** we ran bespoke research groups with these unique audiences. As an important part of many of our plans, we needed to ensure we understood their views. We made it easy for them to engage by combing research activity with workshops we were already running. Their feedback on our overall plans was focused on the services they provide to new developments. Our continuous improvement for developer services is a key part of our retail plan for these customers.

Data analysis[28] **–** real data is critical to understand customers' actions and what drives their needs. We ran several waves of analysis using complaints and contact data from April 2020 to summer 2023 – and combined this with used social media data, media data, Environmental Information Requests and performance data. This helped us understand across our region where service levels differed and provide greater robustness to our customer priorities for those areas. It allows us to better understand what matters to our customers, why and when. There are major differences around billing contacts where we have a joint arrangement with South East Water. We see contacts around leakage increase during drought conditions and a similar increase in complaints around overflows following media attention.

This data not helps us understand our customers and focus on their priorities and with our always on insight. For example, we can see the true drivers of impacts of loss of supply incidents – with a spike in contact across all water related issues and a lag impact of complaints that follow compensation payments. Using our analysis we have been able to improve the compensation communication to reduce complaints.

For a major loss of supply incident in Sheppey in July 2022 we saw contacts increase by three times on water issues and an overall satisfaction with the communications of 5.1 (out of ten). We introduced proactive text messaging and the use of a link to our website to direct customers for regular updates. With similar incidents in December 2022, we saw the score increase to 5.7 and contacts from customers only increase by two times. Further refinement then saw another incident in May 2023 achieve a score of 6.7 and only a relatively minor increase in contacts.

Your Water, Your say – More than 130 customers joined our Your Water, Your Say event with an independent chair, selected by Ofwat, to pose open questions to four of our executive team. This included our Chief Executive Officer, Chief Financial Officer, Chief Customer Officer and Chief Operations Officer. We promoted it to customers through our website, social channels, a random sample of emails and letters, community events, invites to key stakeholders and customer panels. The topics covered in the session and the pre-questions reflected the wider feedback we have had through a range of engagement channels. These included water supply and quality, future water supplies (especially Havant Thicket reservoir plans), storm overflows, pollutions and bonuses and dividends linked to our current performance.

Following the event, we gathered feedback from those who attended, with 66% rating it as a good session. Most felt it was positive we were holding this type of event, with good leadership representation and they welcomed more for the future. However, some wanted to be able to spend more time on local or specific issues relevant to them. In October 2023 we are trialling an in-person event called 'Your Water Matters' which will have 10 different stalls run from across our different services. This event is designed to support a community on their local issues.

> *"A good opportunity for customers to express their opinions and ask questions and getting a reply right from the 'top'"*
>
> **Your water, your say attendee**

25 SRN14: Customer Insight technical annex, Section1: Index, 204a to 204d – Community Engagement
26 SRN14: Customer Insight technical annex, Section1: Index, 119 – Stakeholder Workshop – July 2023
27 SRN14: Customer Insight technical annex, Section1: Index, 203d – Developer, SLP and NAV workshop Reports – Sep '22
28 SRN14: Customer Insight technical annex, Section1: Index, 22, 137 and 138 (contact and complaints analysis)

3.2.6. Collaboration and Partnership with other water companies

Since 2020 we have significantly improved our collaboration and sharing of customer insight which is adding real value for our customers. We have a number of tools and processes, as well as informal check-ins with our insight colleagues from other water companies. This gives us better quality engagement and more insight on which to base our decisions. This comes from sharing what we learn from our customers and innovating to use best practice approaches. Some examples of collaboration include:

Table 3: Collaboration and insight sharing

Collaboration Area	Partners	When	Approach	Lessons Learnt	Impact
Water Efficiency Behaviour Change with BIT (Behavioural Insight Team)	South East Water	Jan–Jun '20	Joint in-depth qualitative research, analysis sessions and recommendation review from BIT	Specifics around usage for bathing, toilet use and motivations	Created efficiency campaigns using motivations and recommendations from BIT
Portsmouth Water Partnership	Portsmouth Water	2021 onwards	Regular bespoke sharing of customers in the area and joint projects for drought planning, Acceptability & Affordability Testing (AAT), insight sharing	Best practice for drought plans, impact of relationship on service levels	Efficient research which allows customers to provide feedback on their overall water and waste services together
South East Water company Partnership	SES, Thames, South East Water, Affinity, Portsmouth	2021 onwards	Monthly meeting, joint SharePoint site for reports, bespoke sessions for sharing (e.g. on customer priorities or AAT lessons learnt)	Examples include: Best practice on triangulation and assurance. C-Mex drivers	Accelerated partnerships in AAT, provided new data sources from customers in the South-East
Water Resources South East (WRSE)	SES, Thames, South East Water, Affinity, Portsmouth	2021 onwards	Joint research into supply and demand options around water resources. Specific collaboration on schemes.	Limited difference on ranking of supply options across all customers	Cost efficient and robust research with clear evidence on the validity of other water company insight on resources
Water Garden Use ethnographic Research	Wessex, Anglian, Northumbrian, South East, South Staffs, Portsmouth	2021 and 2022	Ethnographic research using video cameras across homes in all areas of England to track actual behaviours vs perceptions	Interesting distinction in garden use, as water not going down the sink isn't considered 'wastage'	Shared across the industry. Helped for bespoke campaign routes on garden usage (especially in Spring)
Communicating Changes to Water Sources Research	Affinity, Anglian, Severn Trent, Thames and Cambridge Water	2022	A review of existing research, qualitative and quantitative study that included taste tests	Key challenges around different sources – such as desalination and water recycling	Shared across all companies to provide a consistent communication framework for engaging customers on changes to water sources
Customer Priorities – South East Deep Dive	SES, Thames, South East Water, Affinity, Portsmouth (Also attended by Ofwat and CCW)	October 2022	An all day online workshop to review individual approaches and learning from customer priorities analysis	Large similarities and consistencies across companies. Differences were often due more to company relationship or the research methodology	Large data set of priorities and assistance in reviewing the similarities and differences from customer insight experts

In addition to the examples above, there are regular updates with the 17 water companies and other bespoke sessions on shared topics. For example we have shared full data across supporting vulnerable customers with Thames Water, Water Recycling insight across England and Wales and many other ad hoc sessions.

To help facilitate the best practice sharing of research approaches and to increase the value of customer evidence we set up a SharePoint site in partnership with the other water companies in the South-East of England and gave access to the wider water sector.

3.2.7. Triangulating customer insight

We used a robust and independently assured triangulation approach, following best practice[29], from over 30 unique data sources. This included research across our range of audiences, customer data, our performance data compared to previous commitments and other companies and reports from the industry (Ofwat, CCW, Water UK) and other water companies.

Expert external assurance rated our engagement as having good coverage across the topics, with no major gaps. Where some priorities have moderate coverage in the assessment, this was because we used external sources such as industry reports from Ofwat, CCW and the Institute of Customer Service to support our research.

We combined all these data to give us our overall triangulation of customer priorities. We split this down further to give us a view from our customers only and an England and Wales view using regulatory documents. We then compared how the our customers' views differ to both the combined and national views.

Each source of data had a credibility rating applied that looked at its recency, robustness and relevance. A greater score was applied to those that were recent, highly robust (either by having lots of participants or having a high awareness of the water industry) and relevance to multiple priorities. These scores were added together for each paper and then a weighting was applied depending on its credibility score.

Finally, we applied an overall weighting depending on the customer audience. Vulnerable customers had an increased weighting due to their needs for additional support. Future customers had a slightly reduced weighting due to them not being current bill payers and some may not pay until later in AMP 8. Businesses were reduced slightly due to the lower volume of customers when compared to households. Stakeholders had a significantly reduced weighting due to other avenues to regularly influence our plans and their affinity to their organisations.

Our use of our panels and Customer and Communities Challenge Group helped calibrate our findings. By using the committees as part of our panels we were able to ensure the outputs from our insight were calibrated to represent customers' views. Our Challenge Group then helped to ensure our overall similarities and differences were well understood.

For more information on triangulation, see section 3.4 of SRN14: Customer Insight technical annex.

3.2.8. How we act on what customers tell us

As part of our engagement strategy we developed a number of ways to ensure that the insight from our customers was relevant, accessible, tailored and integrated across the creation of the Business Plan.

Executive engagement – because our insight is continuous and our customer engagement was early, it meant the voice of the customer was summarised and fed into plans right at the start. This included summaries on priorities, audiences, trends and what they wanted us to focus on were taken from robust research. The executive were involved at every stage such designing our engagement plans, immersion into our overall insight, deep dive feedback for key decisions and direct customer engagement.

Board engagement – the voice of the customer was central to board engagement. Our ESG subcommittee reviewed quarterly feedback, which was unfiltered from our customer insight. A board member attended all our Customer and Communities Challenge Group meetings, with 5 different members attending in total. Since January 2023 each board strategy session has had a customer insight focus looking at their priorities, cross cutting themes, plan feedback and bespoke insight on ambition.

Cross cutting themes shared at every level – by September 2022 we had developed a number of key cross cutting themes that were referenced and assured by customers and our Customer and Communities Challenge Group. These themes set out the boundaries and fundamental insight that set our customer expectations. These themes were run through in detail by our executive, Board and PR24 technical and supporting teams.

Embedding the voice of the customer – from May 2022, we introduced a monthly presentation and Q&A session on the latest insight across the PR24 teams. Infographics were produced of the lead insights (such as priorities, trends, challenges from future customers and regional analysis) to help maintain the prominence of the customer.

29 Triangulation: A review of its use at PR19 and good practice - CCW

Customer engagement sessions[30] **–** since October 2021 we have held regular sessions where our PR24 and wider leadership teams would directly engage in breakouts with our customers. This included two sessions in January and March 2023 where our entire Executive and Senior management team heard early feedback on our proposed plan. This early engagement helped us make improvements to our plan, such as on our ambition for overflows and rephasing of bill profiles.

Customer engagement tool – we created a customer insight synthesis tool to capture all the key insight and feedback we have had and store it in one interactive tool. It allows users to see different components such as the key trends, priorities or feedback on our long-term plans. It includes the summaries from our different audiences, customer segmentation and regions. Following the submission of the plan, this tool will be shared through our SharePoint with other water companies to help across the sector.

Case study: One innovative approach was to bring two different audiences together in one customer engagement session. When working on our long-term strategy in March 2022, we had seen differences between our household and future customers. Households were trading off bills against investment and feedback from some customer segments was focused on our legitimacy – particularly around shareholders, profit and executive pay and dividends.

However, future customers were telling us they didn't see the trade-off between the environment and economy – 'why should one suffer for another to benefit'. Instead, they saw the environment and economy as one thing together.

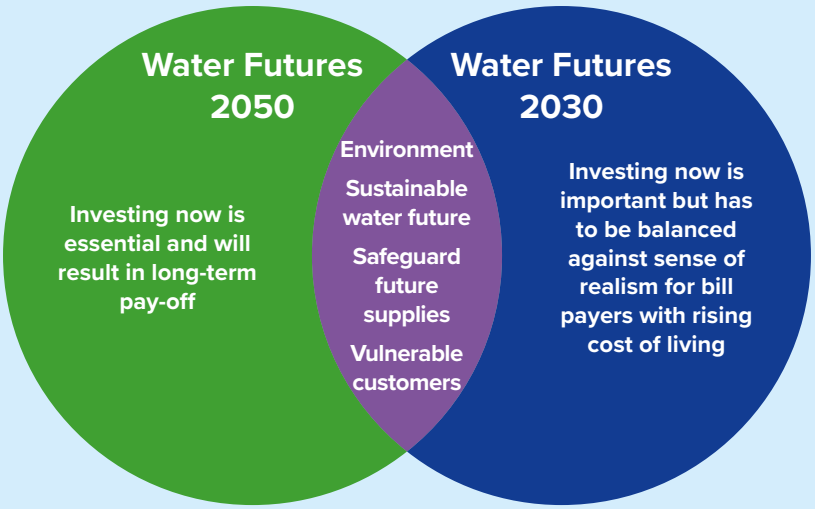
At the engagement session we had a plenary session where young people shared their views via pre-made video reel and household customers through live presentation. We then had six moderated breakout sessions (three young people and three households) which also included our executive and strategy leads for PR24. We then brought the whole group back together.

The graph shows both groups of customers shred common ground. However, households (Water Futures 2030) remained balanced over bill affordability, especially with the cost of living. Future customers (Water Futures 2050) felt more strongly towards investment for long term pay-off.

The bringing together of both groups allowed us to directly understand and hear challenges from both audiences – and ultimately led to the final development of priorities of our long-term strategy, which were universally supported across all customer groups. This is an approach we will continue to use in the future when significant conflicts in insight arise.

As you can see on the left, both groups of customers shred common ground. However, households (Water Futures 2030) remained balanced over bill affordability, especially with the cost of living. Future customers (Water Futures 2050) felt more strongly towards investment for long term pay-off.

The bringing together of both groups allowed us to directly understand and hear challenges from both audiences – and ultimately led to the final development of priorities of our long-term strategy, which were universally supported across all customer groups. This is an approach we will continue to use in the future when significant conflicts in insight arise.



30 See section 5.3 of SRN14: Customer Insight technical annex

3.3. What we have heard from our customers

3.3.1. Changing Customer Expectations and Influencing Trends

Our continuous engagement has shown five main factors that have shaped changes in customer priorities and expectations since PR19:

Pandemic – has made us all more socially responsible with a greater awareness and appreciation to support customers. We are all more focused on wellbeing and our local environment and natural space. 85% told us during the pandemic they will change the way they consume information[31].

Environment – to 'protect, improve and restore', the environment is central to every conversation with customers, especially to protect for future generations. 86% tell us the environment is more important than ever before[32].

Proactive planning – stronger understanding of the impact of extreme events and impacts of climate change and how vital water services are. Customers think the top three challenges for us are ageing infrastructure, growing population and climate change[33].

Integrity and transparency – poor reputation and distrust of us and the sector means much greater media and public scrutiny on all our activity. Once aware of the EA fine, 92% told us it had a negative impact on their perception of us[34].

Cost of living – a need for bills to be 'affordable for all' with many feeling 'the squeeze' in the current climate. Concerns on affordability peaked in June 2022 with 54% concerned about future water bills, although by July 2023 this has reduced to 40%[35].

Figure 6: Our customer identified trends

31 SRN14: Customer Insight technical annex, Section1: Index, 134 – Life Under Lockdown – Insight Summary – Aug '20
32 SRN14: Customer Insight technical annex, Section1: Index, 201d – Water Futures Quant Wave 4 – Aug '23
33 SRN14: Customer Insight technical annex, Section1: Index, 201c – Water Futures Quant Wave 3 – Mar '23
34 SRN14: Customer Insight technical annex, Section1: Index, 143 – Image and Reputation Research Full Report – Oct '21
35 SRN14: Customer Insight technical annex, Section1: Index, 201d – Water Futures Quant Wave 4 – Aug '23

3.3.2. The damage to customer trust

Linked to the five trends identified above, we have seen a significant erosion to the trust customers have in us.

The actions of water companies are becoming increasingly salient issues[36]. In the past water and the activity of water companies have rarely been front-of-mind issues for customers. The context for all water companies has changed.

Our historic performance issues, and the court cases that made headlines in 2021, have led to a level of mistrust and an erosion of public confidence in our operational resilience alongside questions about our integrity and transparency. The politicised nature and level of public scrutiny received is likely to get worse in the years ahead. This creates a challenging environment and we must respond.

> *"The amount of water polluted into the seas because we don't have adequate storage. I don't know how much they have spent on investing in the necessities. They seem to take the cheap option, rather than investing."*
>
> **(Highly engaged customer in water industry)**

The loss of our customers' and communities' trust can have a significant impact on what they think about our services. The loss of trust can also impact our customers' and communities' wellbeing. Negative perceptions about water quality also impacts our customers' enjoyment of their coastline. Customers are more likely to be starting from a negative place when thinking about us. Customers actively want to hear from us on a wider range of issues, particularly how we are tackling storm overflows and but will be more sceptical or cynical about messages they receive from us.

Our Social media volumes are disproportionately high[37]. Following the parliamentary vote on the Environment Bill in November 2021, we had three times the social media coverage than the next water company. In 2022 we had the second most social media mentions of all water companies, only slightly behind Thames Water – who have three times the number of customers. From August 2022 to August 2023 our top negative stories received 10 times the reach compared to positive[38].

Our top three negative sentiment mentions have a reach of circa 4 million while the top three positive mentions have a reach of circa 400,000.

Negative sentiment impacts overall perceptions – following our most intense media scrutiny and looking at the detailed breakdown of the UKCSI metrics for Jul 2022, we saw all 34 measures (scored out of 10) drop from the previous wave (January 2022). This indicates our damaged reputation (falling from 6.7 to 6.2) has shifted overall sentiment and therefore the impact on all scores:

- 'Product / service range' from 7.5 to 6.9 – despite no material change to the services we offer
- 'Price / Cost' from 6.9 to 6.4 – despite a price decrease of 1.3% in April 2022
- 'Does the right thing for business practices' from 6.9 to 6.3 – despite a rating on Glassdoor from 3.1 to 3.2 (Scored out of 5, Jan-Jun)

Additionally, analysis of C-Mex data shows high levels of media activity directly correlate with decreases and improvements from C-Mex[39]. When we reduced our bills in April 2022, 52% felt that bills had risen in the previous 12 months, compared to only 10% thinking they had fallen[40].

Perceptions of water quality are impacting customers – perceptions can become a reality. Only 16% think that sea water quality is better now than it was 30 years ago and 49% think it is worse. 58% think it is worse than five years ago[41]. 86% of customers' feel worse about water quality when they see a negative[42] story.

3.3.3. Foundational insight – common themes

These factors have influenced and shaped a number of cross cutting themes[43]. Regardless of the type or topic of engagement, these themes underpin what customers want from us:

Customers want to see tangible delivery on a few key areas. Focusing on fewer things and delivering on them with credible targets. They want us to prepare for the future and are reassured by plans, but fundamentally want to see actions we are taking now.

In response, we have a new management team delivering a measurable 2023–2025 Turnaround Plan[44] which focuses on the key areas to customers.

---

36 SRN14: Customer Insight technical annex, Section1: Index, 196 – Comms Investment Final Combined Report – Sep '23
37 SRN14: Customer Insight technical annex, Section1: Index, 125 – competitor analysis 2022–2023
38 SRN14: Customer Insight technical annex, Section1: Index, 191 – Reputation Deep Dive – Summary Presentation – Aug '23
39 SRN14: Customer Insight technical annex, Section1: Index, 191 – Reputation Deep Dive – Summary Presentation – Aug '23
40 SRN14: Customer Insight technical annex, Section1: Index, 201b – Water Futures Quant Wave 2 – Dec '22
41 SRN14: Customer Insight technical annex, Section1: Index, 201c – Water Futures Quant Wave 3 – Mar '23
42 SRN14: Customer Insight technical annex, Section1: Index, 153 – Waterside wellbeing report – Oct '22
43 For more detail and references, see section 4.3 of the SRN14: Customer Insight technical annex
44 Our plans (southernwater.co.uk)

The environment is central to everything we do and while bills need to be affordable, this should not be at nature's expense. They want us to treat the environment better and put nature first. Customers recognise engineering solutions are needed but they want natural solutions to be the right first choice. Bills need to be affordable with support for those that need it most. However, they are prepared to invest now for future generations, with us showing leadership.

Following this insight, we are using innovative trials to tackle storm overflows now with natural solutions that address the root causes. We will take what we learn and apply this to our delivery between 2025 and 2030.

Customers want to see us collaborating and using technology at pace. Everything is a two-way relationship and we need to be seen to do our part. Collaboration is key with regulators, neighbouring water companies, local authorities, and other organisations on what is right. The main problem from our stakeholders and in local communities is to work together on new housing and population growth. The pandemic showed how quickly newer technologies can be adopted. Customers think that new technology and innovation will play crucial roles in the future of our resources, infrastructure and the services we provide.

To deliver on this we are digitising our networks and using our Pathfinder trials[45] to collaborate on tackling storm overflows.

The loss of trust in the industry is placing greater scrutiny on what we do. Our reputation is damaged, and we see major differences based on local communities. The loss of trust is most felt by our coastal communities because perceptions about storm overflows is impacting wellbeing, tourism and nature. Customers want to see ambition and pace to address these. The demand on the industry has led many to feel the system is broken and our future customers challenge the entire industry to embrace change faster and for it to be more radical.

Our shareholders have provided further equity to improve performance on what matters to our customers now to set us up for the future.

Customers want us to take the lead and help make it easy for us all to act. This is by us showing visible leadership and expertise so they can have confidence in investments. People want to play their part through behaviour change, as long as they see us 'holding up our end of the bargain'. The water shortfall is not recognised and the focus of behaviour change feels wrong. They want to see us step up on leakage, affordability, and the environment.

We are better using insight to help better communicate our Business Plan[46] investment with bill impacts once we have the final determination

Customers want us to understand their community. Our customers are connected to the sea and it is a primary driver for all our communities living on the coast. They want us to help educate young people as well as households and businesses. Customers want consistent and good service, especially when things go wrong. This is especially true for vulnerable customers who need greater support.

We have enhanced our communication team with new engagement tools and developed a reputation rebuild strategy[47] to help engage with our customers and stakeholders.

Customers expect a blend of solutions that think about best value for the long term and show credible progress in the short term. They want us to make decisions that are based on best value. They often refer to investing properly now rather than an issue getting worse and having to pay more in the long run. They want us to use our expertise to go over and above, with the greatest focus on environmental benefits. Our future water resources and wastewater infrastructure should be a blend of solutions and be future proofed. This is so consumption can be fairer to future generations and ensure we all have access to the reliable water.

Our Water Resources Management Plan worked with customers to build a blend of solutions that use what we have now, address the root cause of scarcity with new sources and collaboration with neighbouring water companies.

3.3.4. Customer priorities – ranking of performance

Outcomes from water companies can be confusing to customers, with most priorities not being mutually exclusive. To provide more meaningful engagement our priorities and the definitions used were developed and defined by our customers.

Our household customer panel explored water company and industry materials (such as Ofwat's priorities) and spoke with their families and friends to develop their priorities. Fresh deliberative insight with households, businesses, future, vulnerable and stakeholders was then combined with these results to create our customer priority list.

Our scoring was then used to ensure our level of ambition for our performance commitment targets reflects our customer priorities. (For more on our ambition of performance commitments, please see the Costs and Outcomes Chapter).

45 Pathfinder projects (southernwater.co.uk)
46 SRN14: Customer Insight technical annex, Section1: Index, 196 – Comms Investment Final Combined Report – Sep '23
47 SRN13: Reputation, Trust and Transparency technical annex

Our robust and independently assured triangulation combined with our in-depth engagement with our customers shows us the relative scoring, but also the story behind each one.

It is important to remember that all of these priorities are important to customers and the scoring is when a trade-off is forced. We then index the scoring from each piece of data to provide a relative score between 0-100. (100 being the strongest priority).

Indexed Score	Description	Rank
100.0	**Current Water Supply-** Continuous supply of clean wholesome water	1
89.8	**Pollution -** Prevent waste water entering the environment	2
87.7	**Internal Flooding**	3
85.8	**Water Quality & Restrictions**	4
81.0	**External Flooding**	5
79.1	**Future Water Supplies**	6
75.9	**Leakage**	7
75.4	**Wastewater Infrastructure**	8
74.4	**Bathing Waters & Rivers**	9
72.8	**Protect Infrastructure from Growth**	10
72.8	**Nature Based Solutions**	11
66.4	**Support Vulnerable Customers**	12
65.9	**Bill Affordability**	13
57.9	**Carbon Emissions**	14
55.3	**Water Efficiency**	15
52.4	**Customer Service**	16
44.7	**Regulatory Compliance**	17
42.8	**Working with Developers**	18
21.5	**Community Engagement**	19

Figure 7: Output from our Triangulation of Customer Priorities[48]

48 For further information and references please see section 4.2 of SRN14: Customer Insight technical annex

Based on the scoring from our triangulation model we see the priorities into three levels, level 1 being the highest:

Priority level	Customer defined priorities						
Level 1	Current water supply	Pollution & storm overflows	Internal flooding	External flooding	Future water supplies	Leakage	Wastewater infrastructure
Level 2	Bathing waters & rivers	Protect infrastructure from growth	Nature based solutions	Support vulnerable customers	Bill affordability	The cost of living and bill increases sees affordability increase to a level 1	
Level 3	Carbon emissions	Water efficiency	Customer service	Regulatory compliance	Working with developers	Community engagement	

Bill affordability – Priority level 1, especially important to lower income households[49]**.** The importance of bill affordability is nuanced. Current bills today are felt to be relatively affordable compared to other utilities and household bills. However, the cost-of-living crisis means customer are feeling the squeeze. In the most recent data sources and with proposed increases to bills, future affordability has risen as a top priority in testing. We also see the relative importance significantly increase for bill payers, who ultimately will be funding the investment from 2025 to 2030.

> *"This is the big one now, overtaking the pandemic; families are being hit hard and will have to make some major changes to their lives."*
>
> **Household customer panel**

The difference between a priority and area of improvement:

However, when mapping the other priorities and looking at our in-depth insight we see notable interconnecting insights which needed to be reflected in our planning. For example, stakeholders and our most informed customers highlight that outcomes such as carbon emissions are impacted by other priorities. For example, if leakage was reduced or nature-based solutions used to capture rainwater, this also lowers your carbon impact.

There is also a distinction with customers between what is a priority and where they want most improvement. The provision of clean water is a top priority. However, for many this service is already felt to be high. While failure is not an option, their desire for 'improvement' is less than the for our use of storm overflows or leakage where current performance is not seen as acceptable. We also see our customers group together 'pollution and storm overflows'. For customers this is wastewater entering the environment.

49 For more information on affordability see section 4.5, Affordability of SRN14: Customer Insight technical annex

You can see the relative scoring and areas where customers would like most improvement below:

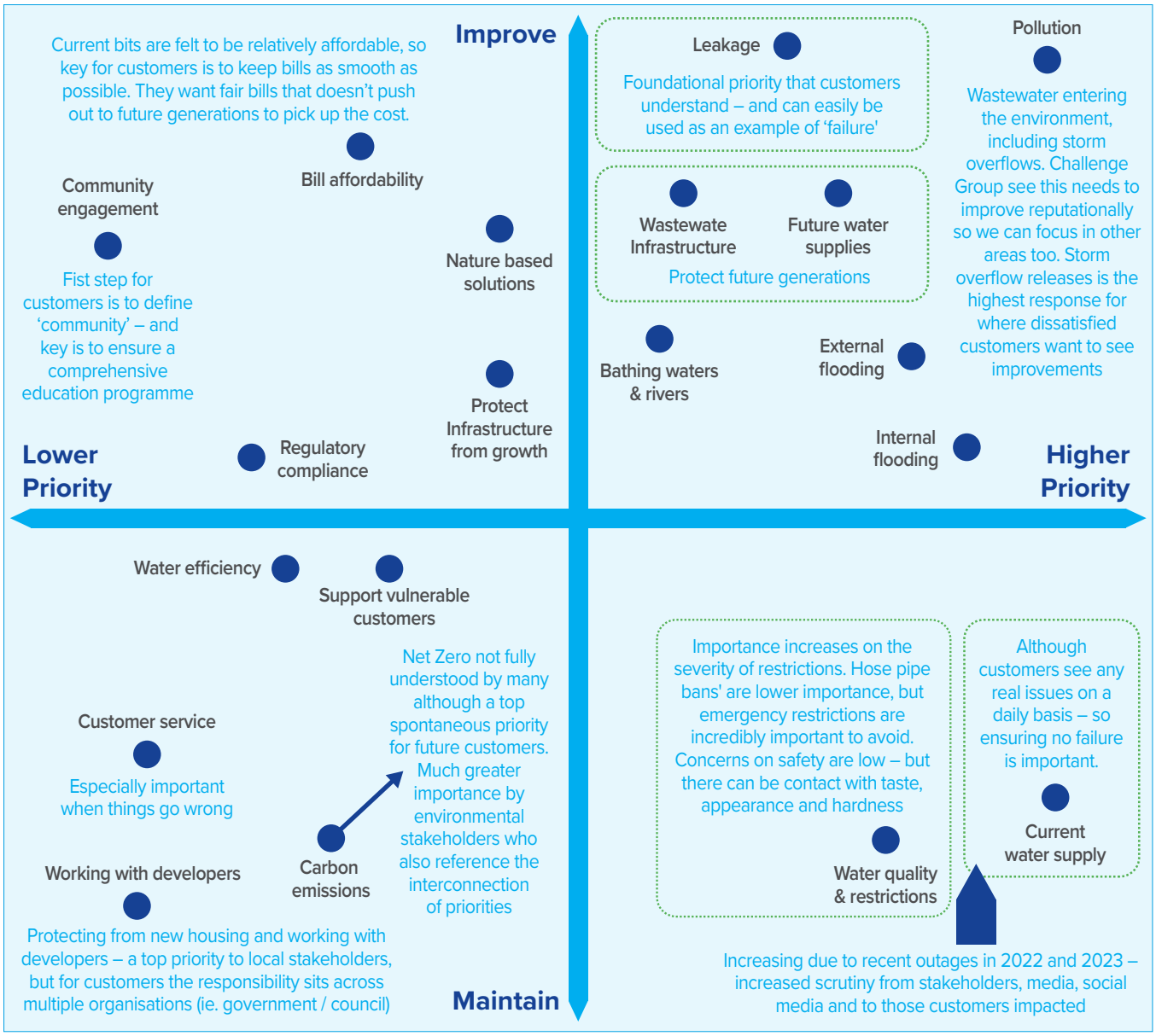


Figure 8: Our customer priorities mapped to where they want to see greatest improvement

Further detail on our level 1 priorities:

Current water supplies – Priority level 1. Customers recognise that the most important and fundamental service is the provision of clean, wholesome and safe drinking water. Stakeholders have cited recent loss of supply incidents in 2022 and 2023 to place greater importance on resilience.

Pollution – Priority level 1 and top area to improve and see ambition. Customers group the impacts of pollution and use of storm overflows into wastewater entering the environment. Neither are acceptable to customers. Informed customers want the environment prioritised in reducing impacts. With our customers connected to the coast, this is the top area they want to see improved.

> *"We have had quite a few incidences of sewage outages in the sea when we actually couldn't swim. The fact that this happens at all is still too often."*
>
> **Business customer**

Water quality & restrictions – Priority level 1. Perceptions of water quality are high, with most customers satisfied. However, when issues arise, they are on taste, appearance and hardness, rather than safety. Customers want to ensure we maintain high quality water. Recent 'hosepipe bans' have placed greater focus on the impact of restrictions and their introductions can lead to perceptions of mismanagement.

> *"The improvement of water quality (or at least, avoiding a degradation of water quality). I think the benefit here is clear – better quality water (and safer) which looks and tastes better for all customers concerned."*
>
> **Household Customer**

Internal flooding – Priority level 1. All understand the devastation that internal sewer flooding can have, linking the causes to an out-of-date network and storm overflows but also understanding the role customers play in clogging up drainage in the home. Any flooding feels like too much and prevention is felt to be part of a wastewater providers role.

> *"To imagine this happening is devastating. It does make me appreciate all the things customers never even think about when we turn our water taps on and have running water."*
>
> **Household Customer**

External flooding – Priority level 1. The impact of climate change and wet weather means that external sewer flooding feels a little more normalised. An increase in wet weather means external flooding is felt to be more frequent, and as such customers expected figures shown here to be higher.

Future water supplies – Priority level 1, especially to ensure future generations are protected. Awareness of water scarcity is low as many believe water is abundant. Once scarcity is explored it is a top priority for customers. They support protecting the environment by reducing reliance on abstraction and new sources. They first want us to protect what we have today (by reducing leakage and improving water efficiency). Secondly, they want us to develop new sources that are scalable for future needs. Customers want the right long-term solution that offers best value rather than short term fixes.

Leakage – Priority level 1 and top area to improve and see ambition. Customers want leakage to improve. It has consistently been a top priority for the industry. It is seen as not managing what we already have and 'wasteful'. Any volume of leakage is met with challenge by customers, especially when asking customers to reduce their use.

Wastewater infrastructure – Priority level 1. Customers want to see the same services for future generation as there are today. The impact of wastewater entering the environment, the risk of flooding, blockages and pollutions all place greater importance on infrastructure.

> *"Climate change is going to affect us all. The weather system is changing. You have to have the capacity to protect it."*
>
> **Vulnerable customer**

How our priorities differ to national priorities:

We integrated with wider data sources to help calibrate our priority scores and ensure greater robustness. We also held a bespoke session with other water companies from the south east, CCW and Ofwat to help understand these differences. Overall, there are many consistencies we see right across customers from different suppliers. When comparing to all data sets (including those from other water companies and regulators' reports) we do see some areas where there were notable differences:

1. **Lead pipes introduced as a priority –** this is an area not spontaneously discussed by our customers. However, in bespoke research as part of always on-insight[50] we agree on its priority. Customers are concerned for safety, especially those with younger children – which places a high emphasis on lead removal schemes.
2. **Water pressure and transparency / accountability as level 3 priorities –** we agree these are important across the sector and our reputation means transparency is particularly important. However, in our research customers discuss this more of a 'way of working' rather than a priority outcome, so we developed a strategy[51] to help ensure we focus on greater transparency.
3. **Pollution and storm overflows –** we see lower importance by national customers on pollution and storm overflows and bathing waters and rivers compared to our customers using three Ofwat and CCW research projects[52]. While these are less of a priority nationally, our customers have been very clear that this is a top priority for them.

50 SRN14: Customer Insight technical annex, Section1: Index, 178 – Deal Lead Pipes Key Findings Report – Mar '22

51 See SRN13: Reputation, Trust and Transparency technical annex

52 SRN14: Customer Insight technical annex, section1: Index, 14-CCW Cust Pref, 11-CCW Spot2022, 24-PJM Economics – Collaborative ODI Research

In particular we did in-depth analysis[53] to help understand the differences on pollution and storm overflows and bathing waters. We see two core influencing factors:

- **our customers are more connected to the coast –** 73% of our customers have visited the beaches in the last two years, compared to 30% nationally[54]
- **performance and public scrutiny place greater emphasis on these areas –** 95% of our customers have heard negative media on water quality of our seas and rivers[55]

How priorities have changed overtime[56]

Our tracking of customers' priorities since 2018 shows where their expectations change. The provision of a consistent and reliable supply of clean and wholesome water has always been a stable fundamental service and remains the highest priority for our customers.

The environment has always been important. However, we saw a shorter-term increase in importance in 2020 due to the pandemic helping customers connect with their local environment. Following the EA fine in 2021, greater awareness of our use of storm overflows and our past performance placed greater emphasis on the need for water companies to improve. As a result, we see wastewater services now a top priority.

The importance of affordability increased significantly from 2021 through to 2023. We have seen concern for customers' ability to manage bills increase with the cost-of-living crisis. When looking at possible bill increase, its importance grows further.

The support for vulnerable customers has also increased. First with the pandemic where customers felt more connected to their local community and had greater appreciation for those that needed help. Secondly, the cost-of-living crisis has also placed a greater spotlight on providing support.

Leakage remains a high priority to customers. However, during a temporary use ban in Hampshire and media coverage of drought in 2022 we saw this increase. This was reflected in customer contacts, social media data, media sentiment and feedback through research.

How customer priorities differ by audience[57]

From our range of engagement and analysis we see significant levels of consistency on our customers' priorities. Similar to differences compared the national view, our coastline is a key driver. Communities along the coast live there because they want to enjoy the sea and beaches[58]. We also see some differences between some of our different audiences. See section 2.2 of the technical annex SRN14: Customer Insight for our audience infographics.

Household customers

Every customer is an individual with different attitudes, beliefs and experiences. They represent a range of demographics and current life circumstances and a variety of perspectives and priorities. Our household customer segmentation[59] with 7 segments, driven by common factors, helps us to understand these differences.

We have seen an increase of dissatisfied customers driven by our environmental performance and media transparency. In May 2021 we saw that circa 5–6% would rate us between 1–3 out of 10. This has increased to around 15% in August 2023.

One difference we see from households is that the views from our 'Disillusioned and Passionate' segment are now shared more broadly with customers who feel let down by performance – especially in relation to company ownership, shareholders and executive pay. Media attention heightens these attitudes. Those with more positive views are generally from customers who have direct interaction with the our teams and cite good service and problem solving as key positives[60].

Future customers

These customers are more focused on the long term, with the environment central to all their feedback. Future bill payers tend to see the industry more collectively rather than supplier relationships which can influence today's household customers.

We see a strong focus on all environmental issues to reserves existing environmental damage, focus on climate change and think about the consequence of environmental degradation. In water resource testing they shared that a condition of support for new infrastructure would be they are built in an a scalable and environmentally friendly way.

53 See section 4.22 of SRN14: Customer Insight technical annex
54 SRN14: Customer Insight technical annex, Section1: Index, 153 – Waterside wellbeing report – Oct '22
55 SRN14: Customer Insight technical annex, Section1: Index, 153 – Waterside wellbeing report – Oct '22
56 See section 4.22 of SRN14: Customer Insight technical annex
57 See section 4.22 of SRN14: Customer Insight technical annex
58 SRN14: Customer Insight technical annex, Section1: Index, 123 – Updated regional insight brochure final and 145 – Regional Focus April 2023 Key Findings Report – April '23
59 Section 2.3 of SRN14: Customer Insight technical annex
60 SRN14: Customer Insight technical annex, Section1: Index, 191 – Reputation Deep Dive – Summary Presentation Aug '23

We see this environmental focus in their priority scoring, with future customers placing much greater emphasis on carbon and net zero and less on overall bill affordability, but maintaining support for vulnerable customers.

In long term engagement they do not see a trade-off between the environment and the economy – 'why should one flourish at the other's expense'. They provide us with three major challenges to the industry and see that collective action is needed.

Future customers: three key demands of the industry

1. **We want change to be faster and more radical.**
   The industry has the correct targets but is moving too slowly. We need systemic change to tackle the climate crisis.
2. **We want consumption of water to be fairer to the planet.**
   They want a symbiotic, rather than exploitative relationship between industry and the environment.
3. **We want consumption of water to be fairer to each other.**
   They want to ensure that everyone has access to water and that everyone plays an equal part in conservation.

Figure 9: Demands of the industry

Non-household customers

Smaller businesses often share views similar to households. Their attitudes and beliefs are reflected in the differences we see from our household segments and the unique experiences everyone has.

However, larger businesses tend to be more appreciative of the challenges we face. While they agree with the overall priority offering, they tend to favour areas such as bill affordability and reliable supply of water to help with budgeting and business stability. As such, when acceptability testing our plan, we saw less demand to be more ambitious.

Developer, Self-laid providers and NAV customers agree with overall priorities but are more focused on their direct day-to-day needs. These customers have unique requirements from their supplier and their priority is for a good, easy experience so they can deliver the service to their customers. Our continuous improvement for developer services is a key part of our retail plan for these customers.

Vulnerable customers

Our most vulnerable customers have the same priorities as everyone else. The difference is that their circumstances can make things more difficult. Their individual situations are unique: some have multiple vulnerabilities that can intersect and compound their difficulties, meaning they need more support. Others may only need little additional support and some need none.

In testing of the plan, their circumstances can mean they need to focus on the shorter term. They support the need for longer term investment to drive improvement and do not want future generations to pick up the bill. However, keeping bills as low for as long as possible can help them manage in the shorter term. As such, they tend to be less demanding of greater ambition compared to some household customer segments. Following their feedback, we will increase the number of customers we can support through our social tariff.

Diverse cultures

Overall priorities from more diverse cultures are consistent with other households. However, there can be slightly more prominent trust issues in communities where there is a language barrier. When customers are unable to access information directly on issues due to the language barrier, they resort to word of mouth which can in itself lead to distortion of facts or unfounded fears.

The cultural context of some of these diverse communities has revealed some differences in attitudes to water as a resource and to wider environmental issues than is the case amongst the broader customer base. Much of this comes from first generation migrants who retain views from their country of birth. We need to engage more widely with these diverse communities. By understanding their challenges and engaging on our plans we can highlight help and support that is available for these customers. Following this feedback our next phase of our engagement strategy will see us working more closely with community leaders help better reach these audiences.

Stakeholders

Many of our stakeholders have lost trust in us. However, when engaged many are keen to play a role with their expertise to help deliver better outcomes for customers. They agree with the customer priorities and their knowledge means they are able to help highlight the conflicting interconnections for what we deliver. For example, the impact of reducing pollutions or leakage on carbon levels.

Local issues and areas impacted by the stakeholder's organisation can influence their priorities. Growth and infrastructure keeping up with demand can be a key issue, especially in places like North Sussex with challenges around water neutrality. In South Hampshire several loss of supply incidents in 2022/23 has placed greater focus on resilience. In Kent the protection of the coastline to communities is especially prominent, especially with several campaign groups.

We have strengthened how we work with stakeholders to help us collaborate on major issues, such as storm overflow reduction. We track our performance with

regular feedback, hold regional workshops that start with open discussion around challenges and through 2022 introduced regular newsletters to help build on relationships.

3.4. Feedback on our proposed plan

3.4.1. How customers have responded to our plan

Acceptability of our plan

"Customers are mostly lending Southern Water their support for the Proposed Plan, but many still have doubts about deliverability and transparency".

Support is driven by the plan focusing on what matters to customers

Our plan focuses on what our customers want. Through in-depth evaluation of our plan, 68% of our dual service customers supported the plan as acceptable[61]. This is because it focuses on the right things, is good for future generations and environmentally friendly.

Opposition is driven mainly by a lack of trust

For those who found the plan unacceptable it was mainly because they think investment should be funded from profits or there is a lack of trust.

Support for the plan:

- Addresses some of the big challenges from a wastewater, environmental and water supply perspective
- Is seeking to address performance decline
- Is trying to make changes now rather than leave them for future generations to deal with
- Is asking for a sizeable bill increase from customers, but one that for most will be affordable

Challenges to the plan:

- Is it deliverable for a company with our recent performance record?
- Does it set too much ambition in the lead-up to and insufficient ambition during AMP8?
- Does this plan offer sufficient financial support to those on average incomes who are struggling?
- Do we shoulder enough of the financial burden itself to mitigate the financial impact on customers?

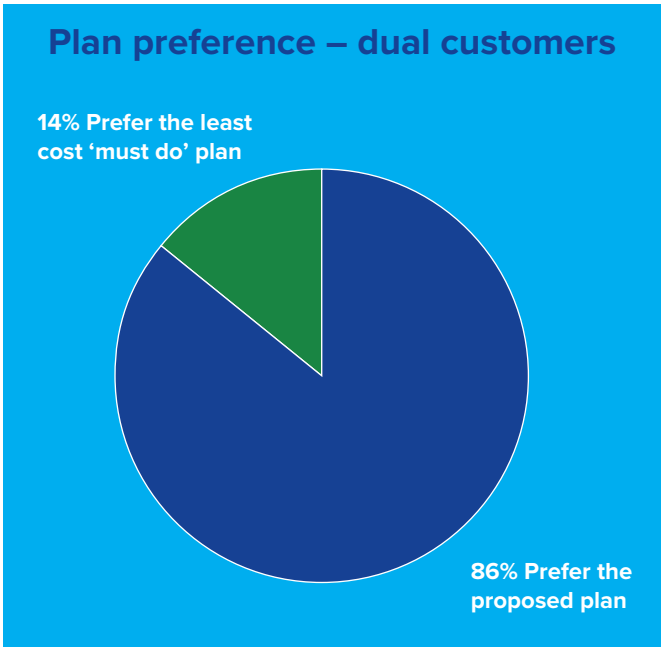
From the proposed plan we tested there were three main areas where customers wanted to see more ambition:

- **Storm overflows –** they supported the regulatory targets and a proposal to go further by tackling the top spilling overflows. However, they want us to be more ambitious
- **Pollution –** they supported the trajectory but wanted the improvement to continue with more ambition throughout 2025–2030
- **Leakage –** although surprised at our current performance compared to the industry, they want more ambition given the volumes of water lost in the context of asking customers to be more water efficient

Larger businesses and vulnerable and low-income customers were more likely to feel the plan had sufficient ambition. Businesses appreciate the challenges we face, whereas vulnerable and low-income customers are more cost conscious. Future customers, some households and micro businesses were most challenging on ambition. This was driven by those more environmentally focused and coastal communities.

Customers prefer our proposed plan

Customers prefer our proposed plan over our least cost plan. Additional investment into reducing spills from storm overflows is the main driver for preference of our proposed plan. Sewer infiltration feels as if it would worsen over time, so customers felt it important to address now. Customers debated whether investment into resilience (power and coastal) should be funded by customers or Southern Water. However, the relatively low impact on bills and important meant most customers found it acceptable.



61 SRN14: Customer Insight technical annex, Section1: Index, 207a – FINAL Acceptability and Affordability Presentation – June '23

In our quantitative testing we saw similar levels of customers finding the plan acceptable (49%) vs unacceptable (41%). For those that support the plan it is because it prioritises the right areas for improvement, starting to tackle issues now so they do not become more of a burden for future generations. For those opposed, recent performance data and legacy pollution issues heighten scepticism amongst customers about whether our plan can all be delivered. Customers do not oppose the content of the plan. In further analysis we see major differences in satisfaction levels.

Customer satisfaction is a main driver to feedback on our plan

The key driver for opposition to the plan is current dissatisfaction with us. With shadow testing of our plan (using an online panel), we ran another wave of affordability testing at the same time as the main project. We used the same stimulus materials as in the main test and used an average bill amount. However, we asked customers in the research to think about how their bill would differ depending on their water use.

From this research we saw that satisfied customers (scoring 8–10 out of 10) provided 79% for the proposed plan. However, those less satisfied (0–5 out of 10) only scored at 29% acceptable. In further analysis looking across other types of testing[62] shows this impact consistently across plans and proposals. Using industry analysis[63] (C-Mex) we see our reputation is currently significantly below the industry, which means dissatisfaction will naturally lower our plan scores.

While the level of support is concerning, our in-depth deliberative research and additional analysis has shown that the major issues are with trust in us to deliver, rather than to our proposed plan. This highlights the importance of our Turnaround Plan and focus on operational improvement to rebuild trust with our customers.

Affordability of our plan

In our deliberative research, 24% of dual customers said they would find the plan difficult to afford and there is an underlying belief that bills will rise in the future – 80% of customers assume water bills will rise in the future[64]. Customers finding the bill unaffordable is about the squeeze being felt by all customers now and the impact this increase will have.

There is some principled resistance on fairness – driven by lack of trust in the sector and with ‘big business’. Customers supported proposals to widen the reach of support for vulnerable customers. Those already on discounted tariffs describe positive experiences, but some are unsure how they would access the support.

Customers are concerned about increases to bills

However, through our affordability testing 51% said they would find our future bills difficult to afford. This is a real concern, so we spent time analysing the feedback from our customers. The current cost-of-living crisis has hit customers hard. The majority have struggled to pay at least one bill in the last year, and few believe that things will improve soon. While a lack of acceptance of our plan relates to scepticism around water company profits and a lack of trust in general. Customers do not reject the plan based on its content, focus, or its affordability.

Customers want to invest now for future generations

Despite this significant worry about finances, more customers support more immediate bill increases, rather than putting off investment in these important issues. Customers want the investment funded via increases starting sooner and spreading across different generations of bill payers. In response to this feedback, we have developed alternative delivery routes, included phasing of investment, are trialling new tariffs and will increase the support we offer. This is so we can help keep bills as affordable as possible while delivering the investments our customers want.

Across our plan testing we identified seven themes foundational to an acceptable plan for our customers:

1. **Performance –** we need to get the basics right and improve our performance in key areas for customers
2. **Environment –** protecting and improving our environment is the most important area – from saving more water from leaks to reducing pollutions and our use of storm overflows
3. **Ambition –** we should be ambitious but this has to be credible and measurable – we need to show tangible progress
4. **Affordability –** increased bills mean we need to enhance the protection we provide for those worst affected by price rises
5. **Innovation –** doing things differently should be by default – customers expect us to embrace innovation and new technology
6. **Customer-led –** our plan has to be customer-led – their views have to have weight and meaning
7. **Trust –** we have to be transparent on our performance, how we are financed and how much we return to shareholders – being credible is one of the most important ways to rebuild trust

We have measured our plan against these themes. Our customers are lending us our support and want us to succeed. We need to deliver for them.

62 See section 4.4 of the SRN14: Customer Insight technical annex

63 SRN14: Customer Insight technical annex, Section1: Index, 191 – Reputation Deep Dive – Summary Presentation – Aug ‘23

64 SRN14: Customer Insight technical annex, Section1: Index, 201a – Water Futures Quant Wave 1 – June ‘22

The table below shows how we responded to customers' feedback in key areas.

Table 4: How we applied customers' feedback to our plan

We heard ...	... So we	We then heard ...	... So we then
Performance – We need to get the basics right and improve our performance in key areas for customers.	Developed a plan that places emphasis and ambition on top priority areas – reducing the use of overflows, pollution, future water supplies and ensuring greater resilience to current water services. We are focused on the core service by not developing lots of bespoke performance commitments.	We agree with your areas of focus, but we want to see more ambition on pollution and leakage.	Re-worked our plans to target upper quartile performance for our pollution.
Ambition – We should be ambitious but this has to be credible and measurable – we need to show tangible progress. Storm overflows is a top priority to improve.	Made sure our customers led where we put ambition. Overflows and extra resilience. We developed a plan that prioritises storm overflows on environmentally sensitive areas. We went further by recommending we target the high spilling areas. Leakage plans are addressing the root cause with our largest ever mains renewal programme.	Customers challenged our proposed plans and want us to be more ambitious.	Targeted overflows that impact the use of bathing waters. We also created an interactive map so all customers can see the overflows that matter to them.
Affordability – Increased bills mean we need to provide protection for those worst affected by price rises. You should fund more from profits, support more vulnerable customers and introduce new reward tariffs.	Created an efficient plan that focuses where customers would like. We balanced phased options based on customer support – carbon and marginal nutrient benefits. We tested new reward tariffs. From 2024 we are trialling new household tariffs to introduce in 2025–2030 that will help customers with essential use and reward more efficient usage. We're also introducing a change to surface water drainage charges for fairer bills.	Customers were still concerned on those that needed most help and middle income earners who would feel the 'squeeze' on any bill increase.	We developed alternative delivery routes to help smooth the impact to customer bills. We are proposing to increase support with our 45% social tariff discount to over 200,000 customers and ensuring we keep our other support measures.
Environment – Protecting and improving our environment is the most important area. Put the environment first and use natural solutions first.	Ensured our plan has put the environment first. We prioritised the environment in our choices of overflows and natural capital solutions, nutrient removal schemes, abstraction priorities and are using demand management as far is possible.	Customers want the use of natural solutions for overflows that address the root cause and questioned some storage construction.	Continued to prioritise the right blend of solutions with an approach that focuses on testing and learning.
Innovation – Doing things differently should be by default – customers expect us to embrace innovation and new technology.	Have innovation across our plan. For overflows, we're using trials done now to inform how we deliver efficient and impactful improvements in 2025–2030. We are introducing smart meters to detect leaks. We're digitalising our water and wastewater networks to monitor and proactively tackle problems before they arise.	Collaborate to tackle wider issues such as nutrients and water quality. Famers supported the plans for advanced digestion.	Continue to work with farmers and landowners to improve raw water quality. We plan to introduce advanced treatment approaches across Kent using their insight to better engage.
Customer-led – Our plan has to be customer-led – their views have to have weight and meaning.	Enabled our customers to drive our plan decisions – including the profile of the bill, where we place our ambition, how we tackle leaks, the use of innovation, the phasing of delivery, our smart metering and advanced digestion strategies, the new water sources we are developing we deliver our water resilience strategy.	To focus on resilience and sewer infiltration options to prevent them getting worse but did question who should fund.	Introduced the resilience and inflation options into our plan. We re-looked at costs to reduce the investment needed for our water resilience strategy.
Trust – We have to be transparent on our performance, how we are financed and how much we return to shareholders – being credible is one of the most important ways to rebuild trust.	Have a new management team in place with a Turnaround Plan focusing on the areas that really matter. We have strengthened our communications team and are proposing a new CRM system to help improve service. Our customer insight is central to what we do, high quality and continuous.	Whilst customers lent support for the plan, there are many that still lacked trust in our ability to deliver.	We developed a Trust and Reputation strategy to help ensure we best communicate performance and progress on the issues that matter.

For more information on how customer feedback has changed our plan, see the introduction section of the technical annex SRN14: Customer Insight.

3.5. Future engagement plans

Engaging with and listening to our customers and communities is part of our everyday activity. It is a central part of our Turnaround Plan and crucial to deliver our Business Plan and regain our customers' trust.

For example, we are already running research through a twin phased approach to provide a communication framework for price increases linked to investment. The findings from this project will help us be more transparent with showing what our investment delivers.

We are committed to continuing high-quality engagement with our customers. We will:

- Continue working with our panel customers who have been central to our plan to create an even greater two-way dialogue and applying lessons learnt
- Keep our customers at the centre of our Turnaround and Business Plan – embedding the customer voice into all our plans
- Track major events that might influence our customers' expectations so we can adapt to these changes in future
- Continue improving how we engage with our diverse communities to ensure our insight reflects their needs
- Build on our collaborative insight with other water companies – sharing best practice and deepening our collective understanding of customers' needs

3.6. The role of challenge and assurance

1	**Customer and Communities Challenge Group**	To provide help on areas of expertise and challenge on customer feedback on our proposed Business Plan
2	**Independent Climate and Environment Group**	To provide specialist and technical challenge and advice on environmental performance and strategies
3	**Customers**	The use of informed customer panels to provide more open and more inclusive challenge
4	**External quality assurance and advice**	Technical support on quality of insight so stakeholders and customers can focus on what matters to them

Figure 10: Our ICG arrangements

Ofwat and CCW recommended flexibility for companies to have 'Independent Challenge Group' (ICG) arrangements. We designed our Independent Challenge Group to have the greatest impact for customers. The core elements enable each area to play to its own strengths and expertise to drive action. Our ICG is made up of four key areas of challenge:

1. **Customer and communities Challenge Group –** a group made up of customer experts representing different audiences from across our region. The group has engaged and helped us on both planning and day to day activity on the areas most important to customers. This includes tangible improvements to communications (such as during the temporary use ban in 2022), revisiting our storm overflows targets and using their networks to help improve the support we offer vulnerable customers. The group played a key role in ensuring our materials for testing of the plan were fit for purpose.

They endorse the feedback we have heard from customers as accurate. We will continue to be challenged by the group as we move into delivery of the 2025–2030 plan.

Summary of the Challenge Group statement from members:

"Overall, the Group considers the process adopted by Southern Water for the independent assurance of its research and engagement was effective. The company has been open in sharing research findings and reports of its independent assurers, which included a presentation from the company carrying out the A&A research.

We are satisfied that the company's priorities reflect those identified through its engagement with customers and communities. We agree the most important areas for Southern Water are improving environmental performance, engaging customers, and supporting those that need it to help keep bills affordable. To

rebuild trust it is vital that the company meets its commitment to being open, honest, and transparent.

While the PR24 Business Plan is not yet finalised, the Group is happy that the draft plan reflects customers' priorities and that the company has effectively listened to customers in its development."

2. **Our household, future and business panel have had bespoke committees –** made up of a small number of customers from the panel. Following the completion of a key stage of research these groups review the research reports to help calibrate and ensure they represent customers' views. As more informed customers, they are then able to raise areas of further challenge.

> *"I have found being involved and part of Southern Water's Water Futures 2030 committee very interesting and informative. I feel that we are being provided with information and details of how the company has a robust plan in place to make crucial decisions for the future. With each committee meeting I feel that myself, and the group have an opportunity to put their views forward and are able to debate openly areas of interest, and issues of concern. Personally I have enjoyed the sessions and feel that the input provided by those taking part are being listened to and acknowledged."*
>
> **Household Customer Committee Member**

> *"As a member of the public and representative of Pakistani Diaspora living in Hampshire it was very important to gather our views and concerns on the proposed plans. Our views were taken on board and we feel that they were listened to and acted upon. It was a great opportunity to share our views and we feel empowered to speak up on issues which will involve and affect the local communities and to challenge Southern Water to listen to our feedback. These sort of engagement sessions are very important and they should continue to keep general public in the loop and to build their trust in Southern Water."*
>
> **Community Representative Member**

3. **External quality assurance and advice has shown our engagement is of high quality**[65] **–** Sia Partners has provided external assurance to our engagement.

   Their assurance outcome statement states: *"Following our review of Southern Water's PR24 customer engagement programme approach and evidence, it is Sia Partners' view that the programme meets Ofwat's standards for high quality research and that there is demonstrable evidence that the business has used customer research to inform its PR24 Business Plan and Long-term Delivery Strategy."*

65 See the SRN14: Customer Insight technical annex, Section 5.4 for the full assurance statement

We reviewed our 4 elements of assurance to ensure they deliver against the guidance from an Ofwat position paper[66].

Table 5: How we met Ofwat's expectations

Ofwat expectations	
Independence	All stakeholders recruited are independent of Southern Water. Our accredited research partners facilitate the discussions with customers to maintain independence. External assurance is run by independent experts.
Board accountability	The board attends every Customer and Communities Challenge Group meeting, with 5 different members joining key meetings. Our Environment and Customer groups have also shared feedback directly to the board. Summary from our groups has also been presented to our board.
Ongoing	All groups and assurance are ongoing as detailed in the summary of approaches in the sections below.
Informed	A deliberative process was used to provide regulatory and wider industry information to members across all groups. This is to ensure an unbiased understanding of the key pieces of information needed in their respective tasks.
Transparent	All notes from meetings are recorded and shared with members. Main findings from customer panels are reviewed by customers involved.
Representative	Our stakeholder groups have a range of members with different expertise to represent our key customer groups. Demographics and regional differences are used in our customer panels.
Comprehensive	The range of topics covered are for all the areas that matter most to our customers. The groups themselves have driven the content to ensure we cover the correct topics of interest.
Timely	Each of the groups started early in the PR24 process with regular meetings / reviews to ensure sufficient time to cover areas of challenge.

For more information on each of the four challenge and assurance approaches, please see section 5 of SRN14: Customer Insight technical annex

For more detail on our board assurance see chapter SRN11: Data and Assurance technical annex.

66 PR24 and beyond: Customer engagement policy – a position paper – Ofwat

Chapter SRN04

Costs and Outcomes Approach

4. Costs and Outcomes Approach

4.1. Executive summary

Our plan for 2025 to 2030 is our largest ever investment programme. It is driven by our customers' priorities and will improve our resilience, enhance our environment and secure sustainable water supplies for the future. The total cost of our wholesale plan is £7.5 billion[1]. We will deliver £6.3 billion in-house and £1.3 billion will be delivered through alternative delivery routes, including Direct Procurement for Customers (DPC).

We have set ambitious performance commitment (PC) targets – aiming to achieve an average of about 47% improvement by 2030 from our current performance. Our largest improvements will be in our customers' highest priorities – reducing water supply interruptions (95% improvement), pollution incidents and our use of storm overflows (83% improvement), improving water quality compliance (69%), internal sewer flooding (50%) and leakage (35%).

Our customers want us to be ambitious and to do more to protect the environment – but not at the expense of our core services. They expect ambitious but deliverable targets. Our approach to setting these performance targets considers a variety of factors.

It starts with our customers' priorities which we align with our long-term strategy and government targets. We also consider our forecast baseline performance position in 2024/25, our expected performance improvements from base and from enhancement expenditure and past, present and future industry and upper quartile performance.

We have accepted most of Ofwat's indicative Outcomes Delivery Incentives (ODI) rates, based on equity return at risk. The exceptions are in four areas – water supply interruptions, per capita consumption (PCC), business demand, and total pollution incidents.

In these cases, we are proposing alternative ODI rates based on our own analysis of equity return at risk (see SRN574: Risk technical annex), as Ofwat's incentive rates significantly skew the overall range of potential payment. Our proposed ODI rates are:

- **Supply interruptions proposed ODI:** £126,000 per minute of supply interruptions
- **PCC proposed ODI rate:** £179,000 per litre, per household, per day
- **Business demand proposed ODI rate:** £69,000 million litres per day
- **Total pollution incidents ODI rate:** £398,000 per pollution incident per 10,000km sewers

In line with Ofwat's PR24 methodology, we are proposing targeted caps and collars on:

- Business consumption, serious pollution incidents, bathing water quality, river water quality and storm overflows, because these are new PCs
- Abstraction Incentive Mechanism (AIM), because this is a bespoke PC
- Mains repairs, unplanned outage and sewer collapses, because these are asset health metrics
- Water supply interruptions and external sewer flooding, to reflect our analysis of the potential they may have to skew the outcomes package

Our approach to setting efficient cost allowances is influenced by our approach to delivery. We are setting a realistic target of achieving an industry-average level of cost efficiency between 2025 and 2030. This is because our water costs are more efficient than average, but our costs in wastewater are less efficient.

We have assessed our planned base expenditure against modelled allowances, where they are comparable, based on Ofwat's econometric specifications to give us an expected cost envelope. We have added in our estimated allowances for cost adjustments claims, non-controllable costs (mainly energy), and unregulated costs, to assess whether our plan is below or above the funding we expect to receive. At wholesale level, our proposed base costs are about £300 million below our estimated regulatory allowance, assuming all our CACs are accepted in full and there are no adverse symmetrical CAC adjustments based on claims made by other companies.

We have assessed our enhancement expenditure through a combination of robust optioneering, cost estimation techniques and benchmarking. We use optioneering to find the best solution from a range of possible choices. We weigh up the relative costs and benefits, considering the interests of various stakeholders and needs including economic, environmental, customers and resilience. We produce a long list of options, which we constrain to form a short list from which we identify a preferred solution.

1 Values are post RPEs and frontier shift, net of grants and contributions and include third party services and in 2022/23 prices.

We have established our cost stack using a robust build-up of direct costs, indirect costs, risk and corporate overheads. This approach enables us to test each component of the cost stack, undertake benchmarking and challenge ourselves to be efficient. Our costs are built up using our cost curves, historical performance and supplier quotations. These methods have given us confidence in the costs that we expect to incur in AMP8.

Our customers expect us to protect the most vulnerable from the biggest impacts of increased bills and make sure we are as efficient as possible. We have challenged the efficiency of our costs beyond the levels indicated by our benchmarks – and applied a further efficiency challenge in the round to our wholesale totex plan of 1% per year.

We have also employed alternative funding techniques where possible to spread costs over time – allowing us to keep our plan more affordable for our customers. It also increases confidence our plan is deliverable.

This chapter sets out the approach we have followed to set out our ambitious performance commitment targets and our efficient expenditure requirements for AMP8, covering our wholesale water and wastewater services. Performance and cost requirements to cover our retail services are covered in chapter SRN07: Customer – Household and Non-Household (costs and outcomes).

4.2. Our approach to outcomes

This section sets out our approach to setting ambitious performance targets for AMP8 in the context of our long-term strategy.

In line with Ofwat's Final Methodology[2], our proposed set of PCs for PR24 comprises the 20 common performance commitments (PCs) for water and wastewater with one bespoke PC – Abstraction Incentive Mechanism (AIM). The performance commitments we are proposing are listed in the next section. They follow the definitions for the common PCs in line with Ofwat's methodology.

Our proposed AIM PC is a continuation of our PR19 AIM with adjustments to address feedback received from Ofwat in response to our early submission in April 2023. The revised AIM definition and the rationale for proposing it again in PR24, including evidence of support from our customers.

The PCs for our retail services (C-MeX and BR-MeX) and developer services (D-MeX) are covered in chapter SRN07: Customer – Household and Non-Household (costs and outcomes).

More detail about all aspects of our approach to outcomes covered in this chapter can be found in SRN18: Performance Commitment Methodologies technical annex.

2 https://www.ofwat.gov.uk/publication/creating-tomorrow-together-our-final-methodology-for-pr24/

4.2.1. Our performance forecast

The table below summarises our performance targets for 2029/30 and how much we will improve compared to our current performance.

We are aiming to achieve, on average, about 47% performance improvement across all of our common PCs from our current performance levels in 2022/23.

Table 1: Summary of our performance targets for 2029/30 and improvement from current position

Performance commitment	Metric	2022/23 performance	2029/30 target	% improvement by 2030
Water				
Water supply interruptions	hh:mm:ss	01:28:10	00:04:30	94.9%
Compliance risk index (CRI)	score	6.4	2	68.6%
Customer contacts about water quality	per 1,000 contacts	1.17	0.8	31.6%
Operational GHG emissions water	Tonnes CO2e	58,327	72,120	(23.6%)[3]
Leakage	3 year average Ml/d	99.7	68.4	31.4%
Per capita consumption	3 year average l/h/d	133.7	122.4	8.4%
Business demand	3 year average Ml/d	100.8	106.1	(5.3)%
Mains repairs	repairs per 1,000km	152.8	152.9	(0.1%)
Unplanned outage	% of peak capacity	6.44%	3.13%	3.3%
Wastewater				
Internal sewer flooding	Incidents per 10k connections	2.25	1.12	50.2%
External sewer flooding	Incidents per 10k connections	18.46	14.02	24.1%
Operational GHG emissions waste	Tonnes CO2e	156,885	159,727	(1.8)%
Total pollution incidents	Incidents per 10k sewer lengths	89.6	15.5	82.7%
Bathing water	%	86.3%	88.3%	2.3%
River water quality	% of p-removal from 2019/20	0	58.5%	58.5%
Storm overflows	Average spills	25.7	18.5	28.3%
Sewer collapses	Collapses per 1k sewer lengths	6.2	5.7	8.3%
Combined water and wastewater				
Serious pollution incidents	Incidents	5	0	100.0%
Discharge permit compliance	%	98.2%	99.1%	(0.9%)
Biodiversity	Biodiversity units	n/a	0	n/a
Bespoke				
AIM	Ml/d abstraction reduction	-14	-15	7.1%

3 Numbers in brackets mean a deterioration in performance

4.2.2. Factors we considered in setting our performance targets

The figure below shows the different factors we considered to set our performance targets.

Figure 1: Factors considered in setting out our performance targets

This shows a clear link between the performance we are committing to deliver and the efficient cost allowances we are requesting. As we build from our 2024–25 baseline and take account of our PR19 performance commitment levels (PCLs), our approach avoids the risk customers pay twice.

In the remainder of this section, we discuss each of the above factors with further details available in SRN18: Performance Commitment Methodologies technical annex.

4.2.2.1. Customer views

More than 25,000 customers spent over 8,000 hours telling us what they think to help us develop our plan. We used this deep, robust insight to inform our investment programmes and performance commitments. The figure below shows our customers' priorities. See chapter SRN03: Customer Acceptability and SRN14: Customer technical annex insight for our full methodology.

Our Customer Priorities

Southern Water Customers

All areas are of importance to customers. However, when triangulated this shows relative importance of the top 19 customer defined priorities when traded-off.

Indexed Score	Description	Rank
100.0	**Current Water Supply-** Continuous supply of clean wholesome water	1
89.8	**Pollution -** Prevent waste water entering the environment	2
87.7	**Internal Flooding**	3
85.8	**Water Quality & Restrictions**	4
81.0	**External Flooding**	5
79.1	**Future Water Supplies**	6
75.9	**Leakage**	7
75.4	**Wastewater Infrastructure**	8
74.4	**Bathing Waters & Rivers**	9
72.8	**Protect Infrastructure from Growth**	10
72.8	**Nature Based Solutions**	11
66.4	**Support Vulnerable Customers**	12
65.9	**Bill Affordability**	13
57.9	**Carbon Emissions**	14
55.3	**Water Efficiency**	15
52.4	**Customer Service**	16
44.7	**Regulatory Compliance**	17
42.8	**Working with Developers**	18
21.5	**Community Engagement**	19

Priority Level 1: Seen as the basic fundamental service from a water company. Pollution, and in particular the association with storm overflows, as a priority has increased since 2021. There can be a distinction between 'priority' and 'improvement'. Water supply is critical to maintain and Improve resilience, pollution and leakage are top areas to improve.

Priority Level 2: Southern Water customers are particularly connected to the sea and communities are concerned with all infrastructure keeping up with housing growth. Supporting vulnerable customers has become increasingly relevant following the pandemic and cost of living crisis. Many customers are feeing the financial squeeze so want to ensure bills are affordable while investing to ensure we don't pass things down to future generations.

Priority Level 3: Carbon emissions are felt to be more of a wider government and business responsibility. Water efficiency needs to follow leadership from Southern Water. Customers service needs to be good and consistent, but excel when things do go wrong. Compliance is something felt to be managed by regulators. Working with developers is key, especially for some non-household groups. Engaging the community is needed to help build stronger relationships and most want us to share more widely the good work that is done.

Figure 2: Our list of customer priorities

4.2.2.2. Baseline performance for 2024/25

To set our performance forecasts for 2029/30, we first considered our starting position in 2022/23 and our forecast performance for 2024/25. Where relevant, we also considered the performance commitment level for 2024/25 as set out in our PR19 final determination.

As the table below shows, we have made significant progress since 2020, most noticeably reducing unplanned outage, external sewer flooding and pollution incidents – all of which are high priorities for our customers. SRN59: Past performance (PR19 reconciliation mechanisms) technical annex sets out in more detail how we have performed against our PR19 PCLs.

In April 2023 we published our Turnaround Plan to rapidly improve performance between 2023 and 2025. However, there is a risk we may not achieve the levels of performance we set for 2025 as events outside our control can have large impact on the improvements we can deliver. We are, therefore, forecasting an achievable level of performance for 2024/25 that puts us on a sustainable trajectory from our position in 2022/23 to a stretching performance ambition in 2029/30.

Table 2: Our performance in AMP7

Performance commitment	Metric	2020/21	2021/22	2022/23	2023/24 (F)	2024/25 (F)
Water						
Water supply interruptions	hh:mm:ss	00:12:43	00:09:22	01:28:10	00:45:40	00:07:23
Compliance risk index (CRI)	score	4.61	6.69	6.38	5.39	3.23
Customer contacts about water quality	per 1,000 contacts	1.15	1.04	1.17	0.99	0.88
Operational GHG emissions water	Tonnes CO2e	52,347	54,274	58,327	69,116	69,523
Leakage	3 year average Ml/d	98.5	97.9	105.2	105.3	97.3
Per capita consumption	3 year average l/h/d	132.2	133.6	133.7	130.6	128.5
Business demand	3 year average Ml/d	109.4	102.3	100.7	104.1	107.3
Mains repairs	repairs per 1,000km	150.0	101.6	152.8	149.8	150.0
Unplanned outage	% of peak capacity	9.2%	7.2%	6.4%	4.4%	3.1%
Wastewater						
Internal sewer flooding	Incidents per 10k connections	2.0	3.0	2.3	1.8	1.3
External sewer flooding	Incidents per 10k connections	21.9	19.5	18.5	18.1	17.0
Operational GHG emissions waste	Tonnes CO2e	152,111	152,686	156,885	153,154	152,867
Total pollution incidents	Incidents per 10k sewer lengths	101.9	93.2	89.6	57.4	48.1
Bathing water	%	89.4%	86.3%	86.3%	86.3%	87.1%
River water quality	% of p-removal from 2019/20	n/a	n/a	n/a	n/a	35%
Storm overflows	Average spills	29.7	28.4	25.7	25.7	21.0
Sewer collapses	Collapses per 1k sewer lengths	7.9	7.9	6.2	6.2	6.2
Combined water and wastewater						
Serious pollution incidents	Incidents	4	12	5	4	2
Discharge permit compliance	%	97.1%	98.0%	98.2%	99.1%	99.1%
Biodiversity	Biodiversity units	n/a	n/a	n/a	n/a	n/a
Bespoke						
AIM	Ml/d abstraction reduction	-0.4	-1.9	3.9	-15.0	-15

4.2.2.3. What base buys

To understand how we will improve our performance for most PCs between 2025 and 2030 we have estimated the level of performance our customers can expect from base expenditure (Botex) using a bottom-up approach. This includes:

- Performance that can be achieved by maintaining the long-term capabilities of our assets
- Expected performance improvements from catch-up and frontier-shift efficiencies
- Expectations of performance levels expected from base expenditure set by Ofwat in the PR24 methodology
- Considering the adverse effect on performance from naturally occurring asset deterioration

We have built a bottom-up Botex 'risk bow-tie framework' linking asset risks, activities (or interventions) in the base cost plan and performance benefits. The figure below shows a generic 'risk bow tie' framework and explains its key components. We have developed individual 'risk bow ties' for each performance commitment.

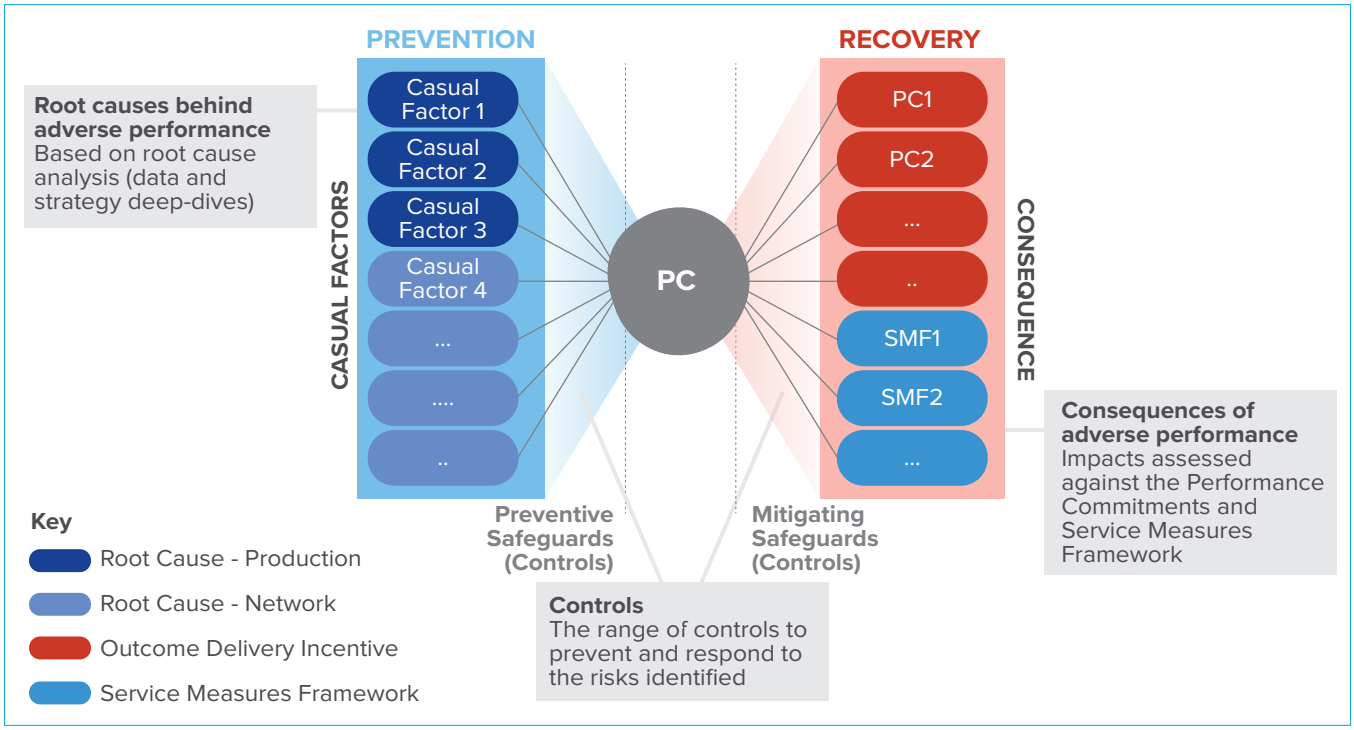


Figure 3: Our risk bow tie framework to estimate benefits from base expenditure

We have identified potential day-to-day risk-reduction interventions, based on existing investment plans, that either maintain or improve network condition. We have used the risk bow tie frameworks to link asset performance risks and benefits that would result from these interventions.

The risk bow tie framework helps us capture the effects of two types of interventions aimed at preventing network deterioration: prevention interventions, such as proactive mains replacement, and recovery interventions, such as reactive maintenance to restore service.

We have taken two approaches to determining our level of performance improvement from base expenditure.

Firstly, where feasible, we run our asset deterioration model without interventions. This gives us an understanding of the correct level of deterioration of our assets and our performance if we did not maintain our assets. We then run our asset deterioration model with the base-funded interventions and use the difference in performance between them to determine the level of base improvement. We then refine the results through workshops with experts.

In cases where our asset deterioration model did not capture the relevant variables, we used a top-down estimation based on expert judgement and informed by past performance. We have iterated and calibrated the benefit calculations through expert workshops.

In the PR24 methodology, Ofwat set its expectations of performance levels expected from base for three performance commitments: serious pollution incidents, discharge permit compliance and compliance risk index. We consider our business-as-usual base expenditure will be sufficient to reach the expected performance for serious pollution incidents.

However, given the gap between our starting position and Ofwat's performance expectations, we will need enhancement expenditure to meet the expectations for discharge permit compliance and compliance risk index. The table below summarises our proposals for benefits delivered from base against Ofwat's expectations for these three PCs.

Table 3: Performance commitments for which Ofwat set an expectation of performance level to be delivered through base expenditure versus our proposal

Performance commitment	Ofwat expectation of performance level from base expenditure	Our position on performance deliverable from base expenditure
Serious pollution incidents	Zero incidents by 2025/26 with zero level maintained throughout the 2025–30 period	In line with Ofwat PR24 methodology, we are proposing to reach zero serious pollution incidents by 2025/26 and keep this performance throughout the 2025–30 and will do so through base expenditure.
Discharge permit compliance	100% compliance	We forecast a performance level flat at the starting 2022/23 position of 99.1%, which is within the deadband to 99% that Ofwat set at PR19. We consider that given our current performance position and estimated deterioration rate, keeping the level of performance flat will require enhancement expenditure to enhance the level and quality of the service provided. These include some WINEP interventions, which are inherently enhancement expenditure.
Compliance risk index	0.00	We forecast reaching a performance level of 2.00 by 2029/30, which is within the deadband to 2.00 that Ofwat set at PR19. This will require a significant improvement from our starting performance position of 6.38 in 2022/23 and a forecast position of 3.23 in 2024/25. We consider that the performance gap is too big for us, a turnaround company, to close only through base expenditure. We are, therefore, proposing to contribute to close this gap also with enhancement expenditure.

4.2.2.4. Impact of enhancement expenditure

We also consider the additional performance improvements we can deliver from enhancement expenditure by:

- Running expert workshops to identify the interventions in our PR24 enhancement programme that impact our PCs
- Developing methodologies specific to each PC to quantify benefits from the enhancement expenditure

Our methodologies for quantifying enhancement benefits across the various PCs fall into three broad categories.

For most of the existing PCs which we have historic performance information for, we ran our asset deterioration model in a 'do nothing / pre-investment scenario' and then in a 'post-investment' scenario. The difference in performance is the improvement from enhancement. We moderated and calibrated the results through expert workshops.

In cases where our asset deterioration model did not capture the relevant performance variables, such as internal and external sewer flooding, we used top-down estimations using unit rates of improvement based on expert judgement and informed by past performance. We validated the results through expert workshops.

For new PCs where past performance was not available, such as storm overflows, river water quality, biodiversity and operational carbon, we developed specific bottom-up benefit quantification methodologies aligned with the PC definition.

4.2.2.5. Delivering our long-term ambition and government targets

Our proposed performance targets for 2029/30 keep us on track to achieve our long-term ambition (see chapter SRN02: Long-term Delivery Strategy and SRN12: Long-term Delivery Strategy technical annex for details). This is based on our customers' priorities, our statutory obligations and government's long-term targets.

The table below shows our performance ambition trajectory between 2029/30 and 2049/50.

Table 4: Our performance trajectory to meet our 2049/50 ambition

Performance commitment	Metric	2029/30	2034/35	2039/40	2044/45	2049/50
Water						
Water supply interruptions	hh:mm:ss	00:04:30	00:03:12	00:02:48	00:02:24	00:02:00
Compliance risk index (CRI) deadband	score	2.00	1.33	1.22	1.11	1.00
Customer contacts about water quality	per 1,000 contacts	0.80	0.65	0.57	0.49	0.40
Leakage	3 year average Ml/d	68.4	63.9	58.7	53.7	48.4
Per capita consumption	3 year average l/h/d	122.4	114.5	115.5	109.5	105.6
Business demand	3 year average Ml/d	106.1	103.6	100.3	101.0	102.4
Mains repairs	repairs per 1,000km	152.9	152.9	134.6	116.3	98.1
Unplanned outage	% of peak capacity	3.13	3.07	2.71	2.36	2.00
Wastewater						
Internal sewer flooding	Incidents	240	235	214	193	172
External sewer flooding	Incidents	3011	2791	2194	1597	1000
Total pollution incidents	Incidents	63	50	0	0	0
Bathing water	%	88.3%	89.5%	100%	100%	100.0%
River water quality	% of p-removal from 2019/20	58.5%	66.5%	80%	80%	80%
Storm overflows	Average spills	18.5	13.9	9.8	7.0	5.9
Sewer collapses	Collapses	230	230	230	230	230
Combined water and wastewater						
Operational GHG emissions (water and wastewater)	kt CO2e	232	227	183	139	95
Serious pollution incidents	Incidents	0	0	0	0	0
Discharge permit compliance deadband	%	99.1%	99.1%	99.4%	99.7%	100%
Biodiversity	Biodiversity units	0	163	326	489	652
Bespoke						
AIM	Ml/d abstraction reduction	-15	-15	-15	-15	-15

4.2.2.6. Industry performance

For 11 PCs where historic industry performance data was available, we forecasted the industry upper quartile performance by considering historic trends and expected improvements from each companies' business plan – assuming a logarithmic time trend forecast to 2029/30.

We considered the industry upper quartile information as a reference to set our level of ambition to either keep our performance above industry upper quartile, such as per capita consumption, or to reduce our performance gap with the industry upper quartile.

4.2.2.7. Setting the performance profile towards the 2029/30 destinations

We are proposing our performance targets while continuing our transformation and turnaround. We are delivering our ambitious Turnaround Plan which will significantly improve performance by 2025 so our AMP8 starting position reflects our commitments at PR19.

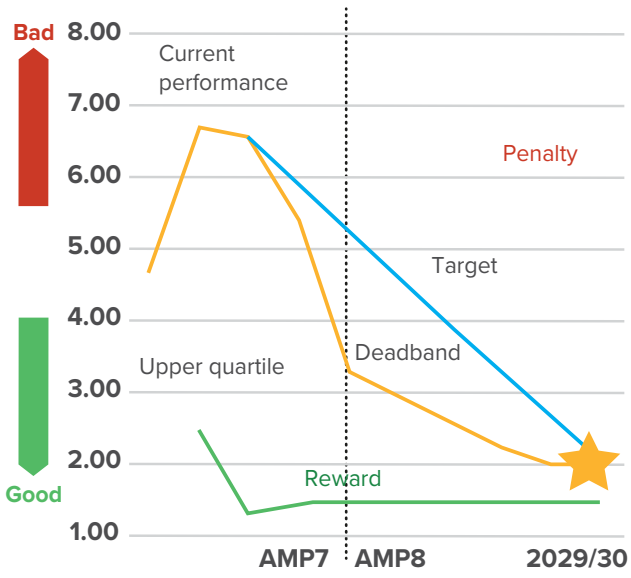
Our transformational effort creates material risk in forecasting future performance, as events outside our control can have large impact on the improvements we can deliver. This is why we have used a dual approach in setting the profile of the proposed performance targets.

Generally, we propose to adopt the performance improvement required to achieve our 2029/30 performance level, having considered all the factors discussed above. For seven of our PCs where there is a step change improvement in the final years of AMP7 we are proposing a slight variation in approach:

- A straight-line profile for the performance target by 2029/30, starting from the expected 2024–25 baseline achieved via a successful Turnaround Plan
- Stretch AMP8 targets, based on straight-line improvements from our current levels of performance in 2022/23 to reach the same destination in 2029/30

Effectively, this approach creates a "deadband" where the ODI penalty is reduced in case our actual performance in AMP8 falls between the two profiles – the Turnaround Plan trajectory and our proposed straight-line trajectory. This is to ensure performance improvements by 2030 are not penalised because we did not achieve the forecasted improvements by 2025.

Our approach is aligned with Ofwat's policy rationale for the ODI framework to reward genuine performance improvements. The figure below illustrates how this approach operates in practice.



- The yellow line is our Turnaround Plan trajectory with ongoing performance improvements to reach our stretch destination in 2029/30
- The blue line is our proposed straight line trajectory from our current performance in 2022/23 to reach the same stretching destination in 2029/30
- Where our performance is worse than the blue line (our proposed trajectory) we will be penalised
- Where our performance is better than the yellow line (Turnaround Plan trajectory) we will be rewarded
- Where performance is between the blue and yellow, we will have a deadband

Figure 4: Our approach to reach the 2029/30 target and interplay with our Turnaround Plan

4.2.3. Output Delivery Incentives

4.2.3.1. Setting indicative ODI rates

In the early stages of PR24, Ofwat set out its intention to use the collaborative customer research to set indicative Outcome Delivery Incentive (ODI) rates across all companies for PR24. As a result, our customer engagement programme was not required to investigate the impact of service incidents on customers, or the compensation they would require.

However, unforeseen challenges in mapping customer evaluations to PC definitions, combined with marginal benefit estimations materially outside the expected ranges, led Ofwat to reconsider and change its original approach.

Ofwat's new approach is to set all indicative ODI rates using a 'top-down' approach based on equity return at risk. In August 2023, Ofwat set out the indicative ODI rates for each company[4].

4 See Appendix 3 of PR24: using collaborative customer research to set outcome delivery incentive rates

As a result of this significant methodological change at such a late stage, we have been unable to carry out our own customer engagement on the impact and compensation value of service incidents. Ofwat's indicative rates appear reasonable, so we propose to accept most of them for our Business Plan submission.

The exceptions are in four areas – water supply interruptions, per capita consumption (PCC), business demand, and total pollution incidents. In these cases, we are proposing alternative ODI rates based on our own analysis of equity return at risk (see SRN57: Risk technical annex), as Ofwat's incentive rates significantly skew the overall range of potential payment. For these PCs, our proposed ODI rates are:

- **Supply interruptions proposed ODI:** £126k per minute of supply interruptions;
- **PCC proposed ODI rate:** £179k per litre per household per day;
- **Business demand proposed ODI rate:** £69k per megalitre per day
- **Total pollution incidents ODI rate:** £398k per pollution incident per 10,000km sewers

For our proposed bespoke PC (AIM), we are proposing to use an ODI rate consistent with our PR19 incentive rate adjusted to 2022/23 prices – this equates to £748,000 for underperformance and £603,000 for outperformance per million litres per day.

There are two PCs Ofwat has not defined indicative ODIs for – biodiversity and operational carbon. For biodiversity we are proposing an ODI of £15,000 per biodiversity unit. Given the uncertainty around the proposed operational carbon ODI we will await Ofwat's view before setting an ODI.

4.2.3.2. Caps and collars

Ofwat's PR24 Final Methodology states it will make a targeted use of caps and collars on individual PCs:

- That are new or bespoke and therefore more uncertain;
- That measure asset health;
- Where the benefits from high outperformance are uncertain;
- That can significantly skew the outcomes package

Therefore, we are proposing caps and collars on the following PCs:

- Business consumption, serious pollution incidents, bathing water quality, river water quality and storm overflows – because these are new PCs
- AIM – because this is a bespoke PC
- Mains repairs, unplanned outage and sewer collapses – because these are asset health metrics
- Water supply interruptions, PCC and external sewer flooding – to reflect our analysis of the potential they may have to skew the outcomes package

4.2.3.3. Our approach to Price Control Deliverables

For PR24, Ofwat introduced Price Control Deliverables (PCDs) for material investments where the outputs do not map neatly to performance commitments. PCDs are used to ensure funding is returned to customers where defined outputs are reduced in scope, delivered later or not delivered. Ofwat has not considered PCDs add a material downside skew to the risk exposure for companies. However, we consider PCDs do add a material downside skew to our risk exposure due to:

- Reducing innovation and the risk of 'locking in' companies to certain outputs, even if they are not what is best for customers and the environment
- The potential for companies to be penalised twice, through cost sharing and the PCD, when they overspend and under-deliver
- PCD penalties being more likely to be based on average costs and not on the marginal costs of outputs
- The outcome focused regulatory framework means that all our activities will impact our performance commitments in the round and, therefore, there will be a double count of penalties when under delivering

Despite our concerns, we have followed Ofwat's methodology in setting PCDs and have set them on material enhancements where there is no direct link to our performance commitments.

From our risk analysis (see SRN57: Risk technical annex), the maximum coverage of our enhancement expenditure we can apply PCDs to is 30%. This is to keep a balanced level of equity return at risk. If PCDs cover more than 30% of our enhancement expenditure, there would have to be an equivalent upside adjustment to our risk exposure.

The table below summarises the PCDs that we are proposing.

Table 5: Summary of our proposed Price Control Deliverables

Price control deliverable	Unit of delivery	Maximum penalty	Delay penalty
WINEP wastewater – overall	% of WINEP actions completed	£182 million	n/a
Water supply – overall	Ml/d of supply benefit	£160.3 million	£0.105m per each month late proportionate to the Ml/d late
Bioresources IED	% completion	£138.4 million	n/a
Bioresources – WINEP	Storage built (m^2)	£51.1 million	£0.013k per m2
Water supply resilience enhancement programme	% completion	£319 million	n/a
WINEP – water abstraction	% completion	£74.4 million	n/a
Water quality enhancement	Delivery of DWI notices	£94 million	n/a

We have proposed three material price control deliverables, one for our supply side schemes enhancement business case, one for our water supply resilience enhancement programme on our four sites strategy and the other for our overall wastewater WINEP programme. For our supply side enhancements we have applied the PCDs on 30% of our total enhancement expenditure because:

- The majority of these schemes will improve our performance commitments – so greater coverage through PCDs would skew our risk exposure downwards
- The supply-side schemes are needed to balance our supply and demand – therefore if there are alternatives to reach the same balance, the PCD limits the expenditure
- This ensures the risk of PCDs can be spread over the whole delivery programme

In our water supply resilience enhancement programme we have set a PCD in order to return money to customers in the event of potential non, partial or delayed delivery of investment across the four sites to ensure customers only pay for the improvement that they will benefit from.

For our wastewater WINEP programme we have set a PCD on actions that do not link to our common performance commitments. Rather than designing individual PCDs to protect customers for different sub-elements of WINEP, we are proposing one overarching PCD. This ensures the risk of PCDs can be spread over the whole delivery programme.

Our PCDs take into consideration of the impact of non-delivery on our RoRE. Therefore, any downward diversion from the PCDs we have set would materially increase the level of our risk exposure and would need to be an equivalent upside adjustment applied.

4.3. Our approach to efficient wholesale cost allowances

4.3.1 Our current wholesale totex performance relative to the industry

In January 2023, we participated in a benchmarking exercise operated by the Water Services Association of Australia[5] which included nine companies from the UK. The exercise assessed opex (direct, indirect, and corporate costs), capex (base, enhancement, and developer services expenditure), and totex across all participants on a cost per property basis. The results suggest we are close to the median benchmark in water but above in wastewater.

We have replicated this cost per property benchmark exercise using data for all companies between 2015 and 2022. The table below shows the comparative results for the wholesale controls between us and the industry median.

5 UK COST BENCHMARKING Final Utility Report Southern Water Services Limited February 2023

Table 6: Historic £ per property spend, wholesale controls, 2015–16 to 2021–22

2022/23 prices	Water	Wastewater
Southern Water	£236	£279
Industry median	£220	£231
Difference to median (£)	£16	£48
Difference to median (%)	7%	21%

We are slightly above the median cost per property for water and more so above the median in wastewater. However, there are some one-off catchup investments as part of the Turnaround Programme included in our costs. Removing these brings us close to the industry median in both water and wastewater. This gives us confidence we are operating at an average level of efficiency in wholesale and the innovations we are adopting will allow further future efficiencies.

4.3.2 Wholesale totex over PR24

Between 2025 and 2030 we will invest £7.5 billion to deliver the services and improvements our customers and regulators expect. We will deliver £6.3 billion ourselves, with the remaining £1.3 billion delivered through alternative delivery routes[6].

Table 7: Wholesale totex position for AMP8

2022/23 prices	Water	Wastewater	Total
Wholesale totex delivered in house*	£2,586m	£3,569m	£6,155m
Alternative delivery routes (including DPC)**	£818m	£497m	£1,315m
Wholesale totex with alternative delivery routes	£3,404m	£4,066m	£7,470m

Notes: (*) Tables CW1.15 (water) and CWW1.15 (wastewater). (**) Table SUP12. Figures are net of grant and contributions and include third party services. Wastewater includes bioresources.

4.3.2.1. Efficiency in the round

We have challenged the efficiency of our costs beyond our benchmarks and applied a further efficiency challenge to our wholesale totex plan of 1% per year.

This has cut £182 million from our wholesale totex across both water and wastewater. The table below shows the impact of this efficiency challenge on our wholesale totex.

Table 8: Wholesale totex delivered in house before and after our 1% efficiency in the round challenge

2022/23 prices	2025/26	2026/27	2027/28	2028/29	2029/30	TOTAL
Wholesale totex pre efficiency in the round (1)	£1,285m	£1,497m	£1,323m	£1,199m	£1,033m	£6,337m
Efficiency per annum	1%	1%	1%	1%	1%	-
Efficiency factor (2)	0.99	0.98	0.97	0.96	0.95	-
Efficiency reduction (3) = (1) x [1-(2)]	£13m	£30m	£40m	£48m	£52m	£182m
Wholesale totex post efficiency in the round* (4) = (1) – (3)	£1,272m	£1,467m	£1,283m	£1,151m	£981m	£6,155m

Notes: (*) Tables CW1.15 (water) plus CWW1.15 (wastewater). Figures are net of grant and contributions and include third party services. Wastewater includes bioresources.

6 Values are post RPEs and frontier shift, net of grants and contributions and include third party services and are in 2022/23 prices

We applied our efficiency challenge in the round on top of the level of efficiency we set to our enhancement programme through benchmarking. In base expenditure, this efficiency in the round is applied on top of our assumption of catch-up efficiency challenge and frontier shift. More details on our catch-up efficiency and frontier shift assumptions are below.

We are confident this additional efficiency challenge is achievable and deliverable – and is beneficial for our customers. We are working to an action plan that will improve our cost position as we:

- See the benefits of the operational efficiencies from our Turnaround Plan
- Benefit from further efficiencies through new delivery models and approaches – and by streamlining our optioneering process
- See the benefits of planned innovations in process technology and construction methods

An example of efficiency improvements is our asset management approach. Since 2020, we have been running three programmes to establish foundational capabilities in Asset Maintenance, Digitalisation and Logistics. The objective of the programmes was to establish three lines of defence including:

- Proactive maintenance to reduce asset failures
- Real-time monitoring of assets to prioritise proactive response before problems occur
- More effective and efficient response to reactive events

This has substantially improved our asset register information allowing us to prevent issues before they arise, reducing lead times for materials by 35 days and cutting our water tankering activities – all of which have reduced our costs.

4.3.2.2. Base vs enhancement

About 58% of our AMP8 wholesale totex falls under wastewater and reflects the relative sizes of our water and wastewater operations.

Our base expenditure reaches £3.2 billion, including around £500 million of cost adjustment claims. Our enhancement programme totals £3 billion[7] and, for the first time, it reaches about 50% of our wholesale plan. Historically, enhancement expenditure accounted for an average around 30% of our totex costs[8].

Table 9: Breakdown of our wholesale totex AMP8 delivered in house

2022/22 prices	Water	Wastewater	Total
Base expenditure*	£1,145m	£2,005m	£3,149m
*of which, CACs***	*£110m*	*£343m*	*£453m*
Enhancement expenditure*	£1,442m	£1,564m	£3,005m
Wholesale totex delivered in house	**£2,586m**	**£3,569m**	**£6,115m**

Notes: (*) Tables CW1.1 plus CW1.8 (water) and CWW1.1 plus CWW1.8 (wastewater). Figures are net of grant and contributions and include third party services. (**) Tables CW18 (water) and CWW18 (wastewater).

7 Numbers include RPEs and frontier shift net of grants and contributions and include third party services and are in 2022/23 prices

8 Source: Ofwat, Long term data series of company costs (1989–90 to 2021–22), July 2022. Available at https://www.ofwat.gov.uk/publication/long-term-data-series-of-company-costs/

The size of our enhancement programme in AMP8 is unprecedented. As the figure below shows, our AMP8 enhancement programme is three times higher than our historic enhancement expenditure since AMP4.

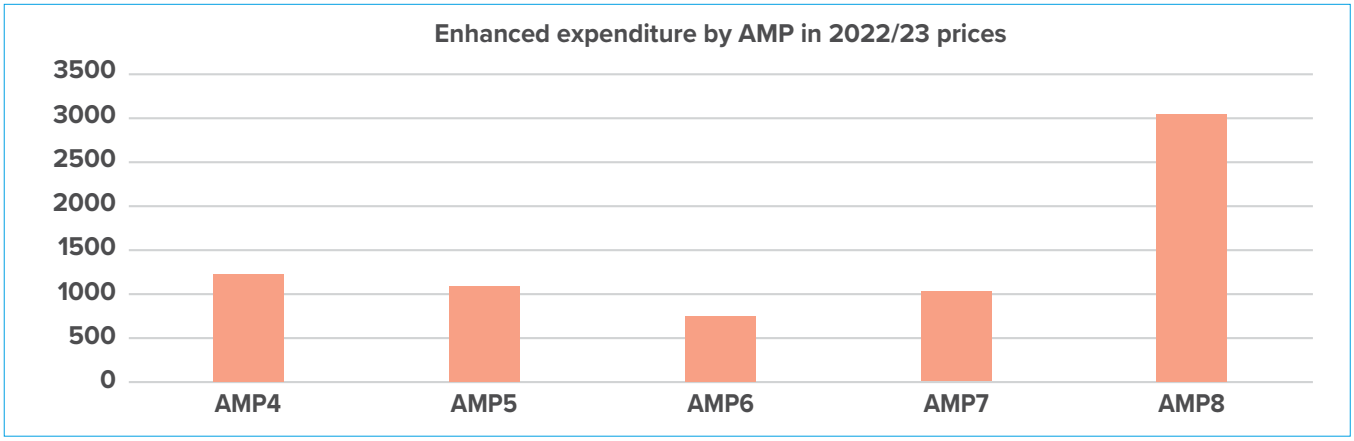


Figure 5: Total enhancement expenditure trend since AMP4, in £m, 2022–23 prices.
Source: Southern Water analysis. AMP7 refers to final determination. AMP8 figures reflect tables CW3.147 (water) plus CWW3.195 (wastewater).

The step-change in our enhancement expenditure is driven by large investment programmes to meet higher expectations from our customers and regulators, comply with our statutory obligations and secure sustainable water supplies. These investments come under our WINEP, WRMP, and bioresources programmes. WRMP accounts for 57% of our water enhancement expenditure and WINEP accounts for 71% of our wastewater enhancement expenditure.

Table 10: AMP8 enhancement expenditure split by programmes

2022/23 prices	Water	Wastewater	Total
WINEP (including storm overflows)	£74m	£1,155m	£1,229m
WRMP	£843m	-	£843m
Bioresources	-	£146m	£146m
DWI	£52m	-	£52m
Growth at treatment works	-	£238m	£238m
Resilience	£358m	£94m	£452m
Other	£140m	-£14m	£126
Total	**£1,466m**	**£1,619m**	**£3,086m**

Notes: Sourced from tables CW3 (water) and CWW3 (wastewater). Enhancement total differs from Table 9 due to CW1/CWW1 including RPEs and frontier shift effects, which CW3/CWW3 tables do not include. Our 1% efficiency in the round applied to our enhancement programme is reflected in tables CW3.138 and CWW3.183 as a negative adjustment hence the 'other' category being lower than the sum of 'other' enhancement investment lines and reaching a negative value in wastewater.

4.3.3 Setting our base expenditure in PR24

We have used both a top-down model and a bottom-up approach to establish our efficient base expenditure requirements. The top-down model aims to replicate Ofwat's base cost models and is used as a sense-check against our own view of cost.

The bottom-up approach uses historic run rates, deterioration model outputs, risk analysis and detailed cost assessments from our subject matter experts. Bottom-up expenditure was set to ensure performance levels are met in AMP8.

Our top-down models use the econometric specifications from Ofwat's spring 2023 consultation. We have applied a frontier shift of 0.5% and a range of catch-up efficiency challenges, as detailed in SRN19: Botex technical annex (efficiency section). As forecasting is an uncertain task, we have varied these parameters to provide a range of modelled costs. In the following sections, we have used the mid-point of our modelled allowance estimates.

4.3.3.1. Cost adjustment claims

We took a bespoke approach to cost adjustment claims, depending on the unique circumstances we face not being properly captured by Ofwat's models. We started from the modelled cost position and looked at what this would enable us to deliver (such as meter replacement) or provide (such as staffing).

By comparing these figures with our known position (such as the level of meter replacement required and regional wage levels) we were able to assess whether the models represented a realistic position. We then verified any differences using industry data. The table below summarises the value of the claims we are submitting.

Table 11: Summary of our cost adjustment claims

Claim	Water
Meter replacement	£89m
Regional wages	£21m
Total CACs	**£110m**

Claim	Wastewater
Coastal variable effect	£66m
Regional wages	£66m
AAD Ashford and Ham	£113m
Wastewater growth	£98m
Total CACs	**£343m**

Notes: Values are the net value once any implicit allowance has been removed. The values are sourced from tables CW18 (water) and CWW18 (wastewater).

For wastewater, we claim for elevated costs from operating in a coastal environment, upgrading technology to Advanced Anaerobic Digestion at sites in Kent and expanding wastewater assets to support high levels of population and housing growth. For water, we claim for a higher-than-average meter replacement to support our programme to install more than 1 million smart meters.

For both we claim for operating in a region with high wages. Wherever possible, we seek to manage regional differences. Our cost adjustment claims cover the areas where we feel there is a substantial issue that means the models do not adequately fund the necessary action on our part.

4.3.3.2. Reconciling the bottom-up and top-down approaches

We have assured ourselves our base cost plan is robust through a three-step process.

Firstly, for our top-down cost estimates we have estimated a sensible regulatory allowance using Ofwat's econometric models and the most up-to-date input information capturing the 2023 APR data.

Secondly, for our bottom-up cost estimates we have implemented processes that meet industry best practice to assess key input costs around labour and procured services to ensure we can deliver both current and future efficient levels of costs.

Lastly, we have explained the difference between the top-down estimated regulatory allowance and our proposed bottom-up base costs through the CACs we have submitted and key non-controllable costs, namely energy cost uplift to reflect the energy price increase over the period of 2021–22 to 2022–23 which we are proposing as a model uplift; and the RPE adjustments for energy, labour, chemicals and materials from 2023–24 onwards. (See SRN16: Real Price Effects and Frontier Shift technical annex for details).

The table below reconciles our wholesale base cost plans against what we expect to be funded. At a headline level, it would appear our proposed base costs are about £200 million below our estimated regulatory allowance. However, this is assuming all our CACs are accepted in full and there are no adverse symmetrical CAC adjustments based on claims made by other companies.

Table 12: Reconciliation of wholesale regulatory modelled base costs with proposed base costs

2022/23 prices	Water	Wastewater	Wholesale total
Modelled base costs including growth at STWs	£909m	£2,154m	£3,063m
CACs	£110m	£343m	£453m
Energy base cost uplift	£125m	£144m	£269m
RPEs adjustments 2023–24 onwards	-£89m	-£106m	-£195m
Total forecast regulatory allowance (a)	£1,055m	£2,535m	£3,590m
Proposed bottom-up base costs, including growth at STWs (b)	£1,145m	£2,243m	£3,387m
Differences (c) = (a) – (b)	-£90m	£292m	£203m

Notes: A positive difference implies that the BP proposed botex is less than our forecast regulatory allowance and a negative difference implies that the BP proposed botex is greater than our forecast regulatory allowance. See SRN19: Botex technical annex (efficiency section) for details on the reconciliation and modelled base cost estimates. See SRN16: Real Price Effects and Frontier Shift technical annex for details on energy cost model uplift and RPEs adjustment. CACs are sourced from tables CW18 (water) and CWW18 (wastewater). The proposed bottom-up costs are net of grants and contributions and include growth a sewage treatment works to allow a like-for-like comparison with the modelled base costs. The bottom-up costs for water are sourced from CW1.1 plus CW1.8 (water). For wastewater, the bottom-up costs are sourced from CWW1.1 plus CWW1.8 (wastewater) plus CWW3.155 (growth a sewage treatment works).

Our proposed base costs for wholesale water are £90 million above the forecast regulatory allowance (inclusive of CACs). We believe that the difference can be partly explained through adjustments for non-controllable, or only partly controllable, costs which have increased substantially between AMP7 and AMP8 but which the regulatory allowance does not adequately capture. We are making a specific claim for energy costs, one of those we consider to be non-controllable, which is explained in the SRN19: Botex technical annex (efficiency section). However, other non-controllable costs have increased and specific claims have not been raised. The increase in rates, for example, is at least £25 million across AMP8 for the combined wholesale businesses. In addition the higher BP numbers reflect sustainable capital maintenance levels required for the Water asset base to maintain levels of required service. Our proposed costs for wastewater are £292 million below the forecast regulatory allowance (inclusive of CACs).

Given the scale of the difference, and the fact that some of this can be explained through changes in non-controllable costs, we believe this reinforces the fact our proposed base costs are set at the efficient level of costs for us.

This combination of robust methodology, underlying processes and consistency with the estimated regulatory cost envelope means that we are confident that our plan is efficient[9].

4.3.4 Setting our enhancement expenditure at PR24

Our enhancement cost proposals have been taken through the industry processes and agreed with all stakeholders. We know we can improve our cost efficiency and have employed various techniques to assure ourselves the enhancement costs we are planning for are efficient.

4.3.4.1. Optioneering

We use optioneering to find the best solution from a range of possible choices. We weigh up the relative costs and benefits, considering the interests of various stakeholders and needs including economic, environmental, customers and resilience. We produce a long list of options, which we constrain to form a short list from which we identify a preferred solution. For more detail, see SRN15: Optioneering and Cost Methodology technical annex.

In our cost benefit appraisal, we compared the lowest cost option, the one with the lowest Whole Life Cost whilst still meeting the design need, with the best value option, which is the most cost beneficial option. We select the lowest cost option as the default unless we have a strong case to justify the best value option from a customer acceptability and affordability viewpoint.

We aim to form strong partnerships where possible to deliver better or more innovative solutions and keep costs down for customers – particularly where options are beneficial to our communities and stakeholders.

9 See SRN19: Botex technical annex (efficiency section) for further details

We will try to form partnerships and delivery teams with third parties who would share in the benefits. We do this to ensure our customers only fund the benefits they receive and to keep affordability at the centre of our approach to project delivery.

We have also employed Ofwat's guidance on DPC to assess each project and determine if alternative routes would improve delivery. We apply this process after our normal short listing and preferred option approach.

We are confident our optioneering and enhancement process provides robust costs.

4.3.4.2. Cost estimation

We established our cost stack using a robust build-up of direct costs, indirect costs, risk and corporate overheads. This approach enables us to test each component of the cost stack, undertake benchmarking and challenge ourselves to be efficient. Our costs are built up using our cost curves, historical performance and supplier quotations.

For PR24, we have specifically improved our estimate of indirect costs and approach to risk. Our indirect costs include a larger number of data points and the most recent, high quality and relevant data sets. We have benchmarked against our peers to test our costs and have found we are efficient.

Our risk approach uses both historical AMP7 data and best practice – and allows us to use a bespoke risk multiplier on a scheme-by-scheme basis. This means we use a consistent methodology to capture appropriate risk for each project.

SRN15: Optioneering and Cost Methodology technical annex sets out more detail on how we have progressed costs through a three-level approach:

- Level 1 – project information is used to estimate costs using asset level cost curves. Data is sourced from across the UK water industry. This is reliable for large programmes and where scope is similar to previous work delivered
- Level 2 – more detailed project information and more mature design enable the use of function level cost curves which capture costs of whole processes. These curves are developed using our historic data and actual delivery costs. We have used this approach across a number of our Bioresources projects
- Level 3 – detailed costing of all scheme elements, typically in conjunction with delivery partners. This is carried out as schemes move forward to delivery. We have used this approach for elements of the Supply Resilience Enhancement Programme to enable informed decision making

To improve our understanding of cost, where appropriate, we have used trial projects (such as our storm overflow pathfinders), early supplier quotes and greater supplier and contractor engagement to develop our plans. Where costs are more uncertain, our risk methodology dictates we make an allowance for uncertainty in our cost stack.

Our Cost Intelligence Team (CIT) benchmarked our costs against industry peers. We used this process to test our costs relative to known Ofwat econometric models and data from our peers. This process has identified where we are efficient and where our programmes are demonstrably different to those put forward in PR19.

Our process pushes us towards finding the leanest scope possible for any enhancement solution. We do not believe customers should pay more than is required to achieve the desired outcomes. One example is where we refined the design of our phosphorus removal projects. By removing unnecessary tertiary treatment through the early design process, we reduced the need for additional building work on five sites – and by utilising spare capacity in chemical dosing we have achieved several no-build solutions.

More broadly, we are working to standardise our designs across projects to generate benefits from economies of scale in purchasing and cost and speed benefits from modular implementation of solutions.

4.3.5 Alternative Delivery models

Alternative Delivery routes (including Ofwat's DPC), employ a third party to fully finance a project and assume responsibility for design, construction, operation, and maintenance over a defined period. These arrangements provide cost-effective ways to finance, deliver and manage significant projects efficiently.

Alternative Delivery allows us to use Competitively Appointed Providers (CAP) to deliver large, discrete projects. Payment to the CAP only commences when the asset is built and customers are receiving services, which allows us to defer costs until the benefits are being seen. The CAP is selected through a competitive tender process, which allows us to harness the cost benefits of competitive markets.

This means we can smooth bill impacts, provide better value for customers and incentivise timely delivery of key projects, while alleviating pressure on internal resources.

We intend to use Alternative Delivery models for a wide range of our enhancement programmes. For example, our Havant Thicket Water Transfer and Water Recycling Project will use DPC to deliver the majority of the work through a Competitively Appointed Provider (CAP). This means the payments will be spread over the life of the contract, which will help smooth bill increases. The competitive nature of the process will introduce scope for innovation, which will provide better value for our customers.

Through Alternative Delivery methods and rational phasing we intend to tailor our delivery programme to make bills more affordable for customers. SRN17: Direct Procurement for Customers and Alternative Delivery model technical annex details the projects we have identified for alternative delivery routes, including those identified to be delivered under DPC.

Chapter SRN05

Wholesale Water

(Costs and Outcomes)

5. Wholesale Water (Costs and Outcomes)

5.1. Executive summary

Ensuring a reliable supply of high-quality water is one of our customers' highest long-term priorities. Our supplies, services and region face significant challenges. We are at a transformational point and need to invest in them more significantly than ever before.

Water scarcity and shortfalls driven by climate change, population growth and increasing demand from industry are a reality. 2022 was the driest year on record and climate change is causing droughts to become more frequent and more severe.

We rely on iconic chalk streams for our water supplies, particularly in Hampshire and the Isle of Wight. Increasing demand, despite average use falling, and the impacts of climate change are putting these at risk.

We need to meet strict legal obligations and reduce the amount of water we take from our environment to protect and improve it for future generations. We can wait no longer and are acting now.

Our region has high levels of population growth, and we expect it to grow by a further 19% by 2050. We estimate demand for water may grow by 70 million litres per day by 2050 from today's 440 million litres per day.

The three pressures of environmental protection, climate change and population growth mean we could face a supply demand deficit of 300 million litres per day by 2050. So, we are planning to radically transform how we supply high-quality, sustainable water supplies for our customers.

This includes huge reductions to the amount of water we take from iconic chalk streams by building new sources – including funding the first new reservoir in the South-East for decades – and embracing innovative new sources like water recycling and desalination.

We are planning to replace the equivalent of around 30% of our water supplies over the next six years – equivalent to around 80% of the water we supply in Hampshire, to protect iconic chalk streams. The last time new water resources were developed on this scale in the UK, was to support the fast-growing industrial cities of Liverpool and Birmingham in the late 1800s.

We are investing in new, sustainable sources of water and a network of pipes across Hampshire. This will allow us to meet our legal obligations to abstract up to 190 million litres less water from the Rivers Test and Itchen during periods of drought – 60% of the water we need in this area. We might need to reduce how much water we take from other sources by up to 250 million litres per day by 2050 during droughts – equivalent to 50% of the average amount we supply every day.[1]

We are also reducing overall demand for water. We will cut leakage by 13% by renewing over 300km of mains and using smart networks to find and fix leaks faster. We will also install more than 1 million smart meters to help our customers become even more efficient.

In addition to securing the additional supplies we need for the future, we must make sure our services are reliable in the short-term. More extreme weather caused by climate change makes this a challenge – shown by the impact to our supply interruptions performance of large bursts during freeze / thaw events.

Our mains renewal programme will increase the resilience of our network, alongside our investment in sensors and advanced pressure management to reduce the risk of major failures.

We must also invest to protect the quality of our water sources and our ability to safely treat and supply it to our customers. We have worked with the Drinking Water Inspectorate on once-in-a-generation enhancements to four of our largest supply works, which supply water to 62% of our customers.

This will improve their resilience, maintain the quality and reliability of our water supplies and futureproof them – ensuring we have the capacity and capabilities to treat water from the new sources we will build. We will also continue working in partnership to protect water quality at source through our WINEP.

We are planning to invest £3.41 billion in our wholesale water services between 2025 and 2030 to:

- Reduce leakage by 13% and support customers to reduce average use from 128 litres to 121 litres per person per day
- Deliver 11 schemes to provide 189 million litres per day of new sources and capacity by 2030
- Progress development of 13 other schemes that will deliver a further 82 million litres per day by 2035
- Significantly increase the resilience of our water supplies through a once-in-a-generation investment at four sites that serve 62% of our customers and will reduce risk by 80% by 2033
- Remove 1,200 lead communication pipes and work with industry and agriculture to increase the resilience of five of our sources – improving our water quality compliance and reducing water quality contacts by 8%

1 Securing a resilient future for water in the South-East: A consultation on our draft Water Resources Management Plan

5.2. Our context

5.2.1. Our region, environment and communities

Our region is seriously water stressed, meaning the amount of water available is limited.

England is home to 85% of the world's chalk streams – rare habitats sometimes called "England's rainforests" many of which are in our region. We currently rely on these for our water supplies and have a responsibility to protect and improve them – while providing long-term, sustainable water supplies.

Our region is also home to:

- More than 350 Sites of Specific Scientific Interest
- 38 Special Areas of Conservation
- Five Areas of Outstanding Natural Beauty
- Two National Parks
- 17 Special Protection Areas
- Two UNESCO world heritage biosphere reserves

We have a responsibility to protect these areas too – making sure they are left in good condition for future generations.

We supply 2.7 million customers across 14 water resources zones. The map below shows these zones and where our water comes from in each.

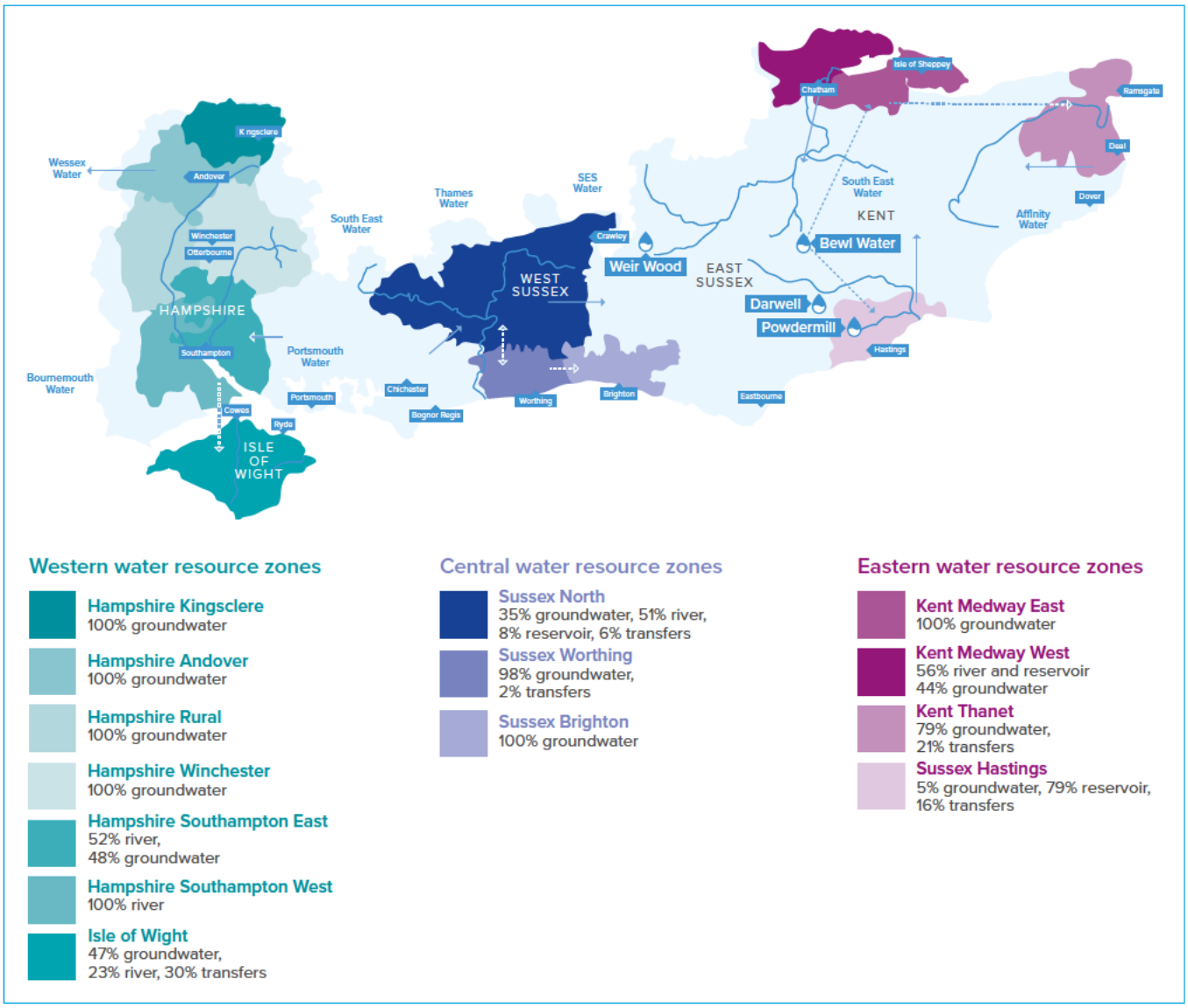


Figure 1: Our water resources zones

There are three main challenges to our water supplies – protecting our environment, serving more people and climate change. Reducing how much water we take from rivers, streams and groundwater is the single most important challenge to our water supplies.

> *"Populations will only grow and there will be a huge bottleneck for future generations if we don't tackle issues now both current and potential. To me that is what sustainability is and being responsible as humans."*
>
> **Household customer**

We are already delivering new, sustainable sources of water and a network of pipes across Hampshire so we will abstract up to 190 million litres a day less water from the Rivers Test and Itchen during periods of droughts. And we could need to leave up to 250 million litres per day more in our environment across our supply region by 2050 to protect it.

At the same time, more people will call our region home – potentially increasing demand for water by up to 180 million litres per day by 2075. However, in some areas new housing growth is already paused because it could increase abstraction from sensitive sources.

We need to increase how resilient we are to the more frequent, more severe droughts we expect to experience in the future, despite no customers losing supply during the hot, dry summer of 2022.

Climate change also impacts raw water quality – making treatment harder and more expensive. This can be due to rising temperatures changing the make-up of rivers and streams, more intense storms causing more pollutants to wash into our water sources and the unpredicted impacts of climate change adaptation from changes to farming practises.

5.2.2. Our AMP7 performance

Our performance in AMP7 so far has been mixed. In some areas, we have performed well – including making sure no customers lost supply due to the extreme hot, dry weather in summer 2022.

Every day, we treat and supply around 566 million litres of high-quality water – with 99.97%[2] meeting the strict standards set by the Drinking Water Inspectorate. We track the risks to not meeting this high level of performance through our Compliance Risk Index score. This improved in 2023 but is still below our challenging target.

We want all our customers to be satisfied with the taste, odour and appearance of their drinking water and set ourselves stretching targets. However, we are currently missing our targets for these measures, but we have identified the causes of these failures and have plans in place to address them.

The vast majority of our customers never lose supplies and experience no issues with their water services. However, sometimes our works or mains fail – leaving customers without water for too long. In 2022, the average amount of time customers were without water was nine minutes and 22 seconds. Because of some large incidents, this increased to one hour and 28 minutes[3] in 2023[4].

We reduced the number of customers at risk of losing supplies for more than 48 hours by nearly 10% in 2023. Despite repairing 500 leaks a week in 2023, we missed our leakage target of 90.9 million litres per day (based on a three-year rolling average) – recording 99.7 million litres per day in 2023.

Our customers are some of the most efficient in the UK, with an average per capita consumption 7.5% below the UK average and will continue supporting them to save more water. The 3-year average amount of water our customers use is still higher than our target – 133.7 litres per person per day compared to 119.5 litres per person per day[5]. This is down from an annual high of 139 litres per person per day and reflects the changes we saw during the pandemic.

Helping our customers save water is the focus of our Target 100 campaign – aiming to reduce average daily water usage to 100 litres per person, per day by 2045, five years ahead of the national target of 2050. Over the past year, we focused on water scarcity to help build awareness that demand will soon outstrip supply. This included promoting tips and advice to help people save more water.

---

2 Southern Water's Annual Performance Report – page 65
3 Southern Water's Annual Performance Report – page 54
4 Southern Water's Annual Performance Report – page 55
5 Southern Water's Annual Performance Report – page 46

The table below shows how we have performed against our key water supply and water quality measures so far and our forecast performance for 2024–25.

Table 1: Our AMP7 performance

Performance commitment	Metric	2020–2021	2022–2023	2024–2025
Water supply interruptions	hh:mm:ss	00:12:43	01:28:10	00:07:23
Compliance risk index (CRI)	score	4.61	6.38	3.23
Customer contacts about water quality	per 1,000 contacts	1.15	1.17	0.88
Operational GHG emissions water	Tonnes CO2e	52,347	58,326	69,523
Leakage	3 year average Ml/d	98.5	99.7	97.3
Per capita consumption	3 year average l/h/d	132.2	133.7	127.5
Business demand	3 year average Ml/d	109.4	100.8	107.3
Mains repairs	repairs per 1,000km	150.9	152.8	150.0
Unplanned outage	% of peak capacity	9.2%	6.4%	3.1%
AIM	Ml/d abstraction reduction	15	14	-15

5.2.3. AMP7 Delivery

Since 2020 we have:

- Increased the number of people finding and fixing leaks by more than 20% and started using technology like drones and satellite imagery to find and fix around 40,000 leaks a year
- Collaboratively developed the first regional plan for water resources, working through Water Resources South-East
- Delivered a detailed water quality hazard review at each of our 86 water supply works and implemented over 500 improvement actions
- Started work on a two-year pilot project in Kent to replace old water mains containing lead – including giving customers information and advice to find and replace lead pipes in their homes
- Installed more than 7,000 sensors on our networks and improved how we manage pressure in our mains to reduce leakage and bursts
- Supported work on Havant Thicket reservoir, alongside Portsmouth Water, as part of our Water for Life Hampshire programme – including helping secure planning permission
- Ran a water recycling pilot and started detailed work on the next stage of the new sources and transfers we need across our region
- Worked with local councils, schools and community groups to encourage water efficiency – including a focus on water neutrality issues in Sussex
- Incentivised non-household customers to save water during droughts through our You Save, We Pay initiative

5.2.3.1. Protecting water quality and improving compliance

Since 2020, we have focussed on improving the quality and reliability of our water services, increasing our regulators' confidence in us and reducing risks to water quality.

Through our Hazrev programme we have delivered detailed water quality hazard reviews at all 86 of our water supply works and implementing over 500 improvement actions. Our methodology has been supported by our regulators and shared with the industry as an example of best practice.

We have also improved our processes and providing our people with better training and guidance to give them the tools and skills they need to improve outcomes for our customers. This includes:

- Writing bespoke operating manuals for 114 sites giving our people reliable, accurate data and clear procedures and processes to follow
- Designing and delivering accredited training to our water operators and asset maintenance team to achieve licenced operator status
- Significantly increased our resources with 60 additional resources to increase planned maintenance performance, 24/7 cover for our four strategic sites and increased support roles to deliver our regulatory notices

- Giving all our operators tablets – giving them better remote access to our alarm system and the data they need to operate sites more effectively
- Enhancing shut down control systems at out sites to respond to water quality issues and increase our compliance
- Introducing hygiene audits at our supply works to ensure they meet food factory hygiene standard and find and fix water quality risks

We are taking a proactive approach to inspection and maintenance, by introducing a planned asset maintenance philosophy approach to significantly improve the health of our assets. All our surface water sites have been independently surveyed, with all assets captured and fed into our Works Management system. We reviewed these assets and produced several bespoke Site Operating Plans (SOPs).

Through our Transformation Plan, we have also started delivering improvements to four crucial sites that serve 62% of our customers. This £150 million investment is over and above our final determination allowance and will deliver significant compliance improvements by 2025. We will continue this transformation through a once-in-a-generation investment in these sites.

5.2.3.2. Delivering our Water Resources Management Plan

We continue to deliver new infrastructure to increase our supply capacity and reduce how much water we take from the environment. This includes a water recycling project on the Isle of Wight and new mains in Hampshire.

We are forecasting delays on two water recycling schemes at Littlehampton and on the river Medway, and two schemes will no longer be going ahead at Shoreham and Knapp Mill. An alternative for the Shoreham scheme is being progressed through our Water Resource Management Plan 2024, and the Knapp Mill scheme is covered by the Hampshire Water Transfer and Water Recycling project[6]. We are working with the Environment Agency to agree revised delivery dates and mitigation measures[7].

As part of our plans, we are funding the new Havant Thicket Reservoir, which Portsmouth Water is building as part of an innovative cross-company collaboration.

In 2022 we held a public consultation on our plans to supplement the spring water in the reservoir with recycled water – to make sure there is more available during a drought. Called the Hampshire Water Transfer and Water Recycling Project, it is the largest component part of the Water for Life – Hampshire programme. We will hold another consultation on this in 2024.

We are aware that there is some regulatory uncertainty in the WRMP as reflected in section 5.6 and further detailed in our Data and Assurance chapter.

5.2.4. Trends, challenges and opportunities

The world around us is constantly changing and this impacts how we provide our services. We have identified different trends, challenges and opportunities and how they will change what we do in the future.

Our region has high levels of population growth, and we expect it to grow by a further 19% by 2050. We estimate demand for water may grow by 70 million litres per day by 2050 from 440 million litres per day today. We need to find the right balance between taking water from our environment to supply our customers, while leaving enough in it to protect it for future generations.

Climate change is meaning more extreme weather events are becoming more frequent. This places extra strain on our sources, as well as our networks and supply works.

The quality at some of our sources is at risk from environmental factors like nutrient and chemical pollution and the impacts of climate change.

Customers', stakeholders' and regulators' expectations have changed rapidly since our last Business Plan. Technology is developing rapidly and we need to make sure we build on our experience and take advantage of new opportunities.

5.2.4.1. Protecting chalk streams in a water stressed area

England is home to 85% of the world's chalk streams[8], and our region is home to many of them – including the iconic Rivers Test and Itchen in Hampshire. These are rare habitats and have been called "England's rainforests" because of the wealth of biodiversity they are home to.

We have relied on some of these chalk streams for water for generations – but we need to reduce how much water we take from them to protect them and make sure they are there for future generations.

In 2017, the Environment Agency (EA) told us we needed to reduce how much water we take from the Rivers Test and Itchen in Hampshire to protect them. The EA updated our licences in March 2019 to reduce how much water we can take when flows are low. Hampshire is now at risk of water shortages, especially during dry weather when water restrictions may be required[9].

6 Southern Water's Annual Performance Report – page 55
7 Draft Water Resources Management Plan 2024 – Statement of Response
8 https://deframedia.blog.gov.uk/2023/09/21/changes-announced-to-better-protect-englands-chalk-streams/
9 Water for Life – Hampshire

We have reduced the amount we can take from the Test and Itchen chalk rivers by 190 million litres per day during droughts. The future impacts of climate change effectively mean we can no longer rely on these sources in summers after 2030. Additionally, we could need to leave up to 250 million more litres in the environment across our region by 2050 to protect it.

To ensure we have solutions in place when needed, we use an adaptive planning approach whereby the timing and scale of reductions trigger decisions sufficiently in advance. This means we are prepared to leave more water in the environment if we need to, without impacting our customers' services.

To make sure we can supply customers during droughts, we need to develop new sources. This means we will be able to stop relying on these rivers for the water we need – protecting their unique ecosystems for future generations. Government has set all water companies stretching targets to halve leakage by 2050 and support household and business customers use less water. We are committed to achieving these.

5.2.4.2. Supporting a growing population

Our communities could grow by between 6% and 36% by 2075, based on projections from the Office for National Statistics and local authority housing plans. This could increase demand for water by between 63 million and 180 million litres per day.

In some areas, like our Sussex North Water Resources Zone, new homes are being delayed because of the impact their demand might have on the environment. In September 2021, Natural England advised all new homes should be water neutral – meaning they do not increase how much water we need to take from the environment[10].

We are working with our regulators and local authorities to help developers achieve water neutrality. We are also planning for new sources in the area, and helping all our customers save more water.

It is hard to accurately forecast how much our population will grow by, so we use the best available data and follow best-practice guidance. The different levels of population growth are "trigger points" in our adaptive Long-term Delivery Strategy. At certain points, we will have more certainty of how many more people we will need to supply and can increase investment if we need to.

Water neutrality in Sussex

Natural England found abstraction for drinking water supplies may be having a negative impact on the wildlife sites in the Arun Valley and advised any new development must demonstrate that it will not add to the risk of this detrimental impact.

Water neutrality is defined as development that takes place which does not increase the rate of water abstraction for drinking water supplies above existing levels. Water neutrality can be achieved by developers building significant water efficiency measures into new development and by providing offsetting to reduce water consumption from existing development.

We also have a role to play in achieving water neutrality. Our Target 100 campaign is raising awareness of the importance of saving water. We are working with local authorities and developers to help achieve water neutrality. We have hosted webinars and are encouraging local and central government to adopt more water-efficient policies.

More information about our work on water neutrality can be found here: www.southernwater.co.uk/our-services/water-neutrality

5.2.4.3. Adapting to climate change and more extreme weather

Any weather event, such as a storm, drought or freeze-thaw, that interrupt our services are called loss events. These are becoming more frequent – and climate change means they will happen more often in the future. We need to protect our assets to make sure we can provide services to our customers and protect the environment.

We need to increase how resilient we are to the more frequent, more severe droughts we expect to experience in the future. No customers lost supply during the hot, dry summer of 2022. We need to make sure we can supply our customers in the more extreme droughts we will see in the future.

Climate change can also impact the quality of our water sources – increasing algae growth or making it harder

10 Natural England's Position Statement for Applications within the Sussex North Water Supply Zone

to treat due to increased turbidity. Our investment in our four largest works is targeted at dealing with these challenges, aside resolving obsolescence and improving resilience to other hazards. This investment is also critical at dealing with rapid changes in temperature, like freeze-thaw events and the extremely cold weather in December 2022.

5.2.4.4. Regulatory notices and enforcement orders

Some of our biggest supply works are reaching the end of their design life and we need to significantly improve our treatment processes and increase their resilience to climate change and power failures. We also need to make sure these sites can support the new sources we will need in the future.

The Drinking Water Inspectorate (DWI) raised concerns about these sites and issued final enforcement orders for us to improve these sites. These are legal notices that we must meet. We have worked with the DWI on improvement plans to address their enforcement orders. These plans are contained in our Supply Resilience Enhancement Programme.

For more about the challenges at these sites and the investment we need to make see section 5.4.5.1.

5.2.4.5. The increasing pace of change

Technology is changing rapidly, and we need to make sure we keep up. The pace of change opens opportunities to things differently. It also creates new risks if we fall behind.

New digital capabilities, like AI and machine learning, alongside better, more accurate sensors, can give us new insights into how our networks work. Other new technology can make our processes more efficient or effective – or mean we can do things in new ways.

We also need to adopt new ways of working or improve areas we are already working on. We have been trialling smart meter technology with our customers and will use what we learn from this as part of our smart meter rollout.

We are also using drones and satellite imagery to find and fix leaks. By installing more than 1 million smart meters we will increase the number of leaks we can find and fix on our networks – and help customers find more in their homes and businesses.

We need to invest in new sources to secure the water we need for people and our environment. This includes traditional infrastructure, like reservoirs and transfers, but also new methods like desalination and water recycling.

Water recycling and desalination are common around the world, but not widely used in the UK. We ran a water recycling pilot at our Budds Farm wastewater treatment works in Hampshire to demonstrate to customers and stakeholders how the process works. These processes are becoming more efficient all the time, and we need to make sure we can take advantage of them.

5.2.4.6. Partnerships and collaboration

Collaboration and partnership working is an important part of reducing how much water we use and protecting our water sources. It is also important for securing new water sources.

We are working in partnership with local authorities and developers to address water neutrality issues in our Sussex North Water Resources Zone. This includes working together to raise awareness and develop mitigation measures to allow new developments.

Our water WINEP is based around partnership working to protect our sources and precious habitats from deterioration, protect water quality in harbours and find new ways to deliver environmental benefits.

We are working with Portsmouth Water on Havant Thicket reservoir – the first project of its kind in the UK. This involves new contractual arrangements, collaborative communications and engagement and joint planning. We will use what we have learned from this project on other joint projects.

5.3. Preparing for the future

We know the challenges we face and the opportunities we have to do things differently. We also know what our customers, communities and stakeholders expect from us.

We used this insight to develop three linked plans that have all informed our Business Plan:

- Our Turnaround Plan is delivering short, sharp improvements by 2025 to set us up to deliver our Business Plan
- Our Water Resources Management Plan, developed with Water Resources South-East, is our long-term adaptive plan to secure sustainable, resilient water supplies
- Our Long-term Delivery Strategy combines our WRMP, with our Drainage and Wastewater Management Plan and the other activities we need to do to enhance our resilience over the next 25 years

5.3.1. Our Turnaround Plan

We are committed to improving the reliability of our sites and networks. By 2025 we aim to have improved water quality, achieving 3rd quartile performance against our peers. We will do this by:

- Putting in place new assets and improving maintenance at our water supply works
- Using digital technology to build smart networks to reduce leakage and enable our teams to respond more quickly
- Upgrading our logistics capability so we can move people and materials around faster, 24/7. This includes a new tanker fleet, storage of critical spares and an overhaul of our work management processes

- Improving our management and control of our sites and networks through a constant review of our core systems and processes

5.3.2. Our Water Resources Management Plan

Our Water Resources Management Plan (WRMP) looks 50 years ahead to understand our future water needs – balancing how much water we need for customers and the environment and making our supplies more resilient.

We developed our WRMP collaboratively with other water companies through Water Resources South-East. This helped us identify solutions where we share water with other companies, and support new infrastructure outside of our region.

Almost all the investment in our WRMP is driven by protecting and improving our environment. It includes significant reductions in demand and millions of litres of new water sources to reduce our reliance on chalk streams.

Our Business Plan includes the investment we need for the first five years of our WRMP – including setting the foundations for the infrastructure we will need in the future. It also informed our Long-term Delivery Strategy – identifying the actions we need to take and the different scales of challenge we could face up to 2050.

5.3.3. Our Long-term Delivery Strategy

Our Long-term Delivery Strategy (LTDS) explains what we need to do over the next 25 years to increase the resilience of our water supplies and our environment. It includes the actions from our WRMP, as well as other actions we need to take to increase our resilience and improve water quality.

Like our WRMP, it is an adaptive plan. This means it might change over time depending on the impacts of climate change and population growth – as well as how technology changes and how much water we need to leave in the environment for future generations.

Our LTDS adaptive pathways are shown below.

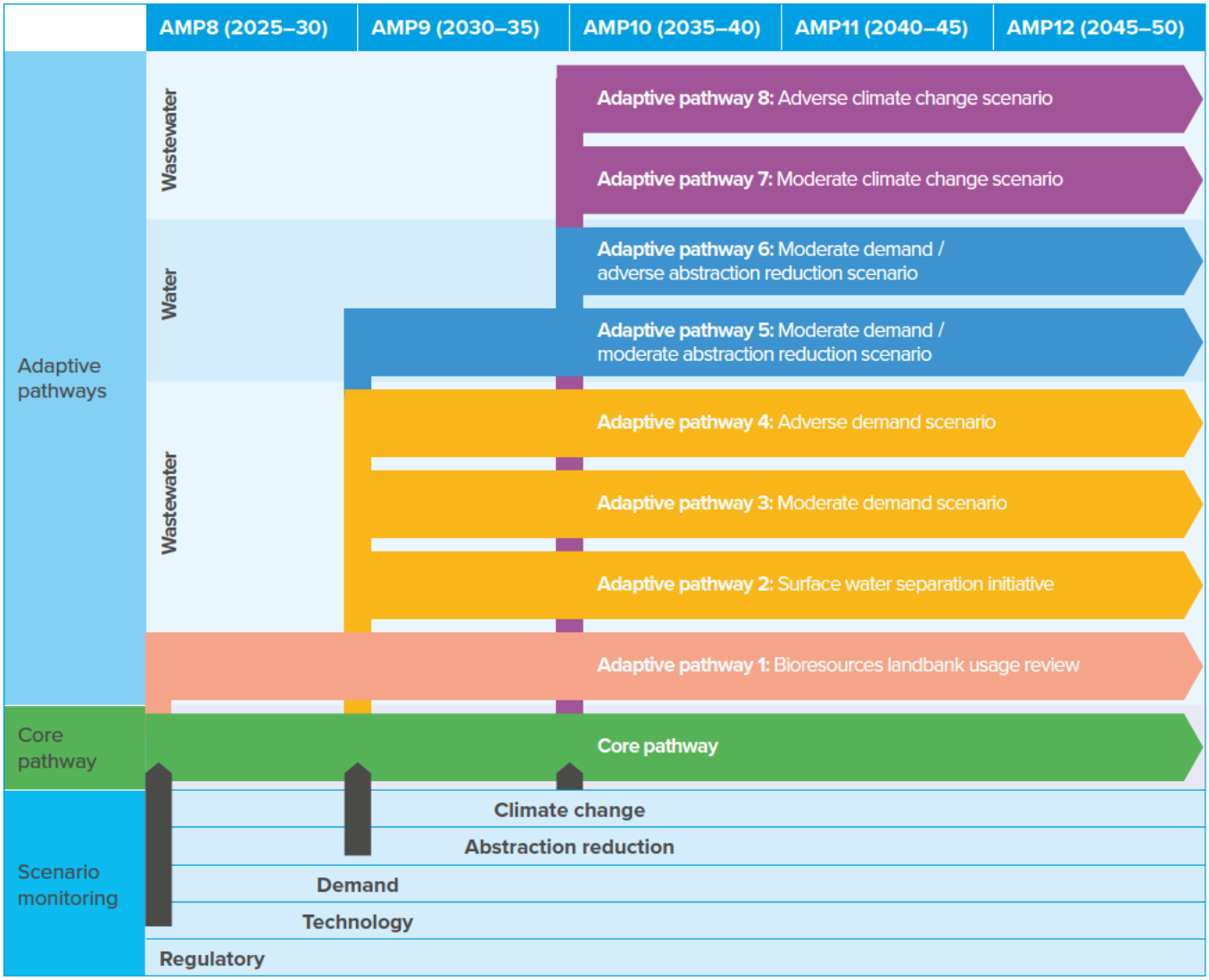


Figure 2: Our LTDS water core pathway

5.3.3.1. Our Long-term Strategic Delivery themes

We have five strategic delivery themes in water and our investments sit under at least one. Our themes and some key investments under each are below.

We will **provide extra water supply** to meet future population growth and environmental demands by:

- Working with Portsmouth Water to deliver Havant Thicket reservoir, build a water recycling plant and a new transfer pipeline as part of Water for Life Hampshire
- Building new water recycling plants in Sussex, Kent and on the Isle of Wight
- Investing in other new sources, including a new reservoir in Sussex and desalination plants on the Kent coast

We will **make our supplies more resilient to severe drought** by:

- Collaborating with our neighbouring water companies to improve pipeline connectivity so water can be transferred around the region flexibly in accordance with demand
- Continue investigating the case for a strategic pipeline which could transfer up to 120 million litres per day from Thames Water into Hampshire, alongside a new pipeline from Havant Thicket to Pulborough
- Strengthening our developing partnerships with land users and environmental groups to improve water sources for the future – prioritising sustainable abstraction and reducing groundwater nitrate levels at source

We will **reduce leakage** by:

- Enhancing our mains renewal programme
- Increasing our sensor network and utilising digital information technology to improve how we manage our network
- Utilising emerging technology such as thermal imaging, satellites and fibre optics to improve how we find and fix leaks

We will **lower water use in homes and businesses** by:

- Installing more than 1 million smart meters by 2030
- Continuing our Target 100 campaign and running information and education campaigns to encourage water efficiency
- Potentially introducing innovative tariffs that incentivise water efficiency

We will **improve water quality** by:

- Understanding the key areas of impact from climate change impact, particularly the growing stress on water supply works of increased turbidity – before using this insight to pilot and implement treatment solutions
- Targeting removing lead pipes from public buildings in high-risk area, alongside starting a lead communication pipe replacement programme as part of our mains renewal plan, which will continue over the next 25 years
- Implementing a sampling and monitoring programme to identify new and emerging contaminants before piloting and implementing treatment options from 2030

5.3.4. What our customers and stakeholders told us

Our plan is informed by our most detailed customer engagement ever. More than 25,000 customers spent over 8,000 hours from over 190 different reports telling us what they think to develop our plan. We combined this with over 10 million data points from sources such as contacts, complaints, social listening and other sources[11].

Our customers and communities expect us to plan for the future and make sure we can provide resilient water supplies for future generations while protecting our environment from damage.

Maintaining a reliable supply of high-quality water is our customers' highest priority. Customers see this as our most fundamental service and, for most of them, they want us to maintain the levels of service they receive.

- The majority our customers feel confident in the quality of our tap water, and only 2% of our customers said they were "not at all confident" in it

> *"I think I'm far more concerned about having a drought and water running down the street, because there's a leak underneath the surface. I think they'd be much better putting their money towards technology to stop leaks, then try to improve, you know, a tiny bit of taste, which might be coming out of a 50 year old pipe."*
>
> **Household customer**

Despite our regional challenges, awareness of water scarcity is low and many of them think water is abundant. However, when this is discussed with customers, they support us doing more to protect our environment and reduce how much we take from it.

11 For more details about our customer insight see chapter SRN03: Customer Acceptability

"Populations will only grow and there will be a huge bottleneck for future generations if we don't tackle issues now both current and potential. To me that is what sustainability is and being responsible as humans."

Household customer

"Aspirationally, I would like to see a greater aspiration to reduce leaks. But on the other hand, I can fully appreciate the reasons why it's not the practical solution."

Vulnerable customer

They want the right, long-term solutions that balance looking after our current supplies and developing new sources. They want us to be ambitious when we aim to reduce leakage and expect us to work with nature first, wherever possible, and look for ways to deliver wider environmental benefits.

- 65% agree we need to first invest in things that have the greatest environmental benefits, and anything else afterwards' and only 14% disagree[12]
- 22% of customers rated leaks as the most important area we should improve

Table 2: Acting on customers' views

Customers told us...	So we...
...a reliable supply of high-quality water is the most important thing we should do	...focussed our plans on making sure we can provide Water for Life now and in the future
...we need to do more to protect the environment, particularly precious chalk streams	...have our biggest ever investment in our water supplies including new water sources, reducing leakage and helping our customers use less
...to plan for the future and invest now so problems are not passed to future generations	...will start investing in the new sources we need for the future, including starting work on some now that will deliver benefits after 2030
...that no level of leakage was acceptable and we should be more ambitious	...set ourselves an ambitious target but made sure it was deliverable
...they are happy with the quality of drinking water and level of service they receive and this shouldn't deteriorate	...plan to invest £318 million to improve the resilience of four key sites, as well as working in partnership to protect water quality at source
...have ambitious demand reduction targets and strategies	...are continuing our Target 100 programme and will help reduce per capita consumption by 5%
...expect us to take the lead and make it easier for them to play their part	...will reduce leakage by 13% by 2030 and install more than 1 million smart meters to help customers make water efficient decisions
...we should use a mix of sources, and make sure we maximise environmental benefits where we can	...have included a mix of sustainable sources in our long-term plans, like desalination and water recycling, as well as transfers from other companies – as well as using nature-based solutions to protect our existing sources
...to work with developers and local authorities to reduce the impact of new homes	....will continue working with local authorities and developers to encourage sustainable development
....reduce how often we rely on drought orders and permits	...are working with our regulators on different ways to mitigate our environmental impact

12 SRN14: Customer Insight technical annex, Section 1 Index: 201d – Water Futures Quant Wave 4 – Aug '23

5.4. Our AMP8 plan

5.4.1. Summary

We plan to invest £3.41 billion on our water services between 2025 and 2030. We will spend:

- £1.13 billion to maintain our services, including paying our staff and contractors – known as **Botex**
- £2.28 billion[13] to enhance our services to meet current and future challenges – called **Enhancement**
  - £818 million of this will be delivered through Alternative Delivery routes

Botex means "base expenditure". This funds everything we need to do to maintain services at the same level or make slight, more gradual improvements. See section 5.4.3 for our Botex plan.

Enhancement spending is everything we need to do to make step changes in the services we provide and tackle new challenges. This includes replacing many of our existing abstractions with more sustainable sources and ensuring our water supply works can treat sources of deteriorating quality.

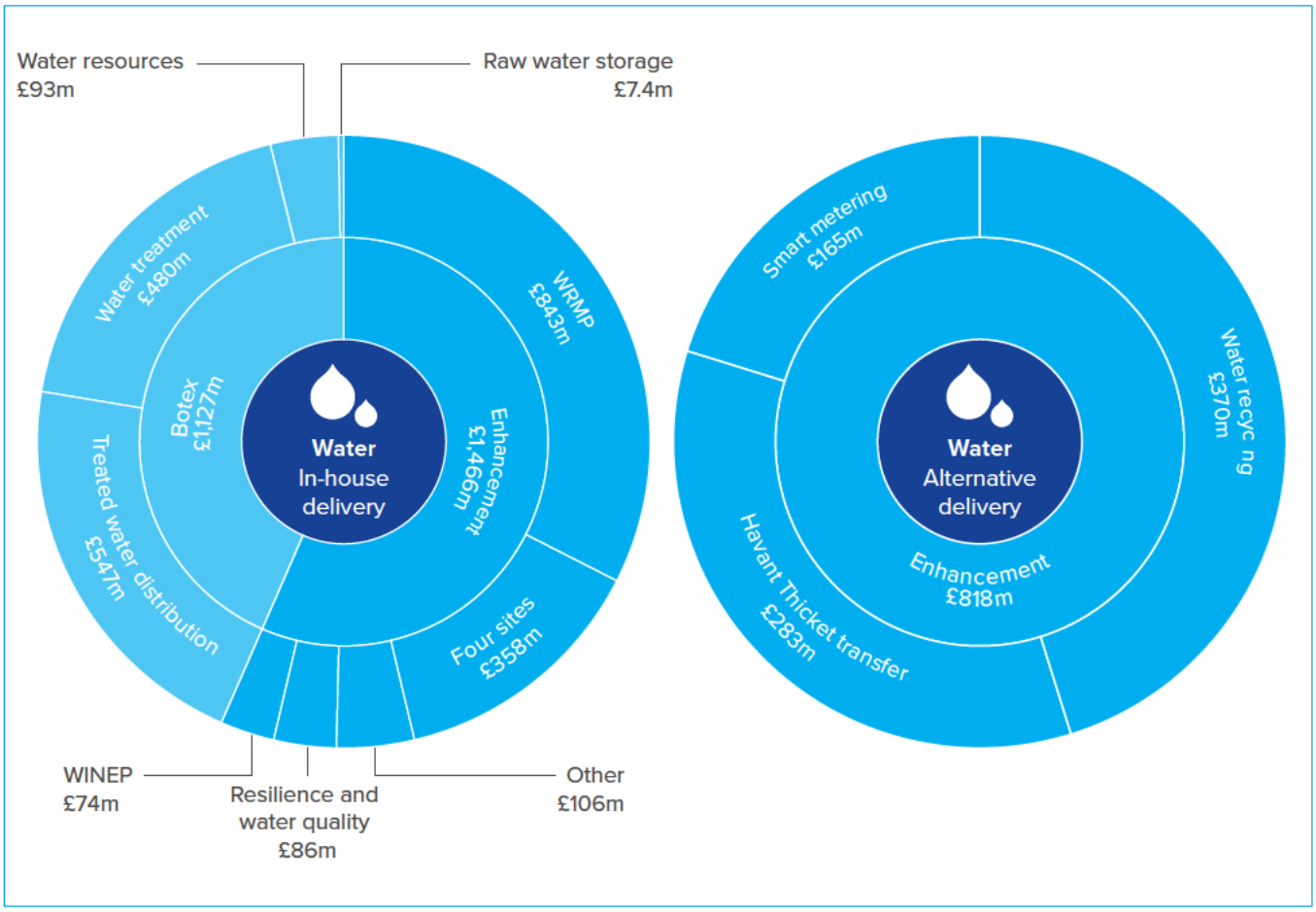


Figure 3: Our AMP8 water plan

We have also included our once-in-a-generation investment in our four largest supply works in our enhancement section, though this may not form a specific enhancement business case.

These investments are a fundamental rework of crucial sites that we need to make to meet agreed regulatory standards, enhance our resilience, protect water quality and ensure these sites are fit for the future. Section 5.4.4. has more details about our enhancement plans.

5.4.2. What we will deliver for customers and the environment

We measure how we are doing using performance commitments against our customers' service priorities. Most of these are common across all water and wastewater companies with one bespoke to us. Performing better than our targets can lead to financial rewards, but we can incur penalties if we fall short. We are carrying some of these over from our current Business Plan, but some are new for our plan for 2025 to 2030.

13 £1.46 billion, CW3.147 and £818 million SUP12.9

Making sure we provide reliable, high-quality water supplies now and in the future is the highest priority for our customers. While they expect us to be ambitious in some areas, they do not want our core services to deteriorate. This includes everything from responsibly taking water from the environment, treating it to drinking water standard and supplying it through our networks of pipes, service reservoirs and pumping stations, with low levels of leakage and always available.

We will further improve how reliable our services are – reducing the average time any customer is without water from one hour and 28 minutes to four minutes and 31 seconds, halving unplanned outage from 6.44% of our capacity to 3.13% and repairing and replacing more mains.

We will also improve the – already high – overall quality of our water supplies – making significant improvements to our Compliance Risk Index score, replacing lead pipes and reducing the number of customers who feel they need to contact us about water quality by 31.6%.

We will invest £318 million to fundamentally rework four key sites to address regulators' concerns, prepare them for the future and increase the reliability of supplies for more than 60% of our customers.

We are progressing the replacement of around 30% of our water supplies over the next six years – equivalent to around 80% of the water we supply in Hampshire to protect iconic chalk streams. The last time new water resources were developed on this scale in the UK, was to support the fast-growing industrial cities of Liverpool and Birmingham in the late 1800s.

We will deliver 189 million litres per day of new capacity – building new sources and increasing our ability to move water to where it is most needed, as well as starting work on the new sources we need in the future. This means we can leave more water in our environment to protect it for future generations and meet the needs of our growing communities. A further 13 schemes will also be developed to provide an additional 82 million litres per day by 2035. These are in addition to the Strategic Resource Options (SROs) we are developing with Portsmouth Water and Thames Water.

We will reduce leakage by 13% and help our customers become more water efficient by installing more than 1 million smart meters and continuing our Target 100 campaign.

Our plan is split between our base expenditure, or Botex, and enhancement expenditure. The improvements we will deliver are funded by a mixture of both, with elements of base and enhancement expenditure.

For example, our smart metering programme is funded from our base expenditure to replace meters, supported by a Cost Adjustment Claim (CAC) to install many more per year, and our enhancement business case which includes the funding for the smart technology and the supporting infrastructure. This programme will improve leakage and support customers save more water.

Likewise, our capital maintenance programme will improve our supply interruptions and water quality performance – alongside our once-in-a-generation investment in four of our major water supply works.

The table below shows the water performance commitments we are making to our customers. The rest of this chapter explains what we will deliver through our Botex and enhancement programmes.

The methodology we used to develop our targets and commitments is outlined in chapter SRN04: Costs and Outcomes Approach.

Table 3: Our water performance commitments

Performance commitment	Metric	2022 / 23 performance	2029 / 30 target	% improvement by 2030[14]
Water supply interruptions	hh:mm:ss	01:28:10	00:04:31	94.9%
Compliance risk index (CRI)	Score	6.38	2[15]	68.6%
Customer contacts about water quality	per 1,000 contacts	1.17	0.8	31.6%
Operational GHG emissions water	Tonnes CO2e	58,326	72,120	(23.6%)
Leakage	3 year average Ml/d	99.7	68.4	31.4%
Per capita consumption	3 year average l/h/d	133.7	122.4	8.5%
Business demand	3 year average Ml/d	100.8	106.1	(5.3)%
Mains repairs	repairs per 1,000km	152.8	152.9	(0.1%)
Unplanned outage	% of peak capacity	6.44%	3.13%	51%
AIM	Ml/d abstraction reduction	-14	-15	(7.1%)

14 Compared to 2022 / 23 performance
15 Our target is 0 but our forecast is a score of 2

5.4.3. Our Botex plan

Our Botex plan for water comes to £1.12 billion for 2025 to 2030. This includes everything to run and maintain our core services – repairing and maintaining our sites, pumps and equipment, paying our staff and finding and fixing leaks on our 14,000km network of pipes.

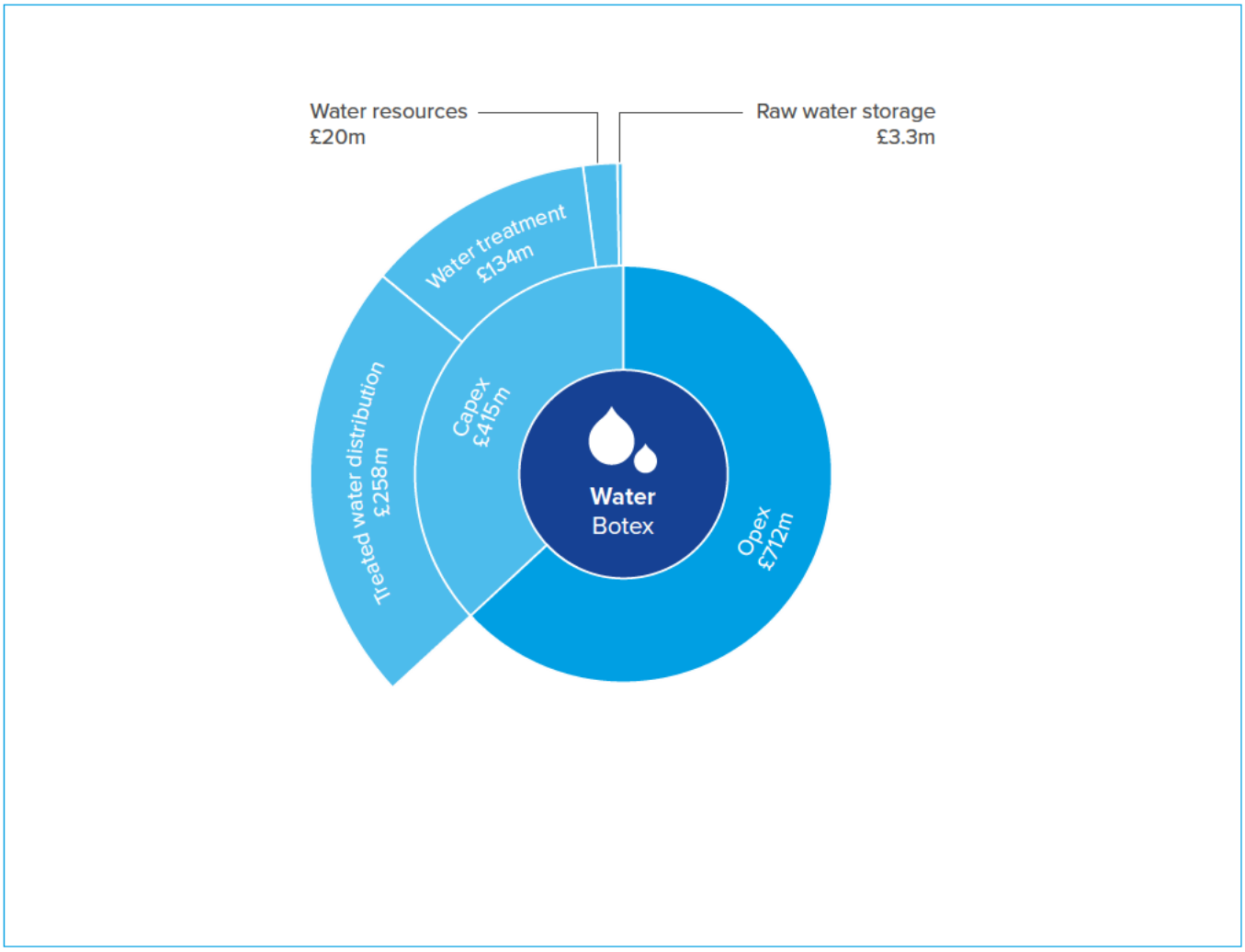


Figure 4: Our Botex plan for water

The cost of running all our support functions is also funded through Botex in both water and wastewater.

This includes things like HR, IT and the cost of running our offices. The costs for these functions are split proportionally between water and waste. More information is available in SRN19: Botex technical annex.

5.4.3.1. Treated water distribution

Reducing leakage is one of our customers' biggest priorities. We will deliver significant improvements through our enhancement programme (see section 5.4.4.2.4) as well as through our Botex plans. This includes our smart metering programme funded through a mixture of base and enhancement spending and a Cost Adjustment Claim.

A robust, stable network requires less reactive maintenance and will reduce incidents that would mean our customers lose supply. This will improve our Main Repairs, Water Supply Interruptions and CRI performance commitments.

We also have two programmes replacing targeted mains that have reached the end of their design life, meaning they could cause customers to lose supply or impact water quality – or the need extra resilience to cope with increased demand. This includes a scheme to improve improving supply and storage on the Isle of Sheppey to increase resilience after the significant loss of supply our customers faced in 2022.

We have allocated £14 million to our reservoir cleaning and maintenance programme to continue improving the condition of our assets and providing high quality water for our customers.

Water Service Reservoir capital maintenance will target the highest risk reservoirs which need intervention for structural or security of supply risk, such as relining reservoirs and building full height dividing walls.

Many of our Water Booster Stations are also ageing and need to be upgraded. A number of sites will need new electrical equipment, pumps and structural work to make them safe and provide resilience to the network.

5.4.3.2. Raw water storage

We have ten reservoirs that fall under the provisions of the Reservoir Act 1975. We have an obligation to regularly inspect and maintain to ensure compliance. In every five-year programme, we carry out a programme of statutory inspections and minor capital maintenance.

5.4.3.3. Water treatment

Some of our water treatment assets need to be upgraded to make sure we can continue providing high quality, reliable water supplies for our customers. This is in addition to our Supply Resilience Enhancement Programme (see section 5.4.5.1).

We will replace key components that have reached the end of their design lives, improve the safety and reliability of our equipment and replace power assets at key sites. We will also install or improve nitrate removal plants and algae and turbidity treatment to protect drinking water quality.

This is particularly important in our Sussex North Resource Zone which currently has a supply demand balance deficit. We will install algae treatment at an important storage reservoir to help reduce unplanned outage.

To further reduce unplanned outage, we will reintroduce two sites and improve the reliability of sites on the Isle of Wight by reintroducing boreholes, treating turbidity and improving site controls.

We will continue our HazRev programme to maintain and improve water quality by reducing risk and improving our CRI performance.

5.4.3.4. Water resources

We will continue our existing Headworks Improvement Programme which has identified and rectified sources at risk from poor water quality through a mix of investigations, removing contamination pathways and improving our equipment.

We will invest £4 million to repair and maintain boreholes across our region. We will also target resilience programmes in areas with water resources challenges, like our Sussex North Water Resource Zone. This includes redrilling a borehole to improve compliance and reliability and help us meet the supply-demand deficit in this area.

We will also carry out investigations and mitigation work in Kent where some adits are at risk of collapse. These would cause water quality problems and reduce the capacity of some sites – particularly during hot weather.

5.4.3.5. Cost Adjustment Claims

As part of the Business Plan process, Ofwat models the average costs it expects companies will incur to run their operations. However, each company faces unique challenges that mean their costs might be higher than average. Companies can submit Cost Adjustment Claims (CACs) to increase the allowances they receive to run day-to-day operations and meet their unique challenges.

We have submitted one water-specific water CACs totalling £91 million[16]. This is to support our smart meter roll out – meaning we can complete it within five years to help our customers save more water.

16 Meter replacement CAC

5.4.3.5.1. Cost Adjustment Claim – meter replacement rates (SRN24: Meter Replacement Cost Adjustment Claim)

The average water company replaces 3.4% of their water meters every year. However, our smart meter rollout in AMP8 we need to replace an average of 20% every year.

Replacing all our existing meters with smart meters will help our customers save more water on our way to achieve Target 100 and leave more water in the environment. We will also be able to find and fix more leaks – both on our networks and in customers' properties.

We were the first company to introduce universal metering. This means we have got a higher meter penetration than most other companies, and our meters are reaching the end of their design lives[17]. As well as supporting our smart metering programme, it is more cost effective to replace all our meters at once.

Our CAC is to increase our Botex by £91 million to make sure we can replace all our meters in five years, as this was the most cost beneficial way of rolling this programme out.

This CAC supports our smart metering enhancement business case – which is funding the supporting infrastructure and cost of the meters. We are considering using Direct Procurement for Customers or other alternative financing models for this programme.

We are also proposing a Price Control Deliverable for this programme to protect customers if we are unable to deliver the full programme.

5.4.4. Our enhancement plans

5.4.4.1. Summary

This section explains everything we will do to enhance our water services. We will spend more than £1.46 billion[18] to ensure our services comply with changing regulations and standards in the face of climate change, population growth and needing to further protect the environment. A further £818 million[19] of investment in new water sources and smart metering will be funded and delivered via alternative routes to ensure efficient delivery and defer costs to customers.

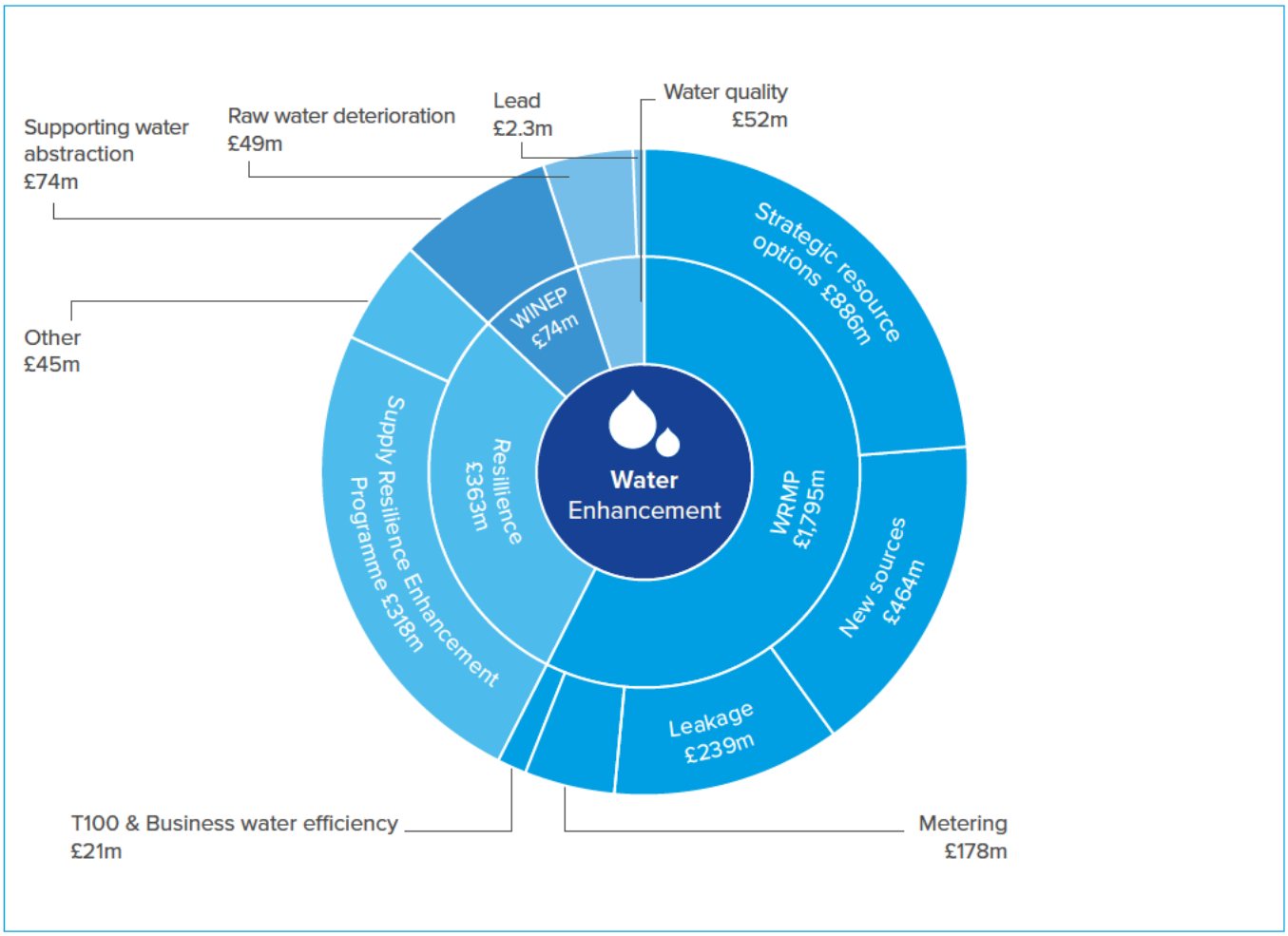


Figure 5: Our water enhancement plan

17 94% of household meters and 79% of non-household meters will be 15 years old by 2030
18 (see Table CW3)
19 (see Table SUP12.9)

Our WRMP includes nearly £1.8 billion of investment to reduce leakage, help customers save more water and start building millions of litres of new supplies, of which £977 million we are seeking in funding to deliver in-house during AMP8.

Our enhancement plans also include significant upgrades to our four largest supply works to increase the resilience of supplies to 62% of our customers, as well as other water quality and environmental improvements.

This is a once-in-a-generation, fundamental rework of crucial sites that we need to make to meet agreed regulatory standards, enhance our resilience, protect water quality and ensure these sites are fit for the future.

The rest of this section is in two parts:

- Our WRMP
- Increasing our resilience – including protecting drinking water quality

We have summarised our enhancement business cases under each section. At the end of this chapter there is a list of all the source documents we have referenced.

5.4.4.2. Water Resources Management plan

Water scarcity and shortfalls driven by climate change, population growth and increasing demand from industry are a reality. Our water resources management plan (WRMP) is about the decisions we need to take to make sure there's enough water for everyone in our region, now and in the future, and to protect and enhance our environment.

It addresses the three main challenges to our water supplies – protecting our environment, serving more people and climate change. Leaving more water in our environment to protect it for future generations is the biggest investment driver in our plan.

Our WRMP is the largest in our history and is more than six times larger than our previous plan. We will invest £1.66 billion in new water supplies, reducing leakage and helping customers save water – compared to £259 million between 2020 and 2025.

Table 4: Our WRMP Investment

	In-house delivery (included in CW3)	Alternative delivery (included in SUP12.9)	Total
Leakage reduction	£239 million		£239 million
Water efficiency	£21.4 million		£21.4 million
Smart metering	£13 million	£165.4 million	£178.4 million
Supply side schemes	£469.5 million	£369.6 million	£839.1 million
SROs	£233.8 million	£283 million	£516.8 million
Total	£842.3 million	£818.1 million	£1,794.8 million

As part of Water Resources South-East (WRSE) we developed an adaptive, best-value region-wide plan for water resources. This means our plan is part of a regional solution to the challenges we all face.

93% of our customers expect our WRMP to reflect the best-value regional plan.

"After reading all this, I do feel reassured that Southern Water are doing all they can for the future. The measures they are putting into place are correct. Planning for population growth, climate change and environmental factors are essential."

Household customer

Our plan includes a mix of solutions – from innovative new sources, like water recycling, to more traditional infrastructure like reservoirs and transfers between companies. Some of these transfers require new sources to be built in other regions – which we will partially fund through our WRMP.

It also includes ambitious leakage and demand reduction programmes. We will increase our use of technology and data, using drones to detect leaks and installing more than 1 million smart meters – helping cut leakage and our customers to save more water.

Our WRMP forecast the needs of our customers, communities and environment for the next fifty years. It informed our Long-term Delivery Strategy, and the adaptive pathways in our WRMP are reflected in our Long-term Delivery Strategy.

Our WRMP is a best-value plan. We have looked at where we can use nature first and can add extra benefits. We have balanced the water needs of our customers, communities and environment with affordability concerns.

Our WRMP24

We consulted on our draft WRMP from November 2022 until February 2023 and published our Statement of Response in August 2023.

At the time of writing, our WRMP had not received final sign-off from the Secretary of State and hence its final content is still uncertain. Currently it is necessary that our WRMP relies on the use of Drought Permits and Orders on the River Itchen, Candover Stream and the River Test.

This reliance goes beyond the dates previously agreed with the Environment Agency, in a section 20 agreement. We are working with our regulators to avoid and mitigate the impact of this strategy and it is possible that the final set of schemes will change.

A further consultation will be carried out but with the high-profile nature of our WRMP, it is possible that our plan will be subject to a public inquiry. If this were to happen, final publication of our plan may extend beyond 2024.

To allow for final changes to be incorporated into our WRMP we have included an uncertainty mechanism, details can be found in: SRN58: Uncertainty Mechanisms Technical Annex.

Our WRMP statement of response is available on our website.

5.4.4.2.1. Providing new water sources (SRN26: Water resources – supply enhancement business case)

We will build on our existing network of surface water and underground reservoirs to secure an extra 189 million litres a day by 2030. We will achieve this by investing in new transfers to move water to where it is most needed and two new sources including our first ever water recycling plant, alongside mitigation options outlined in our updated Water Resource Management Plan.

We will also progress the design and construction of schemes that will deliver a further 82 million litres of new water a day by 2035 – including groundwater sources and three more water recycling plants. We are planning to deliver our SROs and water recycling plants via alternative delivery – details of this can be found in SRN17: Direct Procurement for Customers and Alternative delivery models.

We will continue working with Portsmouth Water on Havant Thicket reservoir to help secure resilient water supplies and enable new transfers. This enhancement business case does not include schemes being delivered through the Strategic Resource Options (SRO) process. See section 5.4.4.2.2 for more information.

Our preferred plan includes:

- Delivering two supply side schemes providing 9.7 million litres per day
- Delivering five internal interconnector schemes, providing a total benefit of 110 million litres per day by 2030 with a maximum transfer capacity of 191 million litres per day
- Continuing four bulk supplies and three internal transfers to provide 69.3 million litres per day
- Start detailed planning and design work on schemes that will deliver benefits after 2030 – including 13 schemes that will deliver 82.36 million litres per day by 2035

> *"It is critical to consider future generations as the need / demand will change and if we base our plans on current society then it will become outdated extremely quickly. Overall, that will mean it is a waste of money."*
>
> **Household customer**

To plan our water resources, we divide our region into three areas:

- Our Western area includes Hampshire and the Isle of Wight
- Our Central area covers Brighton and Hove, West Sussex and parts of east Hampshire and small parts of Surrey
- Our Eastern area covers Hastings in East Sussex, and parts of the north Kent coast

The following sections summarises what we will deliver in each of our water resource planning areas through this enhancement business case. These interventions are in addition to our work to reduce leakage and help customers save water.

We have identified four schemes that we will look to progress through alternative funding routes. These schemes make up £369.6 million of our AMP8 spend and are expected to deliver 8.5 million litres per day between by 2030 and 36.5 million litres per day by 2035.

5.4.4.2.1.1. Western area

We face significant challenges in our Western area – largely due to the amount of water we need to leave in the Rivers Test and Itchen to protect them and meet our legal obligations. We identified a deficit of 123 million litres per day in our WRMP24.

Between 2025 and 2030 we will invest in two new sources that will deliver 9.7 million litres of water per day by 2030 and four interconnector schemes that will provide 110 million litres per day by 2030. This includes transfers identified in WRMP19 and a water recycling scheme at Sandown on the Isle of Wight.

We will also start work on five schemes that will deliver 34.75 million litres of water after 2030. This includes three new groundwater sources and an additional transfer from Portsmouth Water. Some of the extra water we need in our Western area is being delivered through the SRO process.

5.4.4.2.1.2. Central area

Water recycling pilot

We set up a water recycling pilot plant at our Budds Farm Wastewater Treatment Works in Havant to test the efficacy of our selected treatment process and use it as a destination for site visits with stakeholders.

The pilot plant was run in partnership with international experts and the School of Applied Sciences at the University of Brighton. It used microfiltration and reverse osmosis to turn treated wastewater from Budds Farm into purified, recycled water.

More than 100 stakeholders, including regulators, MPs, local councillors and environmental groups visited the plant and met the team on site for a tour and Q&A.

If we take no action, we will face a deficit of 51 million litres per day in our Central area by 2030. We also need to reduce our reliance on sensitive sources and protect a designated habitat in the Arun Valley.

Between 2025 and 2030 we will invest in one new interzonal transfer that will provide 4 million litres per day by 2027. We will also start work on five sources that will deliver 30.5 million litres of water per day after 2030. This includes a water recycling plant in Littlehampton, increasing capacity at a supply works and a transfer from another company. We will also start planning the Adur Offline Reservoir, which is needed after 2040.

5.4.4.2.1.3. Eastern area

If we take no action, we will face a deficit of 27 million litres per day in our Eastern area by 2030.

Between 2025 and 2030 we will increase our capability to use the full capacity of one interzonal transfer to provide an extra 9 million litres per day by 2027. We will also start work on three new sources that will deliver benefits after 2030. These are a new water recycling plant at our Medway treatment works, working with an industrial customer in Sittingbourne on a water recycling facility, and commissioning a groundwater source at Gravesend.

5.4.4.2.2. Strategic resource options (SRN29: Water resources – Strategic Resource Options enhancement business case)

Some of the new sources we need are being delivered through a Strategic Resource Option (SRO) process. This is because of their size and they cross company boundaries to rely on sources outside of our region.

Our plan includes £516.82 million[20] between 2025 and 2030 to develop three SROs:

- The Havant Thicket Water Transfer and Water Recycling Project (HWTWRP)
- The Thames to Southern Transfer (T2ST)
- The South-East Strategic Reservoir Option (SESRO)

These three schemes will create 210 million litres per day of additional water to address the supply-demand deficit we face in Hampshire – driven by reducing how much water we take from iconic chalk streams to protect them for future generations and ensure we can sustainably supply customers across Hampshire and Sussex in the long term. We are already progressing some of these schemes through our Water for Life Hampshire programme.

These options will take time to develop and deliver and will be operational after 2030. They will be delivered via DPC and our total AMP8 expenditure includes in-house planning and development for all three schemes and third-party construction costs on Havant Thicket Water Transfer and Water Recycling Project (HWTWRP).

5.4.4.2.2.1. Havant Thicket Water Transfer and Water Recycling Project

This is the largest part of our Water for Life Hampshire programme to protect Hampshire's iconic chalk streams.

We will build a water recycling plant at our Budds Farm wastewater treatment works and a pipeline to transfer this to Havant Thicket Reservoir. We will also build a pipeline to transfer water from the new reservoir to our Otterbourne supply works.

20 £234 million delivered in-house and £283 million delivered through DPC

This will deliver 90 million litres of extra water per day by 2035, and we will start building this scheme between 2025 and 2030.

Figure 6: Havant Thicket Water Transfer and Water Recycling Project

5.4.4.2.2.2. South East Strategic Reservoir Option (SESRO) and Thames to Southern Transfer (T2ST)

SESRO, also called the Abingdon Reservoir, is a new reservoir being built by Thames Water in Oxfordshire. It will enable Thames Water to transfer water to London, us and Affinity Water.

At peak times we will receive 120 million litres per day from SESRO when it is finished. As we will benefit from the new reservoir, we share some of the costs and responsibility for developing it. Our plan includes £53.4 million to contribute to SESRO. This represents 30% of the total AMP8 cost.

We need to build a new pipeline – the Thames to Southern Transfer – and other infrastructure to move the drinking standard before being moved to our Hampshire network.

We need to build a new treatment works and pipeline – the Thames to Southern Transfer – and other infrastructure to produce and transfer drinking water from SESRO to our Hampshire network.

Until now, Thames Water has been leading on this but from 2025, we will take over its development, and as it is to supply customers,mers we need to fully fund it. The cost in AMP8 to progress the scheme development is £79.8 million.

Figure 7: SESRO

5.4.4.2.3. Smart metering (SRN28: Water Resources – Smart metering enhancement business case)

We were the first company to roll out universal metering, meaning almost 90% of our household customers are metered. This helped our customers become some of the most efficient in the country, save millions of litres of water and find and fix leaks.

Trialing smart meter data

Our Bluewave Innovation Lab installed clip-on smart data enablers on 1,500 customers' meters across our region to understand the benefit smart metering could deliver. These take hourly readings and submit them for analysis every eight hours – providing near real-time data and helping find leaks.

The four-month trial showed us how different environments can impact connectivity, the importance of a robust data service provider and how improved data – even when sporadic – can help find leaks.

Bluewave is using the data from the trial to shape how we engage with our customers on water efficiency and smart metering, including how we provide them with the information they need to make water-efficient choices.

As part of a long-term Target 100 study, we are monitoring customers with a smart data device to see how often they access their smart data and whether this more detailed insight affects their daily consumption behaviour.

Smart metering is essential for our industry-leading Target 100 demand reduction programme where we aim to help household customers reduce their personal average daily use to 100 litres by 2045 and non-household customers reduce their average consumption by 9% by 2038[21].

Our meters are coming to the end of their design lives and will need to be replaced soon. We also want to make the most of new technology and our customers' support for smart metering.

We are planning to invest £175 million[22] to install more than 1 million smart meters[23]. This cost is split between two different sections:

- £91 million increase to our Botex to increase our meter replacement rate from 2% to an average of 20% per year (see our Cost Adjustment Claim in section 5.4.3.5.1)
- £63.4 million for smart metering technology and to increase our capabilities to get the most from it, this includes:
  - A new communications network for our meters
  - Improved analytics tools to get the most from the data we will collect
  - Engaging with customers and communities on everything from installing the meters, to how they work and how they can save more water
  - The people and processes we need to manage our smart metering programme
- This is in addition to our £22.8 million implicit base allowance for replacement at current run rate

We are proposing to use an alternative delivery approach to finance our smart metering rollout in AMP8. This is reflected in the business plan data tables we have submitted. The details of our AMP8 project development costs and payments to a service provider, under an alternative delivery approach, are set out in SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex.

We know metering can help customers save water and find and fix more leaks on our network and help customers identify leaks in their properties.

By 2030, we predict our smart metering programme could help save more than 7 billion litres of water each year. Smart metering will help:

- Household customers save 11.13 million litres of water a day
- Non-household customers save 2.58 million litres of water day
- Us reduce leakage by nearly 6.91 million litres of water a day[24]

The costs for this programme include the supporting IT and communications systems we need to provide regular, reliable data to our customers. Our smart meter rollout is also supported by the new customer system we will introduce between 2025 and 2030 (see SRN07: Customer – Household and Non-household (Costs and Outcomes)).

We considered replacing meters over a ten-year period rather than five or replacing meters as they fail. However, because most of our meters will reach the end of their design life by 2030[25] we need to replace them sooner minimising the cost of having to reactively replace meters on failure.

Smart metering is just one part of our work to leave more water in the environment. We will continue investing more to reduce leakage and support our customers and communities save more water – as well as investing in new sources.

5.4.4.2.4. Demand management – helping customers save water and reducing leakage (SRN27: Water resources – Demand enhancement business case)

Our customers expect us to show leadership and be ambitious when it comes to saving water. Our T100 plan is a commitment that by 2045 we will reduce consumption of water on average to 100 litres per person per day (five years earlier than the government target of 2050). We are committed to halving leakage by 2050 and helping our non household customers reduce their demand by 9% by 2038.

Alongside installing more than 1 million smart meters, we will invest £260.4 million to reduce leakage on our networks and help customer save water through our Target 100 programme.

Three quarters of our customers support our plan to at least halve leakage by 2050[26]. However, they wanted us to be more ambitious – either by reducing it further or quicker. We need to balance customers' preferences for us to be more ambitious with making sure bills are affordable and our plans are deliverable.

---

21 SRN27: Water resources – Demand enhancement business case
22 SRN28: Smart metering enhancement business case summary of costs table, page 8
23 SRN28: Smart metering enhancement business case – Executive Summary
24 SRN28: Smart metering enhancement business case – table 4, page 9
25 94% of household meters and 88% of non-household meters will reach the end of their design lives by 2030
26 SRN14: Customer Insight technical annex, Section 1 Index: 186 – Southern Water – WRMP Consultation quant report – Feb '23

Between 2025 and 2030 we will invest £239 million[27] to reduce leakage by 13% by:

- Renewing 300km of water mains to address the root cause of leaks – using our Pioneer deterioration model to efficiently prioritise the mains to renew
- Creating a digital network to change the way we target and detect leaks – investing in more sensors and creating digital models to make finding and targeting leaks quicker and easier
- Expanding our use of pressure management to stabilise our networks and reduce fatigue on our pipes that can lead to leaks and bursts
- Renewing communication pipes rather than fixing leaks on them – increasing their resilience and extending their life by 80 years

Our smart metering programme will also help us identify leaks – both on customers' pipes and our networks by giving us real-time insight into when and where water is being used.

We will support our smart metering rollout with our Target 100 programme – working with households and businesses to encourage water saving. We will:

- Support over 35,000 homes with water efficiency audits and fitting of water saving decides, with a similar targeting approach to businesses
- Provide education materials for schools and communities – helping create a water efficiency culture
- Offer customers different water efficiency products and tools to help them save water
- Use innovative tariffs to encourage water efficiency and a better appreciation of the value of water (see chapter SRN08: Affordability for more detail)
- Continue our communications and marketing campaigns, using insight from our customers and behavioural science best practice to encourage water efficient decisions
- Work with government and developers to encourage water efficient homes – unlocking development held up by water neutrality

5.4.5. Increasing our resilience and protecting water quality

Alongside securing sustainable water supplies, we need to increase the resilience of our works and networks that treat and supply water to customers across our region. This includes things like removing lead pipes, making sure our reservoirs remain safe and protecting sources from deteriorating.

We will deliver significant upgrades to our four largest supply works to increase the resilience of supplies to 62% of our customers, alongside other water quality and environmental improvements This is a once-in-a-generation, fundamental rework of crucial sites that we need to make to meet agreed regulatory standards, enhance our resilience, protect water quality and ensure these sites are fit for the future.

5.4.5.1. Supply Resilience Enhancement Programme (SRN25: Supply Resilience Enhancement Programme enhancement business case)

We need to invest £318 million[28] in our four largest supply works[29] between 2025 and 2030. This will make sure we can keep supplying high-quality drinking water to our customers until at least 2050.

Maintaining reliable, high-quality supplies of water is our customers' highest priority. More than 60% of customers receive water from these four works[30], supplying roughly 30% of our average daily total. and we also share water with SES Water and South-East Water.

> *"I am 100% supportive of this plan and for Southern Water to progress with this work. Because it is hugely important in terms of people's health. We are talking about something that will affect people's health. So for me, that is hugely important, and I am supportive of this plan."*
>
> **Household customer**

These sites are critical for the resilience and quality of our supplies, as well as the resilience of neighbouring companies. [redacted] In the future some of these sites will need to supply more water, or supply water from different sources. This means we need to enhance their capacities and capabilities to futureproof them.

27 this is in addition to finding and fixing leaks funded through Botex
28 In addition to our base allowance
29 The sites are not named for SEMD reasons
30 Total is 62% – SRN19: Supply Resilience Enhancement Programme enhancement business case – introduction

These four sites all face similar challenges, and do not currently meet our regulators' expectations. The challenges they face include:

- Facilitating sustainable environment-based solutions – preparing them for new sources, like water recycling as part of our WRMP
- Increasing demand for water means we need to be prepared to supply more water for longer from these sites
- Treating more water at different times due to weather extremes – depending on drought conditions, production will need to be increased to cope with higher peaks
- Vulnerabilities to power failures because the grid supplying them is also ageing
- Raw water quality challenges – climate change and emerging pollutants mean some sources will become less reliable

Since 2020, we have spent over £130 million to update, repair and maintain these sites to keep them running. We have also carried out a detailed review of these sites to understand what we need to do to make them fit for the future. We have shared the results of these with our regulators and have agreed a significant improvement plan with the Drinking Water Inspectorate (DWI).

We have worked with the DWI to develop Final Enforcement Orders to improve these sites. These are the result of a collaborative process where we identified a series of prescriptive actions we must take to protect water quality, enhance our resilience and meet the DWI's expectations. This also means we will not be investing in processes that will become redundant in the future – ensuring we deliver value for our customers.

We will upgrade treatment processes across all four sites, automate crucial start / stop processes to protect customers' water quality, increase their resilience to climate change and prepare these sites and our networks to support the new sources we need to reduce our reliance on delicate sources.

Some of the improvements we will make include:

- Replacing Electrical, Instrumentation, Control and Automation (EICA) assets across all four sites
- Installing new treatment process, including UV and innovative technologies like ceramic membranes
- Upgrading and replacing chemical storage and waste handling facilities
- Control process upgrades at all four sites
- Installing, upgrading or refurbishing Granular Activated Carbon filtration across all four sites

Delivering these improvement plans will support improvements to key customer outcomes. In addition to increase our resilience and compliance with the DWI's requirements, in AMP8 these improvements will reduce:

- Supply interruptions by 44%
- Contacts for taste and odour of drinking water by 26%
- Contacts for appearance of drinking water by 15%

5.4.5.2. Raw water deterioration (SRN30: Raw Water Deterioration enhancement business case)

In addition to significant upgrades to four sites, we need to enhance treatment processes to counteract deterioration of raw water quality at many of our groundwater sites. We have worked with the DWI to agree the scale of the improvements we need to make.

The quality of water in our sources – called raw water – has deteriorated over recent years because of pollution from nitrate. This is often caused by historic applications of fertilisers containing high levels of nitrate on fields. Over time this nitrate accumulates in our aquifers.

We have also seen levels of protozoa and viruses increasing in raw water and where detected, we need to put mitigation measures in place to be able to continue safely using the source. Through our ongoing monitoring and risk modelling we have identified that we will need to upgrade disinfection processes at 13 of our most critical groundwater sites in AMP8.

We are also investigating the long-term impact climate change will have on the quality of our sources so we can plan an efficient and sustainable mitigation approach. We will:

- Work with local farmers and landowners to prevent nitrate pollution at source
- Enhance treatment and disinfection processes at our most at-risk sites by installing nitrate removal plants, UV treatment and additional chlorine provisions
- Carry out desk and field-based studies to understand the impact climate change and new contaminants are having on our sources and treatment processes

These investments will counteract deterioration of our source waters and maintain our CRI performance, reduce our long-term risk, and improve our long-term resilience.

5.4.5.3. Water Quality Enhancements – Lead (SRN31: Lead enhancement business case)

Lead used to be a common material for water pipes, inside and outside customers' properties, but has not been used for new pipes since the 1970s because it can be harmful to children and vulnerable people.

We use harmless additives in our water to significantly reduce this risk and have very few lead failures. However, this is not sustainable, and we need to move to a lead-free network.

We estimate in 2025 we will have around 125,000 lead communication pipes on our network – in addition to lead pipes at customers' properties. As part of our commitment to a lead-free network by 2050, we will invest more than £3.7 million tackling lead in AMP8. This includes £1.4 million through our Botex plan and £2.4 million through our enhancement business case. In addition, lead comm pipes will also be replaced through our mains replacement programme.

We will target 200 public buildings in our highest lead-risk areas that are most likely to be used by children, such as primary schools and nurseries, as lead exposure carries the greatest risk to them. We will also replace any lead communications pipe we find during our mains replacement programme. We anticipate that during AMP8 1,100 lead communication pipes, 875 external supply pipes and 425 internal supply pipes will be replaced throughout our region.

5.4.5.4. Reservoir safety (SRN32: Reservoir safety enhancement business case)

We need to invest £24.9 million to improve the resilience and integrity of dam walls at two reservoirs – Darwell and Weir Wood. [redacted]

Large reservoirs, like Darwell and Weir Wood, are regulated under The Reservoirs Act and regularly inspected by the Environment Agency for safety. Any safety recommendations made under Section 10 of this act are mandatory. Inspections have found the drawdown capacity needs to be increased in AMP8.

By using what we learned from a project completed at Bewl Water, we have developed technically feasible options to comply with our statutory requirements and will deliver solutions during AMP8.

5.4.6. WINEP

Our environmental improvement programme, known as WINEP (the Water Industry National Environment Programme) proposes around £1.5 billion of investment to protect, restore and enhance the environment.

It is the most significant investment in our environment since privatisation.

It will ensure we continue providing our vital services in a sustainable way and play our part in creating a healthy, thriving environment for future generations.

The majority of WINEP is focussed on our wastewater operations, improving water quality in our environment and reducing our use of storm overflows. More information about our WINEP is in chapter SRN06: Wholesale Wastewater (costs and outcomes).

WINEP also includes actions specifically to protect and improve our drinking water sources.

5.4.6.1. Supporting water abstraction (SRN33: WINEP – Supporting water abstraction enhancement business case)

We worked with our regulators and environmental stakeholders to develop our water WINEP programme – focussing on balancing the need for more energy intensive treatment in future with investigations and nature-based schemes that deliver environmental benefits and wider value.

Through our £74.36 million water WINEP programme we will deliver 23 schemes, 2 monitoring plans and 15 investigations between 2025 and 2030 – including work as part of our Biodiversity Performance Commitment.

We have followed regulatory guidance and focussed on making our catchments more sustainable and resilient – emphasising partnership working and embracing nature-based solutions wherever possible. Our programme will provide evidence to support future investment and improve the environment, water quality and water quantity.

Our water WINEP supports water supply by:

- Providing the scientific evidence and technical justification required to support the sustainable abstraction strategy modelled in our WRMP
- Implementing interim enhancement schemes while new supply options are being developed to meet abstraction licence write-downs
- Collaborating with the agricultural sector to reduce the risks to our drinking water supplies from nitrate and pesticides
- Reducing the risks from invasive non-native species that can impair our abstractions
- Investigating how resilient our sources are to climate change

A summary of some schemes and investigations is below. For full details, see SRN33: WINEP – Supporting water abstraction enhancement business case.

5.4.6.1.1. Biodiversity and conservation

To deliver our Biodiversity Performance Commitment, we will establish biodiversity baselines and develop and deliver biodiversity enhancements across our estate.

We are looking for partnerships to co-deliver solutions and deliver best practice. Where possible, we will trial site management arrangements with third parties and encourage public access to our sites where appropriate.

We are working with a number of partners in the Upper Test catchment to implement a series of enhancements to the chalk stream to improve its form and function.

We are also investigating whether our abstractions are impacting SSSIs and developing mitigation plans, which include nature-based solutions and reducing our abstraction licences.

5.4.6.1.2. Drinking water protected areas

Between 2025 and 2030, we will collaborate with the agricultural sector on eight schemes to protect three surface water abstractions and 43 groundwater abstractions from deteriorating water quality.

We have worked with local stakeholders to develop these schemes – targeting the root of the problem and identifying opportunities to enhance habitats, naturally manage flood risk and work with nature to increase our resilience. This approach will reduce future need for new or renewed treatment processes – providing a best value solution by addressing the issues at source and creating environmental value.

5.4.6.1.3. Water framework directive

We are working with the Environment Agency on sustainability investigations to understand if our abstractions are impacting river flows and groundwaters. If we find they are, we will collaboratively develop and agree mitigations to implement by 2030.

These will vary from possible abstraction licence changes to nature-based solutions to increase ecological resilience and prevent deterioration to water bodies. Any abstraction licence reductions are modelled in the WRMP.

5.4.7. Security and Emergency Measures Direction (SEMD) and Network and Information Systems (NIS)

We need to enhance our physical and cyber security in AMP8 to meet regulatory requirements and adapt to the changing threat landscape we face. Details of our SEMD enhancements can be found in SRN35: Security and Emergency Measures Direction (SEMD) enhancement business case and cyber security enhancements can be found in SRN34: Network & Information Systems (NIS) enhancement business case[31].

We propose using an uncertainty mechanism to fund meeting the enhanced cyber security requirements, if they are confirmed. Further details of the uncertainty mechanism can be found in SRN58: Uncertainty Mechanisms technical annex.

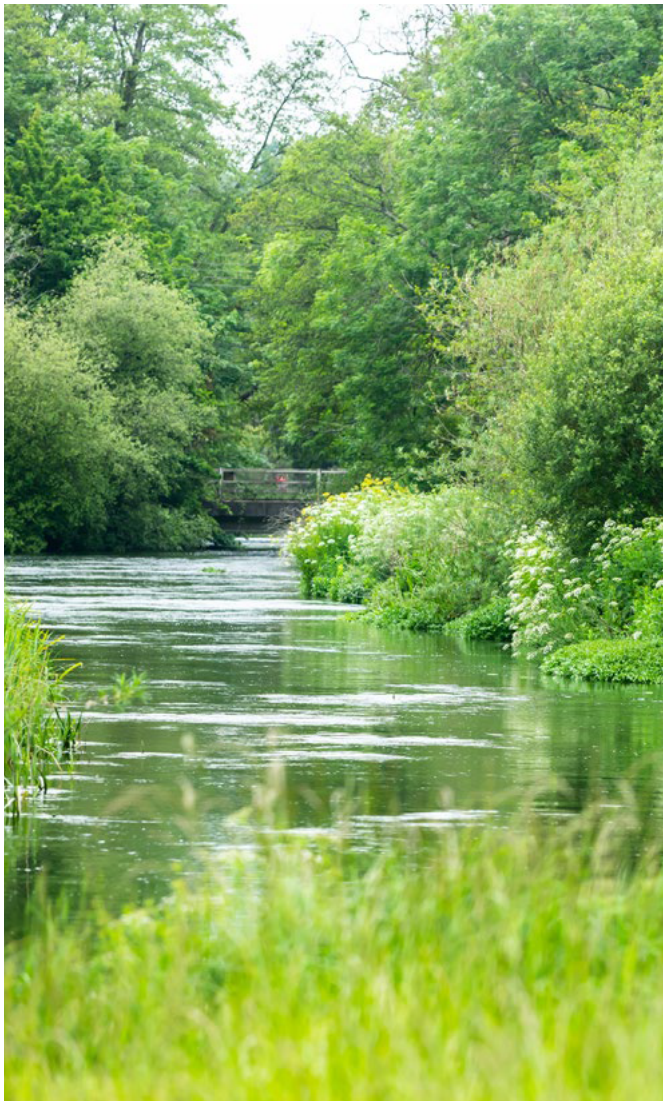
5.5. Delivering our plan

Our plan for 2025 to 2030 is twice the size of our current investment programme. We know delivering investment at this scale and pace is a challenge. We set out in SRN56: Deliverability technical annex the capacity, capabilities and processes we are putting in place to ensure this plan can be delivered.

We have already taken steps through our Turnaround Plan to increase our capacity to deliver – including securing additional shareholder funding, scaling up our procurement and supply-chain capabilities and developing our plan for 2025 to 2030 using rational phasing and alternative delivery methods. This has given us confidence to plan for a significant increase in investment and delivery.

The increase of investment programmes across the water sector will lead to heightened demand on the supply chain. Addressing this requires careful coordination and collaboration to make sure there is sufficient capacity and capability, while maintaining commercial tension to drive best value.

Our plans from 2025–30 include more advanced solutions and technologies, in addition to more work and specialist skills. Attracting and retaining key people, from field force to skilled environmental scientists, in a highly competitive region of the UK, adds weight to this challenge and the risks which can potentially slow down pace of delivery.



31 These cases are only available to our regulators due to security regulations

Reflecting on these challenges, and drawing from best practice delivery across the sector, we have assessed our current and planned measures against four core deliverability requirements to mitigate deliverability risks.

Supply chain strategy: We have established strong relationships and agreements with suppliers ahead of the next investment period and we will complete procurement of our delivery partners early in 2024.	**Portfolio execution plan:** We developed clear plans and priorities across the portfolio, aligning planning, delivery, and other business areas to ensure efficient execution and effective resource allocation.
Portfolio delivery and performance management: We are enhancing our programme management capability and capacity to track performance, implement the plans and oversee delivery.	**Strategic workforce:** We are committed to finding, retaining, and training the right people. Strategic workforce planning will address capability gaps and ensure a skilled workforce is in place.

Chapter SRN09: Deliverability has more information about the work we commissioned and how we are implementing this.

5.5.1.1. Alternative delivery and direct procurement for customers

We have identified four supply schemes, in addition to our SROs, that we will look to progress through alternative funding routes. These schemes make up £369.6 million of our AMP8 plan to be funded and delivered by a Competitively Appointed Provider (CAP) and are expected to deliver 8.5 million litres per day between by 2030 and 36.46 million litres per day by 2035. These schemes are:

- Water recycling at Sandown on the Isle of Wight
- Water recycling at Littlehampton in West Sussex
- Industrial water recycling in Sittingbourne in Kent
- Water recycling at Medway in Kent

More information about each of these schemes is in SRN26: Water Resources – supply enhancement business case.

We also plan to deliver our smart meter rollout via an alternative delivery approach. Although ineligible for DPC under Ofwat's guidance, our analysis and engagement to date indicates that the project could be delivered under a voluntary alternative DPC-lite delivery route.

More information about our approach to delivery is in chapter SRN09: Deliverability.

5.6. Statutory and regulatory obligations and plan uncertainties

We have had full regard to ensuring we continue to comply with our existing statutory and licence obligations through our business-as-usual assurance process (see SRN11 Data and Assurance). New obligations are addressed through our enhancement plans.

There are a number of areas where there is material uncertainty in the parts of the business plan. Many of these uncertainties relate to legal or policy decisions that are yet to be made at the point of business plan submission. Detail on these uncertainties identified by our plan is provided in SRN11: Data and Assurance, including those, noted below, pertinent to our Wholesale Water costs and outcomes which include:

Regulator agreement EA – WRMP: Our plan is based on our DWRMP24 which has not been signed off by the Secretary of State and hence is subject to change.

Our proposed environment programme and Water Resources Management Plan require a step change in investment to an unprecedented level, and this plan is six times larger than our equivalent plans in AMP7. This submission and linked WRMP submissions in August and September 2023 do not yet close all the deficits. We will work with regulators to develop and agree potential mitigations over the medium term to provide drought contingency as the solutions are built.

Regulator agreement Ofwat – Alternative Delivery significant use of alternative delivery mechanisms.

Prior to submission Ofwat has yet to agree to circa £1.4 billion of Alternative Delivery projects and these remain subject to agreement at Business Plan submission. We support this Alternative Delivery and its benefit of spreading the costs of investment over a longer period to free up internal resource on the delivery of other plan elements.

Scale and challenges of Deliverability – deliverability of a plan that is twice the size of AMP7 and supply chain challenge.

Our plan will see a doubling of our current investment programme. Delivering investment at this scale and pace will be a challenge – particularly given our performance and delivery has not been where it needed to be. We have identified new strategies to mitigate this challenge, including an updated supply chain strategy, new approach to portfolio planning delivery and performance, and a strategic workforce review. Increased investment programmes across the entire UK water sector will heighten demand on, and scarcity, in the supply chain.

Chapter SRN06

Wholesale Wastewater

(Costs and Outcomes)

6. Wholesale Wastewater (Costs and Outcomes)

6.1. Executive summary

This chapter explains our investment to increase the resilience of our wastewater systems, enhance water quality, enable new housing growth and protect and improve our environment.

Every day our 39,973 kilometres of sewers and 3,499 pumping stations transport on average 1.3 billion litres of wastewater and rainwater from our 4.9 million customers' homes and businesses, and from the drains outside. This water is carefully treated and recycled to strict standards at our 363 treatment works before being returned to the environment.

We know we need to improve our performance to meet the expectations of our customers and regulators to increase the confidence and trust they have in us. We are working hard to improve our performance. We are delivering these improvements through our Turnaround Plan.

From 2020, we have focused on reducing pollution incidents, improving our compliance and becoming more proactive in how we respond to issues.

We installed 24,000 monitors to track flows in sewers and created a proactive control centre, supported by artificial intelligence, to identify blockages and pump failures before they occur so we can respond faster to prevent damage to homes or the environment. In the first six months of 2023 the percentage of blockages we proactively identified increased from 2% to 16%.

The Environment Agency has recognised the improvements we are making by awarding us two stars for environmental performance in 2023 – up from one star the previous year[1]. We are aiming to achieve a three star performance rating by 2025 and have already delivered significant improvements on pollution incidents, discharge compliance and sewer flooding[2].

Our customers – rightly – expect us to continue improving the essential services we provide and enhance how we protect our environment[3]. Discharges from storm overflows, regardless of whether they are permitted, are not acceptable. They expect us to accommodate new homes while protecting water quality and to do more to reduce pollution and improve our compliance.

However, our region and services face severe challenges:

- The climate emergency, particularly in the South-East, means droughts and heavy storms are more severe and frequent than before and have become the norm[4]
- Our communities are growing rapidly – with growth hotspots like new garden cities and new homes across our region. More than 40%[5] of our communities are in coastal areas, making it challenging to expand and upgrade our existing assets
- The need to protect and improve the environment, and the ecosystems that depend on it, is now greater than ever.

Overall, we plan to invest £4.1 billion[6] in our wastewater services between 2025 and 2030 to:

- Reduce our use of storm overflows by a further 12% across 179 priority sites (a 38% reduction from our 2020 baseline)
- Reduce overall pollution incidents by 67% and eliminate serious pollution incidents
- Accommodate over 86,000 new homes by 2030, including by building a new treatment works at Whitfield near Dover
- Improve water quality in over 1,000km of rivers by 2030
- Two new advanced bioresources treatment centres, improving product quality and increasing power generation

We plan to invest £3 billion over the next 25 years to reduce discharges from storm overflows to prevent environmental harm and protect public health. This starts by investing £682 million[7] between 2024 and 2030 to stop a further 2,500 spills – prioritising sensitive waterbodies in rivers as well as shellfish and bathing waters along the coast.

We will also invest £559 million between 2025 and 2030 to improve the recycling of wastewater to remove more nutrients such as phosphorous and nitrogen from our discharges before they are released back to the environment.

Reducing our use of storm overflows and enhancing our wastewater treatment works will improve water quality in over 1,000km of rivers, as well as in the harbours, estuaries and the sea.

1 Southern Water EPA data report 2022
2 Refer to Table 1: Wastewater AMP7 Performance
3 See chapter SRN03: Customer Acceptability
4 SRN48: Operational Resilience technical annex
5 SRN20: Coastal Population Cost Adjustment Claim
6 Includes £497m delivered via alternative delivery
7 Includes schemes being delivered through the alternative delivery approach

We are forecasting significantly higher than average levels of growth between 2025 and 2030. This means we need to enhance capacity at 38 wastewater treatment[8] works to make sure we continue to protect bathing waters, SSSIs and other sensitive habitats. We will also need to provide additional capacity in our sewer network to ensure new developments do not increase the risk of flooding for other customers.

Extreme weather events are happening more often and are expected to become more common in the future. We will improve the resilience of our most at-risk sites and use what we learn to identify sites and solutions for future AMPs.

We will build on the improvements we have already made – investing through our maintenance plans to improve the health and reliability of our critical assets. Asset data and modelling is becoming even more important to support these improvements, requiring us to complete the rollout of new GIS, maintenance systems and network models.

Our plans will deliver a step change in our performance, capabilities and capacity – and our customers and communities will see tangible benefits. Our customers support our plans[9] – but this depends on us delivering our promises.

6.2. Our context

6.2.1. Our region, environment and communities

We operate in 11 river basin catchments across Kent, Sussex, Hampshire and the Isle of Wight. Our region is home to over 4.9 million people and is rich in areas of national and international environmental importance.

This includes:

- 84 designated bathing waters – with 57 currently classified as excellent
- 3,400km of rivers
- 20 marine conservation zones
- More than 700 miles of coastline

The map below shows the scale of environmental designations across our region.

Bathing and shellfish waters are vital for our local communities, and our customers expect us to do more to protect and improve them.

Our customers and communities have a strong connection to nature, especially our coastline, and it's important for their wellbeing. For many, it's the reason they choose to live here.

> *"On The Isle of Wight we are so reliant on tourism, it has taken a real drop recently. We need this to be addressed and addressed now. Do it all, and shout about it to bring tourism back."*
>
> **Non-Household Customer– Environmental Ambition Research**

Almost three-quarters of our customers regularly visit beaches and around 80% expect to be able to swim safely in the sea[10].

However, when customers think water quality is poor 62% of them would stop their usual activities. It can also impact their overall wellbeing[11].

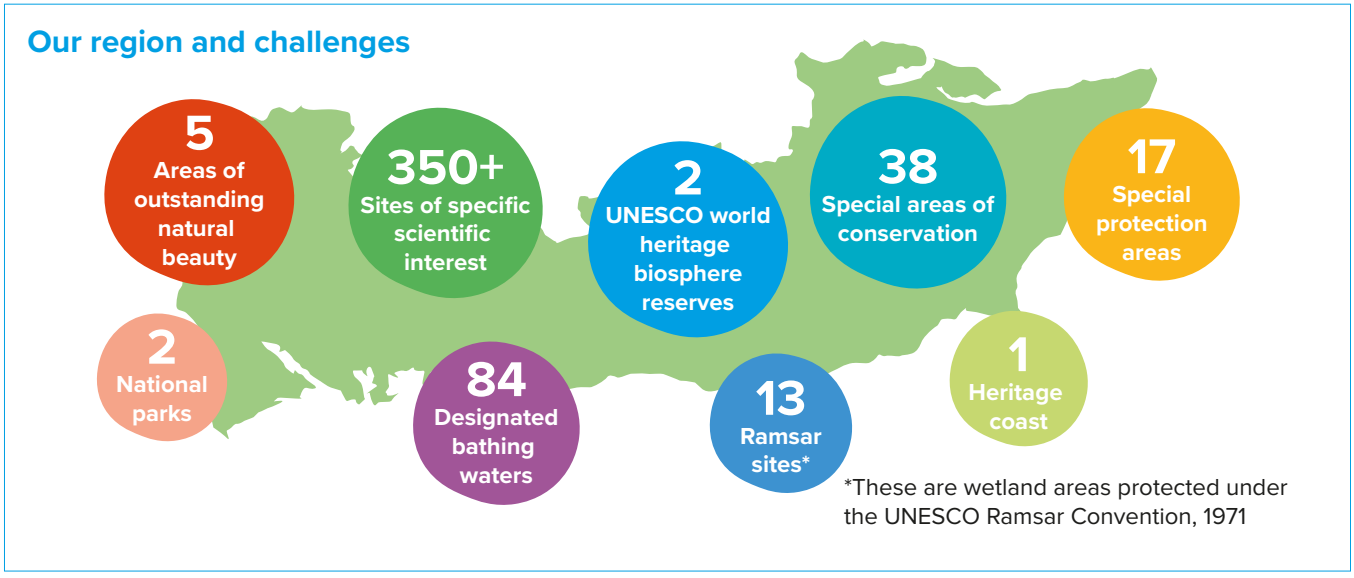


Figure 1: Our region and challenges

8 SRN44: Wastewater Growth enhancement business case
9 See chapter SRN03: Customer Acceptability
10 See chapter SRN03: Customer Acceptability
11 SRN14: Customer Insight technical annex, Section 1 Index: 153 – Southern Water – Waterside wellbeing report – Oct '22]

6.2.2. Our AMP7 performance

We know we have fallen short in some crucial areas for our customers and stakeholders. We have been working hard to improve, be more transparent and start regaining our customers' trust.

We have one of the highest self-reporting pollution rates in the industry[12]. As part of our commitment to transparency we launched Beachbuoy in 2021, sharing near real-time information about stormwater overflows. We were the first company to make this information freely accessible to our customers.

We have enhanced how we capture and learn from data – helping us understand the root causes behind issues. We use this to develop our improvement plans – including our Pollution Incident Reduction Plan (PIRP), updated annually and published on our website.

In July 2023, the EA confirmed we had achieved a two-star environmental performance rating for 2022[13] – a step forward from the previous year. Forecasts for 2023/24 show significant improvements for pollution, flooding and treatment compliance – all key outcomes for our customers.

Table 1: Wastewater AMP7 Performance

Performance area	2020/21 baseline	2022/23 actual	2023/24 forecast	2024/25 target
Total pollution (Cat 1 to 3)	406	358	230	193
Serious pollution (Cat 1 and 2)	4	5	4	2
Discharge permit compliance	97.1%	98.2%	99.1%	99.1%
Internal flooding	393	456	365	274
External flooding	4,409	3,748	3,702	3,525
Sewer collapses	315	248	250	250
Bathing waters at excellent	60	57	57	57

Bathing water quality has been improving steadily since 2007. There are many different impacts on bathing water quality, so partnership working is crucial. We provide technical, analytical and investigative support to local authorities, regulators and other stakeholders to make improvements. For example, our dedicated misconnections team identifies problems which the local authority can resolve.

Working collaboratively to improve bathing water

A misconnection can occur where DIY or property development connects foul water into the surface water system, taking the untreated sewage out into the environment and bathing water areas.

We set up our misconnection team in 2019 to investigate the surface water network in coastal locations. In 2022 the team identified almost 100 properties with misconnected pipework, and 370 separate facilities including 58 toilets.

In most cases it is the homeowners' responsibility to fix misconnections. Following a series of tests to confirm the connection, a letter is sent to the customer. In the last four years, we have only had to rely on our strong relationships with local authority Environmental health teams to enforce a homeowner to rectify an issue.

In addition to proactively investigating surface water catchments and resolving poorly connected properties, the team also identifies operational issues in our networks. This approach has resulted in 140 issues such as blockages and pollutions being prevented since 2019.

12 Environment Agency: Water and sewerage companies in England: environmental performance report
13 Southern Water EPA data report 2022

6.2.3. AMP7 delivery

Since 2020 we have:

- Installed nearly 24,000 sewer level monitors to digitise our network and enable us to use machine learning to identify problems before they happen
- Created a new proactive control centre to prioritise emerging issues, acting on intelligence from our sewers and pumping stations rather than waiting for events to happen
- Started using our annual PIRPs to find and fix the root causes of problems
- Established our Cleaner Seas and Rivers Task force to start reducing storm overflow spills and pilot nature-based solutions to inform our storm overflow plans
- Delivered 895 WINEP[14] schemes and investigations to date including:
  - Dozens of schemes that have improved water quality in more than 102km of river[15]
  - Installing new monitors on 263 storm overflows – increasing our coverage to 98.6% of our combined sewer overflows and keeping us on track to have 100% coverage by December 2023
  - 418 site-specific investigations with our regulators to target future investment – including schemes in our next WINEP[16]
- Connected 83,000 new homes and businesses to our network
- Delivered major rising main refurbishments at Lancing, Hastings and Margate to address repeat bursts
- Published our first Drainage and Wastewater Management (DWMP) plan and used our findings to inform our Long-term Delivery Strategy (LTDS) and Business Plan

14 Includes 44 schemes from AMP6 with 2021 delivery dates

15 Seven water quality schemes last year, improving water quality in 20.2km river – in addition to the 102.7km we improved in 2021 / 22

16 Southern Water Annual Report and Financial Statements – page 62

Pollution Incident Reduction Plan

Our 3,500 sewage pumping stations have caused over half of all pollution incidents (2022). Our plans led to a 28% improvement supported by a £37.5 million investment into pumps, valves and control systems. Asset availability increased by 8% through this investment, providing greater resilience.

Improvements are not just about additional investment, our processes and procedures have also been completely reviewed, including:

- Full review of our wet well cleaning programmes
- Black start testing on critical pumping stations to test standby power supplies
- Full health check at top 280 pumping stations, causing 90% of historic incidents. Remedial work underway but continuing into AMP8
- New human factor practitioner role to understand and reduce human error, supported by incident learning cycle.

We have also built strong local partnerships that are starting to deliver benefits for our customers, communities and environment. This is crucial for our Three Harbours Strategy. (See section 6.2.4.5.)

6.2.4. Trends, challenges and opportunities

The world around us is constantly changing and this impacts how we provide our services. We have identified different trends, challenges and opportunities and how they will change what we do in the future.

We are predicting the highest amount of housing growth of any wastewater company[17], and we need to make sure we are able to support this. Climate change means extreme weather events are becoming more frequent. This places greater strain on our networks, as well as our environment.

Customers', stakeholders' and regulators' expectations have changed rapidly since our last Business Plan, especially around the environment. Technology is developing rapidly, and we need to make sure we take advantage of new opportunities while being mindful of new threats.

6.2.4.1. Supporting a growing population

Our region has one of the fastest growing populations in the country, with annual housing growth forecast at 0.85% per year compared to an industry average of 0.63%[18]. Over the next five years we will have 86,000 new property connections with an additional 190,000 people. By 2050 we predict serving 800,000 more people – including at new garden cities and communities in Kent and Hampshire[19].

We need to make sure our wastewater networks – our treatment works, pumping stations and sewers – have enough capacity to serve new customers. We also need to make sure extra development doesn't increase the amount of surface water entering our sewers. Currently 65% of storm overflow spills are due to rainwater entering our sewers[20].

Housing growth in some areas is slowed because new homes will increase nutrient levels in environmentally important water bodies. The Levelling Up and Regeneration Bill will require us to upgrade our treatment works to the highest standards in these priority catchments. This will help achieve nutrient neutrality – protecting the environment while enabling housing growth.

We need to balance the needs of growth with making sure we protect and improve the environment. It is hard to accurately forecast how many people will live in our region over the long-term, so we have made sure we can adapt our plans to the number of new homes we see.

6.2.4.2. Adapting to climate change and more extreme weather

Any weather event, such as a storm, drought or freeze / thaw, that interrupts our services are called 'loss events'. These are becoming more frequent and climate change means they will happen more often in the future. We need to protect our assets to make sure we can continue providing services to our customers and protecting the environment.

More intense storms can cause our sewers to become overfilled or lead to power outages, which increase the risk of pollution and flooding. Hotter, drier summers have different impacts on our sites – such as them overheating and shutting down for safety reasons.

Because so much of our region is coastal, many of our sites and sewers are at risk from coastal erosion[21]. This is also being made worse by climate change.

17 See SRN22: Network and Wastewater Treatment Works growth Cost Adjustment Claim and SRN44: Wastewater treatment works growth enhancement business case

18 Ofwat, PR24 Cost Assessment Master Dataset, Wholesale Wastewater base costs April 2023

19 Summary of our Drainage and Wastewater Management Plan 2025–50

20 SRN40: WINEP – Storm Overflows enhancement business case

21 SRN53: Resilience – coastal enhancement business case

Increasing loss events

Met Office data* shows loss events have increased from just over 200 in 1980 to more than 800 in 2019.

Over the past 5 years we have been impacted by 33 named storms, which has resulted in disruption to service and 414 pollution events.

**Met Office Extreme Weather Events and Climate*

We have seen:

- Increased rainwater flow in our wastewater network – which can quickly overwhelm our sewers and pumping stations
- High groundwater during wetter winters which can infiltrate sewers and the excess flows can cause flooding and pollution issues. Before 2000, high infiltration periods typically occurred every 10 years, however there have been two similar periods in the last 5 years (2019/20 to 2020/21 and 2022/23)
- Some of our sites are vulnerable to flash flooding, causing pumping stations and treatment works to either stop working or operate at reduced capacity
- A growing number of sites being impacted by hotter summers causing some equipment to overheat and then stop working so they do not become damaged
- Storm Eunice in 2022 caused 365 of our pumping stations to lose power across our region, representing 10% of our total pumping stations[22]

6.2.4.3. More significant environmental improvements

Our customers expect us to do more to enhance and protect our environment for future generations[23] – and this is reflected in recent legislation and targets. Protecting and improving our environment is the biggest investment driver across our plan.

Our environmental programme, WINEP, has more than 80 different legal and regulatory drivers behind it. These include the Environment Act, the Water Framework Directive, Urban Wastewater Treatment Directive, Bathing Water regulations and the Farming Rules for Water.

Many of these require us to meet new standards such as significantly reducing our use of storm overflows, changing how we store bioresources and treating wastewater to higher standards to protect water quality in rivers and coastal areas.

Significant changes in public opinion and expectations since our last Business Plan have been reflected by Government and regulators in The Environmental Improvement Plan. This requires water companies to:

- Protect all designated bathing waters and the majority of our most sensitive and protected habitats from storm sewage discharges by 2035
- Eliminate all adverse ecological impact from storm overflows by 2050
- Ensure all storm overflows discharge less than an average of 10 times per year by 2050

6.2.4.4. The increasing pace of change

Technology is changing rapidly, and we need to make sure we keep up. The pace of change opens opportunities to do things differently. It also creates new risks if we fall behind.

New digital capabilities, like AI and machine learning, alongside better, more accurate sensors, can give us new insights into how our networks work. Other new technology can make our processes more efficient or effective – or mean we can do things in new ways.

We installed 24,000 sewer monitors and are using machine learning to understand how our network operates. Our [redacted] system analyses data from our monitors and can predict when an issue might occur – and whether that is due to a blockage, pump failure or rainwater. This means we can proactively find and fix potential problems.

Customers also want us to do things in different ways. Where possible, they want us to use nature-based solutions first. This can be a challenge for some objectives, like meeting tighter permits, but means we are able to consider solutions that provide wider benefits[24].

Using more nature-based solutions opens new partnership opportunities and means we can build on our existing relationships. They can also reduce the amount of carbon we release and enhance biodiversity. Our customers expect us to put nature-based working at the heart of our planning to maximise the benefits we provide our communities and environment.

However, if we can't take advantage of these opportunities we risk falling behind and having to rely on more traditional ways of working. These are more predictable, but do not deliver the wider, long-term benefits we want.

Increasing our digital capabilities can also expose us to cyberattacks and other threats. We need to make sure we protect our infrastructure and have resilient systems in place to cope with new challenges.

22 SRN49: Resilience – Power enhancement business case
23 See chapter SRN03: Customer Acceptability, Section 3
24 See chapter SRN03: Customer Acceptability, Section 3.2

6.2.4.5. Partnerships and collaboration

We are working in partnership to improve water quality in three environmentally important harbours in Hampshire and West Sussex.

The three harbours contain designated shellfish waters, SSSIs, SACs, SPAs, Ramsar sites and an Area of Outstanding Natural Beauty, among others. The area also contains groundwater sources used by Portsmouth Water to supply drinking water. Despite this high level of protection, the condition of nature in some areas has been assessed by Natural England to be in an unfavourable declining position[25].

We are already investing £72 million to upgrade the seven largest wastewater treatment works that release into the harbours and nearby rivers. This includes how much wastewater can be treated, building extra stormwater storage and adding new treatment facilities. This work due to be completed by 2025, will improve water quality in the harbours.

The impact of wastewater treatment is comparatively small compared to the nutrient load from other sources. We are working in partnership with our regulators and other parties whose activities have an impact on the harbours to reverse their decline, restore and enhance these precious environments.

We have established a Three Harbours Technical Working Group to develop an integrated long-term plan, focused on improving water quality, enhancing natural capital and increasing biodiversity in these important habitats.

We are applying what we have learned from this project to new partnerships and ways of working. Our WINEP includes proposals to continue supporting the integrated Three Harbours plan, share data across agencies, use citizen science to contribute to our investigations and enable partnership working.

Bluewave and our Innovation Hub

Our Bluewave innovation lab has developed an enduring partnership with the University of Portsmouth to work on wastewater challenges through our Innovation Hub based at our Petersfield Wastewater Treatment Works.

This includes a rolling series of trials based around the test-bed facilities at our Environmental Technology Field Station aimed at understanding how we can apply new, innovative solutions and approaches to our emerging challenges. This unique facility has extensive research and testing equipment, and our partnership means we can use the specialist equipment at the University of Portsmouth.

The Hub has supported projects on removing phosphorous at small sites where conventional approaches are less appropriate – as well as new approaches to meeting tighter consents that can be scaled up to our larger works. We have also worked on solutions to remove heavy metals during the treatment process and increase biogas production.

Our collaborative trials of commercially available absorptive media identified a new reactive media (Polonite) to be installed at our East End wastewater treatment works to meet tighter water quality standards.

25 Condition review of Chichester Harbour sites: intertidal, subtidal and bird features (NERR090)

6.3. Preparing for the future

We know the challenges we face and the opportunities we have to do things differently. We also know what our customers, communities and stakeholders expect from us.

We used this insight to develop three linked plans that have all informed our Business Plan:

- Our Turnaround Plan is delivering short, sharp improvements by 2025 to set us up to deliver our Business Plan
- Our Drainage and Wastewater Management Plan (DWMP) is our first 25-year look at the investments we need to make in our wastewater network across our region
- Our Long-term Delivery Strategy combines our DWMP, with our Water Resources Management Plan and the other activities we need to do to enhance our resilience over the next 25 years

We have explained more about each of these below.

6.3.1. Our Turnaround Plan

We are committed to improving our waste and environmental performance. By 2025 we aim to have been awarded a three-star performance rating from the Environment Agency. We will achieve this by:

- Building capacity and resilience at our wastewater treatment works to reach 99%+ compliance with treatment and permit standards
- Making sure our assets are reliable and work to capacity. Updating our maintenance standards and proactive control to minimise the risk of assets failing, and an improved emergency response
- Digitalising our sewer network to reduce pollutions and flooding, using industry-leading monitors, artificial intelligence for prediction and maintenance
- Improving training, development and productivity by upskilling our front-line colleagues. Making sure they are multi-skilled and externally accredited to deliver the service our customers expect

6.3.2. Our Drainage and Wastewater Management Plan

We published our first Drainage and Wastewater Management Plan (DWMP) in May 2023. It explains the current and future challenges our drainage and wastewater systems face and how we will address them. It looks at each of our 381 sewerage systems, understanding the current and future risks. Through it, we identified a need for £7.7 billion of additional investment over the next 25 years, with an emphasis on tackling issues at source, working with nature and delivering wider multiple benefits for our customers and their communities.

We developed our DWMP collaboratively, working with 75 organisations across our region. With their input we identified 14 key planning objectives, building on the six common objectives used across the industry[26]. These longer-term objectives align well with shorter term WINEP regulatory targets, providing a more integrated assessment of needs.

Our DWMP has been the key source of information for our Long-term Delivery Strategy – identifying the actions we need to take and the different scales of challenge we could face up to 2050.

6.3.3. Our Long Term Delivery

Our Long Term Delivery Strategy (LTDS) explains what we need to do over the next 25 years to protect and enhance our environment, improve water quality and increase the resilience of our wastewater services. It is based on our DWMP and our bioresources strategy.

It is an adaptive plan, meaning it might change over time depending on the impacts of climate change and population growth – as well as how technology changes, the benefits of nature-based solutions and potential regulatory changes.

Our bioresources strategy[27] sets out the challenges, assesses options and sets out our long-term proposals to deliver them. We plan to move to Advanced Anaerobic Digestion, starting in Kent, to provide the foundation for moving to advanced thermal conversion.

26 All 14 planning objectives can be read on our website: www.southernwater.co.uk/dwmp/planning-objectives
27 See SRN36: Bioresources Strategy technical annex and SRN21: Advanced Digestion Cost Adjustment Claim

Our LTDS adaptive pathways are shown below:

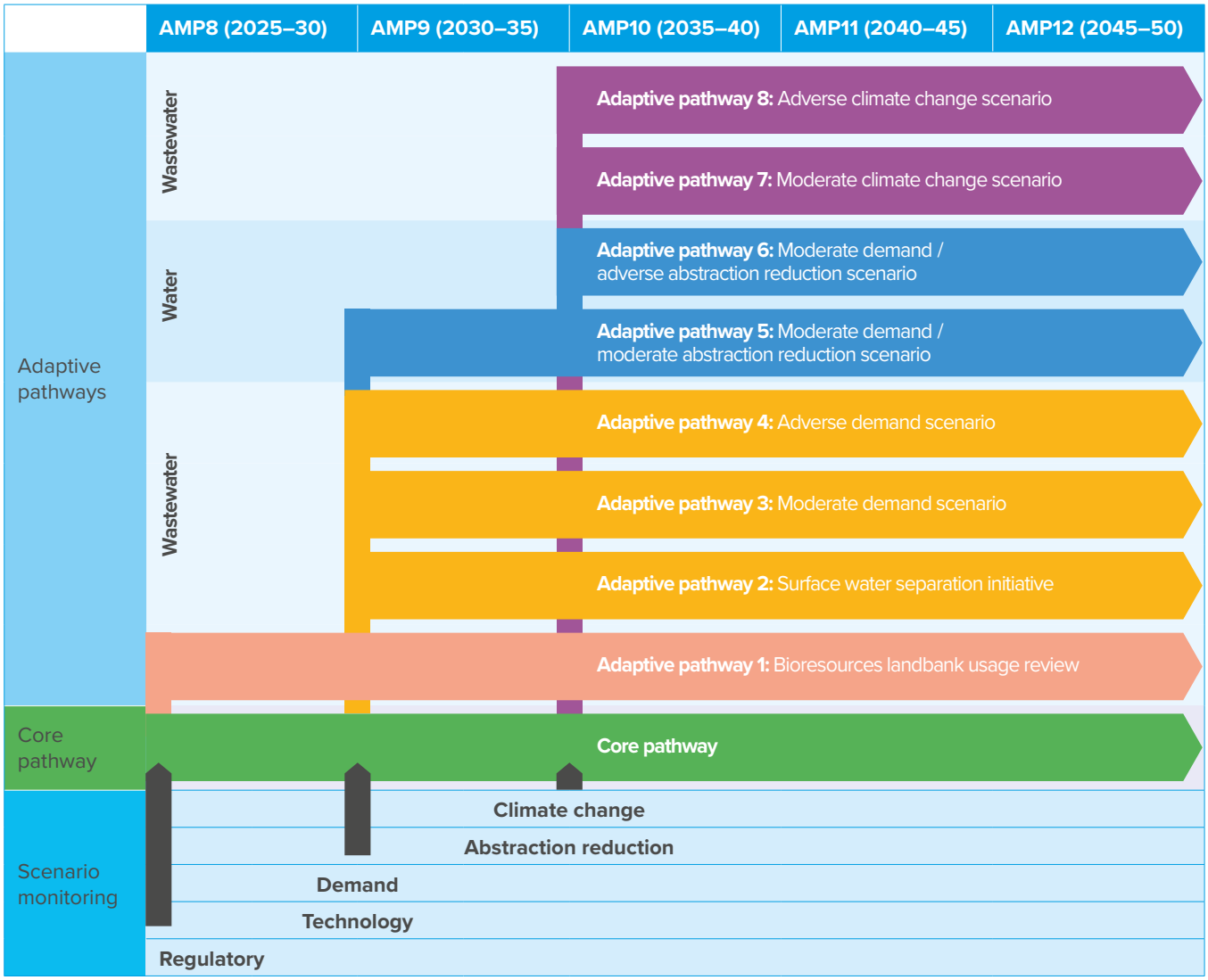


Figure 2: Our LTDS adaptive pathways

6.3.3.1 Our Long-term Strategic Delivery themes

We have four strategic delivery themes in wastewater and our investments sit under at least one. Our themes and some key investments under each are below.

We will improve **Network flow management to reduce flooding and spills** by:

- Using sustainable drainage systems, such as swales, raingardens, ponds, to slow the flow of water to allow existing drainage systems to drain water away over a longer period of time
- Building new, or increasing the capacity of existing, storage tanks after we've used nature-based solutions as much as we can
- Increase the capacity of our wastewater pumping stations, storage tanks and sewers – including building new ones if we need to.

We will enable **Recycling wastewater and nutrient removal** by:

- Increasing and enhancing biological treatment capacity to meet new and emerging environmental standards
- Testing and adopting nature-based solutions and innovative treatment processes
- Developing stronger partnerships to develop long-term action plans to improve water quality – including through our Three Harbours Strategy

We will increase our **Asset health and resilience** by:

- Delivering a step-change in the use of monitors and artificial intelligence to identify emerging issues before they cause pollution or flooding. For example, we have installed 24,000 sewer level monitors so we can proactively identify blockages and failures
- Carrying out a full review of our asset maintenance programmes, revising our maintenance strategies and care plans to improve the resilience of our treatment works and pumping stations and reduce the risk of breakdowns
- Taking a proactive approach to identify future resilience risks, developing and delivering targeted enhancement business cases where we are vulnerable to future shocks and stresses.

We will **treat and dispose of bioresources** by:

- Transitioning to advanced anaerobic digestion to enhance operational resilience, improve the product quality for agriculture and increase renewable power generation
- Consolidate our asset base – starting in Kent where we will consolidate seven sites into two
- Trialling Advanced Thermal Conversion technology which, if successful, would improve our efficiency, lower our emissions and increase how much renewable energy we can generate

6.3.4. What our customers and stakeholders told us[28]

Our plan is informed by our most detailed customer engagement ever. More than 25,000 customers spent over 8,000 hours via over 190 different reports telling us what they think to develop our plan. We combined this with over 10 million data points from sources such as contacts, complaints, social listening and other sources.

Our customers and communities have strong links to their natural environment and their biggest priority for us is protecting and improving our environment:

- 86% agree 'the environment is more important today than it has ever been before'
- 58% agree and only 16% disagree that "we should do everything we can to protect the environment, even if it means bills rise'[29]

They expect us to work with nature first, wherever possible, and look for ways to deliver wider environmental benefits:

- 65% agree that Southern Water needs to first invest in things that have the greatest environmental benefits, and anything else afterwards' (only 14% disagree)[30]

Our customers want us to be more ambitious in some areas, like storm overflows, but not at the detriment of our core services – even if that means being less ambitious in other areas:

- 93% preferred a proposed plan going further on storm overflows, phasing nutrient removal (to focus on high areas first) and improving resilience and sewer infiltration[31]

This insight has shaped our ambition as well as how we will deliver the improvements our customers and communities expect. More information about our customer engagement is in chapter SRN03: Customer Acceptability and SRN14: Customer Insight technical annex.

28 For more details about our customer insight see chapter SRN03: Customer Acceptability
29 Both from SRN14: Customer Insight technical annex, Section 1 Index: 201d – Water Futures Quant Wave 4 – Aug '23
30 SRN14: Customer Insight technical annex, Section 1 Index: 201d – Water Futures Quant Wave 4 – Aug '23
31 SRN14: Customer Insight technical annex, Section 1 Index: 107 – Environmental Ambition Results FINAL Report – June 2023

Table 2: Acting on customers' views

Customers told us...	So we...
reducing storm overflows and pollution are the most important thing. They want us to be ambitious, and pushed our original plans further...	...added the top spilling overflows, accelerated an additional 20 bathing water overflows into AMP8 and stretched our pollution target
to prioritise environmental benefits above everything else and work with others to improve our environment – especially when we are not the only ones responsible...	...developed our best value plan to prioritise environmental improvements and are leading partnerships like our Three Harbours Strategy
we should invest in the right long-term solution – putting nature first, working in partnership and embracing new technology – but only 41% trust us to design the right solution...	...developed a best value plan for storm overflows that delivers wider benefits, using best-practice guidance. We are learning from our experience, testing what works and investing in the right long-term solutions
increasing our resilience to climate change, coastal erosion and power failure is important – but expected us to have done some of this already	...increased our investment in operational resilience to meet new challenges – while addressing our previous performance through Botex
we should innovate and change how we work, especially to avoid incinerating bioresources, even if the technology has been used elsewhere already...	...developed our Bioresources Strategy to avoid having to incinerate bioresources and generate more renewable energy
to address the root cause of problems, rather than finding a quick fix...	...will continue using root cause analysis in PIRP and DWMP to identify where problems are, slowing the flow through nature-based solutions and working in partnership to protect water quality
we should invest now and not push problems to future generations – but we should keep bills affordable by focussing on delivering the biggest benefits first	...have phased some parts of our programme over eight years – delivering some short-term improvements and keeping bills fair for current and future customers

6.4. Our AMP8 plan

6.4.1. Summary

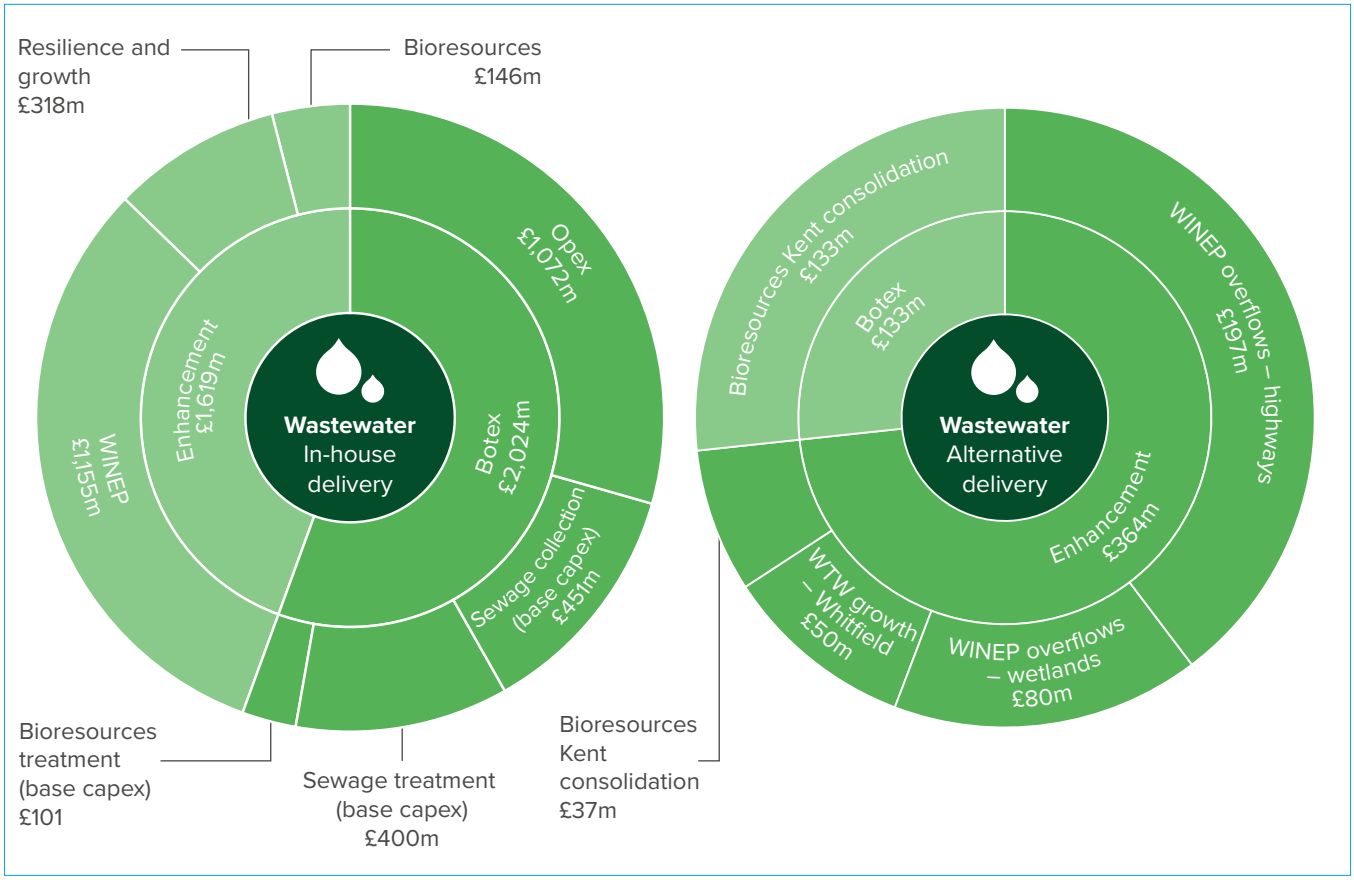


Figure 3: Our AMP8 wastewater plan

Overall, we plan to invest £4.1 billion our wastewater services between 2025 and 2030, including £497m being delivered through an alternative delivery mechanism[32]. We will spend:

- £2 billion to maintain our services, including paying our staff and contractors – known as **Botex**[33]
- £1.6 billion to enhance our services to meet current and future challenges – called **Enhancement**
- £497 million of investment through an alternative delivery route (not included in data tables CWW3 or CWW1)

Botex means "base expenditure". This funds everything we need to do to maintain services at the same level or make slight, more gradual improvements. See section 6.4.3 for our Botex plan.

Enhancement spending is everything we need to do to make big changes to the services we provide. This includes making them much more resilient to climate change, changing how our systems work and building new wastewater treatment works. See section 6.4.4 for our enhancement plans.

6.4.2. What we will deliver for customers and the environment

We measure how we are doing using performance commitments. Performing better than our targets can lead to financial rewards, but we can incur penalties if we fall short. Some of these are continuing from our current Business Plan, but some are new for our plan for 2025 to 2030. We are not proposing any bespoke wastewater performance commitments[34].

Improving our pollution performance to protect our environment is the highest priority improvement for our customers and communities. We have set an ambitious target of 63 incidents per year – which would put us in the upper quartile of the industry. This is a 67% improvement from our 2024/25 target. We know this is challenging, based on current performance, so we are prioritising addressing the root causes of problems through our Pollution Incident Reduction Plans.

Internal flooding is one of the most damaging impacts of failure for our customers. We have a low number of customers affected by repeated flooding incidents, but we will continue improving performance to protect customers. This represents a 12% improvement from our 2024/25 target of 274.

We have reduced the amount of external flooding incidents by 20% during AMP7. Customers want us to continue improving in this area, but it is a lower priority for them. This is reflected in our target which would deliver a 15% improvement between 2025 and 2030.

We have made big improvements to our wastewater permit compliance and are on track to meet our target of 99.1% compliance by 2024/25. Our target AMP8 target is to maintain this. Tighter permits and a significant WINEP construction programme make this a challenging target.

Table 3 sets out the core, common performance commitments and are continuing from our current plan. These core levels of service are funded through 'botex' or base levels of expenditure. Our plans for achieving these targets are in SRN19: Botex technical annex.

Table 3: Our core performance commitments

Performance commitment	2020/21 baseline	2024/25 target	2029/30 target	Long-term target
Sewer collapses	315	250	230	230
Discharge permit compliance	97.1%	99.1%	99.1%	100%
Serious pollution incidents	4	2	0	0
Total pollution incidents	406	193	63	0
Internal flooding	393	274	240	172
External flooding	4,409	3,525	3,011	1,000

32 See SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex

33 Refer to CWW1a – 2022/23 price base and excludes RPE

34 Our performance targets and described more fully in SRN18: Performance Commitment Methodologies technical annex

Our other commitments will be delivered through enhancement spend. This is where we need new ways of working or capacity to meet our customers' expectations or legal requirements and permits.

Our customers and communities want us to significantly reduce our use of stormwater overflows – and pushed us to be more ambitious[35]. Between 2025 and 2030 we will reduce spills by a further 12% across all 978 overflows, benefiting shellfish waters and bathing waters. We have already started work on this by bringing £35 million of investment forward into AMP7 as part of the accelerated plan agreed with Ofwat.

Our WINEP addresses new targets for river water quality to improve our environment. This includes removing more nutrients, like phosphorus and nitrogen, and chemicals from our treated wastewater. We will also work with local stakeholders and partners to prevent and reduce pollution at source – finding nature-based solutions to deliver the environmental benefits our communities want.

Table 4 sets out the levels of performance that are either new for AMP8 or are funded from our enhancement plans. The methodology we used to develop our targets and commitments is outlined in chapter SRN04: Costs and Outcomes Approach.

Table 4: Our enhancement performance commitments

Performance commitment / area	2020 baseline	2024/25 target	End of AMP8 target	Long-term
River water quality	0%	34.6%	58.5%	80.0%
Bathing water quality	89.4%	87.1%	88.3%	100.0%
Storm overflows	29.7	21.0	18.45	5.9
Serious pollution incidents	4	2	0	0
Operational greenhouse gas emissions (CO2e)	152,111	152,867	159,727	0
Biodiversity – BDU net change	n/a	n/a	0	85.7

35 See SRN03 Customer Acceptability

6.4.3. Our Botex plan

Our Botex plan for wastewater comes to £2.02 billion[36] for 2025 to 2030. This includes everything we need to do to maintain our sites and pipe network, as well as making gradual improvements to things like sewer flooding and connecting new developments. It also includes our operating costs.

The cost of running all our support functions is also funded through Botex in both water and wastewater. This includes things like HR, IT and the cost of running our offices. The costs for these functions are split proportionally between water and wastewater. More information is available in SRN19: Botex technical annex.

The table below shows how this is broken down by the different activities we will do.

Table 5: AMP8 expenditure

Expenditure category	AMP8
Sewage Collection	£451.1 million
Sewage Treatment	£400.1 million
Bioresources	£101.4 million
Opex	£1,071.9 million
Total	£2,186 million

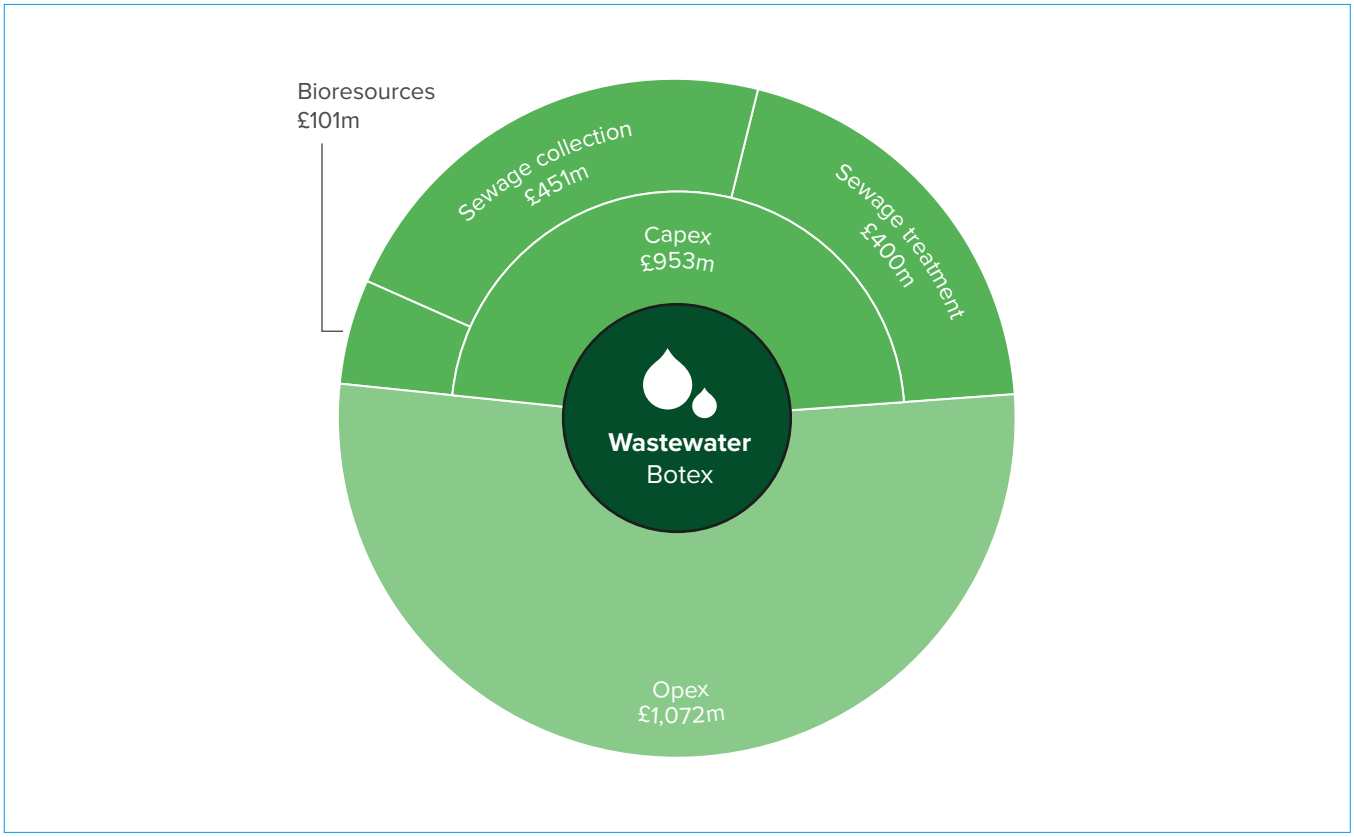


Figure 4: Our Botex plan

In addition, we will deliver a further £132.7m through an alternative delivery route. This is to deliver major schemes to consolidate our Kent bioresources operation into 2 sites.

Since 2020, we have focussed on addressing legacy issues, improving performance and transforming how we work. We are making significant progress and our spending on capital maintenance and operating costs has been higher than the regulatory funding allowances, with additional financing through our new shareholders.

36 Based on CWW1a – 2022/23 prices and exclude RPE

Our plans for AMP8 continue at a higher rate as we continue our transformation and start to address our aging asset base. Although asset age alone is not the only factor to determine appropriate replacement rates, the current level of asset replacement across the industry indicates a growing issue. This has been raised by the National Infrastructure Commission[37].

Our capital maintenance proposals for 2025 to 2030 are in line with regulatory allowances, once cost adjustment claims and alternative delivery routes are taken into account[38].

Our asset health monitoring and maintenance strategy programmes are designed to drive continuous improvement to the reliability of our asset base by carrying out comprehensive assessments of our assets including age, performance and failure trends. This information is overlayed with other data including criticality and location. This will improve efficiency, ensure we address highest risks first and start to move us to more sustainable levels of infrastructure investment.

Looking further forward, we will need to build resilience into all our assets – meaning like for like replacements may not be adequate for our changing climate. For example, design standards will need to reflect changing climate such as increasing heat.

We know we need to become more efficient and have included a 1% per year efficiency stretch, reducing our proposed costs by an additional 1% every year for AMP8. The urgency of improvements has been prioritised over efficiency in the last few years but the transition to a more planned, forward-looking approach is expected to move us to this more efficient cost basis.

6.4.3.1. Sewage collection

We are making good progress to improve pollution and flooding performance, driven through our PIRP (see section 6.2.3 above). Compared to a 2020 baseline, we are forecasting for the current year:

- 43% reduction in pollution incidents
- 7% reduction in internal flooding
- 16% reduction in external flooding

These improvements have been mostly driven by improved operational processes, targeted investment and the 24,000 sewer level monitors we recently installed.

Our sewage collection strategy for 2025 to 2030 builds on our current approach by:

- Wider development of our smart network with strong data, modelling and analytics to identify and address risks proactively and using smart data to better target routine maintenance
- Moving from a time-based maintenance approach to fully implementing reliability centred maintenance on our 3,499 pumping stations
- Increasing the amount of sewer and rising main refurbishment to reduce the number of collapses, focussing on the highest risk mains
- Working closely with planning authorities and developers to support growth with additional capacity where required.

We are proposing to invest £451 million on our sewerage system assets to improve performance and efficiency. We need to move to more sustainable levels of refurbishment to address an ageing asset base and build greater resilience to more extreme weather. Our investment is in line with our current programme but our more proactive, data led approach means we will deliver better value for customers – doing more for the same money.

We have included £25 million to continue our annual Pollution Incident Reduction Plans to reduce pollutions and complete any outstanding remediation work to address network flow compliance risks.

6.4.3.2. Sewage treatment

We have improved our wastewater compliance performance since 2020, but still have work to do to meet higher standards and build greater resilience for adverse weather.

Since 2020 we have focussed on upskilling our people, increasing the availability of equipment and improving our control of the treatment processes. The introduction of tighter environmental permits, such as new phosphorous limits, has required a step-change in our operational and maintenance processes.

We have continued addressing legacy flow compliance issues through our Environment+ programme. We have introduced new processes and governance to monitor, report and act on flow compliance risks. We identified 39 sites which required more significant enhancement to meet required flow rates with an additional investment of £25 million. Addressing these issues has been funded through additional shareholder investment.

37 NIC letter to Ofwat

38 For example, bioresources Advanced Digestion has a Cost Adjustment Claim and is being delivered through an alternative delivery mechanism with some costs in table SUPP12 rather than CWW3

Between 2025 and 2030 For AMP8, we are planning to maintain investment in this area – improving performance and compliance while enhancing our services through our WINEP (see section 6.4.5). We will:

- Maintain our focus on flow compliance, ensuring we meet all environmental permit requirements
- Increase the level of planned operational and capital maintenance, reducing the need for reactive work – supporting our 1% year on year efficiency stretch and maintaining good levels of plant availability
- Continue developing a stronger data and analytical capability, completing the rollout of new asset maintenance systems. This is essential to support a significant step change in environmental permit requirements to be delivered through our WINEP

Our WINEP requires enhanced operations at 130 sites, 40% of all treatment works. For this reason, our discharge permit compliance target is set to be maintained at over 99%. This is challenging as treatment processes must continue during this major building phase.

Population growth means we need to provide additional treatment capacity at our treatment works. Overall, additional capacity is required at 38 wastewater treatment works. An enhancement business case is included as part of our plan, explained in (see section 6.4.6.2 below).

6.4.3.3. Bioresources treatment

We process around 111,000 tonnes of bioresources at 16 Sludge Treatment Centres (STC) every year[39]. Many of these sites are ageing so need to be updated to cope with more growth and climate change, reduce our emissions and meet new standards.

Our plan for our Bioresources Botex programme is to capitalise on the work we have carried out since 2020 and fully align our base programme to our strategic objectives as described in SRN36: Bioresources Strategy technical annex.

Between 2025 and 2030 we will:

- Increase our digester cleaning and maintenance programme to achieve our target of all our 43 digesters being inspected on a 10-year cycle. This ensures effective operation, restores resilience and improves compliance.
- Replace assets based on their age and performance, focusing on dewatering and thickening assets and storage of liquid sludge and associated biogas assets such as flare stacks and gas bags
- Build two new advanced treatment processes in Kent through the cost adjustment claim (see section 6.4.3.4.1). Delivery is planned for 2031, meaning we must maintain our 7 existing Kent sludge treatment centres until 2030.

We started transitioning to Advanced Anaerobic Digestion (AAD) in AMP7, by converting our Goddards Green site in Sussex. Our long-term strategy is to fully transition to AAD and between 2025 and 2030 we will focus in Kent by consolidating our existing 7 STCs into two AAD sites.

Investing in AAD will mitigate the short-term challenges we face from changes to rules about how bioresources are used which could impact our ability to dispose of them. AAD improves the product quality for agriculture, increases renewable generation and ensures our operation is more resilient. Combining AAD with better renewable energy technologies will increase our resilience and allow us to invest in better technologies and processes, like bio-hydrogen and Advanced Thermal Conversion, when they become available. (See section 6.4.3.4.1 below.)

88% of farmers told us biosolids feature in their long-term plans.

"I think it is a good thing, making better use of what is probably, technically a waste product. Hopefully over the course of the expected 15-year timescale, technology will also improve/ adapt to assist."

Household Customer, Water Futures Panel

6.4.3.4. Cost Adjustment Claims

As part of the Business Plan process, Ofwat models the average costs it expects companies will incur to run their operations. However, each company faces unique challenges that mean their costs might be higher than average. Companies can submit Cost Adjustment Claims (CACs) to increase the allowances they receive to run day-to-day operations and meet their unique challenges.

We have submitted three wastewater-specific CACs totalling £276.2 million[40] to meet exceptional housing growth, change how we treat bioresources and manage the increased challenge of working in a coastal area.

39 Latest OCF (2022/2023) states 111,000 TDS/y.
40 Sum of cost adjust claim figures below

6.4.3.4.1. Cost Adjustment Claim – bioresources advanced anaerobic digestion (SRN21: Advanced digestion Cost Adjustment Claim)

Treating and safely recycling sewage sludge – known as bioresources – is usually funded through Botex. New rules for how farmers use this means we need to invest significantly more than usual in new ways to treat and safely dispose of bioresources in order to meet these new regulatory requirements.

Currently, all the sludge we produce is recycled to agricultural land as a cost-effective fertiliser. New Farming Rules for Water mean farmers' ability to use bioresources is limited, reducing demand for it from us.

We have submitted a CAC to increase our Botex by £112.8 million[41] to enable us to convert two Sludge Treatment Centres (STCs) from conventional processes to Advanced Anaerobic Digestion (AAD). Delivery of the new AAD sites is planned for 2031, meaning we need to run the current operational sites in parallel to construction of the new sites for the duration of AMP8. These schemes will be delivered through an alternative delivery route[42].

The advanced treatment processes will improve the quality of our bioresources, make it easier to store and reduce its potential environmental impact – making it more acceptable to farmers in line with the Farming Rule for Water.

6.4.3.4.2. Cost Adjustment Claim – coastal population (SRN20: Coastal population Cost Adjustment Claim)

More than 40%[43] of our customers live in coastal communities – higher than all other wastewater companies, and above the industry average of 20%.

Having such a high concentration of customers in coastal areas presents significant challenges for our wastewater networks, including:

- Ofwat's models for inland waters take account of tight permits for some pollutants but do not take account of tight permits that apply to coastal areas, with UV treatment being a significant factor
- Increased maintenance costs because of the saline environment
- Space constraints make it harder to expand our networks and treatment works to meet demand and mean we need to invest more to control odours
- Needing to "double pump" wastewater – pumping wastewater inland to a larger treatment works to be treated before pumping it back to coastal areas and out through outfalls
- Making sure our networks can cope with increased demand during busy tourist seasons.

These all increase our day-to-day costs compared to other wastewater companies. We have submitted a cost adjustment claim to increase our Botex by £65.5 million[44] to take account of the higher costs incurred by coastal areas.

6.4.3.4.3. Cost Adjustment Claim – wastewater growth (SRN22: Network and wastewater treatment works growth Cost Adjustment Claim)

Ofwat allows companies to invest to support historical average levels of growth. However, the Office for National Statistics forecasts much higher levels of growth in our region in the future. We are predicting the highest level of growth in the industry[45].

We need to make sure our sewer networks, pumping stations and wastewater treatment works have the capacity and capabilities to support this.

This includes:

- Increasing the capacity of our sewer network to meet new growth
- Building a new wastewater treatment works to support new housing at Whitfield in Kent
- Introducing a new treatment process at our Sellindge Wastewater Treatment Works (WTW) to provide services to a new garden town at Otterpool Park in Kent
- Introducing a new treatment process at our Thornam WTW to meet demands from new housing and protect water quality in Chichester Harbour
- Supporting entirely new communities, such as Ebbsfleet Garden City, Fawley Waterside Village and Welbourne Village

We are asking for our Botex allowance to increase by £97.9 million[46] to meet these above average demands and ensure we enable new housing growth in our region.

41 SRN21: Advanced digestion Cost Adjustment Claim – table 1
42 This is explained in SRN17: Direct Procurement for Customers and Alternative Delivery technical annex
43 SRN20: Coastal population Cost Adjustment Claim
44 SRN20: Coastal population Cost Adjustment Claim – summary table
45 0.85% vs 0.63% – SRN22: Network and wastewater treatment works growth Cost Adjustment Claim – Executive Summary
46 SRN22: Network and wastewater treatment works growth Cost Adjustment Claim – table 1

6.4.4. Our enhancement plans

6.4.4.1. Summary

Overall, we will invest £2 billion to enhance our wastewater services by investing £1.6 billion in our networks and wastewater treatment works through in-house delivery routes and a further £364m through an alternative delivery route[47].

Our in-house delivery plan includes £1.2 billion WINEP programme – which is our the largest ever environmental investment in a single five-year investment period we have made. We developed this programme by working with the Environment Agency and Natural England to target investment to improve and protect important habitats and sites across our region.

Our enhancement plans also include the investment we need to make sure we can accommodate new growth, reduce emissions from our processes and increase our resilience – all to protect the environment and help our region thrive.

We will:

- Reduce our use of CSOs by 12% by working with nature and our communities to separate (or attenuate) rainwater and groundwater from entering our networks
- Improve water quality in over 1,000km of river by removing nutrients such as phosphorous and nitrogen and reducing our use of storm overflows
- Support growth with additional capacity at 38 treatment works
- Enhance our network to reduce the impact of the more extreme weather

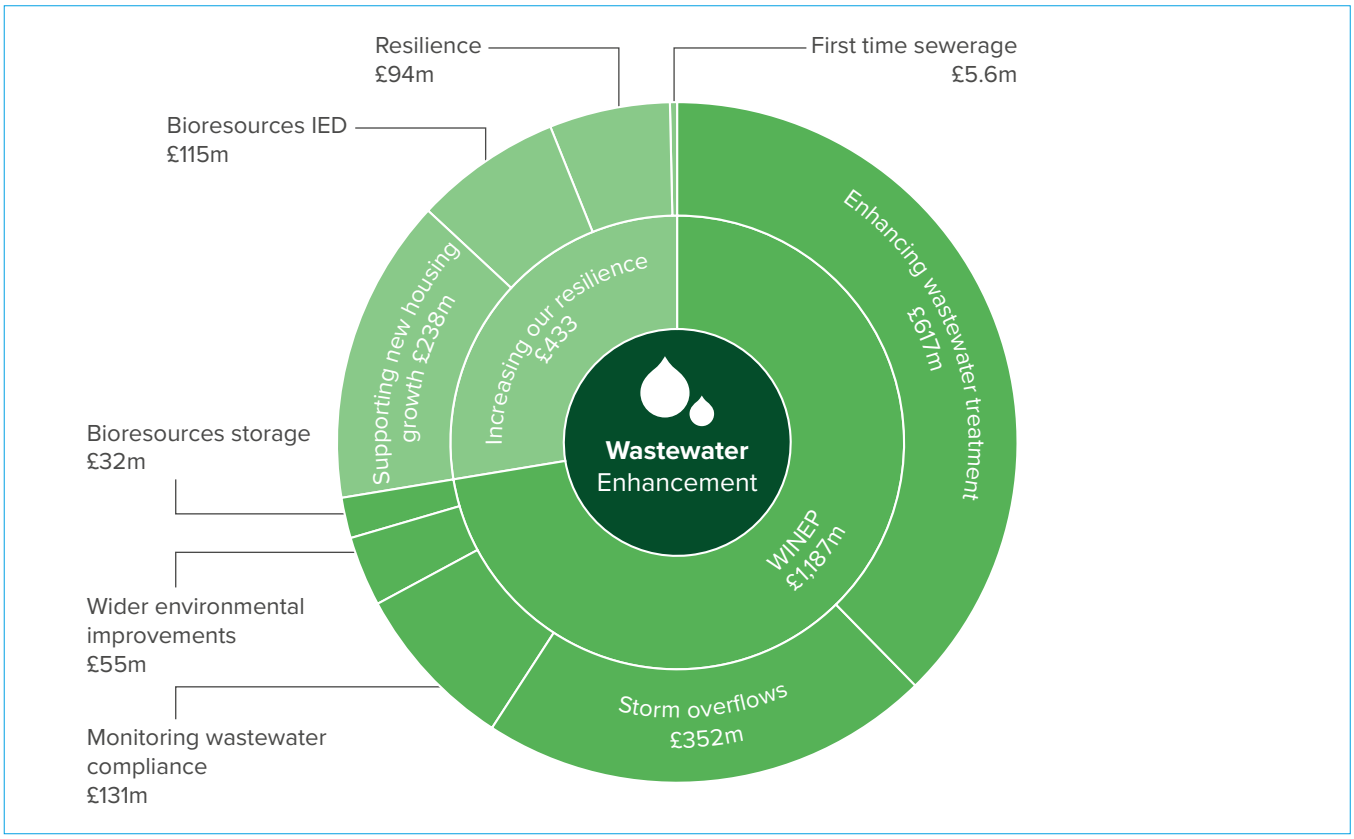


Figure 5: Our enhancement plans

The rest of this section is in two parts:

- Our WINEP
- Resilience and growth

We have summarised our enhancement cases under each section. At the end of this chapter there's a list of the source documents we have referenced.

6.4.5. Water Industry National Environment Programme

In 2022, our regulators set out their expectations for water companies' environmental programmes between 2025 and 2030 through the Water Industry Strategic Environmental Requirements (WISER).

47 SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex.

WISER requires water companies to develop the Water Industry National Environment Programme (WINEP), enhancing our environmental performance. Through WINEP, we will deliver the investment needed to improve and protect our environment and meet our legal obligations and government targets. As a result, much of WINEP reflects statutory requirements.

We worked with the Environment Agency and Natural England to develop our WINEP. We also engaged with a wide range of local stakeholders to understand their priorities and how we can improve our wastewater services to enhance our natural environment.

Our full PR24 WINEP programme invests £1.2 billion to protect, restore and enhance our environment. In addition, a further £277 million will be delivered through an alternative delivery mechanism[48]. This is the largest environmental improvement programme we have ever developed. Some of this programme has been phased to deliver after 2030.

It will enable us to make great progress towards our long-term aims of reducing discharges from storm overflows, improving water quality, protecting important habitats and coastal waters.

We will deliver around 1,200 different schemes and investigations to protect, restore and enhance the environment. Our WINEP will enable us to:

- Improve water quality by reducing phosphorus and nitrogen from almost a third of our treatment works – 96 sites
- Deliver a mix of catchment and nature-based solutions and traditional infrastructure to reduce our use of storm overflows
- Install additional flow monitors to improve our wastewater compliance and additional event duration monitors at emergency overflows
- Understand and start developing future environmental improvement programmes
- Invest in new storage for our treated biosolids to improve our resilience

Figure 6: Our WINEP 2025–30

48 SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex

The scale of investment in our WINEP during AMP8 is:

Table 6: Our WINEP investment programme

Enhancement TOTEX	£1,219 million
Enhancement OPEX	£68 million
Enhancement CAPEX	£1,150 million
Alternative delivery	£277 million

Elements of the WINEP are under consideration for DPC or other alternative funding arrangements, in particular two aspects of the storm overflow discharge reduction plan: wetlands for treatment of dilute wastewater and highways drainage solutions.

6.4.5.1. WINEP phasing

Our WINEP is our biggest environmental programme and will deliver the step change our customers, communities and regulators expect. Delivering a programme of this scale and complexity raises issues of both affordability for our customers but also deliverability. The overall impact of this investment on bills would be unacceptable to our customers. Delivering this scale of programme over five years becomes unrealistic for both us and our supply chain.

We are committed to making the improvements but need longer to deliver them over a longer timeframe than the five-year regulatory period. This will enable us to smooth the impact on bills and enable our supply chain to increase capacity to deliver the scale of work required across the country.

The WINEP we are presenting phases targeted investment after 2030 to allow for a deliverable and affordable plan. To be compliant with its regulatory outcomes, we have phased delivery of our programme over eight years instead of five years, with lower benefit schemes being completed after 2030.

93% of our customers preferred a proposed plan going further on storm overflows, phasing nutrient removal (to focus on high areas first) and improving resilience & sewer infiltration.

Environmental Ambition Research

Our customers support us phasing some investment to balance bills and their most important environmental improvements[49]. This means we can bring forward improvements to an additional 20 coastal storm overflows and make the most of nature-based solutions before resorting to traditional solutions to meet the target date of 2035.

The method we used to prioritise which investments to phase is in the relevant enhancement business cases but is broadly based on:

- Delivering nature-based solutions to reduce our use of storm overflows and phasing our use of traditional infrastructure. This means we can address 20 additional overflows between 2025 and 2030 and better understand the size of storm tanks we need in the future
- Prioritising work on overflows spilling more than 10 times per year into shellfish waters, and phasing work on overflows with no spills or fewer than 10 spills that release discharge into the same shellfish waters to better understand their needs and benefits
- Delivering nutrient reduction schemes that deliver the biggest improvements first, particularly where they impact sensitive habitats, and rephasing lower-benefit schemes to after 2030
- Enhancing treatment processes in Hampshire that will mitigate Nutrient Neutrality challenges and unlock development, and phasing work to after 2030 in areas with lower growth forecast. This enables us to promote catchment and nature-based solutions to reduce nutrients

Our proposed WINEP investment is close to requiring the total five-year AMP7 level of investment every year of the AMP8 period. We continue to work with the EA, alongside Defra and OfWAT, to find sustainable ways to deliver these programmes in a timeframe that is deliverable, having regard to the existing supply chain constraints and can be afforded by our customers. Without the proposed re-phasing the plan is neither affordable nor deliverable[50]. Our ability to comply with our statutory obligations is conditional on regulatory acceptance of our proposed phasing.

We propose to accommodate any differences between our business plan submission and the final agreed phasing proposals in our response to the draft determination.

We have included a mechanism for managing the uncertainty of our regulators' decision on phasing in the plan. This is described in more detail in chapter SRN10: Risk and Return.

The following sections explain the different enhancement cases for our WINEP included in this business plan. For more about how we will deliver our plan, see chapter SRN09: Deliverability.

49 SRN03 Customer Acceptability, section 3.2.5.2: Environmental ambition
50 Uncertainties are outlined in SRN11: Data and Assurance

6.4.5.2. WINEP – storm overflows (SRN40: WINEP – Storm overflows enhancement business case)

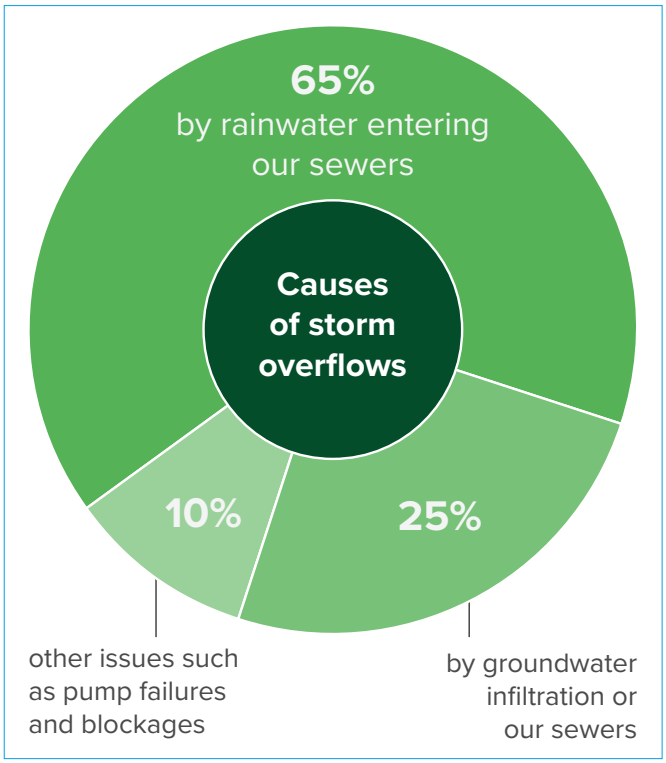


Figure 7: Causes of storm overflows

Most of our sewers are combined, which means they hold both sewage and rainwater. Our DWMP highlighted up to 95% of the water in combined sewers during a storm is rainwater.

Stormwater overflows are part of the sewer system and prevent flooding during heavy rain by automatically releasing excess stormwater into a river, stream, estuary or the sea.

Climate change means we are experiencing more extremes of weather, including intense rainfall, which can quickly overwhelm our sewers. This is made worse by urbanisation as more rainwater runs off roads and driveways into sewers, rather than naturally draining away. This means our sewers become full of rainwater, causing them to discharge through storm overflows to prevent our customers' homes and businesses from being flooded.

Government's Storm Overflows Discharge Reduction Plan and the Environmental Improvement Plan requires water companies to:

- Protect public health by reducing discharges from storm overflows into designated bathing waters and 75% of our most sensitive and protected habitats by 2035
- Eliminate all adverse ecological impact from storm overflows by 2050
- Ensure all storm overflows discharge less than an average of 10 times per year by 2050

Over 25 years, we will spend nearly £2.95 billion to significantly reduce discharges from storm overflows. Our preferred plan is to invest £698 million[51] between 2024 and 2030. We will improve 179 storm overflows and reduce the average annual spills per overflow to 15.5. We are proposing to phase delivery over 7 to 8 years, enabling us to accelerate additional improvements on coastal overflows.

We have focused and prioritised investment in storm overflows to meet the Defra targets and EA WINEP guidance, but also to respond to our customers priorities to reduce spills into the sea and to address the highest spilling storm overflows. Our phased plan brings forward 20 coastal overflows into AMP8 and we will improve the top 30 highest spilling overflows between 2025 and 2030. These are within the overall total of 179 overflows for AMP8.

We will reduce the number of spills at these locations to no more than an average of 10 per year by 2035, and achieve an overall average spills target of 15.5 by 2030 and 10.9 by 2035. Phasing our storm overflows enables us to focus on tackling the issues at source, through catchment and nature-based solutions, including Sustainable Drainage Systems (SuDS), and work with partner organisations to improve the management of rainwater and build climate resilience in communities.

Our aim is to separate as much rainwater from our networks as possible. Storage tanks will still be needed, but these can be sized once we have achieved as much as possible through green infrastructure.

Focussing on nature-based solutions means our preferred option is up to £76 million more expensive than our least cost option. Both plans deliver the same amount of wetland and the same length of sewer relined.

However, our preferred plan delivers significantly more benefits such as new green spaces in our communities, better adaptation to climate change, lower long-term operating costs and new opportunities for partnerships. It also relies on around 25% less buried storage than our least cost plan.

51 Includes scheme delivered through the alternative delivery mechanism and overflow investigations

We will plant more than 20,000 more trees through our preferred plan and increase biodiversity, and manage rainwater on more than 600km of roads using sustainable drainage systems – compared to just 13km in our least cost plan.

Our customers told us to use nature-based solutions first, wherever we can, and to prioritise environmental benefits[52]. In addition to reducing spills, this approach will provide much better resilience to extreme rainfall events.

> *"I'm happy with the nature-based solutions. Maybe double the efforts on those because I don't really like the idea of the big concrete tanks. I think they're not a long-term solution. Because concrete does degrade. And then it's difficult to get rid of."*
>
> **Household customer**

Lavant wetland improves water quality and reduces impacts from storm overflows

A brand new wetland scheme at our Lavant WTW in West Sussex is reducing impacts of storm overflows on Chichester Harbour and improving water quality.

The project, involving the planting of more than 1,500 reed plants, has been completed as a Pathfinder project within our Clean Rivers and Sea Programme.

Lavant and the Chichester area is particularly impacted by high levels of groundwater overloading both private and public sewer. The increased pressure results in storm overflows, where releases are made into the environment to prevent flooding homes and communities.

Wetlands provide a natural solution by remove contaminants from wastewater like nitrates and phosphates, and can also improve local biodiversity as well as having absorbing and storing carbon.

The new investment in this area will also involve sealing private and public sewers helping to prevent pressurised groundwater infiltrating the system.

6.4.5.3 WINEP – enhancing wastewater treatment (SRN39: WINEP – Enhancing wastewater treatment enhancement business case)

We operate 363 wastewater treatment works across our region. These works recycle wastewater by removing solid waste, microorganisms and nutrients to standards set by the EA before the treated water is returned to the environment.

The wastewater contains ammonia and nutrients such as phosphorus and nitrogen, that come from food, cleaning products and agricultural runoff. All of these can affect water quality. Biochemical Oxygen Demand (BOD) and ammonia levels in treated wastewater can also impact on species living in our rivers and streams.

We need to enhance how we treat and recycle wastewater to meet new, tougher targets set out in the Environment Act, the Water Framework Directive, Nutrient Neutrality and Nutrient Neutrality Regulations.

We need to meet new, tighter permits at more than 130 of our treatment works for a range of different nutrients, chemicals and water quality standards.

The Environment Act sets a target to reduce phosphorous in treated wastewater by 80% by 2038. This means we can phase this investment after 2030 to meet the target while and still reducing phosphorus levels by 58.5% by 2030. We remain on target to meet the Environment Act target by 2038.

Our WINEP includes an extensive and varied improvement programme at our treatment works: based on our investigations, water quality modelling showing where our sites might be impacting the environment and our DWMP which identifies long-term investments to protect and improve our environment.

We will use nature-based solutions, like wetlands and reed beds, wherever we can to improve the quality of water we return to the environment. However, most of the schemes to reduce nutrient levels involve adding new treatment facilities at our wastewater treatment works.

The need for us to meet new tighter standards and the highest technically achievable limits (TAL) of wastewater treatment, set out in the permits we receive from the Environment Agency, means the level and certainty of treatment cannot be achieved through nature-based solutions. We will also install UV disinfection to protect shellfish water quality from microbiological contamination.

We have reviewed local authority growth plans to identify where development is slowed due to nutrient neutrality requirements. We will prioritise investment in these wastewater systems to help unlock this development – focussing on high-growth areas and phasing others to after 2030.

52 For more details about our customer insight see chapter SRN03 Customer Acceptability

As part of WINEP, we need to better understand and reduce the presence of chemicals and other substances in the environment. We are proposing a number of improvements to better remove chemicals or prevent them entering waterbodies.

Reducing the presence of cypermethrin is the biggest driver of investment in this part of WINEP. We also have new permits for zinc, copper, cadmium and other chemicals. These levels are driven by the Water Framework Directive.

We will install final effluent disinfection at five treatment works to help meet new standards required for shellfish waters. We are phasing other treatment works improvements which would contribute to further improving bathing waters until after 2030 as we test alternative nature best solutions.

We are phasing some parts of this until after 2030 – prioritising our customers' highest priorities and ensuring our plans are affordable and deliverable.

6.4.5.4 WINEP – monitoring wastewater compliance (SRN41: WINEP – Monitoring enhancement business case)

Since 2015, we will have installed Event Duration Monitors (EDMs) across all our 978 storm overflows by December 2023, with coverage currently at 98.6%. These measure number and duration of spills. This is in addition to flow measurement at all our wastewater treatment works where required in their permits.

These programmes have given us a much better understanding of how our network is performing during dry weather and storms. We created our Clean Rivers and Seas Taskforce and programme to deliver our storm overflow improvement plans.

We want to enhance our monitoring capabilities even more – installing 669 more monitors across our region to record wastewater flows and improve our understanding of the quality of water in our environment. These are to cover emergency overflows and upgrade existing equipment to meet new standards.

We will be able to share more information about the condition of our environment, more accurately report how and why spills occur and target our improvement plans in the future following these enhancements.

6.4.5.5 WINEP – wider environmental improvements and gaining understanding (SRN42: WINEP – Wider Environmental Enhancement enhancement business case)

Investment in this area will help us understand where we will need to make improvements in the future and how best to make them. It also includes trialling innovative approaches and other environmental improvements that do not sit under other business cases.

This programme includes over 360 investigations into the different impacts of our works on the environment, how we can better protect wildlife, reducing storm overflows and the impact of microplastics. We also have 24 investigations to deliver as our part of the UK water industry's Chemical Investigations Programme

6.4.5.6 WINEP – bioresources cake storage (SRN43: Bioresources cake storage enhancement business case)

We produce around 111,000 tonnes of sludge each year from treating wastewater[53]. This is called bioresources and, once treated, is a popular, cost-effective fertiliser because of its high nutrient content. We also use the biogas it produces during treatment, to generate renewable energy.

We need to adapt how we treat, store and recycle sludge because:

- Our assets are ageing and some aren't fit for the future
- Enacting the Farming Rules for Water will mean farmers are more restricted in how they use our bioresources as a fertiliser
- The Environment Agency's Sustainable Sludge Strategy is also changing how bioresources can be stored and recycled to agricultural land

Improving the quality of bioresources, and how we store them, reduces the risk of run off into rivers from our sites and farms – helping protect water quality. Improving how we store bioresources also ensures they're available when it is most needed, and we are less likely to rely on less sustainable solutions, such as incineration, when they're not. Our WINEP includes £32 million to improve how we store and recycle bioresources.

6.4.6. Resilience and growth

We need to invest in additional capacity and new capabilities to protect our environment from other challenges outside of our WINEP. This includes increasing our ability to support new growth and our resilience against the more extreme weather we are experiencing.

This section includes investment that will give us new treatment capabilities and capacity, including building a new treatment works, or meet new design standards.

53 Latest OCF (2022/2023) states 111,000 TDS/y.

6.4.6.1. Operational resilience

We have identified six major challenges we must address to improve our operational resilience and protect our environment. They are:

- Population growth and demand pressures
- Climate Change
- Drought
- Ageing assets
- Cyber security
- Transition to net zero

In addition to the improvements we are making through our Botex plan (see section 6.4.3 above) we will invest £94 million to protect our assets against the challenges we face.

Specifically between 2025 and 2030 we will deliver the following programmes:

- **Coastal erosion resilience –** investing at three sites to protect them from the increasing levels of risk posed by coastal erosion impacts due to rising sea levels. We are working in partnership with the Environment Agency, supporting delivery of key schemes where they provide benefits for Southern Water customers
- **Power resilience –** enhancing key wastewater sites to be more resilient to the impacts of power supply interruptions through increasing levels of redundancy and resistance in our power infrastructure
- **Groundwater infiltration resilience –** building resistance into our sewerage network through delivering sewer watertightness measures to reduce the amount of water that infiltrates our sewers
- **Flooding resilience –** investing in flood defence measures to protect six key wastewater sites to reduce the exposure to flooding events caused by increasingly frequent and severe rainfall
- **Heat stress resilience –** enhancing 22 wastewater sites to ensure they are suitably ventilated and cooled to safely operate under heat stressed conditions, that are becoming more frequent due to climate change

> *"If we don't invest in these things, when this does end up causing bigger damage, the company is then going to have to spend our money anyway, to fix it. So it's best to actually reduce the issue than just to wait for it to happen and then have to pay more in order to fix the damage that's been done."*
>
> **[Dual Future, Hampshire] – Acceptability Testing**

6.4.6.2. Treatment works growth (SRN44: Wastewater treatment works growth enhancement business case)

We have a duty to support new homes while protecting our environment. We are forecasting one of the highest levels of population growth in the UK and have identified 38 wastewater treatment works where we need to increase capacity or capabilities to support this.

Customers expect us to ensure we develop the infrastructure needed to support new housing – helping our communities grow while protecting the environment for future generations. They want us to invest in long-term solutions to the challenges we face.

Historically, we have been able to support new growth through gradual improvements to our wastewater treatment works. This is no longer the case, and nine of our sites require a typical solutions.

One of these sites is a completely new treatment works for Whitfield serving a population of 18,700 people.

6.4.6.3. Bioresources IED (SRN37: Bioresources IED enhancement business case)

In 2022, the EA set out new guidance on how we should treat and store sewage sludge – a byproduct of wastewater treatment. We have 16 sludge treatment centres (STCs) that we need to upgrade to meet these new standards.

Part of this enhancement case were initially submitted as part of our WINEP as they reduce greenhouse gas emissions from sludge treatment and storage. However, this was rejected and now forms this enhancement case.

Due to changes in permits and guidance, the scale of the improvements we need to make has increased significantly. We need to invest £115 million between 2025 and 2030 to make sure our sites are compliant with the Industrial Emissions Directive.

Our plan includes:

- Rationalising sites to improve our compliance
- Covering storage tanks
- Building new containment facilities

The investment in SRN21: Advanced Digestion Cost Adjustment Claim will also improve our compliance with these new requirements.

6.4.6.4. First time sewerage (SRN45: First time sewerage (s101a) enhancement business case)

We have a legal duty to assess the most economical and practical way to provide effective drainage where environmental or amenity problems exist or are likely to arise from existing drainage system.

We plan to invest £5.6 million to connect 83 existing homes to our wastewater networks.

6.5. Delivering our plan

Our plan for 2025 to 2030 is twice the size of our current investment programme. We know delivering investment at this scale and pace is a challenge. We reviewed our current capabilities for delivering in core areas. We will invest further in these capabilities.

We have already taken steps through our Turnaround Plan to increase our capacity to deliver – including securing additional shareholder funding, scaling up our procurement and supply-chain capabilities and developing our plan for 2025 to 2030 using rational phasing and alternative delivery methods. This has given us confidence to plan for a significant increase in investment and delivery.

The increase of investment programmes across the water sector will lead to heightened demand on the supply chain. Addressing this requires careful coordination and collaboration to make sure there is sufficient capacity and capability, while maintaining commercial tension to drive best value.

Our plans for 2025 to 2030 include more advanced solutions and technologies, in addition to more work and specialist skills. Attracting and retaining key people, from field force to skilled environmental scientists, in a highly competitive region of the UK, adds weight to this challenge and risks which can potentially slow down pace of delivery.

Reflecting on these challenges, and drawing from best practice delivery across the sector, we have assessed our current and planned measures against four core deliverability requirements to mitigate deliverability risks.

Chapter SRN09: Deliverability has more information about the work we commissioned and how we are implementing this.

Supply chain strategy: We have established strong relationships and agreements with suppliers ahead of the next investment period and we will complete procurement of our delivery partners early in 2024.	**Portfolio execution plan:** We developed clear plans and priorities across the portfolio, aligning planning, delivery, and other business areas to ensure efficient execution and effective resource allocation.
Portfolio delivery and performance management: We are enhancing our programme management capability and capacity to track performance, implement the plans and oversee delivery.	**Strategic workforce:** We are committed to finding, retaining, and training the right people. Strategic workforce planning will address capability gaps and ensure a skilled workforce is in place.

6.5.1. Alternative delivery

We are proposing to maximise our use of DPC or other alternative funding routes to help reduce the affordability and deliverability concerns due to the size of the plan. Costs for these schemes are not included within the standard cost data tables (CWW1 to 3) but as part of the DPC / Alternative Delivery tables.

The following schemes are included as Alternative Delivery schemes, explained in SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex.

- Two new advanced sludge treatment centres in Kent, a key part of our bioresources strategy
- The new treatment works at Whitfield required to meet the significant housing developments in the area
- Two important elements for delivery of our storm overflow discharge reduction plan: wetlands for treatment of dilute wastewater; and highways drainage solutions

6.5.2. Delivering obligations and plan uncertainties

We have had full regard to ensuring we continue to comply with our existing statutory and licence obligations through our business-as-usual assurance process (see chapter SRN11: Data and Assurance for an explanation of this process). New obligations are addressed through our enhancement plans.

There are a number of areas where there is material uncertainty in the parts of the business plan. Many of these uncertainties relate to legal or policy decisions that are yet to be made at the point of business plan submission. These are explained more fully within SRN58: Uncertainty Mechanisms technical annex and for wastewater include:

- We have not yet received confirmation from the EA that our proposed reprofiling of WINEP to address affordability and deliverability concerns is acceptable
- Significant uncertainty around the application and timing of Rule 1 of the Farming Rules for Water and its impact on our Bioresources operations
- Several material uncertainties around the Bioresources Industrial Emissions Directive (IED) including the acceptability of our impermeable surface option

Chapter SRN07

Customer Household and Non-Household

(Costs and Outcomes)

7. Customer – Household and Non-household (Cost and Outcomes)

7.1. Executive summary

This chapter is about putting the customer at the heart of everything we do. It explains how we will continue improving our retail services for household and non-household customers, as well as non-household retailers and developers.

Despite significant progress since 2020, we know our performance has not been where our customers or regulators expect. Customers have lost trust in us because of our historic failures, and through media, activist and political noise. Even if a customer has had a positive experience with us, they will rate our service lower because of their wider perception of us.

Following negative media coverage in 2022, we saw a fall in all 34 of the UK Customer Service Institute's measures, despite no change to our services and a 1.3% fall in bills during the period[1]. We know there are key areas where our service has fallen short, which also influenced the overall position. These include not keeping our customers informed of progress in resolving issues they have raised, failure to make our bills easily understandable, and not taking sufficient ownership of the problem.

We are continuing to improve through our Turnaround Plan – making things easier for our customers, changing how we engage with our communities and creating a customer first-culture. We are aiming to increase our C-Mex score by 8% to 7.5/10 and our D-Mex score by 5% to 8.4/10 by 2025.

Our customer engagement will seek to inform and educate our customers on how we are spending their bills and where we are improving our services. We will utilise our own channels, such as email, website and text messages, before harnessing earned channels and paid for channels, such as social media, radio, community notice boards and newsletters and streaming services.

We will also continue growing our community presence through customer drop-ins, community centre grants, event support and sponsorship and outreach to community groups and vulnerable customers. We will also build on relationships with key stakeholders, such as MPs, councillors, special interest groups and business communities, to understand their challenges and how we can help them be successful.

We will invest in a new customer relationship management (CRM) and billing system – making our data more accurate, our services more responsive and easier to access for all our customers, empowering our customer service teams to fix problems quicker and supporting real-time data from our smart meters to enable water-efficient choices.

We will also further improve how we support our household and non-household customers during incidents, such as water outages. Through improved data accuracy, we will be able to proactively inform customers by text message, when they are likely to experience a water outage, and when their service will resume. We will also be able to direct them to alternative supplies of water. We will also enhance our support for vulnerable customers as discussed in the affordability chapter.

By introducing a new billing system, we will be able to give our household customers the information they need from our smart-meter rollout to make water-saving decisions. Additionally, our smart meters will give non-household retailers enhanced meter reading data so we can collaborate on targeted water efficiency campaigns for businesses.

We know our developer customers, including New Appointment and Variation and Self Lay Providers, want to self-serve as much as possible but expect us to be there for them when they need a hand through good case management. (Customer Engagement technical annex, Section 1 Index: 203d – Developer, SLP and NAV workshop Reports Sep '22").

Speed and accuracy are critical for these customers, therefore we will continue to improve our online service by enhancing our GetConnected portal and having highly-trained customer service colleagues easily available. Our new operating model will also mean customers will have their application managed from beginning to end by one team, with key updates provided at the moments that matter to them.

We will continue improving by investing £364 million in our retail services between 2025 and 2030. We will:

- Introduce a new customer relationship management and billing system that will allow us to deliver high-quality customer services and help our customers take control of their water use
- Redesign our customer services processes to put the customer at the heart of everything we do, including automated updates via SMS and email, keeping them informed of the progress of their query and proactively informing them about issues in their area
- Enhance our community engagement programmes – reflecting what our customers and communities have told us is most important to them
- Move to a new operating model, bringing together operational management control and customer contact into a centralised 'hub' with operational delivery in operational bases across our region, known as 'spokes'

1 SRN14: Customer Insight technical annex, Section 1 Index: 156 – UKCSI FAO David Black – July '22

Our customers told us to focus on getting the basics right first and push boundaries in the areas most important to them or where we already perform well[2]. Given the reputational challenges we face in the region, especially relating to storm overflows and our significant coastal communities, we have set deliverable targets to improve our retail services.

By 2030 we will be:

- In 10th position for C-Mex
- In 8th position for D-Mex
- We will also be establishing our baseline position and setting our targets against BR-Mex in 2024

7.2. Our context

The world around us is constantly changing and this impacts how we provide our services. We have identified different trends, challenges and opportunities and how we need to adapt to them now and in the future. This includes our reputation, the expectations of our customers and communities, changes in technology and the changes to customers' costs of living.

7.2.1. Trust and transparency

The water sector has seen an unprecedented level of public scrutiny in recent years. The pandemic brought to the fore the value we place on our natural environments.

Water quality and our use of storm overflows has become an issue of significant interest to customers and stakeholders.

Our historic performance issues, and the court cases that made headlines in 2021, have led to a level of mistrust and an erosion of public confidence in our operational resilience alongside questions about our integrity and transparency. The loss of our customers' and communities' trust can have a disproportionate effect on what they think about our services. The loss of trust can also impact our customers' and communities' wellbeing. Negative perceptions about water quality impacts our customers' enjoyment of their coastline.

Improving our performance is the main way we will build trust with our customers and communities, but there are other steps we can take such as:

- Changing how we communicate with customers and stakeholders day to day – as well as during incidents
- Making sure we are transparent about our performance
- Working with our communities to improve their local areas
- Partnering with schools on education programmes about our water environment
- Donating to local charities and colleagues using their volunteer days

See SRN13: Reputation, Trust and Transparency technical annex for more information.

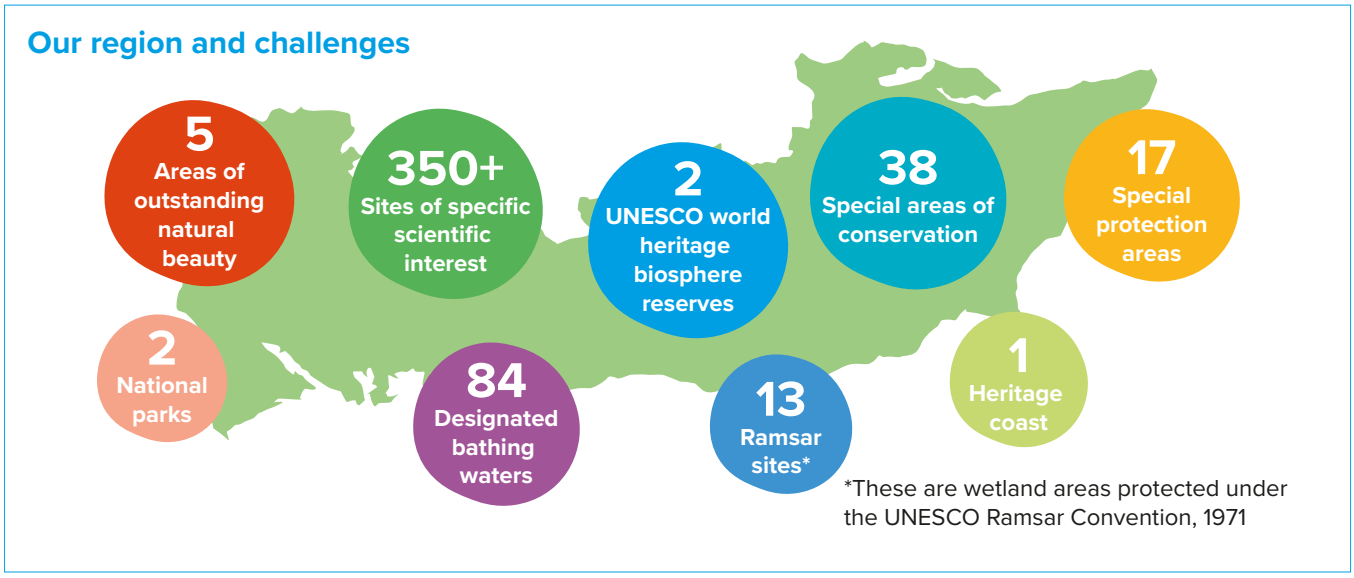


Figure 1: Our region

7.2.2. Our region and environment

Our region blends densely populated coastal communities, inland towns and cities, and rural areas all spread across two national parks, five Areas of Outstanding Natural Beauty, 700 miles of coastline and 84 bathing waters. More than 40% of our customers live in coastal communities.

2 Chapter SRN03: Customer Acceptability

It is home to more than 400 environmentally designated areas – including more than 350 SSSIs (Sites of Special Scientific Interest), two UNESCO world heritage biospheres, 38 Special Areas of conservation and 13 Ramsar sites, as well as numerous other protected areas.

Climate change and population growth mean we are forecasting a water supply deficit. With the first hosepipe ban in a decade seen in 2022, awareness is rising, and customers and stakeholders want to be reassured we will ensure a reliable supply for the long term.

We are forecasting more than 800,000 new homes connected to our wastewater network by 2050 and expect demand for water to increase by up to 180 million litres per day by 2075. In some areas, this growth is already being slowed by regulators to protect the environment for future generations[3].

7.2.3. Our customers and communities

Every community is unique. During our ongoing engagement with customers and stakeholders, we make sure we recruit a representative range of customers from across our region – with diversity across demographics such as income, household size, customer segment and location. This insight allows us to adapt to the changing shape of our communities, understanding their priorities and how best to engage with them.

Our customers take immense pride in their communities, whether that is coastline, green spaces, historic buildings or architecture, and are committed to preserving them for future generations and they expect us to help protect them.

Over 40% of our customers live in coastal communities – a higher proportion than any other water company[4]. While our coastal communities feel connected to the coastline, our rural communities have a stronger connection to nature and the countryside.

We have a deeper understanding of our customers and communities than ever before. They want us to do more and further develop our understanding of their needs and priorities. They want us to define our role in the community and help to educate young people, as well as households and businesses. Customers want consistent and good service, especially when things go wrong. This is especially true for customers who find themselves in vulnerable circumstances, who may need greater support[5].

As part of our ongoing insight programme, we developed profiles of different communities across our region and shared this insight internally to help embed the customers' voice throughout our plans and day to day work.

We also developed a deeper understanding of our non-household customers. Smaller businesses have similar priorities to our household customers, while larger businesses and non-household customers were more likely to understand our planning challenges. This is in addition to the regular engagement we have with retailers, developers and other non-household customers which we use to improve our services for them.

We piloted a qualitative piece of research to explore differences between North Sussex, Southampton and Chatham. We found differences that we could apply to our activities. For example, we designed a bespoke engagement campaign in North Sussex to inform and educate customers on our local activities.

We expanded the research to an additional 11 locations. This included innovative approaches such as photo mood boards that are shared with colleagues to help bring the insight to life and help create our customer culture. We also analysed contact data, complaints and operational performance across these regions, and combined this with demographic data (such as income, ethnicity, customer segmentation) and satisfaction data from our Reputation tracking[6] to develop regional profiles.

This insight helps us understand our communities, engage with stakeholders, understand key priorities, and differences in trust and reputation, and are a core part of bringing the voice of the customer to life.

3 See SRN05: Wholesale Water (Costs and Outcomes) and SRN06: Wholesale Wastewater (Costs and Outcomes)
4 See SRN20: Coastal population Cost Adjustment Claim
5 See chapter SRN08: Affordability for more information
6 Reputation Tracker (Dec – Jul '23)

North Hampshire

Many with family ties and connection to the area. Countryside, tranquility, walking areas and picturesque make the area unique.

Concerned: about lack of affordable housing and new developments in the area.

Key priorities: affordable bills, reliable water for the future, fixing leaks and supporting water efficiency.

North Sussex

Sense of community/ belonging. Strong links with nature and to cities like London and Brighton. Good balance of both with a real link to the coast as well.

Concerned: with influx of people moving to the area and new housing stretching infrastructure.

Key priorities: resilience of supplies and protecting the environment.

Chatham

Links to London and cheaper housing have led to a diverse community.

Concerned: was once a thriving area but now more deprived – lack of investment and lack of pride in the local area.

Key priorities: affordability, infrastructure keeping pace and better education.

Swalecliffe

Influx of new people choosing to live by the sea, especially with working from home. The sea and beaches are what draws people in.

Concerned: sewage entering the sea and impact on tourism and oyster farms.

Key priorities: preventing wastewater into the seas, affordability and supporting vulnerable customers.

Thanet

Many were born there or moved due to links with London. The sea and beaches and community spirit are perceived to make Thanet unique.

Concerned: about lack of investment and area looking run down. Town hasn't kept up with population growth.

Key priorities: storm overflows and bathing water quality.

Deal

Many were born there or grew up there, however many were also charmed by the quaintness of Deal.

Concerned: about lack of infrastructure and the lack of affordable homes being built.

Key priorities: storm overflows, bathing water quality and growth.

Central Kent

Grew up there or moved for links to London and is surrounded by beautiful countryside with great schools – best features.

Concerned: about lots of people and lack of infrastructure.

Key priorities: resilience of supply, tackling wastewater, supporting vulnerable customers.

Winchester

Many grew up here or stayed after studying. It's the setting of Winchester that is so special and unique.

Concerned: about high process and older demographics stuck in their ways, as well as new homes being a strain.

Key priorities: Low/stable bills, storm overflows and improving the local environment.

Southampton

Best of both worlds – large city & local environment with a strong maritime connection.

Concerned: about loss of green space and impact of growth / development.

Key priorities: Future resources, protect environment and tourism.

Isle of Wight

Many grew up here or moved away from the mainland – being an island makes it special and its community feel.

Concerned: about travel being expensive, a bit run down, low wages and lack of opportunities.

Key priorities: Future resources of the Isle Environmental issues were key for the residents.

Portsmouth

Described as an 'island city', with the community naval history and connection with the sea is what makes it special.

Concerned: lack of investment in the city holding it back from its full potential.

Key priorities: prevention of wastewater entering the sea, protecting rivers/ beaches and customer service.

Worthing

Some that grew up there and some moving for a better life by the sea. The beach, South Downs and close to Brighton with more affordable housing.

Concerned: rising house prices and infrastructure keeping up.

Key priorities: affordable bills, reliable water supply and preventing wastewater spilling or polluting.

Brighton

The people and the feel of Brighton make it unique. The location and amenities of Brighton are the best thing about it.

Concerned: about prices, living up to its green status and homelessness.

Key priorities: tackling wastewater, affordability and protecting the vulnerable.

Hastings

Many were born and grew up here. The seafront and the things that make Hastings special. Equally it is the sea and what goes on there that makes the town.

Concerned: about the town being underfunded, poverty and anti-social behaviour.

Key priorities: low bills, bathing water quality and storm overflows.

Figure 2: Our regional profiles

7.2.4. Affordability and the cost of living

Our bespoke insight found a quarter of our customers struggle to afford their household outgoings[7].

While current concern about water bills is low, around 40% of our customers said they are worried about them[8]. Our robust insight found 14% of customers struggle to pay their water and wastewater bills, but this could rise to 24%[9].

We have already increased the support we offer the most vulnerable and will enhance it further as our bills rise to fund the investment we need. Full details about how we will keep bills affordable and support the most vulnerable are in chapter SRN08: Affordability.

7.3. AMP7 delivery

We know we have fallen short for our customers in recent years, including our C-MeX and D-MeX performance and the overall satisfaction with our support for vulnerable customers[10].

Through our Turnaround Plan we are addressing the root causes of problems and improving how we work and the services we provide.

Despite falling short in some areas, we are making good progress in others. We are on track to meet or exceed 9 of our 15 customer ODI's by the end of this AMP. We are making improvements in five of the others, with only one getting worse[11].

7.3.1. Improving our services for household customers

Most of our customers are households. We are continuously improving the services we provide for these customers and have made good progress since 2020. We have:

- Embedded a customer culture – including upskilling all our customer service agents and launching our customer promise
- Rebuilt our customer satisfaction (CSAT) processes, data and insight to provide our operational and customer teams the data to easily identify and focus on the areas, job type and volume that are causing the most dissatisfaction to customers. Customer feedback and scoring is monitored and discussed weekly at executive level
- Simplified our online processes to make it easier for customers to carry out basic tasks such as paying a bill or giving us a meter reading meaning that 70–80% of customers who attempt these tasks can successfully complete them
- Updated our website[12] to make it simpler, clearer and easier for customers to find what they're looking for and self-serve, such as reporting a leak or blocked sewer
- Significantly changed how we respond to amber and red incidents by implementing proactive text alerts and consistent messaging to keep customers informed, responding quicker with alternate supplies and applying bill rebates for loss of service. This has seen customer satisfaction for incidents increase from 5.2 to 6.5/10 and an 83% reduction in complaints relating to supply interruption (between December 2022 and May 2023)
- Made it easier for customers to contact us by introducing live web chats, an AI digital assistant and enabling customers to contact us via WhatsApp
- Launched Remote Triage – the introduction of video conversations with customers, the ability to provide photographic evidence and subsequent annotation of imagery to help ensure we can more efficiently triage and prioritise jobs. We are seeing a 60% inspector visit avoidance when video is used, meaning the job can be resolved by the virtual inspector or passed directly to our contractor, resulting in a quicker resolution for the customer
- Introduced a close the loop team which has helped improve customer satisfaction for both water and waste issues. Calling the customer and ensuring the issue is resolved through their eyes has enabled us to act quickly and case manage any issues that need attention. Since launch we have seen customer satisfaction scores improve throughout 2023 from 5.9 in July to 7.0 in August for water and scores reaching 9.1 in August for waste customers
- Used behavioural science principles to improve our complaint responses and our payment reminder letters
- Increased the basic discount we offer to help those struggling financially and improved our overall support for the most vulnerable by introducing a Hardship Fund
- Increased the number of customers on our Priority Services Register from under 20,000 to nearly 200,000[13]

7 Taken from slide 78 of board strategy pack – 28th July
8 Taken from slide 79 of board strategy pack – 28th July
9 Taken from slide 80 of board strategy pack – 28th July
10 Southern Water's Annual Performance Report – page 42 and 43
11 Southern Water's Annual Performance Report – page 42 and 43
12 As of September 2023, we are in the final stages of rolling out our new website which will go live before the end of this financial year
13 Full details about how we will keep bills affordable and support the most vulnerable are in chapter SRN08: Affordability

7.3.1.1. Making our billing journeys easier

Making it easier for customers to contact us via our website, upskilling our customer service colleagues and introducing new technologies resulted in one-third fewer calls per year and four times as many interactions completed through different channels per year since 2020.

We understand that sometimes when our customers struggle to pay it might not be their financial situation. It might be because the bill or the process was too complicated, we had not resolved an issue or had not arranged the right payment plan for them.

We changed how we handle the end-to-end billing process, from meter reading to payment, by:

- Bringing all the processes and people involved into one place
- Redesigning our bill based on customer feedback and simplified language
- Encouraging customers to move to e-billing
- Making the eligibility criteria for payment schemes more consistent

These changes, alongside the improvements to our website and other channels, helped reduce bill related calls from 40,000 to 13,000 a month and reduced our costs by more than £1 million per year.

We know we do not always get things right and when customers do complain we want to make sure we respond to their concerns quickly and fully. To do this we revamped our complaints handling process by:

- Emphasising trying to speak to customers who have made a written complaint so we can understand the full details of their concerns and ensure we give the fullest possible response
- Changing how we respond to written complaints by using behavioural science to shape replies so we provide the information to resolve the complaint in an easily understandable format
- Empowering colleagues to go the extra mile in resolving complaints and think creatively about solutions
- Strengthening our quality monitoring framework so it drives best practice behaviours

In order to be fair and transparent to all of our customers, we need to make sure that we are billing everyone who uses our services. This means we need robust processes for creating accounts for customers who are living in properties we provide either fresh water or wastewater services to.

We recently identified 42,000 properties that had not been added onto our billing system. We are now working with third party data providers to identify the occupiers of these properties so that we can start to contact them and ensure they are billed correctly.

To understand how we ended up with 42,000 “gap” addresses, we have undertaken a full review of the process of moving from a newly connected property to the set-up of a property on our billing system, as the vast majority of the gaps were newly built properties. We are implementing several improvements we identified to ensure this process is working correctly and clear reporting is in place to allow us to track the journey of a newly built property from connection to addition to the billing system.

We also have properties on our billing system but with no current occupier, known as “void” properties. We have introduced a process for reaching out to these properties directly to encourage the current occupier to get in touch. We also work with third party data providers who can provide occupier details so we can set an account up and start the billing process. Overall our household Void properties across 2022–23 averaged 57.6k equating to 2.82% of properties, in spite of the number of properties increasing by across the next 7 years we are aiming to keep level of void properties at around 2.8%.

We understand the importance of supporting the developer services markets, to help give developers choice and promote competition. The New appointment and Variation (NAV) market has grown substantially in our region over the last five years, with 44% of connections now completed by NAVs, and 13% of new connections by Self Lay Providers (SLPs).

- To help support these markets, we’ve streamlined our processes, moving the applications online to our GetConnected portal, and introduced dedicated resources to manage applications end to end, including a NAV billing and relationship manager to oversee the contractual elements once the connections have been made. Our levels of service offered to NAVs and SLPs remains above industry average (Water UK Developer Services).

7.3.1.2. Improving how we address debt

We have improved the way we collect debt. We know there is a real difference between customers who are struggling to pay due to their circumstances and customers who are able to pay but chose not to. In recognition of this difference, we created two different customer journeys:

- “can’t pay” – with more prompts to get in touch and more sensitive wording
- “won’t pay” – a more streamlined journey that leads more quickly to formal debt collection activity

In addition to creating more sophisticated customer journeys, we have used behavioural science principles to revise our payment reminder communications. We designed all of our collections letters to be engaging and prompt customers to get in touch. We have recently launched the full suite of new communications and are monitoring their impact in terms of engagement.

Improving our payment reminders and creating more tailored collections journeys are two elements of our plans to bring down the costs of managing our debt. Other measures include more efficient targeting of litigation activity and ensuring we remove incorrect bills from our systems. Overall, we have managed to bring the costs of managing our debt down to 3.11% (of total revenue) in 2022–23 and are aiming to improve that further to 2.5% of total revenue by 2029–30.

We are working closely with our three debt collection agencies to improve the efficiency and effectiveness of our debt collection activity. We have introduced a "champion-challenger" approach that rewards the organisation delivering the best performance with the aim that the competition element will drive improvements. Recognising that debt collection can often be very difficult for customers we monitor our debt collectors on the quality of their customer interactions, as well as ensuring they have robust policies in place to identify, and handle appropriately, vulnerable customers. We also ensure we are compliant with Ofwat's "Paying Fair" guidelines.

7.3.1.3. Improving how we respond to incidents

After operational incidents we have spoken to our customers to understand their experience, how they felt we handled it, and how we could improve our response.

Between our survey after the Isle of Sheppey (July 2022) incident and our most recent in West Sussex (May 2023), customer satisfaction of our incident handling, increased from 5.2 to 6.5 out of 10. This increase is largely driven by better proactive communications with customers.

For example, during the Isle of Sheppey incident in July 2022, we saw a three-fold increase in the number of contacts relating to water issues compared to the month before. When customers lost supply in Kent and Hampshire in December 2022, we proactively informed affected customers of the issue and what we were doing to fix it. This meant we only saw twice as many contacts relating to water issues as the month before.

In our post-incident surveys, customers referenced improvements in the frequency of updates, the use of text messages, social media and website messaging, and the consistency of messaging between channels. In addition, we have improved internal processes to extract data quicker, enabling initial incident messages to go to affected customers sooner.

This shows clear progress, but also that we have still got improvements to make.

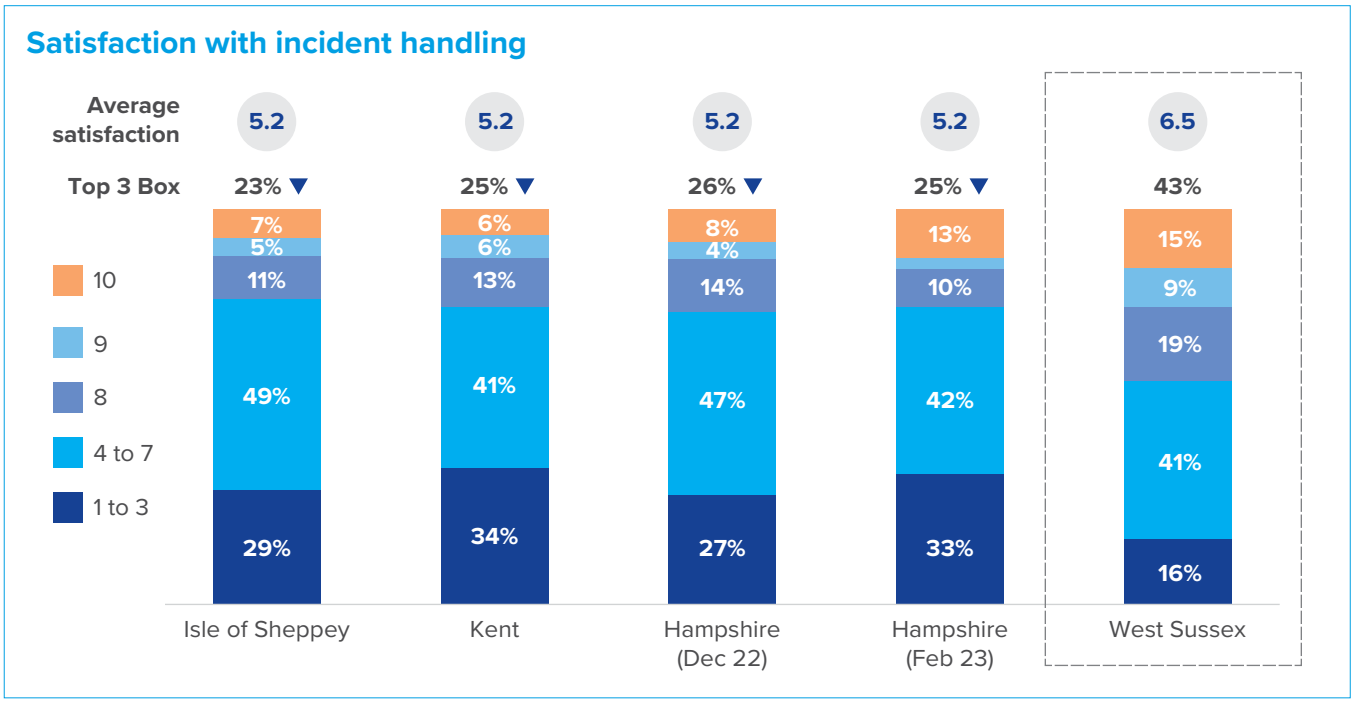


Figure 3: Satisfaction with incident handling

We know that the service we provide to non-household customers during incidents has been variable. We have now established a system for contacting business customers during incidents, especially private schools, care homes and farms during water outages, to ensure they have a sufficient supply of alternative water.

7.3.1.5. Using technology to automate and improve customer experience

Technology is changing rapidly, and we need to make sure we keep up. New digital channels mean we can provide better, more accessible services for customers. We need to make sure we are able to keep up with new developments to meet the changed expectations that come with them.

This means we can offer video calls and remotely triage issues that come up – resolving issues more quickly and conveniently. Early trial results are showing that for certain customer water issues, such as stop tap enquiries and leak reporting, we are able to avoid up to 60% of inspector visits. Instead, we can triage, resolve or forward directly to our contractors to schedule the work. This speeds up resolution and increases customer satisfaction.

We are also able to automate more processes. We can now quickly compile lists of affected customers on our Priority Services Register, enabling us to quickly provide support during incidents. We have also automated processes for customer contact, Guaranteed Standards of Service and compensation payments making claims quicker and easier[14]. We also now allow our customers to enter meter readings online – providing an element of control over their billing.

We have built new digital analytics capabilities to track website journeys, contact forms and call centre contact to identify improvements and customers in need of help more accurately.

7.3.2. Engaging with our communities

Our efforts are very localised and frequently involve colleague and supply-chain volunteers, who are encouraged to take paid leave for their time spent giving back to their local communities. We have:

- Mentored young people
- Welcomed workplace visits for unemployed 16-24 year-olds
- Opened some of our sites to the public, such as our wastewater treatment works
- Offered grassroots community grants to support regional charity and community groups for young people and a grant for community centres to support their utility costs and ensure they are open over winter
- Partnered with community radio stations and a charity to collect non-perishable tins of food for local foodbanks – which we matched in kind
- Ran our own community events and roadshows to showcase several aspects of our work such as:
  - Educating customers about water scarcity and other issues such as blocked sewers
  - Offering free home water audits and water-saving gadgets
  - Signing relevant people on to our priority services register
  - Raising awareness of our social tariffs
  - Answering important questions from our customers in person and building trust
- Improved signage for repairs, roadworks and our capital schemes to give clarity to customers and communities of the improvements we are making, and the timescales involved

Tonnes of Tins

In 2022 we launched a campaign to collect one tonne of tinned food for local foodbanks. We partnered with community radio station V2 Radio to encourage donations and raise awareness.

With the support of our customers, communities and colleagues we collected 4.6 tonnes of tinned food. We matched this with an equivalent financial donation that went to foodbanks that missed our original distribution.

In 2023 we expanded this further and partnered with more community radio stations across our region and UK Harvest.

Our customers, communities and colleagues collected almost 13 tonnes of food this year which will be distributed amongst local foodbanks. We will match this with a £30,000 donation to community foodbanks and support struggling households.

In 2022–23, 372 colleagues volunteered 2,690 hours with 54 different organisations – and 10% of this time was spent directly skill-sharing such as free first aid, ecology and health and safety training for charities alongside mentoring and interview preparation for young people.

Over the same period, we have been in touch with nearly 30,300 young people in a variety of ways including mentoring, school talks and classroom resources. We have expanded our outdoor learning offering and provided travel bursaries to attend courses. We have added to our bank of curriculum-based, teacher resources to explain the water cycle, how scarce water is and how we work – and will open sites up for educational visits from October 2023.

14 Southern Water's Annual Performance Report – page 29

7.3.3. Enabling housing growth

We play an important role in enabling new growth in our region by helping developers to connect new properties to our networks. Since 2020 we have connected over 10,000 new homes.

We have changed our operating model, overhauled our online services and focussed on a responsive service for our developer customers. This has resulted in our levels of service, as measured by Water UK, to customers improving from an average of 90.40% in 20/21 to 98.26% in 2023, which has been reflected in our overall D-Mex score improvement from 79.02 in Q1 22/23 to 83.74 in Q1 23/24.

Since 2020 we have:

- Introduced County Hubs where our teams work closely with local planning authorities and medium to large developers to understand and anticipate their needs, which feeds into our investment planning
- Launched our brand new developer portal, GetConnected, to make it easier for developers and builders to contact us, make and track applications for water and wastewater connection services, and find the information they need
- Started working in partnership with developers to address water and nutrient neutrality challenges – and increase the sustainability of new developments
- Cut the average time to connect a new development from 100 to 30 days for water, and from 21 to 7 days for wastewater

Incentivising water efficient homes

Development in some areas has been halted because of the pressures new homes can have on the environment.

In North Sussex, development has been paused because of the impact new demand could have on our water sources.

We are working closely with developers, local authorities and Natural England to encourage water efficient homes – reducing the impact on our water sources and enabling housing growth.

We have also introduced an incentive for developers to build water efficient homes. We will refund developers £250 for every home built to use an average of 100 litres per person per day – and up to £800 if homes can capture or recycle up to 50 litres per day.

7.3.4. Supporting the non-household market

Our R-MeX position has increased from 11th in 2020 to 6th in 2023 because of the work we have done to understand and work with our retailers. Since 2020 we have:

- Worked with retailers to improve data quality – cutting the total number of long-unread meters to 8.3% and legacy vacant properties by 71%
- Improved the quality of our processes to enable us to respond to retailers' requests more quickly, for instance, reducing our meter exchange turnaround time by 9 days to an average of 13 days (file (mosl.co.uk))
- Hired a Retailer Relationship Manager to better understand retailers' concerns and a Non-household Water Efficiency Co-ordinator to lead on collaborative water efficiency partnerships and campaigns support we offer to businesses
- Extended the credit support for small retailers and new entrants, helping them enter the market with discounted credit collateral, therefore reducing their financial burden in the market
- Organised regular webinars with retailers and businesses on important topics such as drought, smart metering and water efficiency
- Created a register to better support our most sensitive business customers during outages, including hospitals, prisons, farms, schools and care homes
- We have also increased our engagement with non-household customers through webinars, emails and information about how to save water, and what happens during incidents

7.4. Developing our plans

We are committed to continuously improving the services we provide for our customers. We have made progress since 2020 and, through our Turnaround Plan, will deliver more improvements by 2025.

Our plan is centred on our customers' needs and informed by constant conversations – through bespoke focus groups, online surveys and customer panels, talking to them during and following incidents, collecting daily customer satisfaction surveys and verbatim comments, analysing feedback and complaints, talking to them at community events and customer drop-ins, and understanding how they work and interact with us every day.

7.4.1. Our Turnaround Plan

We are committed to continuing to improve our customers' experience and our reputation. Through our Turnaround Plan, we are already delivering improvements to our operational and customer services.

By 2025 we will have improved customer experience and increased our C-MeX, D-MeX and R-MeX scores. We are doing this by:

- Continuing to embed a customer culture, making sure every colleague and supply-chain partner understands our customers and their unique needs. This includes embracing our customer promises and introducing customer service training for all colleagues and partners
- Making things easier for our customers by improving the online experience and creating a new website, improving customer journeys, data quality and our complaints process. We will also introduce a video assistant for customers
- Improving how we engage with our communities through improved multi-channel and direct communications, education programmes, supporting charities and environmental organisations and regular stakeholder forums
- Improving our support for customers in vulnerable circumstances – increasing the support for them through our priority services register, improving how we respond to incidents and increasing the number of customers we provide with financial support

This is alongside the day-to-day improvements we are making to our services. Our full Turnaround Plan is available on our website.

7.4.1.1. Our Customer Promise

We want to create a long-term change in how we approach everything we do – focussing on providing the services our customers expect. As part of our Turnaround Plan and work to create a customer culture, we are embedding our Customer Promise across all our teams and supply partners.

Our Customer Promise is based on our extensive insight and research and has four parts:

- We resolve issues properly and quickly
- We will own the problem
- We will always keep the customer informed
- We will be open and honest

Our Customer Promise is about changing how we work and making sure we are constantly thinking about what our customers want – based on what they've told us.

7.4.2. Our customers' priorities

More than 25,000 customers spent over 8,000 hours telling us what they think to help us develop our PR24 business plan.

This includes dozens of different audiences, segments, and communities. Our panels of current and future customers, businesses and vulnerable communities gave us informed views into our plans. Full details of our engagement are in chapter SRN03: Customer Acceptability and SRN14: Customer Insight technical annex.

Household customers and businesses want us to maintain our focus on improving our operational and environmental performance – reducing pollutions and flooding and securing a reliable supply of high-quality water.

They told us we should focus on getting things right when they go wrong, and they do not expect us to try and compete with Amazon or Google for customer service. We should focus on getting the basics right, improving how we respond to incidents and supporting the most vulnerable.

Customers expect to be able to get in touch with us in different ways. Most are happy to deal with us online, but some still need to be able to get in touch with us over the phone. This is especially true for our vulnerable customers.

When things go wrong customers expect us to be proactive, solve things quickly, support vulnerable customers and keep them updated. Customers expect a much higher level of service during incidents compared to when they're dealing with things like paying their bill.

Customers also expect us to understand our communities better and increase the support we offer the most vulnerable. Details about our increased support for the most vulnerable are in chapter SRN08: Affordability.

Our non-household retailers, want an easy, responsive service they can trust and they expect us to respond quickly to enable them to serve their customers in the same way. In the last R-MeX survey we placed 10th out of 15 companies with a score of 7.5/10 for "speed and quality of response to service requests".

We have identified three other priorities for non-household retailers:

- Maintaining and improving the quality of our data so retailers can provide accurate bills for their customers
- Rolling our smart meters and making sure we have the right billing system in place to provide real-time data
- Helping improve water efficiency in the market and drive down usage

Developers range from large housing developers, building hundreds of homes, to small and medium -sized builders. New Appointment and Variations (NAVs) and Self Lay providers also are our customers, acting on behalf of developers to connect to our network.

These customers have slightly different needs, but all want an easy, responsive and trusted service. Value for money is important to smaller builders, with homeowners wanting extra support with their application when making a single water connection.

Developer, SLP and NAV workshops

We ran bespoke research groups with these unique audiences. As an important part of many of our plans, we needed to ensure we understood their views. We made it easy for them to engage by tagging on research activity to workshops that had already planned to attend. Their feedback on overall plans was very focused on the services they provide in relationship to developments.

7.4.2.1. Drivers of dissatisfaction

To understand why customers are dissatisfied with our services we analysed verbatim comments from C-MeX surveys, complaints data, used our own reputation tracker and engaged with the UK Customer Service Institute's UK Customer Satisfaction Index.

We found the biggest drivers of dissatisfaction with us was our operational performance, being more transparent about how we work and customers wanting cheaper or more affordable bills. We are addressing these through our plans for water and wastewater – as well as by making our plans as efficient as possible and increasing the support available for the most vulnerable.

The biggest areas for improvement in our customer services were:

- Making our communications easier to understand
- Improving our website and making it easier to navigate
- Giving our colleagues the knowledge and tools they need to resolve customers' issues quickly and right first time

Our reputation tracking found customers were most satisfied with us if they had not previously experienced any issues with us – or when they'd recently had good service from us.

This insight, alongside the more than 9 million data points from our customer insight, is guiding our Turnaround Plan, other improvements we are making, and the improvements we will make between 2025 and 2030.

For more on the customer insight outlined above, see chapter SRN03: Customer Acceptability and SRN14: Customer Insight technical annex.

7.5. Our AMP8 plan

We will invest £364 million to provide and improve our retail services between 2025 and 2030. We will roll out improvements to make our services easier and simpler for customers, provide value for money and support our smart metering programme.

The table below shows our current performance, 2025 target and the improvements we will make by 2030 – in addition to the tangible improvements our customers will see in their services.

Tabel 1: Performance commitments and improvents 2025-2030

Performance Commitment (PC)	Current performance (2022–2023)	2025 target	2030 target
Households (C-MEX)	6.6/10 16th position	7.5/10 14th position	8/10 10th position
Developers (D-MEX)	8/10 15th position	8.4/10 13th position	8.7/10 8th position
Non-household and retailers (R-MEX)	7.8/10 Joint 6th position	8/10 5th position	BR-MEX: awaiting Ofwat guidance

We will focus on four key areas to improve our retail services:

- Our people and operating model
- Systems and technology
- Developer services
- Engaging with our communities

For details of how we are keeping our plan affordable and increasing support for the most vulnerable, see chapter SRN08: Affordability.

7.5.1. Our people and operating model

We will continue investing in our people, giving them the skills and support they need to provide trusted, easy customer services and focus on getting things right first time[15].

We will move to a new operational model for our water and wastewater services – including our developer services. This will bring customer contact and operational management control into a centralised

15 Smart metering research – 2022 – smart water meters phase one and two

"hub" with operational delivery in "spokes" across our region. This will mean we more effectively distribute work to our service partners, improve collaboration across our teams and service partners, and improve our ways of working and planning – making it easier for us to continuously improve our performance.

Our teams will be county focused, building knowledge of the local areas, and helping to understand and keep on top of our communities' needs. Having the full end to end accountability together within the hub, will help us respond more effectively and take full ownership of resolving issues for our customers.

Our billing services will remain centralised, and our new CRM and billing systems will allow us to move to a more "universal agent" approach. By providing multi-skilled training, better information and focussing more on proactive, quick and complete resolution we will improve first-contact resolution and remove the need for calls to be transferred.

Our agents will have full visibility of all customer interactions, as well as being provided with a visual dashboard on each customer account that flags any potential or actual issues – for example, highlighting whether there is an outstanding complaint or if a payment is late.

7.5.2. Systems and technology

7.5.2.1. Household customers

Our new customer relationship management (CRM) and billing system will move us from our complex and inflexible IT architecture to a modern, state of the art, cloud-based system, we can easily adapt to serve the needs of our customers.

This will allow us to move to a leaner, more customer-centric service – and ensure we are accurately billing customers in a timely fashion and provide them the information they need to manage their account.

Our multi-skilled agents will be able to see customers' key information and our new system will automate more processes – removing the need for many of the manual processes that slow resolution down. An improved training environment means process changes and improvements will be easier and quicker to implement.

It will also give us access to better data to enable and promote innovation and continuously improve our services, like our website. Our new system is essential to maximising the benefits of our smart metering programme by being able to absorb and interpret data which we can use to target interventions, direct our campaigns, provide tailored support and advice, and ensure our customers have full visibility of how much water they use.

We will also be able to automate processes during incidents or planned works, including automatically and proactively contacting affected customers. We can build on the improvements we have already made to our incident response, as well as targeting tailored water efficiency advice and support.

We will continue improving our website, making it easier for customers to find what they're looking for and adding new ways for them to contact us. We will also continue making it easier for customers to self-serve through our portal, enabling customers to carry out the majority of their transactions themselves without ever having to contact us.

7.5.2.2. Enabling smart metering

Our new CRM system is also essential to get the biggest benefits from our smart metering programme.[16]

By providing customers with near real-time data, they will be able to make water-saving decisions based on their use. We will also be able to identify leaks, on their pipes and ours, and target water efficiency and affordability support.

Nearly two-thirds of customers agreed being able to see how much water they're using more often would help them save more water – and only 11% disagreed.

"Having it monthly, you'd be able to see quite quickly how much difference things actually made to your bills like whether or not it was worth watering your garden or not, those types of things."

7.5.2.3. Water efficiency and Target 100

It can also create opportunities for new incentives, like our You Save, We Pay incentive we launched for businesses during the Drought of 2022 programme for non-household customers.

We are committed to reducing non-household demand by 9% by 2037 – one year ahead of the government's target[17]. To achieve this, we will offer non-household customers water efficiency audits, advice and support and continue our Target 100 campaign, and replace 52,500 non-household AMR meters with smart meters.

16 See chapter SRN05: Wholesale water (costs and outcomes)
17 Environmental Improvement Plan

We are currently piloting two key initiatives including Business Efficiency Visits which includes leak detection and retrofits in a hotel, school and sports stadium. We are also trialling our Business Partnership Fund where we will fund water saving projects in collaboration with retailers and businesses. The pilot will focus on the transport and entertainment industries. We forecast we will help businesses save 2 million litres per day by the end of 2025.

7.5.2.4. Developer customers

You Save, We Pay

In September 2022 we introduced an incentive called 'You save, we will pay' for businesses in Hampshire and the Isle of Wight to protect rivers and safeguard precious water resources during a drought.

Businesses received a discount of up to 25% of their wholesale water charges if they saved the equivalent amount of water compared to the same period in 2019.

This was the first scheme of its type in the UK and saved 8 million litres of water between September and November 2022. Because of its success, we will offer it to more customers to save more water during future droughts.

By 2030, developers will be able to apply for and track all 25 of our processes through our GetConnected portal. We will also update developers more often on progress by enhancing our automated communication via SMS, WhatsApp and online chat.

7.5.2.5. Non-household customers

We will build on the significant improvements we have made in AMP7 and continue to focus on improving the quality of our address and meter data for the non-household market. We understand the importance of keeping this data clean and up to date so retailers can read meters and bill their business customers accurately.

We will support the non-household market's enterprise data cleansing activities, supplementing this with our own targeted improvements in collaboration with retailers. For example, reducing long unread meters by carrying out site visits and improving SIC code population to help us better manage during water supply interruption incidents.

7.5.3. Engaging with our communities

Our customers have told us they want us to play a bigger role in their communities – being proactive to understand their needs and priorities, providing educational courses and giving access to our sites and the nature around them.

We are working to a new community engagement strategy, focused on four areas:

- Building skills for our community by sharing our expertise and supporting young people
- Making our communities stronger by ensuring they feel valued and heard by us
- Caring for the environment together
- Demonstrating our positive impact and responsibility in the community

This includes the activities we currently undertake in our communities and will allow us to build on those by:

- Setting up flagship programmes such as:
  - Mentoring young people
  - Sustainable water-use campaigns
  - Training and support for diverse and marginalised community leaders so they can pass on the importance of saving water to their communities
- Working closely with our contractors and supply chain to ensure local communities benefit
- Establishing a region-wide network of outreach activities and ambassadors
- Building new partnerships and setting up community grant projects, supporting communities and local environmental groups to grow
- Implementing a programme of new ways to reach our communities such as virtual town halls and pop-up spaces
- Increasing access to our buildings to use as community assets to support local social enterprises, such as a food waste café, for charity and community groups, or a safe office space for vulnerable groups
- Training our own customer outreach ambassadors in inclusivity to reach deeper into our communities

We are also working with Business in the Community to develop a Place initiative in Southampton. This will bring together local authority and council leaders, with local businesses and NGOs, to tackle the social and economic issues in Southampton and provide a programme of long-term self-help support.

Our customers and communities have told us they want us to provide more educational resources, facilities and enable more customers to take part. We will enhance our education programmes by:

- Expanding our teaching programme and curriculum support into older age groups, as well as early years learning
- Establishing a *Water Mark* accreditation certificate based on the number of times a school participates in activities with us
- Setting up a school's programme from early years all the way to apprenticeships
- Expanding early careers activity and work experience opportunities for young students

- Establishing bursaries and education grants
- Increasing the number of our sites we offer as visitor education centres
- Making our site tours more accessible and inclusive – for example by providing Special Educational Needs-friendly tours

7.5.4. Developer services

From 2025 to 2030 we forecast 98,180 new water and wastewater connections to our network. We have seen the number of connections made by self-lay providers rise in AMP7 and we expect connections by self-lay to rise further in AMP8 (based on ONS forecast numbers for household properties), making up 20% of our total water connections.

Table 2: Forecasted new waste water and wastewater connections to our network 2025-2030

Connections	Water	Wastewater	Total
New Connections (Household – excluding NAVs)	24,956	62,015	86,971
New Connections (Business – excluding NAVs)	1,582	3,123	4,705
New Connections – Self Lay	6,504	-	6,504

In addition, we forecast an additional 45,300 properties to be served by NAVs across our region, benefiting from our offsite water and wastewater networks.

Developers range from large housing developers, building hundreds of homes to small and medium builders who are building 25 homes, or even a single connection. New Appointment and Variations, and Self Lay providers are also our customers, acting on behalf of developers to connect their new build homes to our network.

These customers have slightly different needs, but all want an easy, responsive and trusted service. Value for money is important to smaller builders, with homeowners wanting extra support with their application when making a single water connection.

98% of our developer customers apply for services through our portal – GetConnected. We will continue developing this platform and adapt it to our customers' needs based on their feedback. Planning consultations and pre-development information will be submitted through GetConnected, enabling us to track and monitor housing growth more effectively across the region – improving how we prioritise future network reinforcement and wastewater treatment work upgrades to support housing growth.

In addition to moving to a hub and spoke model, we will bring more key processes back in-house, such as design approval and acceptance, to improve the customer journey. We will communicate with our customers more proactively – ensuring customers are kept informed at every step of the process.

Developers can play a vital role in protecting our environment – helping reduce household water use and reducing the impact of new developments on waterbodies. We will expand our existing environmental incentives for developers to encourage water neutral homes, sustainable drainage solutions in new developments and surface water separation.

Encouraging sustainable development

New housing growth in some parts of our region is slowed to protect the environment from nutrient pollution or over abstraction.

We are partnering with developers and planning authorities across our region to encourage and enable sustainable developments and reduce our collective environmental impact.

This includes engaging on their plans for growth and encouraging them to respond to consultations on our strategic plans.

Our Sustainable Development Policy includes our ten expectations for new developments across our region, including considering water efficiency, nutrient neutrality and water recycling.

7.6. Delivering our plan

Our plan for 2025 to 2030 is twice the size of our current investment programme. We know delivering investment at this scale and pace is a challenge. We have reviewed our current capabilities for delivering in core areas. We will invest further in these capabilities.

We have already taken steps through our Turnaround Plan to increase our capacity to deliver – including securing additional shareholder funding, scaling up our procurement and supply-chain capabilities and developing our plan for 2025 to 2030 using rational phasing and alternative delivery methods. This has given us confidence to plan for a significant increase in investment and delivery.

The increase of investment programmes across the water sector will lead to heightened demand on the supply chain. Addressing this this requires careful coordination and collaboration to make sure there is sufficient capacity and capability, while maintaining commercial tension to drive best value.

Our plans from 2025–30 include more advanced solutions and technologies, in addition to more work and specialist skills. Attracting and retaining key people, from field force to skilled environmental scientists, in a highly competitive region of the UK, adds weight to this challenge and could potentially slow down pace of delivery.

Reflecting on these challenges, and drawing from best practice delivery across the sector, we have assessed our current and planned measures against four core deliverability requirements to mitigate deliverability risks.

Supply chain strategy: We have established strong relationships and agreements with suppliers ahead of the next investment period and we will complete procurement of our delivery partners early in 2024.	**Portfolio execution plan:** We have wdeveloped clear plans and priorities across the portfolio, aligning planning, delivery, and other business areas to ensure efficient execution and effective resource allocation.
Portfolio delivery and performance management: We are enhancing our programme management capability and capacity to track performance, implement the plans and oversee delivery.	**Strategic workforce:** We are committed to finding, retaining, and training the right people. Strategic workforce planning will address capability gaps and ensure a skilled workforce is in place.

Chapter SRN09: Deliverability has more information about the work we commissioned and how we are implementing this.

7.7. Board engagement

We regularly discuss progress against our customer service objectives and turnaround plan with the Board. They share our ambition to improve outcomes for our household, non-household and developer customers, and our wider communities. They support our ambition to roll out a new CRM and billing system to enable smart metering and great customer understanding and service.

See chapter SRN11: Data and Assurance for more information about our Board engagement and assurance processes.

Chapter SRN08

Affordability

8. Affordability

8.1. Executive summary

Our plan is about investing for the long-term to build a service that meets customers' rising expectations, and the significant challenges we face to secure reliable water supplies and protect our environment.

Our customers and communities understand the challenges we face and want us to invest in the right long-term solutions. They want us to invest now and not push the problems to future generations – and understand bills need to rise to meet their priorities.

However, they expect us to support those that need it most. We know 20% of our customers struggle to pay their bills and that this figure is only likely to increase. Our customers have also consistently told us they want their bill increases to be as smooth as possible.

We intend to increase bills incrementally between 2025 and 2030 so people can prepare and plan for the rises. Our current forecast average bill for 2030 is £674 – a 64% increase between 2025 and 2030. We will be open and honest about why bills are increasing and how we will use customers' money.

We are committed to increasing the financial and non-financial support we provide to the most vulnerable.

We are also doing things differently to keep our plan affordable. We plan to install 1 million smart meters – giving customers greater control over their water use and bills.

We will use innovative tariffs to make our charges fairer and encourage water saving. Innovations we have trialled since 2020 are reducing our ongoing operating costs and we will scale these up where possible from 2025. In particular we are piloting a rising block tariff approach to inform the detailed design that will be rolled out from 2027–28.

We have also embraced the use of markets and Alternative Delivery methods. We are proposing to deliver £1.32 billion of our plan this way – using both Ofwat's Direct Procurement for Customers model and our supply chain. See chapter SRN09: Deliverability for more details. We have identified five key five areas that will enable us to keep bills affordable while supporting our vulnerable customers:

Keeping bills affordable

- Innovative **new tariffs** designed to achieve two simultaneous goals: reducing householders' bills and increasing the sustainable use of water
- Use of innovative markets and partnerships to reduce **financing costs**
- Installing **smart meters** to give our customers accurate information and control over their bills
- By reducing costs across the business – and customers' bills as a result – with efficient and **innovative practices**

Supporting vulnerable customers

- By proactively identifying and reaching out to our most **vulnerable customers** and offering them tailored, compassionate support based on their particular circumstances, ensuring that they have the necessary support with their bills

Unless specified, bill impacts include the innovative charging structures we explain in this chapter[1].

8.2. Our challenge

8.2.1. Increases to customers' bills

Our next plan is significantly bigger than our current plan. It delivers the enhancements to our services and environment our customers and regulators expect – reflecting best value optioneering and efficient costs. Keeping bills affordable is one of our customers' highest priorities – and they expect us to protect the most vulnerable. In our affordability testing 50% of our customers said our plan would be difficult to afford.

Since 2020, our bills reduced by around 6% because of performance penalties and bill rebates to repay our customers and communities for previous shortcomings. From 2025, these rebates will no longer apply.

We also need to significantly increase how much we invest to improve our performance, transform our services and enhance our environment. Our bills will need to increase by up to 64% between 2025 and 2030 to pay for this.

Our average bill in real terms still remains lower than 2017–18 levels (see Figure 1) and in AMP7 we committed to maintaining a flat bill profile in real terms. We achieved this every year except 2021–22 due to the impact of prior years' performance. We then reduced bills in 2022–23, resulting in a bill value well below the industry average.

1 See table Supp. 15

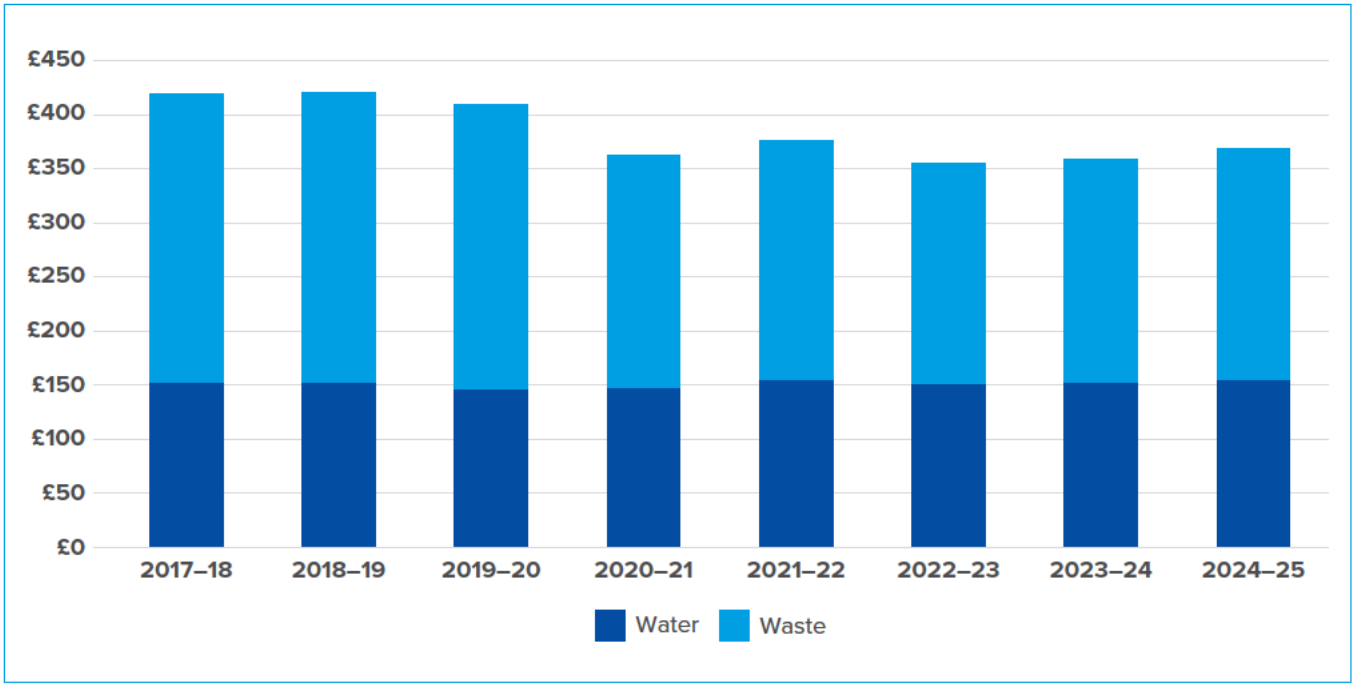


Figure 1: Real average household bill

8.2.2. What our customers say[2]

Keeping bills affordable is one of our customers' highest priorities. Our current bills are felt to be relatively affordable compared to other utilities and household bills. However, the cost-of-living crisis means customers are feeling more pressure. Future bill affordability is becoming more of a priority for customers.

> *"This is the big one now, overtaking the pandemic; families are being hit hard and will have to make some major changes to their lives."*
>
> **Household customer panel**

We found around 25% of our customers struggle with comfortably being able to afford their outgoings[3], and 7% really struggle. Demographic data shows around 30% of our customers are in lower income brackets, rising to around 34% on the Isle of Wight and in North Kent, compared to more rural areas of North and Central Hampshire and North Sussex having between 22-27%[4]. Ofwat's research found up to 57% can sometimes struggle to pay their household bills[5].

Around 40% of our customers are concerned around future water bills[6]. The greatest concern from customers on future bills is for energy, food, council tax and travel. Concern peaked in June 2022 and has slowly been decreasing since the height of the cost living crisis. Our customers told us:

- They want bills to be affordable for everyone and for support to be given to those most in need
- Some will struggle and many of our customers are feeling pressure across all household their bills due to the cost-of-living crisis
- They want us to improve the environment and are prepared to invest now, but expect us to provide best value and be transparent about where customer's money is spent
- We should not delay investment so future generations are left with the bill
- Any increases to bills should be predictable and smooth to help with budgeting

In pilot acceptability testing[7] of our proposed plan, an average bill scenario (pre-inflation in 2030 up to £733) saw affordability dominate feedback. Some customers were concerned about the potential increases and almost a third rated the plan as unaffordable. This was especially true towards the later years (2027–2028 onwards) which adds to an uncertain future.

2 See chapter SRN03: Customer Acceptability for more on our customer engagement and insight
3 See SRN14: Customer Insight technical annex, Section 1 Index: 201d – Water Futures Quant Wave 4 – Aug '23
4 See SRN14: Customer Insight technical annex, Section 1 Index: 172 – PR24 Profiles – June '23
5 See SRN14: Customer Insight technical annex Section 1 Index: 170 – Cost of Living Research March '23
6 See SRN14: Customer Insight technical annex, Section 1 Index: 201d – Water Futures Quant Wave 4 – Aug '23
7 See SRN14: Customer Insight technical annex, Section 1 Index: 207b – Pilot Acceptability and Affordability Qual Report – Mar '23

However, at a 2030 pre-inflation bill level of £677 the feedback was more evenly spread across features of the plan with affordability still significant concern.

We looked at Alternative Delivery methods to help maintain the investment customers wanted while keeping bill increases smoother. While we still see 24% of customers rating the plan as unaffordable[8], this is more consistent with our other research[9] and analysis looking at income levels by [redacted].

In our affordability testing we found a minority of households and non-household customers said it would be easy to afford the increased bills. Despite this, more customers support the increase in bills to fund the enhanced investment in our services and environment.

For more about our customers' priorities and our affordability and acceptability testing see SRN03: Customer acceptability.

8.3. Keeping bills affordable

Keeping bills affordable is one of our customers' highest priorities – and they expect us to protect the most vulnerable. In our affordability testing 50% of customers said our plan was affordable.

The key measures to assess if our bills are affordable will be the volume of customers below the water affordability threshold, our total debt charge and the volume of customers we support via our social tariffs and hardship funds.

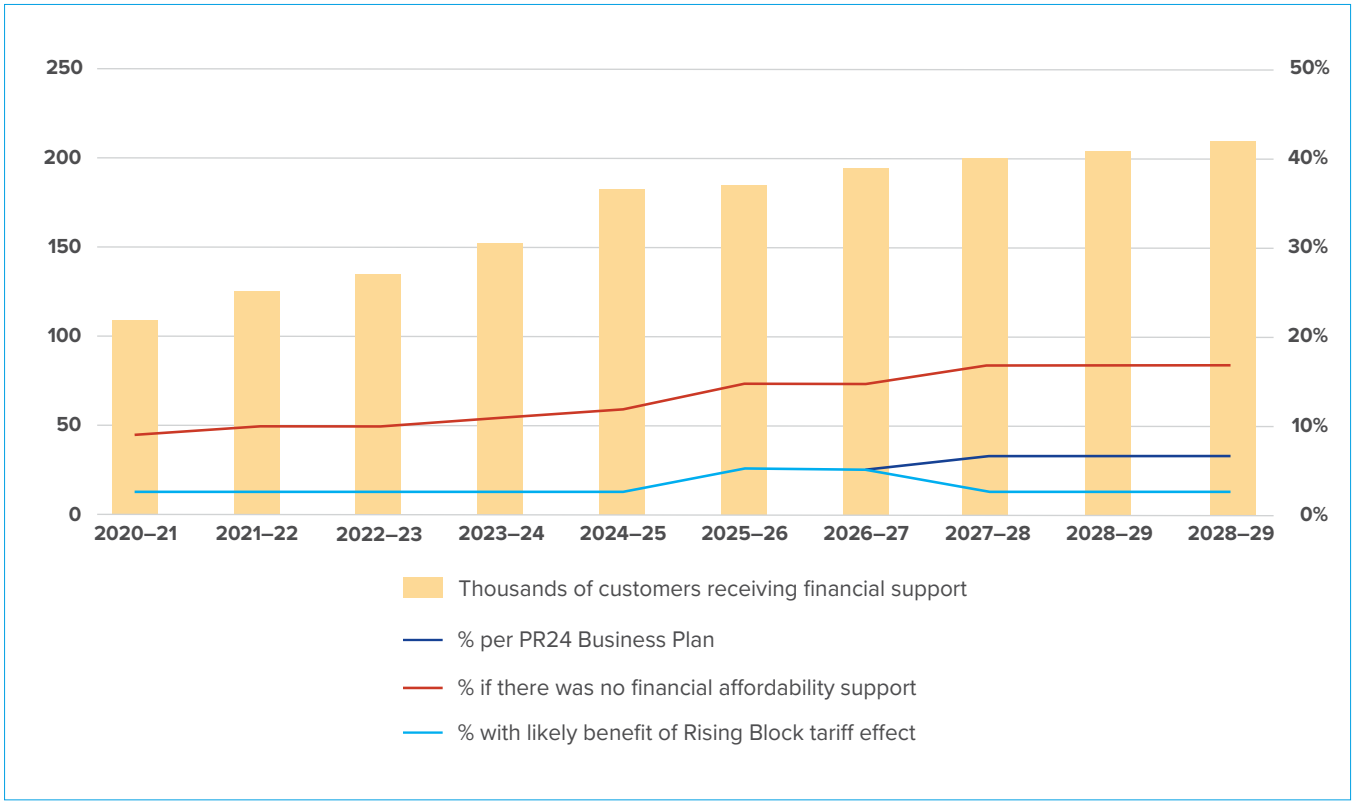


Figure 2: % of household customers below the Water Affordability threshold

We are doing things differently to ensure our plan is efficient and affordable for customers – and making sure we protect the most vulnerable. We are committed to making sure our plan is efficient and bills and are focussing on:

- **Improving operational efficiency to drive down costs**
- **Using smart metering to promote water efficiency**
- **Using tariff innovation and fairer charging structures**
- **Using Alternative Delivery for** £1.32 billion of investment

8 See SRN14: Customer Insight technical annex, Section 1 Index: 207a – FINAL Acceptability and Affordability Presentation – June '23

9 See SRN14: Customer Insight technical annex, Section 1 Index: 201a to 201d Water Futures Quant Wave 4 – Aug '23

8.3.1. Improving operational efficiency to drive down costs

We continue to drive down our running costs through researching and implementing innovative process changes. These include:

- **Sewer digitalisation:** we installed 24,000 sensors across our sewer network networks to monitor our networks and identify potential issues – meaning we can proactively find and prevent flooding and pollutions occurring. This has and will save the company £28 million in reactive spend across AMP8
- **New technology to refurbish pipes:** we trialled a technology using [redacted] to refurbish pipes and prevent leaks without the need for excavation. We were the first UK water company to test this technology and will save almost £2 million in excavation work between 2025 and 2030
- **Wetlands feasibility tool:** we identified more efficient and greener solutions to meet nutrient permits. We worked with stakeholders to create a list of focus areas which would enable us to compare wetlands against end-of-pipe solutions and identify where we could use them instead. These nature-based solutions increase natural capital and biodiversity, protect river water quality and reduce our carbon footprint – and will reduce our costs by £3 million between 2025 and 2030

8.3.2. Using smart metering to promote water efficiency

We know customers can gain more control over their usage and resulting bills size when they have better, timelier information. This is why we are installing more than 1 million smart meters by 2030. To ensure we target water advice, tariffs and awareness correctly we already have the following underway.

- **Behavioural science insights:** we carried out ethnographic studies to understand how customers use water as part of their daily routines and the transition of these behaviours into habits. We are using these insights to design the right water-saving options such as cutting-edge water-saving products, services, behavioural nudges, technology and awareness campaigns
- **Innovation trials and pilots:** these are being conducted to determine the water-saving solutions we could provide to customers (households and non-households) to help them save more water
- **Household visits:** some of the trials currently in progress include flush saving tablets, toilet leak sensors, shower timers, garden hose flow monitors, and leak detection systems. If these trials are successful, we will continue to test, learn and scale them up
- **Non-household schemes:** including water audits and water-saving retrofits across social housing and schools with the aim to install water-saving products. Another is the business partnership fund through which retailers or organisations can apply for funds to execute their best water-saving project ideas
- **Education:** we have launched two new Target 100 modules as part of our education programme – New Wave. These are curriculum-based classroom resources, designed by curriculum specialists, to be used by teachers to help children learn simple ways of saving water and protecting our local environment. We are working with the South-East and Wessex Rivers Trusts on a trial that enables children to take part in a range of outdoor activities.

8.3.3. Using tariff innovation and fairer charging structures

Without changing our charging structure, we expect our average dual-service bills to increase by 64% in real terms (and 85% in nominal terms) between 2025 and 2030.

Our Customers and Communities Challenge Group recommended using tariffs as an innovative way to offset some of the impact of bill increases. Our regulators encourage collaboration and knowledge-sharing across the industry and have removed barriers to trialling new charges. We have used this approach to develop three tariff changes:

- Introducing more cost-reflective **surface water drainage charges**, which could reduce average wastewater bills by 7%
- Removing **discounts for large users**, reducing household water bills by 1%
- Introducing **seasonal or rising block tariffs** which could reduce average bills by 10% when fully implemented

8.3.3.1. Site-area-based charging for surface water drainage charges

Our existing tariff structure consists of a fixed annual charge for the costs of surface water drainage for all customers. The charge is linked to meter-pipe-size of a customer and the vast majority of both household and non-household customers incur the lowest charge of £21.

We have been investigating the benefits and impacts on customers of moving to site-area-based-charges. This more accurately reflects the costs associated with the drainage of surface water into our network and will share costs more fairly. This type of charge also encourages the use of more sustainable drainage systems across our area – reducing rainwater entering our network and our use of storm overflows. We already have plans in place to work with our customers to support such enhancements.

To reflect our better understanding of the overall costs of surface water drainage services, within our 2023–24 Wholesale Charges we have already adjusted the balance of revenue recovered via surface water drainage charges versus foul water treated without altering the total revenue recovered.

In 2025 / 26 we aim to provide indicative "shadow charges" for customers with very large site areas draining to our network. This will help us assess the impact on customers and identify benefits and potential next steps.

Our bill impact assessment of using site-area-based surface water drainage charges shows a reduction to the average dual-service bill in real terms by 2030 by a further 4% – and a 7% reduction to a wastewater-only bill (see figure 3 below of total bill reduction from innovative charges).

8.3.3.2. Removing discounts for non-household large users

To reflect the rising cost of water resources more accurately, we intend to phase out the discounts some large users currently receive. This will result in our charges being more cost-reflective and fair for all. This phasing out commenced on a small scale in our 2023–24 charges. By 2030, we anticipate this will achieve a real-terms reduction of 1% from the average bill.

8.3.3.3. Water usage tariffs: seasonal tariffs and rising block tariffs

In 2022 we commissioned a report from Nera Economic Consulting[10] to explore the benefits of alternative charging structures. They recommended seasonal tariffs and rising block tariffs as the most progressive, cost-reflective and effective tariff for both affordability and water efficiency goals. (See figure 3 for assessment of tariff options.)

We expect these to incentivise customers to become more efficient – supported by our smart metering programme and Target 100 campaign. We plan to start trialling new tariffs in 2024–25 to understand the impact on customers' bills and water use. This will inform the detailed design of an innovative tariff to be rolled out in 2027–28 to help deliver our affordability and sustainability goals.

We know most customers use more water in the summer and we will ensure we do not penalise necessary additional use during summers. However, customers who use above what is deemed to be efficient during summer months, such as filling by swimming pools or watering large gardens, will be charged a premium.

These tariffs encourage water efficiency and shift higher costs more fairly to those who use water for non-essential purposes. They will also help customers who make a conscious effort to reduce water usage in order to lower bills by ensuring that they are fairly rewarded. Installing smart meters and rolling out our new CRM system[11] are crucial enablers for these charges.

Our Bluewave Innovation lab installed 1,500 smart data enablers on customers' meters in urban and rural environments to better understand the scale of the benefits we could deliver through smart metering. These devices clip on to existing meters and record hourly readings which are reported for analysis every eight hours, providing almost real-time consumption data while assisting with leak detection.

The four-month trial gave us our first insight into smart meter data and the impact of real-world influences on the ability for smart technology to accurately transmit data. We now better understand how different environments can influence connectivity, the importance of a robust data service provider, and how even sporadic but improved data reports can still help find leaks in customers' homes.

We started a new 18-month trial in March 2023 to analyse the impact on customers' daily consumption behaviour when customers have access to more accurate, frequent and comparative data. More about our smart metering programme is in chapter SRN05: Wholesale Water (Costs and Outcomes).

10 Southern-Water-Tariff-Design-Final-Report-by-NERA.pdf (ofwat.gov.uk)

11 See chapter SRN07 Customer – Household and Non-Household (Costs and Outcomes)

Our bill impact assessment of using innovative water usage tariffs shows a potential reduction to the average dual-service bill in real terms of 10% between 2030 and 2035. (See figure 3 below of total bill reduction from innovative charges in AMP8.)

	Cost reflectivity	Recovery of the revenue requirements	Fairness	Stability and Predicability	Practicality
Current Tariff	✓	✓	✓	✓	✓
Option 1 Higher standing charges	✓	✓	✗	✓	✓
Option 2 Seasonal Tariff / Time-of-use Tariff	✓	✓	✓	✓	✓✗
Option 2 Rising Block Tariff	✓	✓	✓	✓	✓
Option 2 Nil volumetic charge for household below threshold, with time of use tariff	✗	✓	✗	✓	✓✗

Figure 3: Assessment of innovative tariff options

8.3.4. Alternative Delivery

We intend to use Alternative Delivery models for a number of our enhancement programmes, including using Direct Procurement for Customers (DPC). We already use DPC for our Water for Life Hampshire project to build and commission Havant Thicket reservoir through a Competitively Appointed provider (CAP). More about our approach to alternative delivery is in chapter SRN09: Deliverability.

There are a number of benefits for customers from this approach:

- The impact on bills of increased investment will be spread more evenly over the life of the contract
- It matches the profile of the bill impact to the time the services are being provided, which improves intergenerational fairness
- The competitive process of appointing the CAP introduces scope for innovation in design, delivery and financing, providing better value for money

We are intending to use delivery routes like this where appropriate. We have a number of large new water schemes that could be eligible for DPC, and we are considering similar routes without using formal DPC, but looking for third parties to build infrastructure then provide services which we would pay for via bills.

Upgrading our digesters in the bioresources price control to the latest technology and outsourcing delivery of smart meters are examples of this approach, where we are looking for similar benefits to customers. In each case we will ask third party providers to own and carry out infrastructure work.

Our modelling shows that the average bill is lower by 13% by 2029–30 by using Alternative Delivery.

See chapter SRN09: Deliverability and SRN17: Direct Procurement for Customers & Alternative Delivery Model technical annex for details.

8.4. Supporting vulnerable customers

Our plan to increase the support we offer vulnerable customers is based on adopting a continuous proactive practice of seeking out customers we think might be struggling, or who will start to struggle. Once we have identified them, we will offer compassionate, tailored support. We will help customers to afford their bills and when they need additional support with our services.

8.4.1. How we define vulnerable customers

We define vulnerable household customers as anyone struggling to pay their bills, or who might soon, as well as those whose circumstances mean they need extra assistance during incidents or managing their account. Some customers fall into both categories.

We recognise not all vulnerable circumstances are permanent. Some of our customers may simply need assistance temporarily.

Our Priority Services Register allows us to keep track of the different needs our customers may have using the industry-wide categories but whatever circumstances our customers find themselves in, our emphasis is on understanding how we can help them as an individual.

8.4.2. AMP7 delivery

We have made significant progress in delivering for our vulnerable customers since 2020 both in terms of the financial and non-financial support we offer.

8.4.2.1. Financial support

Our current package of financial support is made up of discount schemes, payment plans and a hardship fund. We have two main discounts: Essentials (our social tariff), which gives customers a discount on future bills from 45% to 90%, and WaterSure, an industry-wide tariff that caps bills at the average household bill.

We also have two payment plans: NewStart, where we match a customer's payment towards their arrears to give them a new start, and WaterDirect where the Department for Work and Pensions takes our payment directly from someone's benefits. We also offer payment breaks to anyone struggling with the current cost-of-living crisis.

We introduced a hardship fund we can use to help customers in several ways. We can use it to pay up to 50% of a customer's bills for up to a year if they are in temporary financial difficulty. We can also write off up to £2,000 of a customer's debt if they have managed to get back on track with their bills but will not be able to pay off their arrears. We can also use hardship money to buy a domestic appliance for someone who cannot afford to replace an item that has broken down or for food vouchers.

We currently (as of end of August 2023) offer discounted bills through our social tariff to 123,000 customers, cap the bills of 16,700 and have helped 11,500 customers with their debt through our NewStart scheme. We have also supported 730 customers with payments through our Hardship Fund, providing an average of £921 of support to each. There are 186,000 customers on our Priority Services Register (PSR), compared to 20,000 in 2020, or 9.3% of our households – 2.3% above our Performance Commitment.

Overall, we will have provided around £97.5 million of financial support for our customers between 2020 and 2025.

8.4.2.2. Improved processes

We recognise the importance of making help easily accessible, so we have consolidated application forms, removed the need for customers to complete complicated income and expenditure forms, and made it easier for third parties to apply for help on a customer's behalf. We also proactively signpost vulnerable customers to other organisations that might be able to help them further, such as Citizens Advice and Step Change.

Our Priority Services Register is key to helping us to understand and track the needs of our customers. We have added a more detailed set of needs to how we define vulnerability, bringing us in line with the rest of the utility sector. These needs are immediately flagged when the customer contacts us. In addition, we have made it easier to apply and now allow applications to be made on a customer's behalf.

8.4.2.3. Specialist support

We have set up dedicated teams to support our vulnerable customers. A specialist office-based team has been trained by the Samaritans, Dementia Friends, Age UK and Step Change to give them the knowledge and skills to support vulnerable customers. They have also received safeguarding and bereavement training, awareness training around kidney disease, and mental health and suicide, and have been taught how to identify and help survivors of domestic abuse.

Kidney Care UK partnership

In early 2023, we partnered with Kidney Care UK to provide support to over 150,000 customers afflicted with Chronic Kidney Disease (CKD) in our area. Our focus is on addressing the needs of approximately 26,500 CKD patients living in disadvantaged areas – as well as supporting more than 3,000 of our customers currently undergoing dialysis.

We have seen a 28% increase in the registration of PSR customers requiring dialysis. Both Southern Water and Kidney Care UK representatives have actively participated in charity events, sharing details of the support we offer.

Kidney Care UK has also provided specialised training to our in-house affordability team, enhancing their understanding of kidney-related health challenges, the specific needs of our customers, and the role we can play in supporting them.

A field-based outreach team is focused on promoting the range of support available for vulnerable customers and providing face-to-face advice and support. They go out into our communities, attend events and network with charities, campaigning and advocacy groups and social care organisations – letting them know about the support we offer anyone struggling financially or as a result of personal circumstances.

8.4.2.4. Working with partners

Data-sharing is a central tool in identifying customers who need assistance. We have started sharing data with charities, central government departments and housing associations to increase the number of customers we can proactively contact because we believe they could be eligible for support. For example, one of our agreements gives us a list of people who are on pension credit – meaning they are eligible for our Essentials tariff and possibly inclusion on our Priority Services Register.

We also work closely with a wide range of partners to help us reach as wide a range of customers as possible. These partnerships come in different formats – it might be financial sponsorship, support at events, running surgeries at key locations such as job centres.

Home and Well

Home and Well is a collaborative effort between us and Citizens Advice Hampshire to support vulnerable customers to recover at home.

We helped started Home and Well by providing financial support and sharing the expertise of our communications team to create a marketing campaign and raise awareness of the available support.

Since Home and Well started in 2020, we have helped more than 1,400 customers return to the comfort of their homes to recover.

8.4.2.5. Responding to the cost-of-living crisis

Since 2020, we have experienced an unprecedented global pandemic which dramatically changed how we live and work. We have also seen a sustained cost of living crisis, been partially driven by the longer-term impacts of the pandemic and the economic impacts of the war in Ukraine.

We responded to the ongoing cost of living crisis by reviewing the level of financial support we provide for our customers. We recognised our basic social tariff discount of 20% was no longer sufficient, so increased this to 45% in October 2022. We transferred all existing social tariff customers receiving the basic discount to this higher level, meaning they would benefit without having to take any action.

We have also maintained our flexible approach to payment plans, focussing on agreeing a payment plan that is compatible with the customer's circumstances.

Responding to the pandemic

The COVID pandemic completely transformed how we needed to support our customers. We acted quickly to ensure we were supporting our customers as best as possible, by:

- Introducing automatic payment breaks of up to 3 months for anyone impacted by COVID
- Increasing the income threshold eligibility criteria
- Writing to all customers who paid by cash or payment card (and therefore may not have been able to use their usual payment points) to let them know about the help they can access if they are struggling
- Moving to automated renewals for those already on a support scheme or tariff
- Changing our policy to allow referrals to our PSR from relatives and trusted third parties
- Giving £20,000 to a consortium to provide funding to Food Banks in our area
- Proactively contacting our most vulnerable, simply to check in
- Emailing all our customers we had an email address for to let them know about our PSR

8.4.3. Supporting vulnerable customers from 2025 to 2030

Our bills will increase to fund the enhancements our customers, communities and regulators expect. We know many of our customers will continue to struggle financially and we also know many of them would benefit from additional support tailored to their circumstances.

Our plan to support vulnerable customers focuses on:

- Expanding the non-financial additional support we provide for customers with specific needs
- Building on our existing outreach programme to leverage greater support from key partners to identify and support more vulnerable customers
- Increasing the financial support we offer our customers – making sure we protect the most vulnerable from bill increases

8.4.3.1. Non-financial support

Supporting our vulnerable customers is about more than providing help with their water bills. In the next AMP we will:

- Deliver an income maximisation approach that will include a benefit calculator, money-saving ideas and best ways to manage money, to help our customers be in the best possible financial position
- Increase our support for customers with communication difficulties by partnering with companies that offer a variety of translation services such as British Sign Language and Makaton, as well as foreign language translation. We will also train staff to raise awareness of language barriers, speech impairments and hearing loss, and equip staff with tools and techniques to look after these customers
- Develop a specific PSR that will track premises offering care in the community (such as small-scale care homes, supported residential accommodation for adults with disabilities, food banks, refugee accommodation) so we can ensure support is provided in the event of an incident
- Improve our support for vulnerable customers during an incident by streamlining the process for collating data in an incident, working collaboratively with Local Resilience Forums and having a more strategic approach that ensures the customers who are most vulnerable are helped first

8.4.3.2. Outreach programme

We know the most effective way of identifying vulnerable customers is by data sharing and partnership working.

We plan to support more customers financially and through our PSR by partnering with a national register for vulnerable people (the Vulnerability Registration Service). This register will identify any customers with a vulnerability in our operating area that we were not aware of already. We will work more closely with local councils so we can use the data they already share with us (for water emergencies) to support more vulnerable customers.

We will build on existing partnerships and assess opportunities for expanding scalable partnership working, for example working with more Job Centres to hold surgeries. We will also seek to identify new partners to help fill gaps in our current outreach strategy, such as rural crime teams or the National Farmers Union to help with outreach in our more rural areas.

We will support these outreach approaches by finding more ways to promote the PSR and financial support available, such as advertising and promoting it through campaigns, community networks, partnership initiatives, staff training and development, and through our website.

8.4.3.3. Financial support

We know a significant number of our customers will continue to struggle financially and are concerned about the impact of increased bills – 35% of those on the PSR have told us they sometimes struggle with household bills. Our customers expect us to increase the financial support we provide for the most vulnerable, with 70% supporting some level of cross subsidy to support those in need.

Social tariff

We have revisited the level of cross subsidy used to support our social tariff and asked our customers how much they might be willing to contribute to support those who are struggling to afford their bills.

We believe our customers are willing to pay up to £7 more than the current level[12], taking the full amount up to £20 per year. This means that we could maintain support for the 158,000 customers that will be receiving it by 2025.

We want to further increase this support. We are proposing Ofwat allows us to use £15 million of the performance-related ODI financial penalties incurred for our performance between 2020 and 2025 to support an additional 24,000 customers. This means we will be able to support 182,000 customers through our social tariff.

Hardship fund

We also want to increase the number of customers supported through our Hardship Fund, as this targets those most in need. We are proposing to use a further £5 million of performance related ODI penalties to increase the Hardship Fund to £1.25 million per year, compared to the current £250,000 a year, across all five years.

These ODI penalties would have been returned to customers in the form of discounts, but we believe the funds could be better focused on our most vulnerable customers. We need Ofwat's permission to be able to do this and will work with them to make this case.

Watersure and Water Direct

We will continue promoting the Watersure tariff and Water Direct payment scheme to ensure customers are receiving the type of financial support right for them.

NewStart

We plan to redesign our debt-matching scheme (NewStart). Our current approach matches arrears payments made until the debt is fully paid off and can mean customers still have a debt for many years. We are proposing a scheme where we agree manageable monthly arrears payments and when customers have made six months of regular payments, we will write off 50% of their debt. If customers can manage to make payments for more than 12 months, we will write off the remainder of their debt.

12 See SRN14: Customer Insight technical annex, Section 4.51 Social Tariff Support

8.4.4. Measuring success

As well as the increases in financial support set out in the above section, we will increase the number of customers receiving a tailored support service through our Priority Services Register to 343,000 or 22% of households.

We will also test how well we are doing by listening to our vulnerable customers. We already survey customers on our PSR to understand if we are providing the services they need. In 2023, 73% of customers on our PSR felt we support their needs – and 30% thought this was done perfectly well[13]. We will continue listening to all our customers, including our vulnerable customers, to make sure we provide the services they need and find ways to continuously improve. In particular, we will test our ideas to improve the services delivered through our PSR with vulnerable customers and their representatives to ensure we are meeting their needs.

To ensure we are continuing to adhere to Customer Services best practice, we will also secure and maintain the BSI Inclusive Services International Kitemark. We already hold the BSI Inclusive Service Kitemark (BS ISO 22458), which marks our commitment to protecting vulnerable customers. We are in the process of applying for the international kitemark for Inclusive Services ISO 22458:2022 as part of our commitment to helping vulnerable customers.

8.5. Conclusion

We know the increases in our bills will make it difficult for some of our customers to pay and we are committed to mitigating that impact as much as possible. Without any financial support, the increased bills required to support our plan would lead to nearly 20% of our customers falling below the water affordability threshold.

We are taking steps to mitigate against further bill increases by seeking efficiencies and innovative approaches. We are also focusing our work on innovative tariffs on approaches that will support the financially vulnerable. We have begun the process to implement a tariff trial for Rising Block Tariffs in 2024–25. Until we have results for those trials, we cannot be definitive about specific bill reductions from behaviour change, nor specific reductions for lower users.

However, based on analysis of our existing billed consumption, we are confident the majority of our customers will see their bills fall – our most vulnerable customers could see an average 25% further reduction to their bill.

The collective action we are taking has reduced the potential bill, as shown in Figure 4 below.

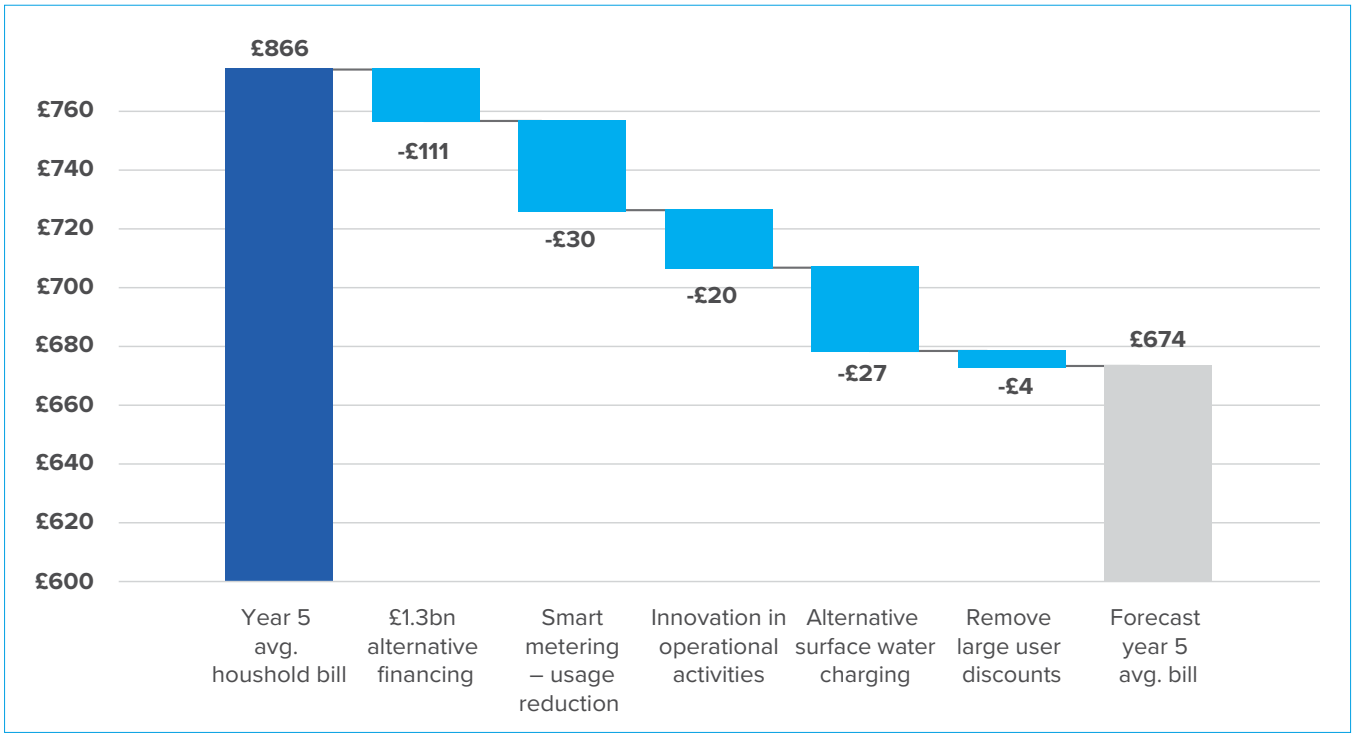


Figure 4: Benefit of affordability activities on average household bill by 2029 / 30

The above shows the Year 5 or 2029–30 average bill would be £866 if we did not implement all of the above affordability measures – and if we were funded for our full plan.

The result is a 22% or £192 reduction on the average dual service bill.

13 See SRN14: Customer Insight technical annex, Section 1 Index: 195 – PSR Research Report March 2023

We are providing further assistance for our most vulnerable customers. Our customers have indicated they are willing to provide an additional £7 of support through the social tariff cross-subsidy, but more is required to maintain a level of under 5% of our customers struggling with Water Affordability.

That is why we are proposing Ofwat allows us to use financial penalties incurred as a result of underperformance to support vulnerable customers, rather than a general bill reduction. This would allow us to help an additional 24,000 customers by 2030, bringing the total number supported to 182,000 – reaching 8.7%.

We know there are many customers who will require more assistance than a simple bill reduction, so we are also proposing to redirect some of some of the financial penalty amount to support a five-fold increase in our Hardship Fund.

We want to work with our customers and our regulators to find the right balance between investing for the future and affordable bills for all of our customers.

Chapter SRN09

Deliverability

9. Deliverability

9.1. Introduction

Delivering our customers' and communities priorities requires a scale of investment beyond any of our previous programmes. We are facing up to this challenge and have already taken steps as part of our Turnaround Plan[1] to secure shareholder funding, increase our investment run-rate, scale up our workforce procurement and supply chain capability and engage our work force. This has given us confidence to plan for and deliver a significant increase in outputs.

Ofwat has recognised the step-change needed to deliver the additional enhancements will be a sector-wide challenge. It has asked that water company boards satisfy themselves that PR24 plans and expenditure proposals within them can be delivered.

We take this requirement very seriously and are confident we have considered each of the factors needed to deliver this plan and confirm to Ofwat that the plan is deliverable:

- **Taking a rational view of future requirements and phasing:** We have considered which areas of our plan could feasibly be phased into AMP9
- **Planning for Alternative Delivery:** We have developed Alternative Delivery routes through which some of our key enhancements can be delivered through third parties
- **AMP8 delivery capability:** We have studied our current capabilities for delivering AMP8, in core areas of delivery and we want to invest further in these capabilities through specific planned projects

Our Board will continue monitoring our progress on our Turnaround Plan and our preparedness to deliver our proposed AMP8 Business Plan.

We recognise further deliverability risks will arise through the AMP, and we are committed to managing these further risks in a structured and fully governed manner.

This chapter outlines the scale of the challenge we face, the steps we have taken so far and how we have planned to deliver a plan that meets the priorities of our customers, communities and regulators.

9.2. Delivering Transformation 2025–30 – scale of the challenge

The wholesale component of our Business Plan for AMP8 is expected to about 50% more than the size of our previous plan – growing from £5 billion (in 2022–23 prices) to £7.5 billion (in 2022–23 prices)[2] in total investment, as outlined in the figure below. This growth is driven by the enhancements we need to make to our services and environment. They make up 56% of our AMP8 costs, compared to just about 23% expected in AMP7.

Our WINEP is the largest in our history, and is the largest enhancement programme in our plan – totalling £1.5 billion (in 2022–23 prices, including delivered in-house and alternative delivery routes) to reduce storm overflows and pollution and improve water quality in more than 1,000km of river. Enhancements in our WRMP total £1.6 billion (in 2022–23 prices, including delivered in-house and alternative delivery routes) and will help us create new sources to leave more water in the environment, install more than 1 million smart meters, reduce leakage and start work on the cross-boundary sources we need in the future.

These enhancements will help us meet statutory and regulatory requirements as required by Defra, the EA and Ofwat.

1 6579_ofwat_company_turnaround_plan.pdf (southernwater.co.uk)

2 The total cost of our wholesale plan is £7.5 billion. We will deliver £6.3 billion in-house and £1.3 billion will be delivered through alternative delivery routes, including Direct Procurement for Customers (DPC). These values are post RPEs and frontier shift, net of grants and contributions and include third party services and in 2022/23 prices.

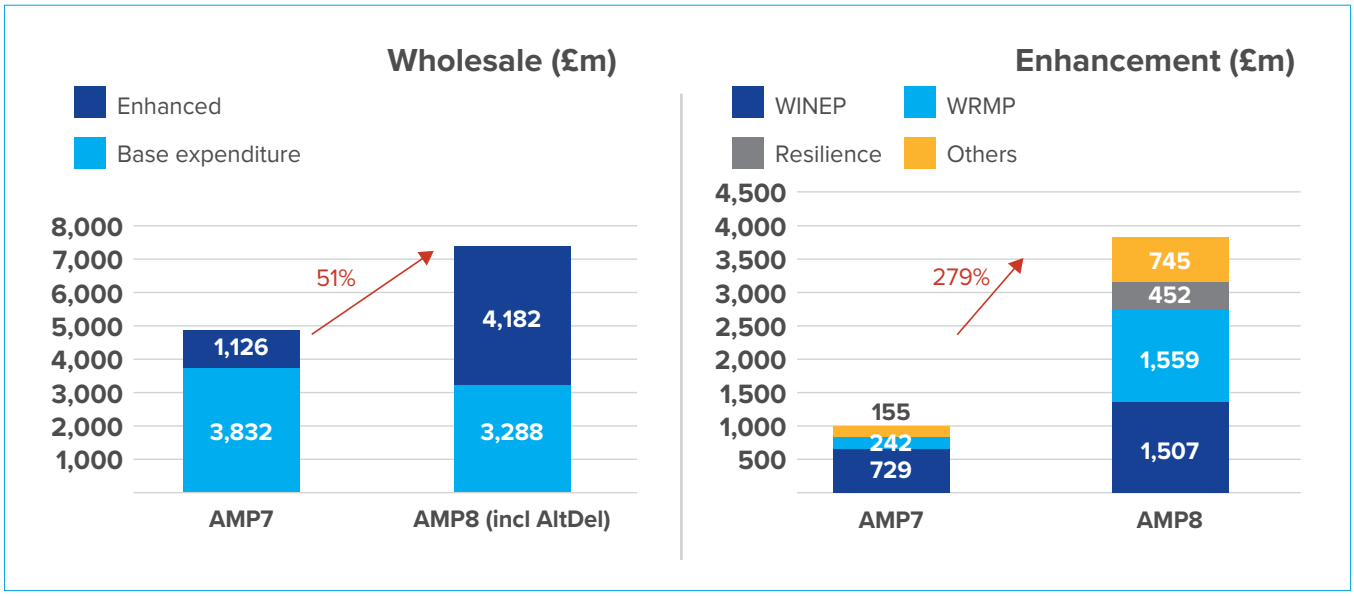


Figure 1: Cost of Southern Water's AMP7 and AMP8 wholesale plans in 2022–23 prices
Sources: AMP7, 2020–21 to 2021–22 are outturns as reported in Annual performance reports, adjusted to 20022–23 prices. AMP7, 2022–23 to 2024–25 are taken from PR24 business plan, tables CW1/CWW1. The values are net of grants and contributions and include third party services. AMP8 figures are sourced from PR24 business plan, tables CW1/CWW1, CW3/CWW3 and SUP12.

We fully recognise the challenge of such a significant increase in investment. The steps we have and are taking to increase our capabilities are outlined in the next section.

9.3. Turnaround 2023–25 and measures taken so far in AMP7

Our turnaround has taken us from a position of being unable to deliver key outputs in AMP7, to addressing our core problems. We have put in place the following measures that have started to prepare us for the delivery of AMP8:

- Securing funding and shareholder backing
- Engaging our whole workforce with fresh leadership
- Ramping up our investment run-rate
- Scaling up procurement and our supply chain
- Planning and demonstrating delivery of our key projects

9.3.1. Securing funding and shareholder backing

One of the constraints to delivery in AMP7 has been available funding. In 2021, we lacked the funding to be able to deliver our remaining commitments. Since then, our shareholders have approved substantial additional investment over and above regulatory allowances – while taking no dividends, and with none expected for the remainder of this AMP.

For the last seven years our external shareholders did not receive a dividend as we prioritised the critical investment we need to improve our resilience for the benefit of our customers, communities and environment.

Shareholder backing has improved our financial resilience and enabled an investment of an extra £300 million to accelerate improvements in operational performance. This phase is broadly complete and on target to finish by the end of 2023. We raised a further £550 million in 2023 to manage the impact of the high inflation and interest rate environment on our operating, maintenance, and funding costs, and maintain our momentum.

Given our shareholder support, we are now in a position to fund delivery of a much larger plan going forward into AMP8.

9.3.2. Engaging our whole workforce with fresh leadership

As part of our Turnaround Plan, we have created a new Executive management team, with skills and experience from inside and outside the industry. This has been important to give us fresh direction and develop a new vision for our future.

We have refreshed senior leadership across our businesses, with a replacement of 35% of roles. For example, we have brought in new senior experience in capital delivery from HS2 and Heathrow.

We have also refocused our organisational structure with a Managing Director for Wastewater and separate Managing Director for Water. In addition, we have created a central Transformation Office, with transformation and change teams in each of our business units. This new focus will allow us to lead the change and preparedness for the step change for the next AMP.

In order to embed a new culture and leadership, we launched our Steps to Success programme, which has now engaged over 1,800 of our people and partners. This programme allows our colleagues to see the changes that are planned and to feel part of our future as a high-performing and high-delivering business.

Building on this initiative, we have also refocused our efforts on training and apprenticeships, with 130 colleagues in apprenticeships and 21% our employees completing training programmes in the last year.

9.3.3. Ramping up our investment run-rate

With financial support, we have increased our capabilities to deliver increased output. We have increased investment in capital maintenance, recognising the short-term need for investment and the challenge we will face from 2025.

As part of Phase One of our Turnaround Plan, we invested to improve operational practices, capacity monitoring, reporting, and the capability and resilience of our wastewater networks. This phase is 98% complete and will be finished during 2024.

Given this investment focus, we are already building up to delivering investment on an annual scale needed to fulfil our AMP8 plan, as shown in the figures below.

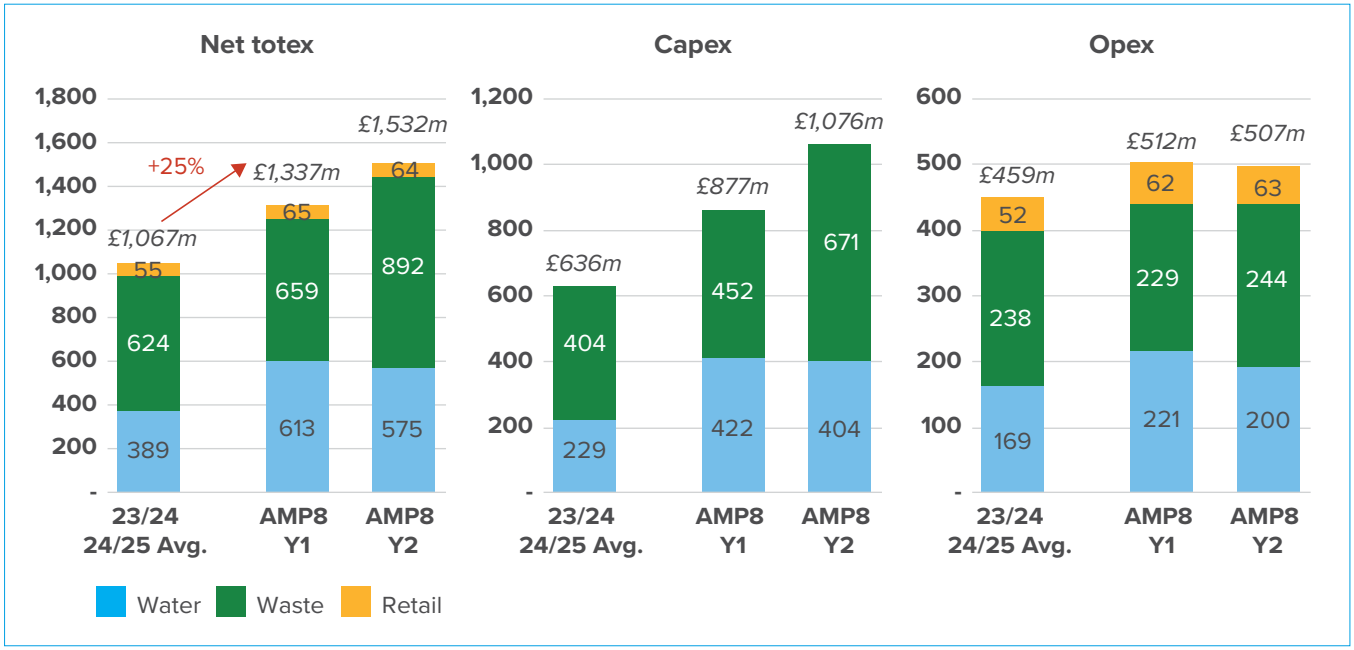


Figure 2: Annual investment run-rate (totex, capex and opex) in AMP7 and projected into AMP8
Note: Net totex includes opex, capex and G&A (not shown separately above). Excludes pension deficit cost. Includes cost of DPC set-up only (not payments to DPC suppliers).

From AMP7, the growth in the plan is significant. Wholesale totex increases by 61%, AMP on AMP, while enhancement totex increases by 198%. We have been increasing our capacity and delivery in the last few years, which reduces the increase in annual investment spend to c.25%, between the end of AMP7 and the start of AMP8. A similar increase in investment spending was achieved between the beginning and end of AMP7. This demonstrates our ability to manage the step-change in delivery.

AMP8 represents an unprecedented level of investment. However, having demonstrated previously the ability to increase investment spending between the start of AMP7 and the end of AMP7, at similar rates of increase to those required to start AMP8, we have proven that we can increase investment at the levels of intensity needed from 2025. Therefore, we are confident we can deliver our plan, subject to the mitigations described in this chapter.

9.3.4. Scaling up procurement and our supply chain

We have focused on preparing our procurement function for the challenge of increased use of our supply chain. We recognise the importance of, and reliance we have on, our supply chain in terms of innovation, water security, managing risks, corporate and social responsibility, and operational efficiency. Our partners act as the face of our business for many customers and communities. It is vital that we foster, cultivate and nurture the relationships we have with them, so they remain connected to, and understand, our business priorities and culture.

We are carrying out a three-year structured programme to learn the lessons from delivery challenges we have experienced earlier in AMP7, examine the constraints within the supply chain for AMP8 and develop our procurement and contracting strategy to optimise the efficiency of delivery.

We have completed the planning stages and are in the process of assembling new procurement frameworks to support delivering our AMP8 investment programme and we intend to keep assessing and mitigating risks to delivery throughout the AMP.

As part of our strategy to enable this, we have developed a Supplier Relationship Management (SRM) Framework, to foster an environment in which we work in collaboration, build trust and encourage open and honest communication. We want to be a client of choice because of our practices and behaviours, consistently positioning ourselves to receive preferential access to resources, ideas and the latest innovations.

The framework is organised around a set of design principles, informed by British Water Survey results. It includes a more detailed management diagnostic, an internal review of our supplier enablement capability and an independent assessment through a 'Voice of the Supply Chain' exercise. Principles include:

- Creating a system of governance to make sure there is regular engagement between all stakeholders
- Providing an environment where constructive 360-degree feedback is gathered and shared
- Promoting excellence by highlighting new areas of value and introduction of new initiatives
- Recognising contributions and celebrating success

Elements of this have been rolled out as part of our current procurement programme. New framework elements will be implemented before 2025 to allow content to mature and develop ahead of AMP8. These elements include:

- Performance benchmarks using a consistent set of metrics
- Joint business plans to underpin engagement
- Supplier awards programme to recognise success
- Creating open collaboration forums to better direct and harness our partners' creative efforts

With this new focus on our supply chain, we are confident we can secure the partnerships we need to deliver our PR24 plan.

9.3.5. Planning and Demonstrating Delivery of Our Key Projects

Our focus in 2020–25, as set out in our WRMP19, has been preparing to deliver our major schemes in AMP8 and AMP9. This has involved the successful completion of ground investigations and surveys, environmental surveys, and public consultations.

Our Hampshire Water Transfer and Water Recycling project (HWTWRP) SRO has completed more than 130 boreholes and a further 130 trial pits along the length of the 47km transfer pipe route, alongside running a pilot recycling plant, providing essential information to support route selection, design, and de-risk delivery.

Following a requested Direction from the Secretary of State provided in May 2022, the HWTWRP will be consented under a development consent order (DCO) process. The scheme is now being progressed into the consenting and delivery phases. We are in the early stages of the pre-application process for our DCO, including consultation and engagement, Environmental Impact Assessment, preparing our consenting documentation and progressing scheme development.

We are working with Portsmouth Water on enabling works and a single pipeline tunnel as part of the already approved Havant Thicket Reservoir – this will help futureproof this long-term asset, reducing disruption during construction and will deliver potential cost savings of over £100 million.

We have progressed the delivery of our Hampshire strategic water supply grid with the system architecture developed, supported by hydraulic optioneering modelling to define system requirements. Route corridors have been developed and a contractor engaged to support development and delivery to outline design.

Beyond our Water for Life programme, and in line with our multi-AMP programme, we have established a water quality monitoring programme for the Medway recycling scheme to inform process requirements and confirm consentability. We are on track to deliver schemes for the Southampton and Andover link mains, as well as Sandown water recycling scheme, East Woodhay and other smaller transfers.

Our WRMP19 plan included more uncertainties than our WRMP24 plan (such as sources from other companies) – resulting in the need to adapt the plan. The most significant change has been the switch from coastal desalination to water recycling for Hampshire.

We have undertaken a thorough risk review of key deliverables for all WRMP24 projects, this has enabled us to refine delivery dates for some projects to ensure these are realistic and deliverable. Actions include:

- Changes to potential earliest delivery dates of some options including the Havant Thicket Reservoir, the Hampshire Water Transfer and Water Recycling Project and Littlehampton water recycling option
- Developing a mitigation plan of shorter-term actions or adjustments intended to supplement or accelerate our ability to secure supply and minimise potential environmental impact
- Extending of a bulk supply option, and increasing the volume, from SES Water until 2031
- Developing an extended and enhanced contingency plan to address delivery risks

We have developed a once-in-a-generation plan to rebuild our four largest water treatment works. We have completed the first phase of the rebuild at our Otterbourne treatment plant.

9.4. Taking a rational view of future requirements and phasing

In preparing our Business Plan, we have taken a rational view to prioritise investment to maximise the benefits to our environment and customers, while still making the plan deliverable and affordable. We are committed to delivering the required full WINEP and environmental improvements our customers expect, but over a longer timeframe to ensure it is it deliverable, efficient and affordable for our customers.

We have proposed to the Environment Agency that circa £900 million of WINEP investment (circa £1.1 billion in 2022/23 prices) could be delivered over eight years instead of five years, phasing this spend into AMP9. The cost of our final AMP8 WINEP is £1.5 billion, of which £1.4 billion in wastewater and £74 million in the water service (2022/23 prices), including what we plan to deliver through alternative delivery routes.

This level of investment is unprecedented. It is an important opportunity to make significant enhancements to our environment and support delivery of the Government's Environmental Improvement Plan 2023 and Defra's Plan for Water. However, there is both an affordability challenge (customer feedback supports this) and deliverability challenge with the scale of this plan combined with other requirements such as our Water Resource Management Plan (WRMP).

Our phasing proposals reflect the importance of ensuring reliable and resilient drinking water supplies and wastewater services for our customers. These proposals will improve the phasing and deliverability of environmental improvement programmes, taking account of customers' priorities and benefits for the environment.

We recognise the importance of all of our investment in the short to medium term. However, even with the significant increase in investment, we have taken a rational view to the essential items needed for AMP8.

9.5. Planning for Alternative Delivery

Our capital programme for PR24 is significantly larger than in previous AMPs. We remain committed to deliver for our customers, although we recognise we cannot deliver all of the requirements ourselves.

Therefore, we want to seek partners to deliver some of our programme. Ofwat has developed the concept of alternative forms of delivery, through its Direct Procurement for Customers (DPC) model. This plan proposes projects that would benefit from Alternative Delivery. In addition to Ofwat's DPC, we have developed a new *DPC-lite* model, in which a more moderated process recognises the features of the project, and yet still provides certainty for Ofwat, our customers and new partners.

This section provides our summarised proposals for Alternative Delivery routes and our Proposed Alternative Delivery projects.

Many of the projects and processes included in this concept are new and need to be developed further. We want to work with Ofwat during the remaining PR24 review period to advance these projects and ideas into a final form for Ofwat's approval.

In total, we project AMP8 totex investment via Alternative Delivery at £1.31 billion[3] with a development and transaction cost of £194 million[4]. Further detail is included in SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex.

All of our Alternative Delivery projects will be critical to enable us to deliver for our customers.

9.5.1. Direct procurement for customers

Ofwat's DPC model sets out competitive tendering for the delivery of certain large infrastructure projects, by a third-party Competitively Appointed Provider (CAP). Ofwat expects this route to achieve significant benefits for customers, both through innovation and lower whole life costs of the project. We would run a competitive procurement process to identify a CAP delivery entity.

The CAP could be appointed at any stage in the project's development process. We would enter into a CAP Agreement (CAPA) setting out the CAP's obligations and payment terms. CAP payments would be due when the service starts, deferring the cost to customers compared to in-house delivery.

During the CAPA, we would recover the payments for the CAP under an Allowed Revenue Direction (ARD) to enable the CAP to raise debt and/or equity. The CAP is not licenced. We remain responsible for the CAP's performance under our licence.

3 See table SUP12.

4 This is reported in: £100m part of CW3.55, plus £49m in CW1.31 plus £44m in CWW3.182 (any difference is due to rounding).

The DPC model features stages in its approval regime, at which the projects are matured and Ofwat's approval is secured, as shown in the figure below.

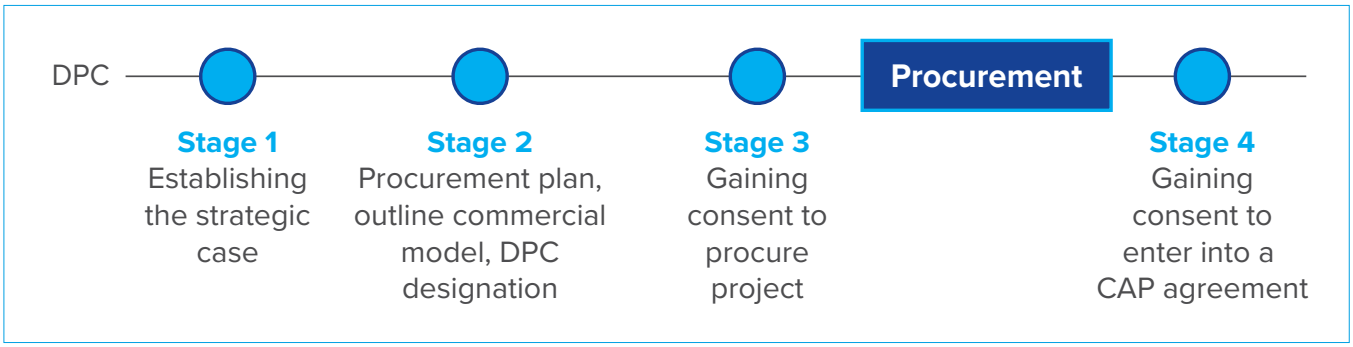


Figure 3: DPC stages

9.5.2. Our new DPC-lite model

We propose our new DPC-lite model for projects that cannot be delivered via DPC. DPC-lite is similar to DPC – suitable projects are competitively tendered and delivered under long-term contracts by a third-party delivery partner, which can be appointed at any stage in the projects' development process.

We acknowledge Ofwat's additional technical discreteness guidance and its implications for the DPC eligibility of projects which excludes several small assets and those whose asset lives are less than the typical length of a DPC contract (circa 25 years).

However, DPC-lite would still benefit us and our customers, by enabling us to better manage our in-house delivery capacity. We also believe that delivering needed assets, not eligible for DPC, via DPC-lite would enable the timeliest delivery. The table below lists other benefits:

Table 1: Benefits of DPC-lite

Benefit	Explanation
Managing delivery capability	By transferring responsibility for key projects and activities to third-party providers, this can free up our internal resources to focus on delivering other parts of the capital programme
Efficiency in delivery	As per Ofwat's DPC efficiency assumptions, DPC-lite may enable capital and operational efficiencies in the delivery of major infrastructure projects
Innovation in design	External parties may be able to offer innovation in the design of new assets or unlocking economies of scale from other sectors
Access to external financing	The voluntary DPC-lite delivery route allows funding of large projects by a third-party provider
Enhancement of relationships and reputation	Delivery routes which enable partnership and localisation could provide an opportunity to engage directly with local stakeholders and businesses, not only improving project delivery, but also enhancing our relationships with key stakeholders
Flexibility in the timing of customer bill impacts	It may allow some flexibility in the timing of impact to customer bills, depending upon the payment and revenue commencement structures adopted

We propose a long-term payment mechanism or uncertainty mechanism that is similar to DPC's ARD – '**ARD-lite**'. This would form a guarantee to the CAP of relevant cost recovery from customers, spanning multiple AMPs. It would also give security over the treatment of residual asset values at the end of the contract term. The proposed process would provide more agility and flexibility than the current DPC process.

Similarly, we propose a lighter touch **approval regime** than for DPC projects, reducing Ofwat's burden. We would assume the responsibility to ensure that contract terms delivered value for money for customers. Criteria would be agreed with Ofwat, and these would need to be met, both before a contract is tendered and before the contract is awarded – ensuring the project would be delivered while protecting customers and offering value for money.

This approval process is shown in the figure below:

- **Project identification:** Projects will be agreed to be delivered via a pre-agreed delivery route
- **Pre-procurement update:** Prior to procurement, we will provide Ofwat with the terms in the draft contract, including key commercial terms and a summary of the procurement process to be conducted, giving Ofwat the opportunity to raise any questions or concerns
- **Pre-contract award review:** Before contract award, we will provide Ofwat with a review of the procurement outcome and value for money. We would then seek an ARD-lite. Any amount not covered by this mechanism would be for us to cover from base allowances or efficiencies elsewhere

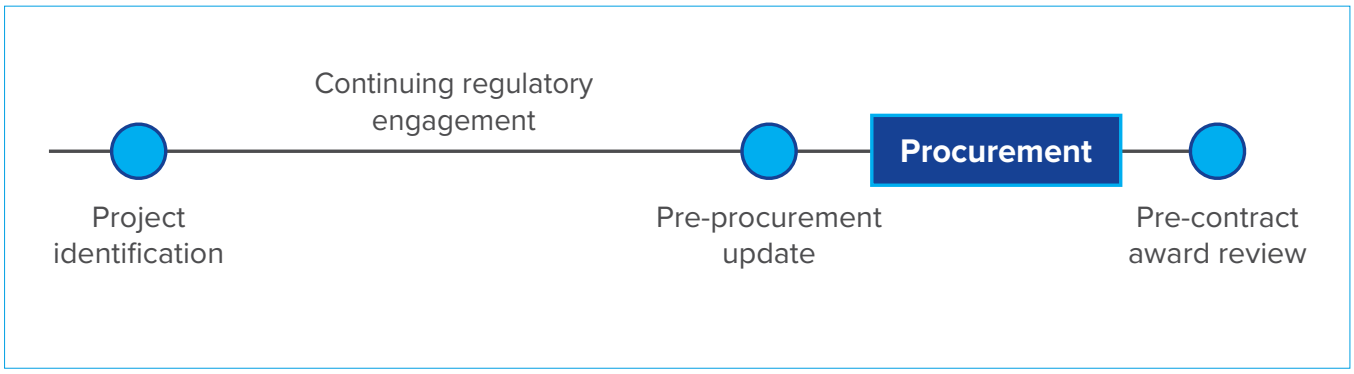


Figure 4: Proposed route for DPC-lite projects

Further detail is included in SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex. We will seek to work collaboratively with Ofwat to explore whether the underlying principles of DPC could also be applied to the projects under a new DPC-lite route for a select few projects for AMP8.

9.5.3. Proposed Alternative Delivery projects

To identify projects which may be suitable for Alternative Delivery routes, we conducted a systematic review of our entire capital programme for PR24 including a DPC eligibility assessment for each project.

While some projects are excluded from DPC under Ofwat's guidance, all projects progressed are sufficiently high value, with a level of separability, with currently no known construction or operational risks that would reduce their attractiveness to investors.

Following the identification of candidates suitable for Alternative Delivery routes, we developed:

- **Project totex:** The efficient cost projections for each project;
- **Contract model:** Stages in the project that we expect a third-party to undertake: D-Design; B-Build, F-Finance, O-Operate, and M-Maintain; and
- **Tender model:**
  - **Early:** We would identify a partner on the basis of need, a choice of options or a preferred solution, prior to the completion of project development activities, such as initial design, surveys and studies and consenting. The partner would continue through the development phase into detailed design, construction, operation and maintenance, also providing the financing necessary to deliver the project;
  - **Late:** We would complete the majority of the pre-construction project development activities in-house, before procuring a provider to complete the detailed design, construction, operation and maintenance, also providing the financing necessary to deliver the project; and
  - **Very late:** We would undertake all project development activities, prepare the detailed design and construct the assets potentially using contractors and partners. Post-construction a third-party provider would be appointed to refinance the project and to operate and maintain the asset.

We have identified a list of candidates, set out in the table below.

Table 2: Summary of projects to be progressed under Alternative Delivery routes

Project	Totex in AMP8	Proposed delivery route	Proposed contract model	Proposed tender model	Summary rationale
Sandown re-use	£98m	DPC	FOM	Very late	Size and nature make it eligible for DPC. However, the required delivery timescales do not leave sufficient time to procure a DPC contractor pre-construction. Therefore, we plan to procure a CAP to Finance, Operate and Maintain the assets post-construction
Aylesford re-use	£99m	DPC	DBFOM	Late	Size and nature make it eligible for DPC. Changes to the delivery timescales under the WRMP24 we believe allow sufficient time to procure a DPC contractor pre-construction
Ford re-use	£63m	DPC	DBFOM	Late	
Sittingbourne industrial re-use	£109m	DPC	DBFOM	Late	Size and nature make it eligible for DPC
Whitfield WwTW	£50m	DPC-lite	DBFOM	Late	Project characteristics make it suitable for DPC and could be considered discrete. However, current estimates see it fall below the DPC size threshold, but still suitable for DPC-lite
Smart metering	£165m	DPC-lite	DBFOM	Late	Although ineligible for DPC under Ofwat's guidance, our analysis and engagement to date indicates that the project could be delivered under DPC-lite
Ham Hill Advanced Anaerobic Digestion (AAD)	£170m	DPC-lite	DBFOM	Late	Bioresources are excluded from DPC. We propose to package the two projects, Ham Hill and Ashford, into a single project and deliver via DPC-lite
Ashford Advanced Anaerobic Digestion (AAD)					
Wetlands	£80m	DPC-lite	DBFOM	Late	Although ineligible for DPC under Ofwat's guidance, we consider that a programme of Wetlands interventions across our network could form a package suitable for DPC-lite
Local Authority highways SuDS	£197m	DPC-lite	DBFOM	Late	Although ineligible for DPC under Ofwat's guidance, we consider that a programme of SuDS interventions along local authority highways could form a package suitable for DPC-lite
Hampshire Water Transfer and Water Recycling Project	£283m	DPC	DBFOM/ DBFM	Late	This project is already part of Ofwat's formal DPC process and its VfM will be confirmed via that process

In total, we project AMP8 totex investment through Alternative Delivery at £1.31[5] billion with a development and transaction cost of £194 million[6]. Further detail is provided in SRN17: Direct Procurement for Customers and Alternative Delivery Model technical annex.

9.6. AMP8 delivery capability

We have undertaken a study of our current capability to deliver the AMP8 programme and have made recommendations to our Board for growth areas, given the size and complexity of the plan.

In this section, we outline core delivery requirements, our current capabilities for delivering AMP8 and final planned actions to ensure deliverability.

9.6.1. Core delivery requirements

We recognise that the scale of AMP8 delivery will challenge our operation to a significant extent. To de-risk plan delivery, we need to have appropriate measures in place to address the key challenges we, and the wider water sector, face (see SRN56: Deliverability technical annex for further details).

Reflecting on these challenges and on best practice delivery across the sector, we assessed our ability to successfully deliver our Business Plan against four core deliverability requirements, these are:

1. Supply chain strategy
2. Portfolio execution plan
3. Portfolio delivery and performance management
4. Strategic workforce plan

The table below provides a summary of what these requirements include.

Table 3: Core requirements for successful delivery

	Supply chain strategy	Portfolio execution plan	Portfolio delivery and performance management	Strategic workforce plan
Requirements	Strong set of framework agreements and supplier relationships to provide capacity and capability, and managing it on an ongoing basis	A well-defined planning process at the portfolio, programme and project level, with appropriate collaboration across the business	Tracking and managing delivery performance, efficient delivery processes, and prioritisation of works	Identifying, sourcing, retaining and training the right resources and capabilities, at the right time for the right work
Specific measures	• Informed strategy • Supplier agreements • Scope consideration • Delivery partners • Supplier capability and capacity • Supplier relationships • Category management • Governance and performance management	• Investment prioritisation • Planning process • Capex planning • Opex planning • Change planning	• Capital investments • Execution tools and processes • Programme management • Risk and governance • Change control • Annual review cycle • Transformation management	• Capability planning • Resourcing • Training and upskilling needs

9.6.2. Our current capabilities for delivering AMP8

For each of the core deliverability requirements, we assessed what current measures we have against a set of specific criteria that reflect best practice. This assessment concluded the maturity of our organisation to deal with the significant AMP8 increase in investment. This has allowed us to identify key gaps that we need to address. In undertaking the assessment, we engaged widely across our business.

Below is a description of the current measures we have in place to support our core deliverability components.

Further details about this assessment are included in SRN56: Deliverability technical annex.

Maturity definitions

High – High level of measures in place to support deliverability or already planned to occur prior to AMP8

Medium – Moderate measures in place to support deliverability or already planned to occur prior to AMP8

Low – Low level of measures in place to support deliverability

5 See table SUP12.

6 This is reported in: £100m part of CW3.55, plus £49m in CW1.31 plus £44m in CWW3.182 (any difference is due to rounding).

9.6.3. Supply chain strategy

Maturity	High/Medium Mostly high evidence that measures are in place to support deliverability

To navigate the challenging delivery environment, we have developed a supply chain strategy within the scope of our AMP8 plan and beyond, that outlines:

- How we are procuring and contracting for services to enable us to secure the best solutions and outcomes for both existing and future work
- How we are managing and optimising our category spend based on the contract landscape
- What we will do throughout delivery to ensure supplier performance and relationships are managed on an ongoing basis to ensure our outcomes are achieved

Table 4: Current supply chain strategy measures

	Current measures	Details
1	**Supplier agreements**	We have developed new framework procurements aligned to the scope of AMP8 that have been informed by extensive market engagement, analysis of the sector, and the wider infrastructure market
2	**Delivery partners**	We are establishing sufficient depth and breadth of delivery partners, which will reduce the risk to delivery schedule that may arise in our supply chain due to capacity constraints and create a healthy level of competition that will drive supplier performance
3	**Supplier capability and capacity**	We are developing a deep understanding of who our potential suppliers are to gain early indication of their capability and capacity to deliver our investment commitments
4	**Supplier relationships**	Frameworks will be in place 12 months prior to the commencement of AMP8, enabling us to build strong relationships with our suppliers and involve them in early scoping and assessment of projects
5	**Category management**	We regularly update our category plans in alignment with our frameworks, ensuring we can capitalise on opportunities and identify and mitigate any risk to delivery
6	**Informed strategy**	Our Procurement and Contracting Strategy has considered wider sector needs and its impact on supplier capacity and appetite to work with us
7	**Governance and Performance Management**	Our refreshed procurement governance will ensure we stay in control of our supply chain throughout delivery and beyond, leveraging performance management data to drive supplier standards and facilitate decision-making

9.6.4. Portfolio execution plan

Maturity	Medium **Moderate evidence that measures are in place to support deliverability**

To drive effective delivery of the Business Plan, we will translate it into executionable plans for different delivery areas. Clear processes will be fundamental in helping us to prioritise our investments and review our scope, spend (both capex and opex), and schedule.

Developing an execution plan and being transparent with our supply chain as early as possible, is critical to providing stability and alignment in our pipeline.

Table 5: Current programme execution plan measures

	Current measures	Details
1	**Initial scoping**	As part of our optioneering process in the development of our PR24 Business Plan, we developed initial scope assumptions to the extent that was possible depending on project maturity to inform our cost estimations
2	**Portfolio and change management**	We have enhanced our portfolio management. We have implemented transformation office that oversees the transformation and change the organisation. We have implemented tools that enable change initiatives to be tracked, assessed and reported on at each stage. Within the business each of our core business areas has a transformation lead and transformation teams. This drives accountability and ownership in each of those core business units
3	**Planning process**	We translate our Business Plan into a detailed programme of work that drives our delivery schedule
4	**Capex planning**	Our capital programme planning is managed through our defined Capex Investment Programme Planning (CIPP) process Most of the large capital schemes included in our plan already have detailed plans. We have included these as case studies in the appendix
5	**Opex planning**	We have an operating expenditure forecast methodology to plan for expected spend based on the scope of work and allowing for contingencies

9.6.5. Programme delivery and performance management

Maturity	Medium **Moderate evidence that measures are in place to support deliverability**

Delivery of the portfolio of works (across Capital Delivery, Alternative Delivery, operations, internal change etc) will rely on a strong and effective PMO with the appropriate tools and process and also strong project management capability.

Given the size and complexity of our capital programmes, and the intensifying focus on ensuring deliverability, we have strengthened our mechanism for delivering capital investments.

Table 6: Current programme delivery and performance management measures

	Current measures	Details
1	**Capital investments**	Our Asset Lifecycle Process (ALP) will support efficient capital investment delivery, driven by our Risk & Value (R&V) mechanism and Investment Decisions (ID) to ensure projects move efficiently from planning through to delivery. This is overseen and governed by our Investment Committee
2	**Efficiency initiatives**	We are implementing initiatives that will accelerate the speed at which projects move through our ALP
3	**Investment prioritisation**	We are introducing a new prioritisation process and supporting guidance to improve investment decision-making
4	**Execution tools and processes**	We use our Capex scheduling tool – [redacted] to create transparency in our schedule, supported by processes to assess and re-prioritise investments
5	**Programme management**	We maintain PMO capabilities in parts of our business to support delivery and track performance against our plan
6	**Risk and Governance**	Our Enterprise Risk Management (ERM) framework is in place to govern risk, which has a proven track record, and we are currently implementing a new Governance, Risk and Compliance (GRC) system that will be used to regularly track and monitor actions
7	**Change control**	We have a transparent and auditable approach to change control
8	**Plan review**	We review our Business Plan on an annual basis to understand any emerging changes and plan for potential changes

9.6.6. Strategic workforce planning

Maturity	Medium Our capabilities to deliver an increased output are in development

Delivery of our Business Plan will require strategic considerations around our workforce. The people in any business are key to the success of the company along with the leadership. Over the last year the leadership within the company has been refreshed. This has focused on brining in the skills and capability to develop and deliver the Turnaround Plan and to lead the company through AMP8.

In addition, we have refreshed our senior leadership in the organisation with a replacement of 35% of roles. For example, we have brought in new senor experience in capital delivery from HS2 and Heathrow. We have also refocused the organisational structure with a Managing Director for Waste and a separate Managing Director for Water. In addition, we have created a central Transformation Office, with transformation and change teams in each of the business units. This new focus will allow us to lead the change and preparedness for the step change for the next AMP.

There have also been changes in our Board that broaden the range of knowledge of the Board level which will oversee our preparedness and progress for AMP8.

We have focused on workforce planning, particularly given an environment where there is strong competition for certain roles and the challenges we face in competition for resources in our Southeast location. There are skills shortages in key areas such as I&C engineers which will need to be addressed. Over the last two years we have developed the capability in our operations teams:

- Control centre
- Logistics function
- Recruitment of technicians
- In total we have grown our workforce to deal with future challenges, with a significant proportion of this increase in our operational and capital teams

Table 7: Current strategic workforce planning measures

	Current measures	Details
1	**Capability planning**	We have developed high level plans for our workforce and understand key pinch points and resource challenges
2	**Resourcing**	Through our Turnaround Plan, we are developing plans around retention of key skill areas (e.g. I&C engineers)
3	**Training and upskilling needs**	We have invested in workforce training and have a programme of training courses and curriculum by different experience and speciality

9.6.7. Final planned actions to ensure deliverability

Given that we have been ramping up our investment capabilities during the last years of AMP7, we are pleased that our capability is improving and that in 3 out of 4 of the core deliverability requirements we are at least a medium maturity rating. This gives us confidence we have a relatively strong set of capacity and capability measures in place to de-risk delivery. We do, however, recognise that this needs to increase further in order to deliver this plan.

In addition to the current measures we have in place, we will be taking key actions prior to the commencement of, and throughout, AMP8, to augment our ability to deliver. Our Board will closely monitor our progress on these. These six projects outlined below and will be critical to addressing the internal and external challenges during PR24 (see SRN56: Deliverability technical annex) and de-risking plan delivery – and address the gaps identified in the deliverability review.

Project 1	Establish an enterprise-wide agile AMP8 Management Plan

An enterprise-wide plan is required that builds on the Turnaround Plan that is already in progress. This will utilise the transformation and portfolio management capability we have developed over the last year. This will prioritise and manage change and transformation across the business, which will ultimately support and de-risk delivery through improved operating efficiency. This will:

- Continue to develop the integrated transformation capability in the business. Integrate change management capability to oversee and manage overall business change programme (e.g. including CRM rollout, [redacted] rollout, efficiency program and wider operating model changes)
- Review of existing or planned change and transformation initiatives and develop into coherent and integrated programme
- Establish and/or refine business cases for major change initiatives, and develop overall case for change for integrated transformation case
- Develop costed transformation plan
- Establish a line of sight between the different efficiency initiatives and how they will actually deliver the desired outcomes

Project 2	Developing a Strategic Workforce Plan focused on capital delivery

In order to ensure the right capability and capacity is available to de-risk delivery, we will develop a workforce plan that covers resource levels, capabilities, recruitment/sourcing and development. This will cover a sufficiently granular planning of workforce requirements, including resource level, capability assessment and sourcing plan, linked to the work bank, and will focus on high priority areas below:

- Asset management
- Capital delivery / portfolio management (including PMO)
- Commercial and contract management
- Supply chain

In addition, to address the market-wide challenges we are facing with respect to our workforce (e.g., the ageing workforce, skilled attrition, loss of IP, geographic challenges), we will also be developing a people strategy that covers all aspects of the employee lifecycle, from how we attract and retain talent (e.g. our EVP), to how we undertake succession planning, to ensure we do not lose our critical IP.

Project 3	Setting up an enterprise-wide Programme Management Office

We will set up an overarching programme management office (PMO) function that will coordinate the entire planning and delivery process, from translation of Ofwat's final determination into a clear execution strategy, and throughout delivery.

The programme management function will be responsible for the following:

- Defining programme roles and responsibilities
- Coordinating input from stakeholders into the execution planning process
- Setting up and implementing a formal dependency management process that identifies and proactively monitors dependencies between projects / schemes and across delivery teams
- Designing and implementing a performance management framework to oversee delivery, including key PMO tools and processes
- Resolving issues and initiating appropriate corrective actions

The portfolio execution plan, which will be coordinated by the programme management function, will provide a holistic view across all works being delivered, and clearly cascade down into our supply chain (i.e., category plans and supplier scheduling) and workforce planning (i.e., detailed resource requirements).

Project 4	Embedding best practice Asset Data Governance

We recognise that while we have been taking positive steps to improve our IT system architecture, including recent and planned upgrades to drive improved performance (e.g., the transfer of our asset data storage from [redacted] asset management system), we have a track record of not utilising these systems as effectively as we should be, particularly due to poor management and integrity of data.

To address this, we will refresh our enterprise data governance, with clear processes and accountabilities to drive a culture that treats data as an asset, throughout the entire data management lifecycle. We will focus on asset data during PR24 as this will have the biggest impact on deliverability. This will ensure we are utilising data to optimise our performance.

Where required, we will carry out upskilling and training of our workforce to embed best practice systems and data management across the business, particularly at the front line.

Project 5	Enhancing our Alternative Delivery Capability

Part of our delivery strategy and plan is a significant increase in alternative delivery models. We already have a team working on the Water for Life Hampshire project, the largest of the alternative delivery strategies. Given the step up, this delivery mode needs to be enhanced and expanded, with appropriate governance arrangements and new capability.

The alternative delivery procurement function will need to be equipped to:

- Develop projects for tender
- Manage and coordinate with external advisors and specialists
- Negotiate commercial and regulatory arrangements
- Manage projects during the delivery phase

While there may be opportunities to draw on existing capabilities, the organisational design must reflect that the procurement is different to the in-house approach.

Project 6	AMP8 Supply Chain Readiness

Our supply chain is crucial to the success of the delivery of AMP8. We have set out in this chapter the progress we have made and our plans in this area.

In addition to the work planned and ongoing in this area, we will further develop our category planning. While we are in the process of category planning, a step-change is required to develop more comprehensive detail, starting by focussing on high priority and high certainty areas of our Business Plan (e.g., botex), with a long-term outlook throughout AMP8.

We will continually assess and monitor the supplier market, particularly to validate the capacity of our supply chain to deliver. This will be in the form of frequent engagement of our suppliers, requesting evidence from them (e.g., demonstrating workforce schedule and capacity), and triangulating with our own market analysis to validate levels of confidence in deliverability.

Beyond the planning process, we will actively manage categories, with frequent refresh based on data feeds (e.g., emerging sector risks) and a regular reporting drumbeat.

This will need to be supplemented by increasing our capability in commercial and contract management. The step-up in volume and complexity of our supply chain delivery necessitates a greater level of skill to better and more pro-actively manage our contracts and suppliers, in order to de-risk delivery.

9.7. Conclusion

Our PR24 plan represents a significant challenge to deliver. As part of our Turnaround Plan, we are taking measures in the remaining years of AMP7 to secure shareholding funding, engage our whole workforce with fresh leadership, ramp up our investment run-rate, scale up procurement and our supply chain and demonstrate delivery of our key projects.

In forming the plan, we have also made the right decisions to reduce deliverability risks through phasing requirements to AMP9 and through seeking third-party provision through Alternative Delivery.

We reviewed our current delivery capability for the larger plan and established that we have a relatively strong set of capability and capacity measures, with a maturity rating of at least medium in three out of four key deliverability requirements. We want to take specific actions to improve our capability, through six specific projects. We believe that by taking the actions already done and the projects planned we have mitigated as much of the deliverability risk as possible.

We recognise that some deliverability risk will remain as we proceed through the AMP, particularly from external sources. We will manage these remaining risks through our risk management process.

We maintain a risk register, which is updated by a dedicated team and governed by a new Deliverability Sub-Committee of the Board. We also maintain an Investment Committee of the Board to govern any further changes needs during the AMP to mitigate further risks.

With each of these structures in place, we are confident that we can deliver our PR24 Business Plan. (Further details of the review methodology and conclusions can be found in the SRN56: Deliverability technical annex).

Chapter SRN10

Risk and Return

10. Risk and Return

10.1. Introduction

Our PR24 plan delivers for all of our stakeholders and the environment, providing a fair and appropriate balance of risk and return. This balance is essential for ensuring that we deliver the service customers have told us they want, the environmental improvements we need to make are delivered, bills are acceptable to customers and our investors receive a fair return commensurate to the level of risk taken.

The financial resilience of the company is improving, supported by equity injections into the group from our shareholders amounting to £1.65 billion in the current investment period. This provides a solid foundation for our operations and performance improvement through the Turnaround Plan and ensures that we can accelerate performance to meet the demands of our 2025–30 plan

- In this five-year period we have already invested £1.174 billion more than our regulatory allowance as part of our commitment to ongoing transformation. The company has not paid dividends to external shareholders since 2017
- Over £400 million of allowed returns, in the PR24 period, will be retained in the company to support the planned investments
- Our track record showcases our dedication to delivering long-term value for our customers
- Key elements of our Water Industry National Environment Plan will need to be delivered over an eight-year period, rather than five. To help secure the plan we will use a number of alternative delivery strategies over the period and other methods of finance

Our plan targets an improvement to our credit rating with a rating of BBB+/ Baa1. This will allow the company to maintain a strong funding platform for future investment. Over AMP8 we are projecting to raise £4.6bn of debt, of which £1.2bn is refinancing of existing debt and £3.4bn will be new. We will continue to manage our capital structure so that our gearing is around 70% but will not exceed 75% for the duration of AMP8. The combination of improved credit ratings, a strong growth in RCV in an environmental driven programme and the delivery of our Turnaround Plan, gives us confidence we can continue to raise financing at competitive rates.

We have recalculated the implied risk in the price control methodology. Our analysis has found that the risk to the notional company is in excess of that implied by Ofwat's Weighted Average Cost of Capital (WACC) analysis, as well as being skewed to the downside. We are concerned about the level of risk exposure. In the interests of customers we are suggesting in this Business Plan how the risk, for the notional company, could be mitigated with some alternative and innovative proposals which we would like to discuss further with Ofwat.

Further, we note that there are a series of uncertainties about AMP8 at the time of writing this plan. These reflect decisions that require further discussion with our regulators. We want to work with our regulators during the PR24 review period to resolve as many of these uncertainties as possible. There are also a number of cost items which will remain uncertain into AMP8. For both sets of uncertainty, we propose mechanisms that Ofwat could use in its decision for dealing with the uncertainty.

Given the remaining risk in our plan, we have worked with [redacted] to understand a reasonable return for investment. In this section, we summarise the Southern Water WACC calculation appropriate for us, which is based on an updated [redacted] methodology. Although our plan uses a cost of capital based on Ofwat's Final Methodology for convenience, it is essential that our representations on the calculation of the Southern Water cost of capital are accepted by Ofwat to rebalance the risk. We note further that the asymmetry premium within our calculation of the cost of equity could be reduced if Ofwat agrees to rebalancing of the risk beyond that we have proposed.

Our plan is financeable on both the notional company structure, which Ofwat will consider in its assessment, and the actual company structure, which the company and its Board has used in its assessment of the plan and will be the basis on which the business is financed. This assessment of financeability for the notional company is based on the Ofwat WACC. The actual company financeability has been assessed both using this updated Ofwat WACC, so that we are compliant in adopting Ofwat's recommended approach; and also the Southern Water WACC. Our assessment of financeability is contingent on the risk for the notional company being mitigated and the uncertainty mechanisms included in this plan being adopted.

Finally, this chapter provides an outline of our dividend (section 10.6) and executive pay policies (section 10.7).

Further detail on these areas is available in our technical annexes.

10.2. Mitigating the level of risk in Ofwat's methodology

10.2.1. Introduction

The water sector's risk landscape is changing significantly in AMP8, driven by an unprecedented step-change in the scale of required investment, heightened macroeconomic volatility and interest rate increases, a downside asymmetrical regulatory incentive package, challenges associated with net zero, population growth and finally, greater frequency of severe weather events.

At the same time, given the increasing investment, there is a growing need for the sector to attract new equity capital, which will be contingent on an alignment between allowed returns and forward-looking risk exposure. These challenges are at the heart of our risk analysis which targets to capture the impact of the changing risk landscape on potential variations in outturn equity return versus the allowed level.

10.2.2. Unmitigated RoRE assessment (summarised)

Our risk analysis is based on the Monte-Carlo simulations that yield probability distributions of expected performance on each risk parameter, informed by the sector's standard deviation, and median. The starting point of the notional company RoRE ranges is the sector's historical performance in the first three years of AMP7 price control, given its similarity to AMP8 incentive regime and hence relevance for predicting future performance. The notional company RoRE ranges have also been refined to ensure they capture the changing risk landscape by incorporating the evolution of risk associated with:

- Larger and more complex enhancement programme driven by the statutory requirements and application of Price Control Deliverables (PCDs) to most of the enhancement spend which increase the downside risk
- Risks to the notional company from projects delivered under Direct Procurement for Customers (DPC) and alternative delivery routes
- Energy price increases surpassing inflation and associated high volatility, which is not reflected in the Real Price Effects (RPEs)
- Stretching performance targets, accompanied by the removal of most ODI caps, deadbands and collars, inherent asymmetry embedded in penalty-only ODIs, and not allowing exclusions related to the impact of severe weather events
- Increase in the level of interest rates and high macroeconomic volatility affecting financing risk
- Continued use of asymmetric cost sharing rates, and the increased risk exposure due to larger revenue at risk.

As the relationship between different components of risk is complex, correlation analysis has been undertaken for ODIs as it cannot be assumed that the performance commitment risks are fully additive.

Risk analysis resulted in the notional company's RoRE exposure of -9.94% (P10, worst case scenarios) to +2.56% (P90, best case scenario), with expected risk to returns of -3.59% (P50, most likely scenario). This is significantly wider and asymmetrical to the downside than the illustrative ranges presented in Ofwat's PR24 final methodology, and so the overall package of incentives is unlikely to allow the notional company a reasonable opportunity to achieve the base allowed return. Moreover, nominal risk-adjusted equity return would be below the nominal cost of debt allowance, negating the notional firm's ability to attract new equity.

Table 1: The notional company RoRE ranges (before mitigation) – Southern Water's analysis

	RoRE range	Ofwat's notional company RoRE range	Difference
Upside (P90)	2.56%	4.80%	-2.24%
Most likely (P50)	-3.59%	0.00%	-3.59%
Downside (P10)	-9.94%	-4.95%	-4.99%

Major drivers of risk asymmetry are totex, ODIs and retail, with the downside exceeding the upside several fold and respective P50 RoRE in the negative territory at -2.18%, -0.88% and -0.29% respectively.

Totex ranges are asymmetric due to significantly greater proportion and scale of enhancement spend which has a fundamentally different risk profile to that of base spend, exacerbated by the introduction of PCDs and the risk that totex allowance can be clawed back when part but not all deliverables are achieved.

Additionally, the range also reflects underperformance against AMP7 base cost allowances by the sector on average driven by the energy cost increases surpassing general price inflation. The magnitude of the totex RoRE impact is driven by the sheer scale of the enhancement programme for a notional company which is more than two times larger in AMP8 than it was in AMP7, reflecting the scale of investment faced by a company operating in the South-East of England.

The asymmetry in the ODI RoRE range stems from the presence of penalty only ODIs such as Compliance Risk Index (CRI) and Discharge Compliance, where Discharge Compliance will no longer benefit from a deadband while the deadband for CRI will become narrower and confined to failures caused by customers' internal fittings.

The incentive regime on other ODIs is also becoming more punitive, including supply interruptions and pollution incidents. While the sector is benefitting from a collar on supply interruptions in AMP7, our unmitigated notional company risk analysis assumes that the collar that applies in AMP8 is much wider, exposing companies to potentially very significant downside from one-off but severe events.

Similarly, the downside on pollution incidents is increasing because pollutions occurring due to named storms will no longer be excluded from the penalties. Per capita consumption is another area of asymmetry where companies have limited ability to influence customer behaviour, as was evidenced by sector-wide underperformance in AMP7 due to a shift in customer consumption patterns during and after Covid-19.

Retail RoRE ranges reflect sector underperformance in AMP7, which on average amounted to -0.60% in terms of return on notional equity.

In addition to the overall RoRE range being asymmetrical to the downside, it is also wider than estimated by Ofwat, with financing risk, DPC and alternative delivery adding more volatility to both upside and downside of the overall risk exposure.

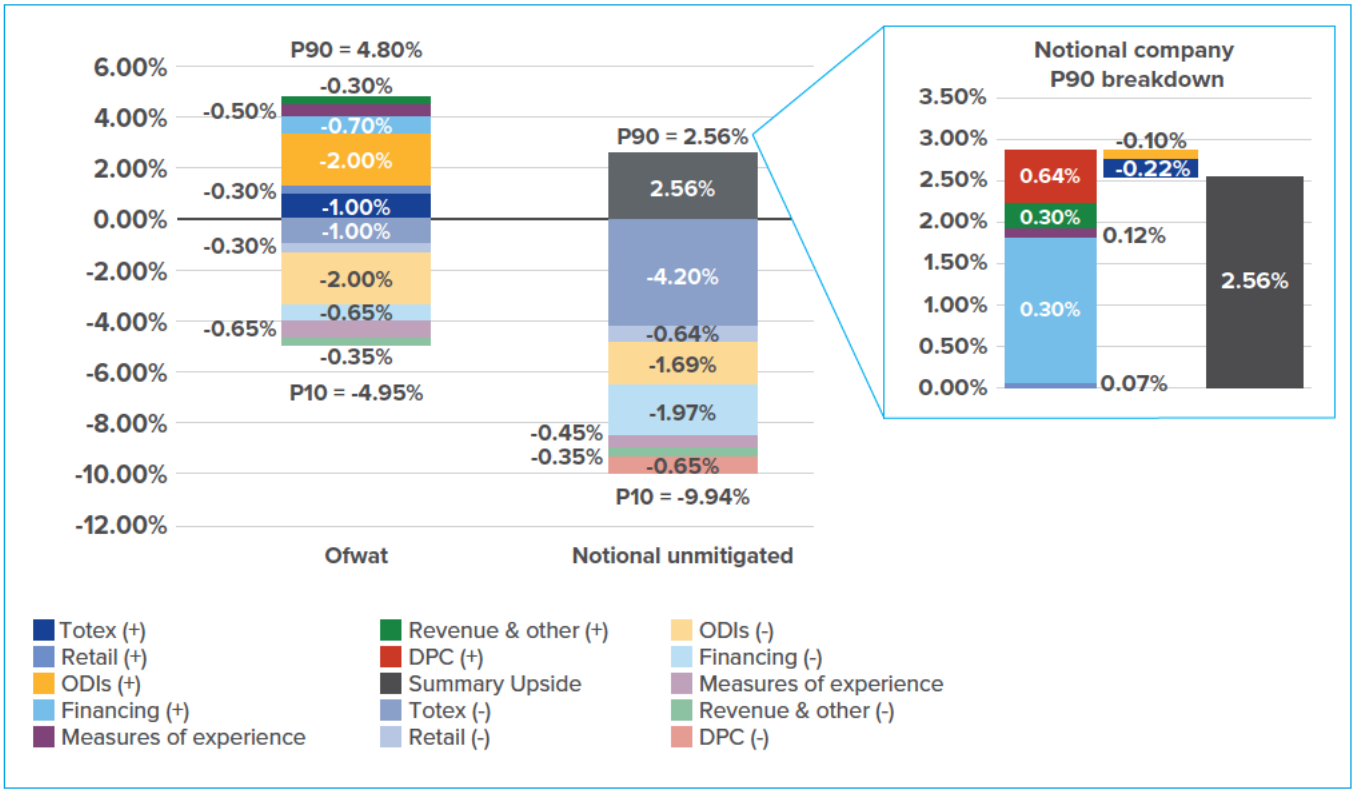


Figure 1: Drivers of the notional company RoRE ranges: Southern Water's analysis versus Ofwat's analysis
Source: Southern Water analysis

As stated by Ofwat, a balanced package of incentives should allow the notional company to have a reasonable prospect of achieving a base allowed return. However, our risk analysis has identified that the notional company will only have a reasonable prospect of achieving a return that is 3.59% below allowed return, given the myriad of risks it is exposed to and asymmetry of incentives. Moreover, the notional company risk exposure is inconsistent with Capital Asset Pricing Model (CAPM) principle that returns are clustered around the mean with a symmetric distribution and instead suggests that the incentive package introduces asymmetry that requires an adjustment to CAPM-derived cost of equity. Absent such an adjustment, the risk and return proposition in PR24 is imbalanced, could cause financeability and deliverability issues and would not attract equity capital required to fund investments.

From this analysis we conclude that the notional company is subject to an excessive downside risk asymmetry resulting in it being unable to earn the allowed cost of capital on a mean expected basis. Adjustments are therefore required to the balance of risk and return.

10.2.3. Proposed mitigations

Ofwat noted that it would seek to address any perceived asymmetry within the balance of incentives because it considered this preferable to adjusting allowed returns. It also remarked that it would seek to limit the exposure of companies to risks they cannot effectively manage or control. To address the notional company risk asymmetry, we followed Ofwat's principles and developed a range of risk mitigations that would target the problem at source.

As an example of a suite of risk mitigations, we propose the following changes to the PR24 incentive package. This particular package represents one of many possible combinations of risk mitigating measures. It serves as an example of the sheer degree of mitigations required to balance out the risk inherent in the PR24 FM package. Both financeability and financial resilience of the notional company greatly depend on its ability, under the base case scenario, to earn the allowed return. Absence or insufficiency of the risk mitigations would, therefore, render the notional company not financeable.

Table 2: Notional company risk mitigations

Area of risk mitigation	Mitigations applied to notional company
ODIs	**1. ODI rates** • Reduction in ODI rates on total pollutions based on sector's performance in AMP7 to £0.4 million from £0.9 million (scaled to 0.5% of FY23 wastewater regulated equity), 44% of Ofwat's original rate • Reduction in ODI rate for supply interruptions to £0.13 million from £0.68 million based on sector's performance in AMP7 (scaled to 0.6% of FY23 water regulated equity), 18% of Ofwat's original rate • Reduction in ODI rates for PCC and Business demand (scaled to c. 0.5% of water regulated equity) to £0.18 million and £0.07 million, respectively, 20% of Ofwat's original rate. PCC and Business Demand are mostly outside of companies' control so companies are not best placed to manage the associated risk, and a reduced strength of an incentive would be appropriate **2. Individual caps and collars** • Collar on Water supply interruptions (at 52-64 normalised duration in mins) – 0.5% water regulated equity • Collar on External sewer flooding (at 17-20 normalised incidents) – 0.5% wastewater regulated equity • Caps and Collars on the newly introduced common ODIs (Bathing water quality, Storm overflows, River water quality, Serious pollution incidents, Business demand) and other asset health ODIs (Mains repairs and Unplanned outages) **3. Deadbands** • Introduction of deadbands on CRI (of 3.3), Discharge permit compliance (of 98.2%) and Serious pollution incidents (of 1.0)
Totex	• Reduced impact of Price Control Deliverables (PCDs): coverage down to 27% from 90% of total enhancement spend • Limited use of PCDs in relation to enhancement schemes that form legislative requirement or fund performance improvement as it would result in a duplication of penalty • Grouping PCDs for the larger categories of enhancement spend to allow for offsetting / diversification impact within those groups • Implementation of RPEs for power costs • Asymmetric sharing rate for enhancement totex: the notional company bears 0% of underperformance risk but benefits from the 50% outperformance • Removal of the negative adjustment to WACC related to retail margin as it unwarranted based on the sector's actual performance in AMP7
Return Adjustment Mechanisms (RAMs)	• Introduction of Return Adjustment Mechanisms (RAMs) that would replace Aggregate ODI sharing mechanism and cover all the risk related to operational performance, including ODIs, Totex, DPC/alternative delivery, retail and measures of experience • RAMs are being applied by Ofgem in its RIIO-2 price controls across gas and electricity networks with sharing 50% of out/(under) performance when RoRE reaches +/- 3.00% and 90% of out/(under) performance when RoRE reaches +/- 4.00%

Alongside the ODI and totex mitigations, we are also proposing to extend the current aggregate ODI sharing mechanism to cover all areas of operational performance, similar to the RAMs applied by Ofgem, given the very material downside risk that a notional company is exposed to by the virtue of the overall incentive package.

The purpose of RAMs would be to provide protection to consumers and investors if a water company return is significantly higher or lower than anticipated at the time of setting the price control. Consumers and investors will benefit from the introduction of RAMs as they would be protected against the possibility of unreasonably high or low returns in the AMP8 price control. RAMs will also help to ensure the fairness of AMP8 by protecting consumers and investors against ex post overall returns deviating greatly from ex ante expectations and would significantly improve a case for new equity.

We suggest that, similar to the precedent, RAMs should:

- Be symmetrical, providing for adjustments both due under and outperformance as this represents a fair balancing of the interests of consumers and investors
- Account for any trade-offs between Totex and ODI performance
- Exclude financial performance as that would cause customers bear the risk associated with actual capital structures
- Exclude QAA performance to preserve the value of the business plan incentive
- Serve as an end of period true-up, implemented as a part of the close-out of AMP8, with a sharing rate of 50% of out/(under) performance when RoRE reaches +/- 3.00% and 90% of out/(under) performance when RoRE reaches +/- 4.00%.

RAMs would align the interests of companies and investors with those of customers, so that the sector remains attractive to investors, with both customers and investors being protected against the extremes.

10.2.4. Mitigated RoRE assessment (summarised)

This proposed suite of mitigations is one of the possible combinations that is targeted to mitigate risk at source. Each category of mitigations brings the notional company's RORE risk range closer to Ofwat's expectations of the notional company's RoRE risk range: totex mitigations and RAMs increase the upside and decrease the downside due to the application of fewer PCDs and asymmetric sharing rates on enhancement totex, while ODI mitigations just reduce the downside. Figure 2 presents the degree of impact of each group of mitigations on the notional company's P10 and P90 risk ranges.

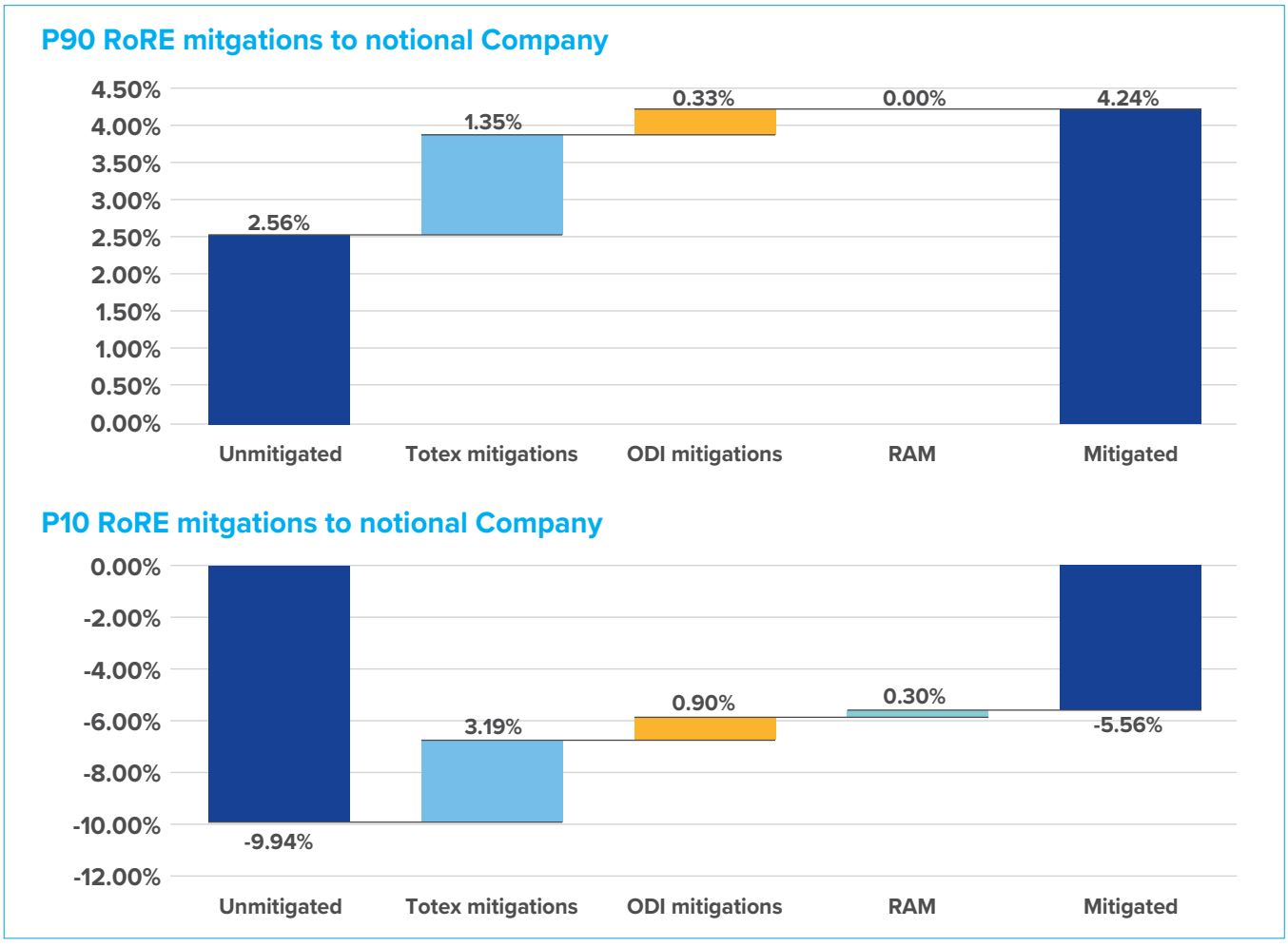


Figure 2: Relative contribution of risk mitigation to the reduction of risk exposure

On a mitigated basis, the notional company ranges become more narrow and less asymmetric, but some asymmetry remains, with P50 at -0.84% and hence the mean-expected return still below allowed equity return. This residual asymmetry is distributed between totex, ODIs, retail and C-Mex and could be eliminated at source by setting more realistic performance commitment targets recognising the notional company's starting point or increasing wholesale and retail totex allowances. It could also be addressed by appropriately adjusting the cost of capital allowance if no other changes to the incentive package occur.

Similar to the notional company, we also propose a suite of risk mitigations as part of our PR24 submission, which, in addition to the notional company's mitigations also includes different ODI targets, with a glide path to improve our performance towards the end of AMP8. Our board assurance statements on financeability and financial resilience are predicated on these risk mitigations being accepted by Ofwat.

Table 3: Notional and actual company RoRE ranges (after mitigation) – Southern Water's analysis

	Ofwat's notional company RoRE range	Notional company mitigated RoRE range	Actual company mitigated RoRE range
Upside (P90)	4.80%	4.24%	0.88%
Most likely (P50)	0.00%	-0.84%	-4.46%
Downside (P10)	-4.95%	-5.56%	-8.19%

As a company in turnaround, mitigated RoRE ranges are even more asymmetric for us, with the mean risk-adjusted return close to zero, as cost of equity allowance is offset by the remaining risk at P50. While we are working hard to ensure that we deliver on our Turnaround Plan, it is important that we are not exposed to unlimited amounts of risk. An unmitigated risk exposure would place an immense financing challenge on us.

If our return is not commensurate with the level of risk in the plan, we may not be able to secure the needed capital to fund the Turnaround Plan and improve the level of service we provide to our customers. Proposed risk mitigations are, therefore, in the best interest of customers, as they would help us secure appropriate funding to improve our performance.

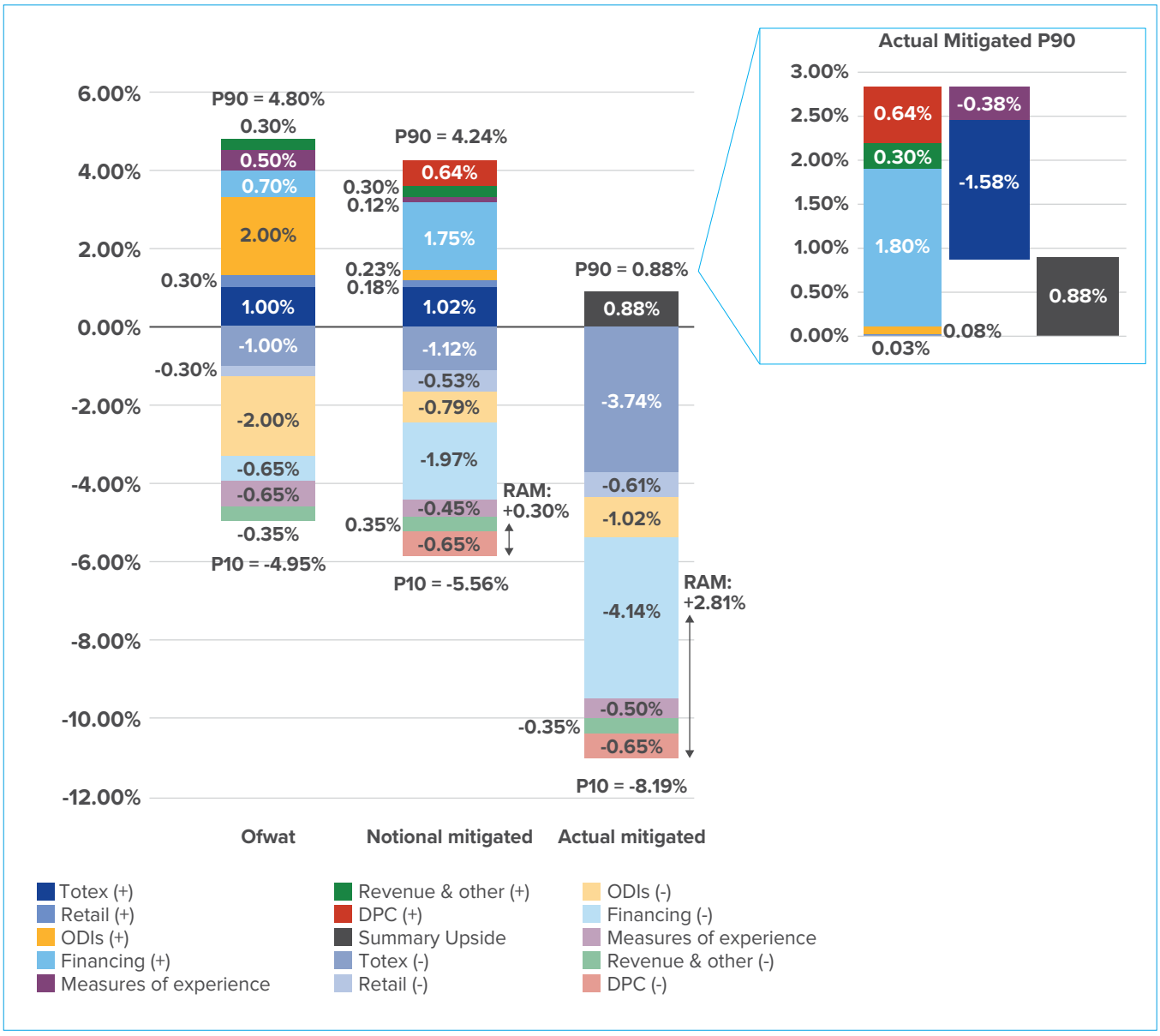


Figure 3: Drivers of the mitigated RoRE ranges: Southern Water's notional and actual company analysis versus Ofwat's analysis

A balanced overall risk and return package is a necessary condition for the notional company to be able to finance its plan and attract both debt and equity capital at efficient rates and on continuous basis. Any disconnect between the likely revenue at risk and the level of allowed returns would negatively affect the sector's access to capital.

It is critical that we have access to the capital we need to deliver our commitments to customers and to ensure financial resilience, that is, the ability to avoid, cope with and recover from disruption. As Ofwat recognised in its consultation on strengthening ring-fencing conditions, financial resilience is requisite to deliver operational performance:

"Weakened financial resilience can lead to reduced levels of operational performance and erode a company's capacity to cope with financial pressures or shocks without compromising service to customers."

If we are not financially resilient it will make it harder to attract and retain capital and undermine our ability to achieve a successful turnaround at the pace that we want and our customers expect. It would dramatically reduce and delay improvements for our customers and environment. Our customer research shows that customers would far rather get the right level of service than small discounts on bills. The risk mitigations we propose would allow our planned improvement in service outcomes to be delivered.

It is in the long-term interest of customers that the overall risk and return package is balanced to support financial resilience and to allow us to deliver enduring improvements in our service.

Further detail about our risk analysis is in SRN57: Risk technical annex.

10.3. Uncertainty mechanisms

10.3.1. Introduction

There are a number of areas where there is material uncertainty in the parts of the business plan. Many of these uncertainties relate to legal or policy decisions that are yet to be made at the point of submission.

If we were to include costs to deliver against the more costly implications of these decisions within our plan, our plan would be significantly more costly. Also, in most cases, it is not clear whether these additional costs are required. Therefore, we have excluded these costs from our cost proposals, and set out below the uncertainty mechanisms required to provide the needed funding should these uncertainties materialise.

Some of the uncertainty areas are highly material. As such, if they were to materialise, we would require an adjustment to revenue allowances within the control period. It would not be feasible to leave any true-up to an end of period adjustment, as the business would be unable to shoulder additional costs of this scale without an associated revenue allowance. For those areas, we are seeking notified items. For other areas of uncertainty, it may be more appropriate to have an end of period true-up approach.

Therefore, we are proposing a bespoke mid-period revenue adjustment mechanism for each of the following uncertainty areas.

10.3.2. Mechanism 1: WINEP phasing

Our WINEP programmes have been phased over 8 years to balance affordability and deliverability. We are fully committed to statutory compliance and are in discussion with our regulators. The final WINEP phasing will be concluded through the regulatory process to maintain full statutory compliance. Rephasing from 8 years to 5 years would add £725 million (2022/23 prices) of further investment into the Plan and add approximately £100 to bills per household over the PR24 period. We note that the uncertainty mechanism would allow for additional funding, but does not resolve the core issues of affordability and deliverability of an unphased WINEP investment.

10.3.3. Mechanism 2: WRMP finalisation

Our WRMP has not yet received final sign-off from the Secretary of State. Until it does, it is possible that the final set of schemes may need to change (or their delivery dates). In addition, given the high-profile nature of our WRMP, it is possible that our plan will be subject to a public enquiry. If these events were to happen, there could be further changes to our plan beyond 2024.

10.3.4. Mechanism 3: Enhanced Network and Information Systems (NIS) requirements

In June 2023, an enhanced cyber assessment framework (eCAF) was published for the water industry setting out the needs to accelerate work in six areas and to achieve full compliance by 31st March 2028. This requires a significant amount of additional planning and investment options to be worked through, and given the timing of this submission on 2nd October 2023, we have concluded that we need additional time to give a duly considered view of the investment changes required. Initial estimates have placed these costs in the region of £100 million. However, further work is required before we could be comfortable to propose a figure for customers to provide funding for.

10.3.5. Mechanism 4: Bioresources farming rules for water

There is significant uncertainty surrounding the application of Rule 1 of the Farming Rules for water, including its timing and impact. Based on the national landbank modelling assessment, it is possible that two thirds of our sludge would need to find alternative routes (rather than recycling to agriculture). The short-term solution would be to send our biosolids to landfill whilst we start developing our plans for thermal destruction type of technologies (e.g. incineration) in AMP8 (design, planning), with the view to start construction in AMP9. The estimated AMP8 costs would be circa £83 million.

10.3.6. Mechanism 5: Bioresources Industrial Emissions Directive (IED)

Within our IED proposals for AMP8, there are a number of material uncertainties, including:

- If the EA does not accept our alternative impermeable surface option, we would incur circa £24 million additional costs
- If Ofwat does not approve our Kent consolidation cost adjustment claim proposals it would mean an extra circa £54 million costs for IED compliance
- Further potential cost implications from the emerging EA requirements on dewatering of the order of £169 million

In total, this could be a further £247 million of additional costs.

10.3.7. Mechanism 6: Alternative Delivery models

We have identified several projects to progress under alternative delivery routes. At present, the majority of the projects identified are at an early stage, with most pre-tender development activities yet to commence.

As projects are developed and pre-tender activities are completed, new information can give rise to increases in estimated costs which cannot be reasonably foreseen at the time of business plan submission, nor would it be appropriate to price for such risks at an early stage in the process.

10.3.8. Mechanism 7: Capital maintenance

There is a lot of work ongoing across the water sector regarding asset health, capital maintenance and renewals levels. We are aware that multiple water companies are submitting cost adjustment claims (for example Thames Water and Wessex Water). We are also doing further work to understand our asset base and this may result in changes to the current proposed capital maintenance position. We will be undertaking further work in the Autumn/Winter 2023 and will be in a position to share further details with Ofwat by early 2024.

10.3.9. Further information

We have sought to propose uncertainty mechanisms only where there are material uncertainties, for areas that either relate to meeting statutory or legal requirements, or areas of high customer priority.

It is possible that clarity on some of the above areas will be reached ahead of the final determinations (in particular, this may be the case for the WINEP, WRMP, NIS requirements, and capital maintenance). Where this is the case, we propose to provide an updated set of data tables and enhancement cases to Ofwat to reflect in the final determination, and to withdraw the request for uncertainty mechanisms in these areas.

Further details on each of the mechanisms is set out in SRN58: Uncertainty Mechanisms technical annex.

10.4. Cost of capital

10.4.1. Introduction

The Final Methodology set out an expectation for companies to base their business plans on the early view of the allowed return on capital, or to propose an alternative view of the allowed return supported by compelling evidence that another rate is more appropriate. Ofwat have subsequently clarified[1] that companies which adopt the Final Methodology early view can update for more recent data – provided the update is based on the same methodology and a reasonable view of the data, and it would be unlikely to fail the minimum expectation for the allowed return set out in the quality and ambition assessment (QAA).

For our plan we have adopted the OFWAT Final Methodology early view of the allowed return updated for more recent market data. We have also considered where the updated cost of equity sits within the range provided in the Ofwat Final Methodology.

However, there are areas where we disagree with the Ofwat Final Methodology calculation of the return on capital which fails to adequately consider, or address, our assessment of the risk and funding cost faced by the notional geared company (see section 10.2 above).

SRN57: Risk technical annex and SRN64: Cost of Capital technical annex provide more details of our assessment of risk and the adjustment required to the Southern Water cost of capital to reflect the level of risk, and asymmetry of the risk, of the notional geared company. We also explain other areas of the Southern Water cost of capital where further adjustment to the approach is required.

Although our plan uses a cost of capital based on Ofwat's Final Methodology for convenience, it is essential that our representations on the calculation of the Southern Water cost of capital are accepted by Ofwat to rebalance the risk. We note further that the asymmetry premium within our calculation of the cost of equity could be reduced if Ofwat agrees to rebalancing of the risk beyond that we have proposed. (Southern Water WACC, summarised in 10.4.2 below).

In summary:

- The Ofwat Final Methodology early view of the appointee costs of capital was 3.29%
- The appointee Ofwat cost of capital used in our plan is 3.83%. We have updated the market data and considered where the cost of equity sits within the range provided in the Ofwat Final Methodology
- Our assessment of the appointee Southern Water WACC is 4.58%, this is summarised in 10.4.2. below, and explained within the Risk and Cost of Capital Annex

1 email received on 8th September 2023

10.4.2. Ofwat cost of capital used in our plan

For our Plan we have used an appointee Ofwat cost of capital of 3.83%

We have adopted Ofwat's Final Methodology early view of the allowed return updated for more recent market data:

- We have updated the risk-free rate to 1.48% reflecting index-linked gilt yields at June 2023
- Cost of new debt, at 3.67%, reflects June 2023 iBoxx A/BBB, and an adjustment for an outperformance wedge included in the Final Methodology early view
- Cost of embedded debt, at 2.50%, is based on Ofwat balance sheet model updated to reflect June 2023 iBoxx A/BBB
- 25% new debt based on new debt issuance required under a notional structure to fund SRN's PR24 capital programme and corresponding RCV growth

We have also considered where the updated cost of equity sits within the range provided in the Ofwat Final Methodology.

We have used a Total Market Return of 6.92%, which is consistent with the Upper-bound range for the cost of equity presented in the Final Methodology. We have used the Upper-bound value, rather than the mid-point used for the early view, to reflect our assessment of the higher risk, and asymmetric risk, for the notional geared company.

We have also used the Upper-bound value for Beta, at 0.64%, rather than the mid-point used for the early view, to reflect our assessment of the higher risk, and asymmetric risk, for the notional geared company.

Table 4: Ofwat and Southern Water cost of capital calculations for use un this plan

WACC (CAPM)	Ofwat Final Methodology (Sep cut-off)	Ofwat Final Methodology (Lower - bound)	Ofwat Final Methodology (Upper - bound)	SRN Plan Ofwat WACC
Risk-free rate	0.47%	0.47%	0.47%	1.48%
Debt premium	2.81%			2.19%
Cost of embedded debt	2.34%			2.50%
% of embedded debt	83.0%			75.0%
Debt fees	0.10%			0.10%
Cost of debt	2.60%			2.89%
Equity risk premium	5.99%	5.53%	6.45%	5.44%
Beta	0.61	0.58	0.64	0.64
Cost of equity	4.14%	3.67%	4.60%	4.96%
Gearing	55.0%	55.0%	55.0%	55.0%
Allowed return	3.29%			3.83%
Retail	0.06%			0.06%
Wholesale	3.23%			3.77%
TMR	6.46%	6.00%	6.92%	6.92%

It is important to note that, while our Plan uses the Ofwat Final Methodology early view for the Ofwat cost of capital for convenience, the Southern Water Board will not be able to accept a Final Determination which does not reflect our representations on the calculation of the Southern Water cost of capital.

10.5. Financial levers and financeability

10.5.1. Setting Pay As You Go rates

Pay As You Go (PAYG) rates within our plan has been based upon the natural rates of operating costs and capital expenditure, net of associated grants and contributions, for each price control.

We consider a calculation of PAYG on natural rates to be the most appropriate approach as it ensures intertemporal fairness for our customers, the use of natural rates provides the most transparent relationship between PAYG and operating costs and is the preferred approach for credit rating agencies when assessing interest cover ratios. Our customer engagement on PR24 has been on the basis of using natural rates.

The table below illustrates the calculation of PAYG rates.

Table 5: PAYG rates

2022/23 prices	2025—26		2026—27		2027—28		2028—29		2029—30		AMP8	
	Capex £m	Opex £m	Capex £m	Opex £m	Capex £m	Opex £m	Capex £m	Opex £m	Capex £m	Opex £m	Capex £m	Opex £m
Wholesale Totex net of grants and contributions												
WR	40.386	62.528	47.002	52.692	46.902	48.356	30.425	47.594	18.717	46.378	183.432	257.548
WN	351.648	158.127	327.851	147.803	256.183	139.931	258.879	136.499	231.327	136.895	1425.888	719.255
WWN	348.228	199.582	570.447	214.024	533.021	208.423	431.048	199.015	289.326	209.949	2172.070	1030.993
BR	81.836	29.549	78.128	29.516	21.747	28.644	21.874	25.916	22.732	25.685	226.317	139.310
Wholesale net	**822.098**	**449.786**	**1023.428**	**444.035**	**857.853**	**425.354**	**742.226**	**409.024**	**562.102**	**418.907**	**4007.707**	**2147.106**
PAYG WR		60.76%		52.85%		50.76%		61.00%		71.25%		58.40%
PAYG WN		31.02%		31.07%		35.33%		34.52%		37.18%		33.53%
PAYG WWN		36.43%		27.28%		28.11%		31.59%		42.05%		32.19%
PAYG BR		26.53%		27.42%		56.84%		54.23%		53.05%		38.10%

10.5.2. Setting RCV run-off

The Ofwat Final Methodology set out an expectation that companies are not to propose RCV run-off rates that are higher than those allowed at PR19 or that are above the guidance set out in the Ofwat Final Methodology (summarised in the table below).

Table 6: Ofwat Final methodology guidance for RAC run-off rates

Ofwat Final Methodology	Water resources	Water network plus	Wastewater network plus	Bioresources
Upper Limit	4.50%	4.50%	4.50%	8.00%
SRN Appendix 10*	4.99%	4.42%	4.37%	5.77%
SRN PR19	6.75%	3.85%	5.24%	9.92%
SRN calculation	5.30%	4.36%	4.42%	6.37%
SRN Plan	4.50%	4.36%	4.42%	6.37%

**Ofwat Final Methodology. Appendix 10, Annex B ''Depreciation rates derived from average asset lives'*

The Ofwat Final Methodology also stated that companies should take account of intertemporal fairness, affordability, the Ofwat Final Methodology guidance on upper limits, and financeability. Companies can also propose separate RCV run-off rates for existing RCV at 31 March 2025 and new investment over 2025–2030.

Our approach has been to adopt the guidance in the Ofwat Final Methodology for the calculation of the depreciation rates and using these as the RCV run-off rates:

1. We have calculated the depreciation rates for 2022–23 in line with the Ofwat Final Methodology, Appendix 10, Annex B
2. We have compared against the PR19 depreciation rates, and the upper limit stated in the Ofwat Final Methodology
3. We have reduced the depreciation rate for Water Resources from 5.30% (calculated rate) to 4.50% (Ofwat Final Methodology Upper limit). This is a small change to the overall level of RCV depreciation for the wholesale business, reducing wholeasale depreciation rate from 4.52% to 4.49%

It is worth noting that the depreciation rates calculated for Appendix 10, Annex B, of the Final Methodology omitted depreciation on intangible assets (primarily capitalised IT expenditure) and did not deduct the value of assets under construction, from the net book value, prior to calculating depreciation. Assets under construction are included in net book value but are not depreciated until commissioned.

Updating depreciation rates for these omissions would materially increase RCV run-off rates. An example is that the WWN depreciation rate would increase from 4.42% to 5.09%. The Ofwat Final Methodology Upper Limits may also be understated if they were based upon the tables in Appendix 10, Annex B.

The table below illustrates depreciation rates including intangible assets and adjusted for assets under the course of construction.

Table 7: Extension of depreciation rates to include Intangible assets and assets under construction

Water resource	Tangible				Intangible				Total				Total	Total adjusted for AUC			
	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	AUC	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m
Mar-20	134.8	4.2	31.7	3.15%	4.5	1.8	2.5	39.91%	139.3	6.0	23.1	4.34%	42.6	96.6	6.0	16.0	6.25%
Mar-21	153.4	4.6	33.5	2.98%	5.4	0.1	38.2	2.62%	158.8	4.7	33.7	2.97%	52.3	106.5	4.7	22.6	4.43%
Mar-22	179.8	9.0	20.0	4.99%	5.8	0.2	23.5	4.26%	185.6	9.2	20.1	4.97%	72.2	113.5	9.2	12.3	8.13%
Mar-23	197.3	10.5	18.9	5.30%	5.5	0.1	42.3	2.36%	202.9	10.6	19.2	5.22%	69.9	133.0	10.6	12.6	7.97%

Water Network +	Tangible				Intangible				Total				Total	Total adjusted for AUC			
	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	AUC	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m
Mar-20	1,309.6	53.7	24.4	4.10%	3.3	0.5	6.7	14.98%	1,312.9	54.2	24.2	4.13%	192.7	1,120.2	54.2	20.7	4.84%
Mar-21	1,363.7	56.9	24.0	4.17%	2.7	0.7	3.6	27.46%	1,366.4	57.6	23.7	4.22%	219.3	1,147.1	57.6	19.9	5.02%
Mar-22	1,465.6	64.8	22.6	4.42%	2.1	0.5	3.9	25.48%	1,467.7	65.4	22.5	4.45%	201.5	1,266.2	65.4	19.4	5.16%
Mar-23	1,596.9	69.7	22.9	4.36%	0.9	0.5	1.7	57.38%	1,597.7	70.2	22.8	4.39%	303.0	1,294.7	70.2	18.5	5.42%

Source: Southern Water analysis

Table 7: Extension of depreciation rates to include Intangible assets and assets under construction

Wastewater Network +	Tangible				Intangible				Total				Total	Total adjusted for AUC			
	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	AUC	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m
Mar-20	4,330.7	164.6	26.3	3.80%	22.9	9.1	2.5	39.87%	4,353.6	173.7	25.1	3.99%	600.1	3,753.5	173.7	21.6	4.63%
Mar-21	4,361.5	179.2	24.3	4.11%	33.7	10.5	3.2	31.20%	4,395.2	189.7	23.2	4.32%	435.9	3,959.3	189.7	20.9	4.79%
Mar-22	4,480.1	196.0	22.9	4.37%	64.9	17.4	3.7	26.86%	4,545.0	213.4	21.3	4.70%	371.2	4,173.8	213.4	19.6	5.11%
Mar-23	4,689.7	207.4	22.6	4.42%	78.0	16.9	4.6	21.68%	4,767.7	224.3	21.3	4.70%	362.6	4,405.1	224.3	19.6	5.09%

Bio-resources	Tangible				Intangible				Total				Total	Total adjusted for AUC			
	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m	AUC	Net Book value £m	Depreciation charge £m	Average remaining life years	Depreciation charge £m
Mar-20	322.2	19.6	16.4	6.08%	0.1	0.0	10.2	9.79%	322.3	19.6	16.4	6.08%	32.9	289.4	19.6	14.8	6.78%
Mar-21	317.4	20.1	15.8	6.33%	0.2	0.0	15.3	6.56%	317.6	20.1	15.8	6.33%	28.7	288.8	20.1	14.4	6.96%
Mar-22	337.9	19.5	17.3	5.77%	0.2	0.0	202.0	0.50%	338.1	19.5	17.3	5.76%	7.8	330.3	19.5	16.9	5.90%
Mar-23	341.4	21.7	15.7	6.37%	0.0	0.0	0.0	0.00%	341.4	21.7	15.7	6.37%	13.6	327.8	21.7	15.1	6.63%

Source: Southern Water analysis

Our approach has been to follow the Ofwat Final Methodology guidance and use the depreciation rates of tangible assets only. This provides a level of RCV run-off which is sympathetic to the impact on customer bills from a higher RCV run-off rate (which would be the case by including intangible depreciation and adjusting for assets under construction) whilst also maintaining a level of RCV run-off which covers the Plan level of capital maintenance expenditure. This approach also considers the balance of intertemporal fairness with customer affordability by ensuring customer bills in AMP8 are sufficient to cover capital maintenance required to maintain the company in a steady state, whilst not paying for the full potential depreciation charge.

Table 8: RCV depreciation vs capital maintenance

2022/23 prices	2025—26 £m	2026—27 £m	2027—28 £m	2028—29 £m	2029—30 £m	AMP8 £m
RCV run-off (Water)	85	98	109	117	124	534
RCV run-off (Wastewater)	236	251	267	277	282	1,313
Total RCV run-off	**322**	**349**	**376**	**394**	**406**	**1,847**
Botex (Water)	93	86	86	80	79	424
Botex (Wastewater)	199	201	205	177	168	949
Total capital maintenance	**292**	**286**	**291**	**257**	**247**	**1,373**

Source: Southern Water analysis

We have used the same depreciation rates for both pre-2025 expenditure and PR24 expenditure. There is not expected to be a material change to average asset lives for PR24 and we have maintained consistency with the Ofwat Final Methodology approach.

10.5.3. Reprofiling to support customer affordability

Our plan results in a step change in the average customer bill in the first year of AMP8, 2025–26. To reduce the impact on customers and taking account of feedback we have received from customers, we have reprofiled the revenues for both water and wastewater to reduce this step whilst not increasing the value of the average bill in the final year of AMP8. This reprofiling includes the revenue adjustments for PR19 reconciliations.

The feeder model used to calculate the revenue adjustments for PR19 reconciliations provides the financial model input for these values (Table RR6). The value of these reconciliations is £354.502 million, and the base assumption is that these reconciliation values are adjusted through customer bills in financial years 2025–26 and 2026–27. This is a material value to recover from customers over a two-year period, so we have spread the recovery over a five year period. The table below shows the output from the PR19 reconciliations feeder model and how we have reprofiled the values over five years period

We have applied the Plan wholesale cost of capital, of 3.77% (real), when reprofiling the Water Network and the Wastewater Network revenue reconciliation.

Table 9: Reprofile of revenue adjustments for PR19 reconciliations

2022/23 prices	2025—26 £m	2026—27 £m	2027—28 £m	2028—29 £m	2029—30 £m	AMP8 £m
Output from revenue reconciliation feeder model						
WR	-9.733	-0.477	0.000	0.000	0.000	-10.210
WN	151.400	-11.429	0.000	0.000	0.000	139.971
WWN	251.793	-18.572	0.000	0.000	0.000	233.221
BR	-0.302	-1.519	0.000	0.000	0.000	-1.821
Retail	-6.092	-0.567	0.000	0.000	0.000	-6.659
Natural profile	**387.066**	**-32.564**	**0.000**	**0.000**	**0.000**	**354.502**
Reprofiled revenue adjustments for PR19 reconciliations						
WR	-9.733	-0.477	0.000	0.000	0.000	-10.210
WN	27.994	29.480	30.145	31.281	32.461	151.361
WWN	46.644	49.103	50.227	52.121	54.087	252.182
BR	-0.302	-1.519	0.000	0.000	0.000	-1.821
Retail	-6.092	-0.567	0.000	0.000	0.000	-6.659
Reprofiled	**58.511**	**76.020**	**80.372**	**83.402**	**86.548**	**384.853**

Source: Southern Water analysis

Tables 10: Natural average household bill profile (after reprofiling of revenue adjustments for PR19)

Bills (£)	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	5yr avg.
Average Bill - Water - real	173	300	308	316	327	333	317
Average Bill - Wastewater - real	238	314	325	337	343	348	333
Average Bill - Combined - real	411	615	633	653	669	681	650

Bills (%)	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	5yr avg.
Average Bill - Water - real	-	73.8%	2.6%	2.6%	3.3%	1.8%	83%
Average Bill - Wastewater - real	-	32.3%	3.4%	3.7%	1.7%	1.7%	40%
Average Bill - Combined - real	-	49.7%	3.0%	3.1%	2.5%	1.7%	58%

Source: Southern Water analysis

There continues to be a step-up in bills from 2024–25 to 2025–26. Our customer engagement has established that customers would prefer a smoother bill profile, but not at the expense of a material increase to the natural closing bill for 2029–30.

We have therefore reprofiled Water Network and Wastewater Network revenues which results in £105 million of revenues being re-profiled from 2025–26.

We have presented an average combined bill for household water customers and household wastewater customers given the different balance between the number of our water customers, approximately 1.1 million households, and our wastewater customers, approximately 2 million households:

- The average household water bill comprises Water Resource, Water Network Plus, and 36% of Retail
- The average household wastewater bill comprises Wastewater Network Plus, Bioresources, and 64% of Retail.

Tables 11: Average household customer bills after reprofiling

Bills (£)	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	5yr avg.
Average Bill - Water - real	173	264	328	330	331	333	317
Average Bill - Wastewater - real	238	291	337	344	348	348	333
Average Bill - Combined - real	411	555	665	674	679	681	650

Bills (%)	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	5yr avg.
Average Bill - Water - real	-	52.6%	24.4%	0.7%	0.2%	0.5%	83%
Average Bill - Wastewater - real	-	22.6%	15.6%	2.0%	1.2%	0.2%	40.4%
Average Bill - Combined - real	-	35.2%	19.8%	1.4%	0.7%	0.4%	58.5%

Source: Southern Water analysis

10.5.4. Dividend

A real dividend yield of 2% has been assumed for the notional geared company. This is consistent with guidance in the Ofwat Final Methodology for a company with a significant growth in the Plan from PR19 to PR24. This means equity returns in excess of £400m will be retained in the company to support the planned investments.

10.5.5. Notional financeability – approach and outputs

The Ofwat Final Methodology requires us to assess whether an efficient company with the notional capital structure will be able to generate cashflows sufficient to meet its financing needs, with reference to key financial ratios.

Table 12: Key financial ratios: reprofiled revenues

Key financial ratios	2025–26	2026–27	2027–28	2028–29	2029–30	5yr avg.
Adjusted cash interest cover ratio (Ofwat)	1.050	1.926	1.761	1.637	1.542	1.602
Adjusted cash interest cover ratio - (Alternative)	1.050	1.926	1.761	1.637	1.542	1.602
Funds from operations / net debt (Ofwat)	7.78%	10.95%	10.30%	9.83%	9.58%	9.75%
Funds from operations / net debt - (Alternative)	6.96%	10.18%	9.53%	9.04%	8.85%	8.97%
Gearing - Appointee	58.30%	59.61%	61.02%	61.70%	61.61%	60.58%

Source: Southern Water analysis

The Plan is financeable and meets the ratios commensurate with a Baa1/BBB+ credit rating:

- The adjusted interest cover ratio meets the minimum 1.5x required to maintain a Baa1/BBB+ credit rating
- FFO/net debt meets the 9% minimum level for the ratio but is a little weak, especially the 'Alternative' calculation which is a closer match to the key Standard and Poor's financial ratio
- It is worth noting that the key financial ratios exclude the financial impact of the revenue adjustments for PR19. For SRN these amount to a real increase in revenues of £389 million over the period, which would provide support to these ratios
- Appointee gearing increases by 6.6% over the PR24 period, primarily the result of significant capital investment in PR24
- A lower, 2% real dividend yield, has been included in the Plan. This ensures equity, in excess of £400 million, is retained to help mitigate the effect of a significant capital investment programme on the key financial ratios

The closing gearing ratio, of 61.6%, also excludes the additional revenues from the PR19 reconciliations. Gearing reduces to 57.5% when we include this additional revenue.

The ratio for 2025–26 is weaker as a result of reprofiling of revenues to support customer affordability. We have reprofiled the net increase in revenues in 2025–26 for the Water Network and the Wastewater Network, of £403 million, equally over the PR24 period relieving pressure on the natural step-up in customer bills from 2024–25 to 2025–26.

The table below sets out the key financial ratios prior to the re-profiling. The first year of PR24 is significantly stronger, but the impact on the other years is not material.

We would expect credit rating agencies, and other financial stakeholders, to look through the effect of reprofiling on the first-year ratios, and we do not see this as detrimental to maintaining a Baa1/BBB+ credit rating.

Table 13: Key financial ratios: reprofiled revenues

Key financial ratios	2025–26	2026–27	2027–28	2028–29	2029–30	5yr avg.
Adjusted cash interest cover ratio (Ofwat)	1.742	1.643	1.590	1.552	1.542	1.603
Adjusted cash interest cover ratio - (Alternative)	1.742	1.643	1.590	1.552	1.542	1.603
Funds from operations / net debt (Ofwat)	10.56%	9.95%	9.65%	9.49%	9.58%	9.80%
Funds from operations / net debt - (Alternative)	9.72%	9.19%	8.88%	8.70%	8.84%	9.02%
Gearing - Appointee	57.04%	58.83%	60.74%	61.69%	61.63%	60.16%

Source: Southern Water analysis

The Plan does not require nor assume we need new equity in order to meet the calculated key financial ratio targets, The Plan does not, however, include risk. Our review of risk is covered separately within our Risk Annex, and summarised in Section 10.2 above,

Our plan adopts the Ofwat Final Methodology early view for the Ofwat cost of capital and we have calculated this to be 3.83% This Ofwat cost of capital is sufficient to meet the calculated key financial ratios but does not adequately consider the level of risk in the Plan and neither is it at a level deemed sufficient to attract the new equity required to support the business in appropriately dealing with risk scenarios.

We have therefore recommended our own view of what the cost of capital needs to be within SRN64: Cost of capital technical annex, which also reflects our view the level of risk within the plan.

There is no requirement to stress test the notional geared company, and nor is there the facility to run stress tests in the provided financial model. For completeness however, we have applied stress tests to the notional capital structure and this is set out in the SRN60: Financeability technical annex. This allows us to assess the correlation between the notional and actual capital structure.

10.5.6. Actual financeability – approach and outputs

We have tested actual geared financeability by taking the PR24 regulatory outputs from the notional geared model and testing against the actual capital structure. The table below sets out the results of key financial ratios for the actual geared company.

It is important to note that financial ratios only contribute 35% to 40% of the credit rating assessment. The remainder of the assessment comprises the regulatory framework and operational risk.

For the actual geared financeability assessment:

- The regulatory framework is assumed to continue to be stable and supportive of water sector ratings
- Our Turnaround Plan, supported by £905 million of new equity received during the PR19 period, is expected to reduce operational risk and strengthen the credit ratings of Southern Water for the start of the PR24 period.

Table 14: Key financial ratios: of the actual geared company (3.77% Wholesale Ofwat WACC)

	Covenant level					AMP8				
YE 31 March, £m	PFI	Trigger	Default	Guidance	2025	2026	2027	2028	2029	2030
RCV					6,992	7,990	8,923	9,669	10,282	10,688
SWS metrics										
Class A Debt / RCV	**75.0%**	**75.0%**	**95.0%**		**74.4%**	**72.1%**	**71.8%**	**71.0%**	**69.8%**	**67.9%**
Cash Headroom to PFI (£m)					42	233	285	382	540	761
Cash Headroom to Default (£m)					1,441	1,831	2,070	2,316	2,596	2,898
Class A Adjusted ICR (x)		**1.30x**			**0.82x**	**2.30x**	**2.50x**	**2.59x**	**2.50x**	**2.21x**
Cash Headroom (£m)					(56)	151	233	302	302	258
Class A ICR (x)			**1.60x**		**3.91x**	**4.65x**	**4.53x**	**4.44x**	**4.34x**	**3.92x**
Cash Headroom (£m)					273	461	569	664	690	661
Class A PMICR (x)			**1.00x**		**2.16x**	**2.53x**	**2.87x**	**3.02x**	**3.15x**	**2.89x**
Cash Headroom (£m)					137	230	364	471	541	536
Class A average adjusted ICR (x)		**1.40x**			**0.82x**	**2.42x**	**2.45x**	**2.43x**	**2.35x**	**2.21x**
Moody's - Adjusted gearing				**75.0%**	**75.3%**	**72.7%**	**72.2%**	**71.2%**	**69.7%**	**67.8%**
S&P - OpCo FFO / Debt				**8.0%**	**4.1%**	**6.7%**	**8.8%**	**9.5%**	**9.6%**	**9.6%**
Fitch - Adjusted Gearing				**77.0%**	**76.8%**	**76.5%**	**75.6%**	**74.4%**	**72.8%**	**70.8%**
Fitch adj. cash AICR				**1.40x**	**0.83x**	**1.48x**	**2.03x**	**2.09x**	**2.03x**	**1.97x**
Distribution					-	**(43)**	**(49)**	**(54)**	**(59)**	**(64)**
New equity					-	-	-	-	-	-

Source: Southern Water analysis

The plan is financeable and key financial ratios are considerably stronger than they have been for the PR19 period. Current credit ratings are Baa3/BBB+/ BBB. Forecast financial ratios for the PR24 period are supportive of a recovery in the credit rating to our target level. We recognise that any recovery in the rating will also need to be supported by an overall risk that is of an acceptable level, along with improvements in our operational performance:

- All debt covenant ratios have positive financial headroom to Trigger and Default ratios
- Financial ratios commensurate with an investment grade credit rating sufficient to maintain access to the capital markets in order to efficiently finance the business
- Key credit rating ratios meet targets commensurate with Baa1/BBB+ but, similar to output from the notional geared company, financial headroom is limited and therefore support the need for the mitigation as outlined earlier in this chapter.

The company is financially resilient with appropriate headroom against its covenants and the financial metrics that support the targeted credit rating. It also has in place – and expects to fully maintain – the credit facilities and liquidity protections, along with the appropriate levels of insurance to support this resilience. However, when Ofwat's PR24 methodology for penalties and downside adjustments is applied to the notional company, the risks to Plan are outside of the level of this resilience.

This is in part driven by a significant increase in the size of our Plan from previous AMPs, and the size of the plan relative to the size of the business. We have suggested options for Ofwat to mitigate the risk. Our final assessment on the financial resilience of the company has been made on the assumption of these mitigations.

The Ofwat Final Methodology has set out the following stress tests and the second table below summarises the results of the stress tests against the Actual geared company.

Table 15: Scenarios for stress testing

Scenario	No.
10% Totex overspend	1
ODI Penalty in Yr2 (3% RORE)	2
2% reduction to forecast inflation	3
Deflation of -1% CPIH in Yr1 and Yr2	4
High Inflation of 10% CPIH Yr1 and 5% Yr2 and Yr3, plus increased RPI/CPIH wedge	5
Bad debt increase of 20% in Yr2 and Yr3	6
Increase interest cost of 2% on new finance	7
Penalty in Yr2 of 6% of revenue	8

Table 16: Summary output of stress tests (3.77% Wholesale Ofwat WACC)

			Closing gearing, average ICR Amp 8 Metrics - 3.83% WACC								
	Threshold	AMP7	Base Case	Sc. 1	Sc. 2	Sc. 3	Sc. 4	Sc. 5	Sc. 6	Sc. 7	Sc. 8
Class A Debt/RCV %	75.0	74.4	70.8	74.9	72.2	73.2	71.9	69.3	70.9	72.9	71.6
Class A Adjusted ICR (x)	1.3	0.8	2.1	1.9	2.0	2.1	2.1	2.2	2.1	1.8	2.1
Class A ICR (x)	1.6	3.9	4.1	3.8	3.9	4.0	4.0	4.1	4.0	3.5	4.0
Class A PIMCR (x)	1.0	2.2	2.6	2.2	2.5	2.5	2.6	2.6	2.6	2.2	2.6
Class A average adjusted ICR (x)	1.4	0.8	2.1	1.8	1.9	2.0	2.0	2.1	2.1	1.7	2.1
Moody's - Adjusted Gearing %	75.0	75.3	70.7	74.8	72.1	73.2	71.8	69.2	70.8	72.9	71.6
S&P - FFO/Debt %	>[6/]8	4.1	7.7	6.6	7.3	8.7	8.3	6.2	7.7	7.0	7.6
Fitch - Adjusted Gearing %	77	76.8	73.7	76.4	75.1	76.1	75.0	72.0	73.8	75.9	74.6
Fitch - Adjusted ICR (x)	1.4	0.8	1.7	1.6	1.6	1.8	1.8	1.5	1.6	1.4	1.6
Dividend		0	269	0	269	269	269	269	269	269	269
New equity for 72% Debt/RCV (£m)		905	0	309	16	121	0	0	0	101	0

Source: Southern Water analysis

Our conclusions:

- Scenario 1, totex overspend of 10%, is the most severe scenario. A 10% overspend has a disproportionate effect on the company due the significant increase in the size of the totex in the plan. Allowed return levels generated from the existing RCV are not sufficient to cover an overspend of this size. This would require further action beyond any restriction of dividends, highlighting the need for the risk of the national company to be mitigated to align it with the risk levels set in the Ofwat methodology.
- Restricting dividend within the Plan, of £264 million, is sufficient to mitigate risk in scenarios 2, 3, and 7
- Scenario 5, high inflation, is positive for gearing but places pressure on ratios which include an adjustment for inflation accretion of financial instruments. This should not put pressure on credit ratings given the forecast recovery in inflation, and ratios, by 2030
- Scenarios 4, 5, 6, and 8, can be accommodated within a stress test gearing target of 72%

The Ofwat cost of capital in the Plan (3.83% real Wholesale Ofwat cost of capital) is at an insufficient level to attract the new equity required to support the business in appropriately dealing with risk.

The SRN60: Financeability technical annex provides further details of the stress tests, as well as results of combined scenarios

We have also tested actual financeability by updating the cost of capital to the level we believe it should be set to reflect the level of risk faced by the notional geared company and to also reflect the funding cost faced by the notional geared company.

Table 17: Key financial ratios: of the actual geared company (4.58% Wholesale Southern Water WACC)

YE 31 March, £m	Covenant level				2025	AMP8				
	PFI	Trigger	Default	Guidance		2026	2027	2028	2029	2030
RCV					**6,992**	**7,990**	**8,923**	**9,669**	**10,282**	**10,688**
SWS metrics										
Class A Debt / RCV	**75.0%**	**75.0%**	**95.0%**		**74.4%**	**72.1%**	**71.8%**	**71.0%**	**69.8%**	**67.9%**
Cash Headroom to PFI (£m)					42	233	285	382	540	761
Cash Headroom to Default (£m)					1,441	1,831	2,070	2,316	2,596	2,898
Class A Adjusted ICR (x)		**1.30x**			**0.82x**	**2.30x**	**2.50x**	**2.59x**	**2.50x**	**2.21x**
Cash Headroom (£m)					(56)	151	233	302	302	258
Class A ICR (x)			**1.60x**		**3.91x**	**4.65x**	**4.53x**	**4.44x**	**4.34x**	**3.92x**
Cash Headroom (£m)					273	461	569	664	690	661
Class A PMICR (x)			**1.00x**		**2.16x**	**2.53x**	**2.87x**	**3.02x**	**3.15x**	**2.89x**
Cash Headroom (£m)					137	230	364	471	541	536
Class A average adjusted ICR (x)		**1.40x**			**0.82x**	**2.42x**	**2.45x**	**2.43x**	**2.35x**	**2.21x**
Moody's - Adjusted gearing				**75.0%**	**75.3%**	**72.7%**	**72.2%**	**71.2%**	**69.7%**	**67.8%**
S&P - OpCo FFO / Debt				**8.0%**	**4.1%**	**6.7%**	**8.8%**	**9.5%**	**9.6%**	**9.6%**
Fitch - Adjusted Gearing				**77.0%**	**76.8%**	**76.5%**	**75.6%**	**74.4%**	**72.8%**	**70.8%**
Fitch adj. cash AICR				**1.40x**	**0.83x**	**1.48x**	**2.03x**	**2.09x**	**2.03x**	**1.97x**
Distribution					-	**(43)**	**(49)**	**(54)**	**(59)**	**(64)**
New equity					-	-	-	-	-	-

Source: Southern Water analysis

Improved forecast financial ratios with our proposed wholesale Southern Water cost of capital of 4.58%.

This plan is financeable and key financial ratios are considerably stronger than the PR19 period. Current credit ratings are Baa3/BBB+/BBB. Forecast financial ratios for the PR24 period are supportive of a recovery in the credit rating. It is, however, difficult to predict the pace of recovery in the credit ratings given the need to also demonstrate an improvement in operational performance (from the turnaround plan):

- All debt covenant ratios have positive financial headroom to Trigger and Default ratios, and closing debt/RCV at March 2030 is comfortable at c. 68%
- Financial ratios commensurate with an investment grade credit rating sufficient to maintain access to the capital markets in order to efficiently finance the business
- Key credit rating ratios meet targets commensurate with Baa1/BBB+

We have also carried out the stress tests, set out in the Ofwat Final Methodology, against the plan with our proposed Wholesale Southern Water cost of capital of 4.58%.

The table below summarises the results of the stress tests:

Table 18: Summary output of stress tests (3.77% Wholesale Southern Water WACC)

			Closing gearing, average ICR Amp 8 Metrics - 3.83% WACC								
	Threshold	AMP7	Base Case	Sc. 1	Sc. 2	Sc. 3	Sc. 4	Sc. 5	Sc. 6	Sc. 7	Sc. 8
Class A Debt/RCV %	75.0	74.4	67.9	74.7	69.1	70.2	69.0	66.4	68.0	70.0	68.8
Class A Adjusted ICR (x)	1.3	0.8	2.4	2.1	2.3	2.4	2.4	2.5	2.4	2.1	2.4
Class A ICR (x)	1.6	3.9	4.4	4.0	4.3	4.3	4.3	4.4	4.4	3.7	4.3
Class A PIMCR (x)	1.0	2.2	2.9	2.4	2.8	2.8	2.9	2.9	2.9	2.4	2.9
Class A average adjusted ICR (x)	1.4	0.8	2.4	2.1	2.2	2.3	2.3	2.4	2.4	1.9	2.3
Moody's - Adjusted Gearing %	75.0	75.3	67.8	74.7	69.1	70.2	68.9	66.4	68.0	70.0	68.7
S&P - FFO/Debt %	>[6/]8	4.1	8.9	7.5	8.4	9.9	9.4	7.3	8.8	8.1	8.7
Fitch - Adjusted Gearing %	77	76.8	70.8	76.2	72.1	73.1	72.1	69.1	70.9	73.0	71.7
Fitch - Adjusted ICR (x)	1.4	0.8	1.9	1.8	1.8	2.1	2.0	1.7	1.9	1.6	1.9
Dividend		0	269	269	269	269	269	269	269	269	269
New equity for 72% Debt/RCV (£m)		905	0	289	0	0	0	0	0	0	0

Source: Southern Water analysis

Our conclusions:

- Scenario 1, Totex overspend of 10%, is the most severe scenario, especially given the size of the PR24 plan as explained above. Further action, beyond withholding dividends, would be required to maintain credit ratings with this level of overspend. The impact of this scenario is reduced with the higher WACC. Mitigation of risk for the notional company is still required.
- Financial headroom within the Plan is sufficient to accommodate the other ratios
- The Financeability Annex provides further details of the stress tests, as well as the results of the combined scenarios

10.5.7. Board assurance of financeability

There are a number of areas where there is material uncertainty in the parts of the business plan. Many of these uncertainties relate to legal or policy decisions that are yet to be made at the point of business plan submission. Detail on these uncertainties identified by our plan is provided in chapter SRN11: Data and Assurance, including those, noted below, pertinent to our Risk and Return. These have overlap with the uncertainty mechanisms mentioned earlier in this chapter.

Regulator agreement EA – WRMP: Our plan is based on our dWRMP24 which has not been signed off by the Secretary of State and hence is subject to change.

Our proposed environment programme and Water Resources Management Plan require a step change in investment to an unprecedented level, and this plan is four times larger than our equivalent plans in AMP7. This submission and linked WRMP submissions in August and September 2023 do not yet close all the deficits. We will work with regulators to develop and agree potential mitigations over the medium term to provide drought contingency as the solutions are built.

Regulator agreement EA – WINEP phasing: To address affordability and deliverability concerns our plan is based on a proposed reprofiling of WINEP, which is being consider by our regulators.

Our proposed WINEP investment is close to requiring the total five-year AMP7 level of investment every year of the AMP8 period. We continue to work with the EA, alongside DEFRA and Ofwat, to find sustainable ways to deliver these programmes in a timeframe that is deliverable, having regard to the existing supply chain constraints and can be afforded by our customers. Without the proposed re-phasing the plan is neither affordable nor deliverable.

Regulator agreement Ofwat – alternative delivery significant use of alternative delivery mechanisms.

Prior to submission Ofwat has yet to agree to c. £1.3 billion of Alternative Delivery projects and these remain subject to agreement at business plan submission. We support this Alternative Delivery and its benefit of freeing up internal resource on the delivery of other plan elements.

Scale and challenges of Deliverability – deliverability of a plan that is nearly twice the size of AMP7 and supply chain challenge.

Our plan will see a doubling of our current investment programme. Delivering investment at this scale and pace will be a challenge – particularly give our performance and delivery has not been where it needed to be. We have identified new strategies to mitigate this challenge, including an updated supply chain strategy, new approach to portfolio planning delivery and performance, and a strategic workforce review. Increased investment programmes across the entire UK water sector will heighten demand on, and scarcity in the supply chain.

For more detail of our Board Assurance in this area please refer to the Financeability and Financial Resilience elements of our supporting material in chapter SRN11: Data and Assurance.

As a Board we have had to debate and make difficult trade-offs. Not everything we would like to do can be financed or delivered in the timescale we would ideally like to see. Elements of our investment programme are subject to uncertainty mechanisms because there is continuing regulatory engagement on the form and timing of delivery, and we propose innovative alternative investment structures to secure our desired full programme.

Given the challenges the water sector as a whole face and the scale of investment required, and against a background of volatility in interest rates, we believe there is a growing need for the sector to attract new equity capital, based on reasonable risk and reasonable returns. Our plan assumes risk mitigation that allow an appropriate risk and return that was not possible on the basis of notional company risk modelling.

For more detail please see chapter SRN11: Data and Assurance.

10.6. Dividend policy

10.6.1. Introduction

Our dividend policy for the 2025-2030 period will ensure a fair and balanced reward between customers, stakeholders and investors. When we are successful in the delivery of our business plans, all stakeholders share in our success: customers benefit through environmental and water resilience improvements, better services and lower bills, and shareholders earn a fair return on the money they have invested.

Our dividend policy is reviewed annually by the Board and published in our Annual Report each July. No material changes are currently planned to be made to the existing policy ahead of the next investment period (2025–30) but the Board will keep this under review. Therefore, the dividend policy for the 2025–30 period will follow the principles below. See SRN63: Executive Pay and Dividend technical annex for further detail.

10.6.2. Dividend policy

When proposing payment of a dividend, the directors of Southern Water Services Limited, acting independently in accordance with their directors' duties and in accordance with the company's licence, will apply the following principles:

1. Determination of a base level of dividend, based on an equity return consistent with our most recent Final Determination and our actual level of gearing. This recognises our management of economic risks and capital employed

2. In assessing any adjustment to the base level of dividend, we will take into account all aspects of our performance and consider this in the round. This would reflect our overall financial performance as compared to the final business plan as agreed by Ofwat and would explicitly consider a qualitative assessment of customer service levels, performance against planned customer and environmental outcomes and how customers share in our successes
3. We will consider our financial resilience ahead of any dividend decision and whether any financial out-performance should be reinvested to benefit customers. This consideration will include taking into account the interests of our employees, other stakeholders, and our pension schemes. Our dividend policy is intended to support the financial resilience and investment grade credit ratings of the business and ensure continued access to diversified sources of finance. As part of step three, we carry out an assessment of:

- Headroom under debt covenants
- The impact on the company's credit rating
- The liquidity position and ability to fulfil licence conditions
- Key areas of business risk

4. We will be transparent in the payment of dividends and will clearly justify the payment in relation to the factors outlined above
5. We will publish our dividend policy annually (in the Annual Report) and highlight any changes

10.7. Executive pay policy

10.7.1. Introduction

Our remuneration policy sets out how we set seek to attract, recruit and retain the talented individuals required to deliver the requirements of our business plan and we will extend that policy for the 2025–30 period to continue to ensure alignment with delivery for:

- Customers;
- The environment; and
- Shareholders and other stakeholders

This is consistent with Ofwat's expectations in its final methodology and other guidance. This section sets out the core tenets of our policy. See SRN63 Executive Pay and Dividend technical annex for further detail.

10.7.2. Factors that have determined our policy

It is our policy to:

1. Ensure that performance related executive pay has a clear alignment to delivering stretching performance improvement, which is in the interests of customers as well as providing sustained and long-term value creation for shareholders and other stakeholders, and protecting the environment. An additional incentive linked to longer term targets has been implemented with effect from 1 April 2023
2. Provide transparent alignment between performance-related pay and stretching outcomes for all our stakeholders and specifically including our customers
3. Apply stretching targets linked to customer and environmental outcomes. 50% of bonus targets relate to outcomes for customers that require stretching performance. These do and will include customer outcomes such as ODIs, C-Mex, efficiency of service delivery, as well as acknowledging the importance of the environment to our customers
4. Apply rigorous application of scheme rules and to provide independent governance of remuneration decisions through the Board Remuneration Committee, whilst taking into consideration risk management principles
5. Apply good corporate governance by taking into account regulatory requirements and, among others, the UK Corporate Governance Code, any corporate governance principles or guidance issued by Ofwat
6. Take into account the remuneration practices found in other UK companies of a similar size or operating in the same sector

Chapter SRN11

Data and Assurance

11. Data and Assurance

11.1. Executive summary

This chapter provides an overview of our assurance processes for PR24, that build and significantly expand on our business as usual (BAU) approach to assurance. The chapter also presents the Board Assurance Statements and summarises the process to support their creation. The chapter ends with a review of our work on our regulatory and statutory obligations.

Our stakeholders deserve to be able to trust and have confidence in the integrity of the information we provide as part of our PR24 submission. In order to achieve this, our Business Plan submission is subject to a system of checks to ensure that we meet the highest quality of reported information.

Our approach to assurance and governance for the PR24 submissions significantly expands in scale upon our established approach to assurance and governance used for the production and publication of our annual reports and accounts. It also builds and expands on the annual Board review, approval and sign-off of our Condition P licence conditions, and the Board Assurance Statement on the Accuracy and Completeness of Data, both of which are published as part of our Annual Performance Report.

Our established approach to assurance follows a robust and mature governance process, designed to ensure we are reporting robust information and to give our Board and stakeholders confidence in the quality of published material.

This approach has been established since before PR19 and is supported by processes that ensure we assess and manage our compliance with statutory obligations (such as Statement of Compliance and our Register of Obligations). Our assurance for PR24 also ensures that our PR24 submission is compliant with our legal, regulatory, and statutory duties.

Our PR24 assurance approach focuses on the testing criteria set in Ofwat's methodology and the Board's strategic choices as to the direction and ambition of our Business Plan. To deliver our the PR24 assurance programme, we expanded the use of our existing assurance framework to ensure PR24 outputs were subject to appropriate internal and external review.

We drew on our long-standing relationship with our AMP7 assurance partners, Jacobs, and KPMG, who both took a lead role in providing external assurance of the plan. This has included an extensive programme of internal and external assurance covering the content of the plan, final versions of chapters and technical annexes, and data tables. In addition to our long-standing assurance partners, we were also supported by PwC and Sia Partners. Assurance letters from all our partners are included in this submission. Herbert Smith Freehills (HSF) have also provided legal review of our plan.

Our overall strategy for data assurance and governance processes has delivered high-quality data across all aspects of our plan and Long-term Delivery Strategy ensuring – our Board has had access to a complete and transparent view of the our historic and expected performance when making decisions. Our assurance process also supported the creation of a submission that is high quality in the round.

Our Board has been actively engaged and has scrutinised the assurance processes we adopted. Our Board participated in approving the assurance strategy and have had visibility of any risks to providing accurate and complete data and information. The assurance process has supported the Board to challenge the plan, assure itself that it delivers long-term resilience, is of high quality, and responds to the evidence from extensive customer involvement and engagement.

11.2. Our general approach to assurance

Our stakeholders deserve to be able to trust and have confidence in the integrity of the information we provide as part of our PR24 submission. In order to achieve this, our Business Plan submission is subject to a system of checks to ensure we meet the highest quality of reported information. We take full responsibility for our performance information and seek to take a transparent approach to data assurance. This assurance provides confidence in our reported performance and the delivery of promises made in our AMP7 (2020–25) Business Plan.

Following past failings in the quality of our reporting to our regulators, we are continuing to embed our programme of improvements to ensure our regulators and other stakeholders can trust the data we report. These improvements have been led by our Risk and Assurance team which ensures compliance reporting to our regulators is subject to sustained internal review and assurance.

In our 2023–24 Final Assurance Plan published in March 2023, we detailed our approach to assurance in relation to our performance information and acknowledged the importance of accurate information in building trust and confidence.

We continue building a greater level of trust and confidence in our reporting. In addition to our own internal assurance teams and processes, our highest risk performance data is assured by independent assurers. The technical assurance framework we have in place for AMP7 allows us to appoint the most suitable partners to different technical projects. KPMG and Jacobs have completed their third year in this role.

We have adopted the 'three lines of defence' framework for our reporting governance and assurance activity (Figure 1). This helps to assure performance information by applying multiple levels of control. This model is a widely used framework which helps us achieve our regulatory commitments and protect us. It clearly defines each function and is underpinned by policies, procedures, and governance. This general approach is embedded in how we conduct our operations and underpins our work on PR24.

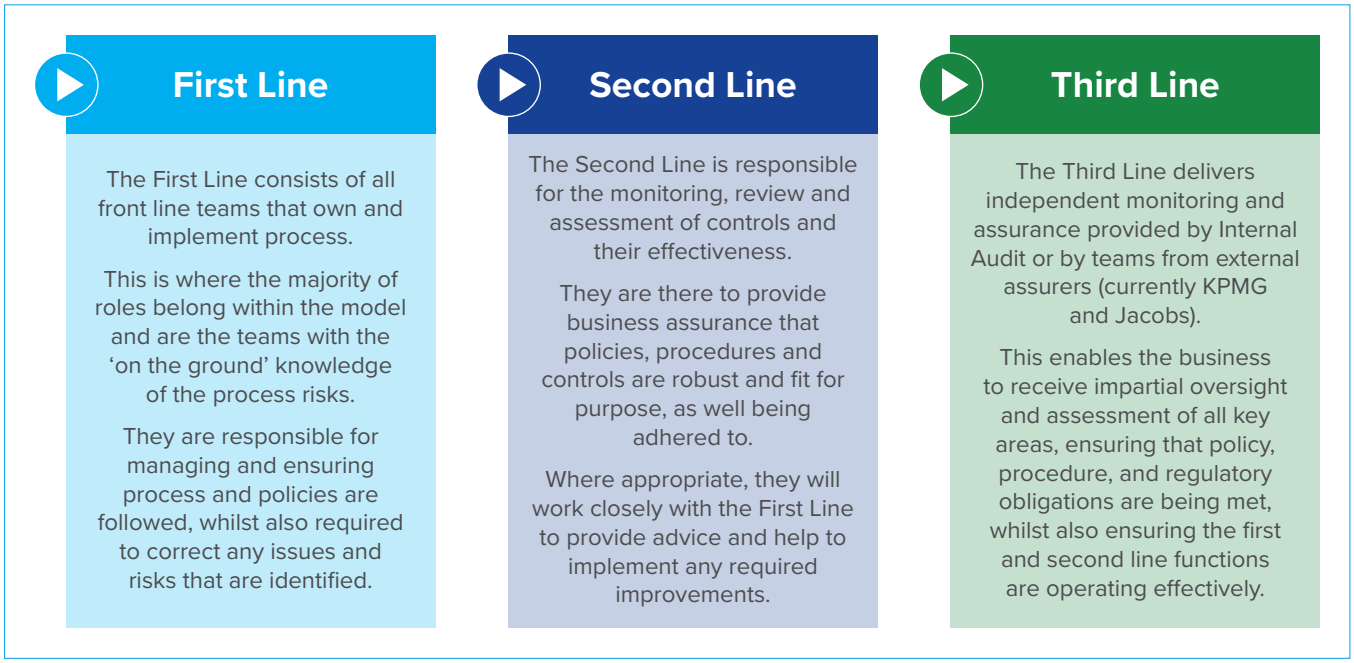


Figure 1: Our three lines of defence

We apply internal controls and have improved processes in place to mitigate the risk of supplying incorrect or inaccurate information on all our non-financial regulatory reporting. Figure 1 describes the activities that are undertaken by each line of defence. All assurance activity has oversight from the Board and Audit Committee. We align our assurance to the 'three lines of defence' framework for our reporting governance and assurance activity. This helps to assure performance information by applying multiple levels of control.

We regularly review performance information against a wide range of measures. Reporting to the Board, which is always subject to prior scrutiny by the Executive Committee, focuses on delivery of our regulatory and statutory obligations. For AMP7, this information is provided to the Board by way of a detailed performance dashboard, including a selection of our Business Plan performance commitments and additional regulatory targets.

The Audit Committee has monitored the completion of a risk-based programme of assurance activities as part of a three-year rolling programme, covering the practices, procedures and systems used to secure compliance with our statutory obligations. This has included a review of compliance with our Instrument of Appointment which was presented to the Audit Committee in March 2023.

Over the last six years, we have delivered a programme of process and control improvements – which is still ongoing. These have been focused on key data returns to Ofwat, the Drinking Water Inspectorate (DWI) and the Environment Agency (EA) and include improvements in our reporting control environment.

Our work over the last two years has focused on the maturity of first-line controls – reflecting the embedment and maturity of our reporting capability. We have seen improvements in the quality of our reporting to the DWI, the EA and Ofwat. These improvements are part of an ongoing programme that will continue through the current Business Plan period and beyond.

The Audit Committee monitors the assurance over the integrity of our non-financial information reported by us to fulfil our regulatory, legal, and environmental obligations. This includes information required by Ofwat, the DWI and the EA. Our assurance plans are approved by the Audit Committee, which is responsible for overseeing and challenging the effectiveness of our approach.

In response to new guidance from Ofwat in November 2020, we published, as part of our Annual Performance Report, a board assurance statement stating the data and information provided is accurate and complete and setting out any exceptions.

11.3. Delivery of our PR24 assurance

For PR24, we adopted a structured process, enabling the Board to have oversight and ownership of the Business Plan's development, and to provide challenge and input throughout. An overview of the PR24 governance structure is set out below in Figure 2.

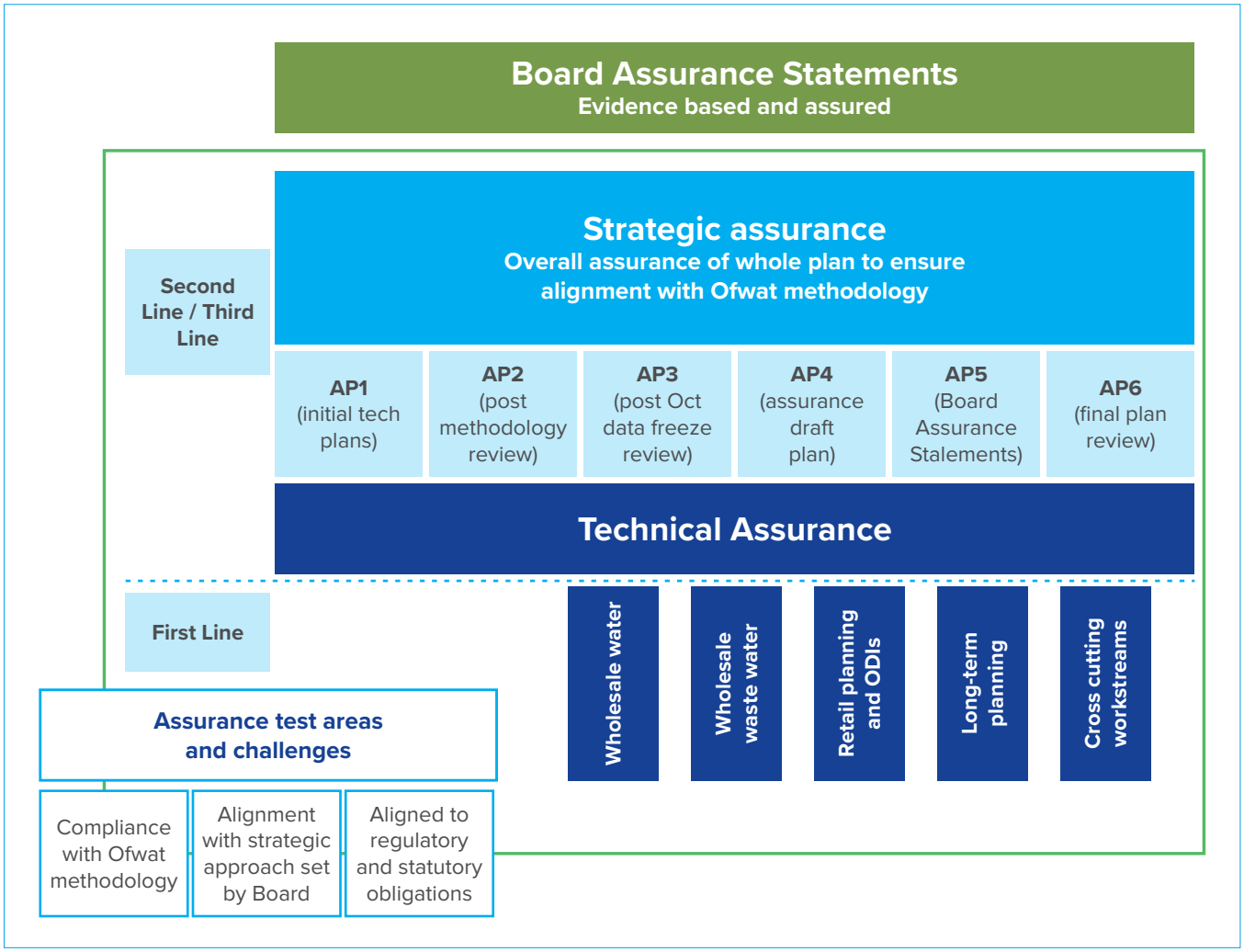


Figure 2: Our PR24 Assurance Process

We established a series of Assurance Points at significant milestones tracked by the PR24 Project Management Office. Our PR24 assurance approach has been focused on the testing criteria set in Ofwat's methodology and the Board's strategic choices as to the direction and ambition of our Business Plan. To deliver our PR24 assurance programme we expanded the use of our existing assurance framework to ensure PR24 outputs were subject to appropriate internal and external review.

The approach to assurance is based on the following principles:

- Built on the Three-Lines of Defence model
- Rooted in our BAU approach to assurance
- Be risk-based – focusing effort in areas of highest risk to the price review
- Following our integrated approach – including both a strategic level assurance across the Business Plan and technical assurance of the individual supporting workstreams
- Ensuring technical assurance on core workstreams and cross-cutting themes, aligned with but significantly more extensive than established BAU monthly and annual regulatory reporting
- Alignment to Ofwat's focus on Long-term Delivery Strategies – as well as sector and wider good practice
- All assurance contributes to and supports in evidence-based Board Assurance Statements to support the submitted Business Plan
- Provision of assurance letters by assurers to support the Board sign off process and to be part of the submission, with a confirmation on the scope of work and the confirmation of closure of all outstanding and material assurance recommendations.

Our PR24 assurance programme consisted of 56 separate items of assurance on the main PR24 programme. This was distinct to the additional technical assurance that supported related regulatory submissions for the WRMP, DWMP, WINEP, and DWI all of which were subject to extensive assurance to support Board approval.

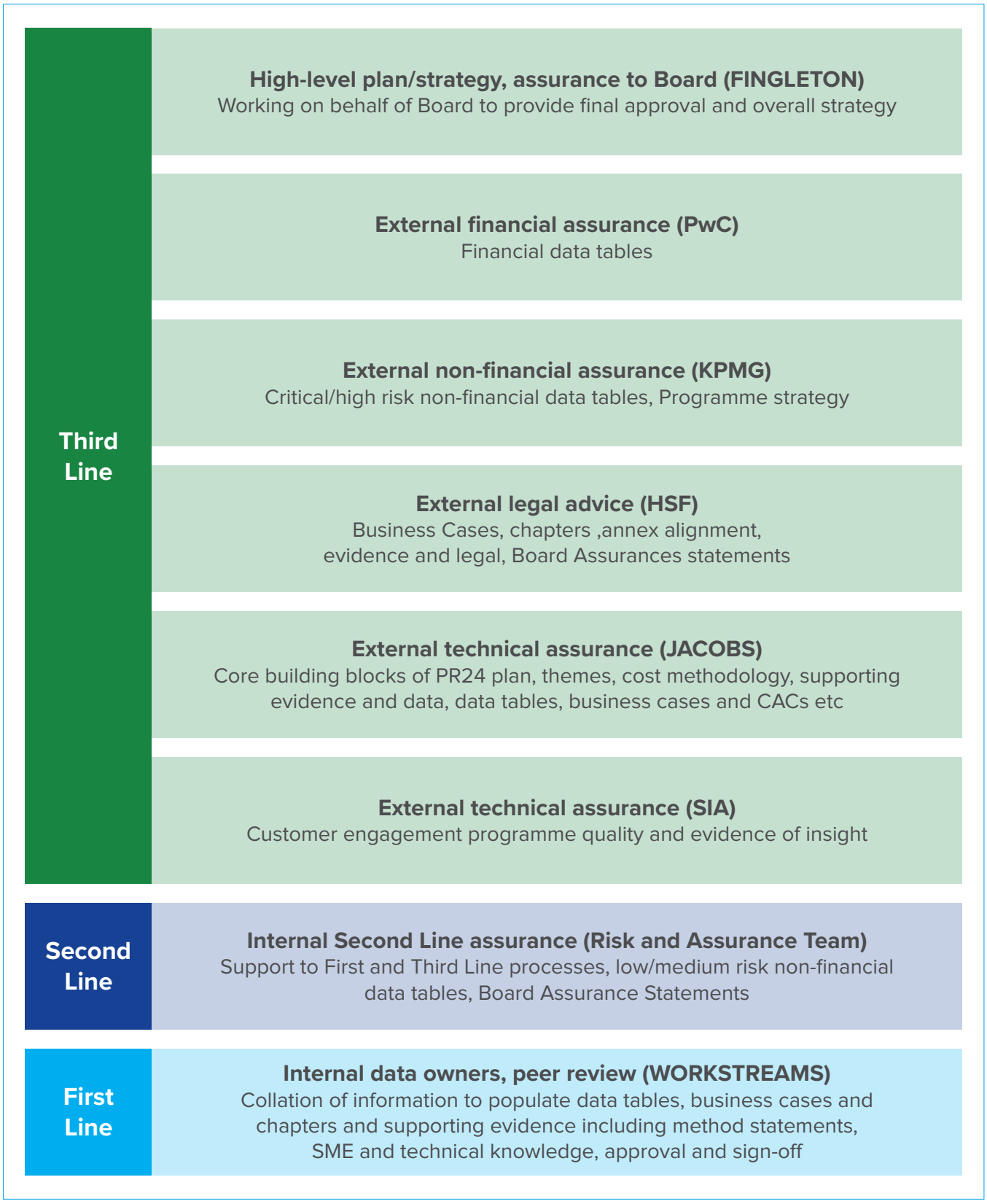


Figure 3: PR24 Assurance Delivery

Our assurance framework defined the outputs of the PR24 Business Plan requirements and used a risk-based approach to assess each component to ensure they were subject to appropriate internal or external review. This provided a systematic way of identifying the required coverage and depth of assurance. The merging of three separate lines of defence provided an integrated approach to assurance with mix of internal and external assurance (see Figure 3). The balance of assurance resource in the three lines of defence, whilst supported by a wide range of external parties (as described below), is mostly focused on our first- and second-line teams. Our first line PR24 teams are heavily involved leading the content of our assurance, enabled and facilitated by our Risk and Assurance second line team. The second line team also take a key role in managing our external (third line) assurance support.

Assurance providers were appointed based on their relevant expertise:

- **KPMG** as our AMP7 assurance partner worked with our internal Risk and Assurance team to support the assurance strategy for PR24 and led the work on our PR24 non-financial data tables, a service they supply for our APR process. The KPMG team also conducts our S19 Assurance which is shared directly with Ofwat
- **Jacobs** were engaged as our technical assurer for PR24, the same role they had at PR19. This is an extension of their AMP7 role where they work with the internal Risk and Assurance Team to deliver technical assurance over specific areas of assurance and strategic plans such as the DWMP, WINEP and WRMP. On PR24 Jacobs has had an extensive role assuring the technical detail of large sections of our Business Plan
- **PwC** acted as our assurers of the PR24 financial data tables. They also provided technical assurance on the DPC elements of our plan
- **Sia Partners** reviewed our customer and stakeholder engagement PR24 activity. Their work assured our acceptability and affordability approach. In addition, they reviewed the quality of our PR24 customer engagement programme
- **Fingleton** were engaged to support our Board, particularly at the early stages of the price review where their regulatory expertise supported the Board's understating of the regulatory environment
- **Herbert Smith Freehills LLP** were engaged to provide legal advice and support, similar to that at PR19. Their support covered all areas of the plan

11.4. PR24 Governance

11.4.1. Scrutiny of our assurance approach

Our strategy for data assurance and governance processes has delivered high-quality data across all aspects of our plan and LTDS – ensuring our Board has had access to a complete and transparent view of our historic and expected performance when making decisions. The assurance process has also supported the creation of a submission that is high quality in the round.

Our Board has been actively engaged and has scrutinised the assurance processes we adopted. The Board participated in approving the PR24 assurance strategy in April 2022 and have had visibility of any risks to the provision of accurate and complete data and information. The assurance process has supported the Board to challenge our plan, assure itself that the plan delivers long-term resilience, is of high quality, and responds to the evidence from extensive customer involvement and engagement.

11.4.2 Wider Board engagement

The Board met regularly to discuss the PR24 Business Plan and challenged the PR24 process in over 50 separate meetings. Engagement has either been as part of the full Board or with specific committees with delegated authority that allowed focus and scrutiny over specific aspects of the plan. Several different fora have met during the PR24 process including:

- **SWS Board –** Full Board meetings have been engaging on PR24 for the whole of the price review process, either as standalone agenda items or as part of specific deep dive sessions, or as full Board PR24 events
- **PR24 Committee –** The PR24 committee was set up to support all phases of the price review including programme set up. Sessions supported other programme specific approvals (including the WINEP submission)
- **WRMP / DWMP Sub-committee –** The specific sub-group of the Board supported the submission of the WRMP and the DWMP
- **Treasury Working Group –** A specific sub-group to look at financial elements of PR24. This included financeability and financial resilience. Membership included the chair of the Audit Committee
- **Audit Committee –** The committee received regular updates on the progress of the programme of assurance as part of their regular update on the wider assurance programme

The early engagement of the board was as a mix of all the fora outlined above. As we moved into 2023, the level of engagement of the full Board accelerated and culminated in Board approval of the Business Plan prior to submission. This is outlined in Figure 4.

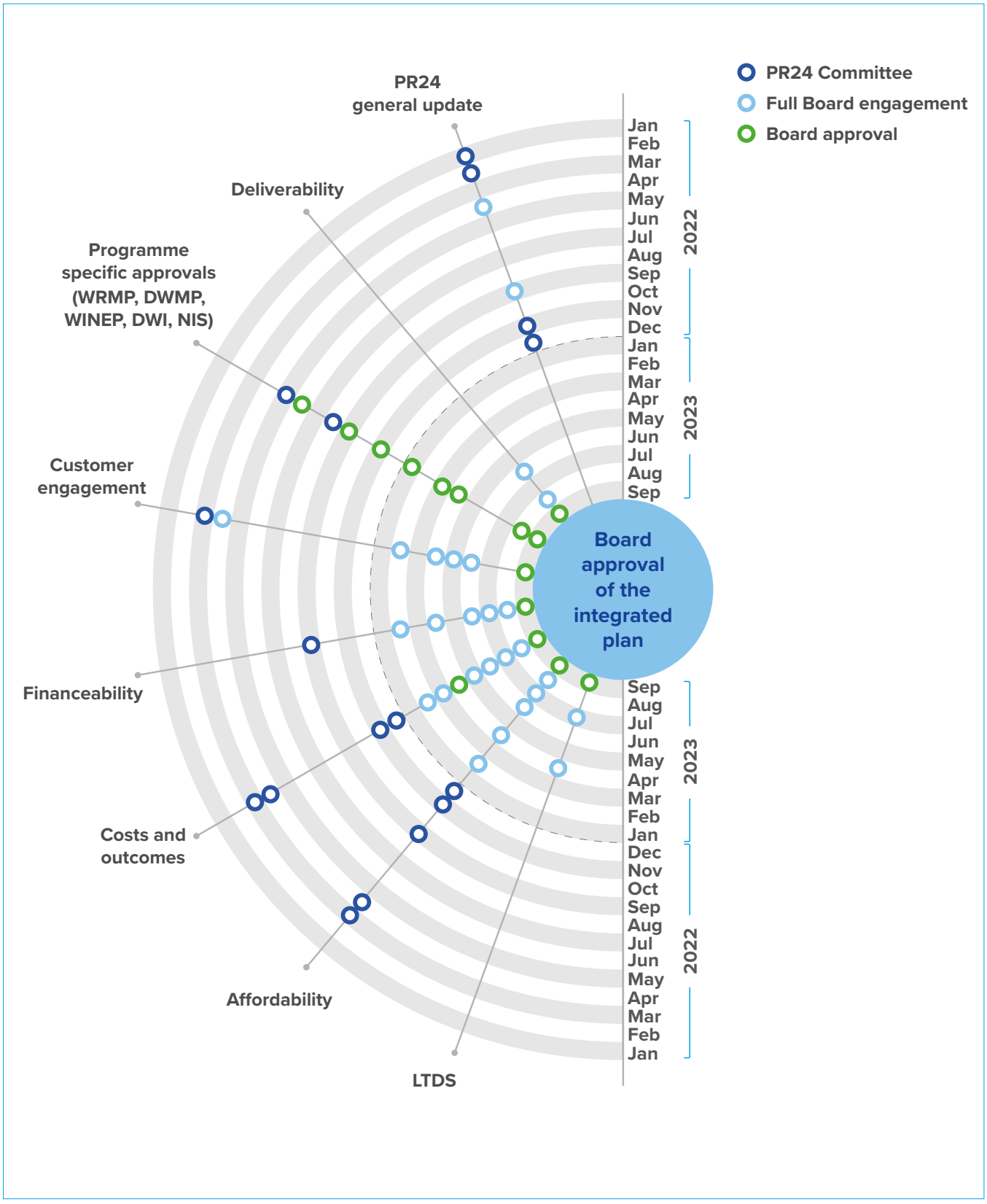


Figure 4: Board engagement for PR24

11.4.3 Board Assurance Statements

Board Assurance Statements are a key output of the PR24 assurance programme. They are intended to be a summary of how the Board have been engaged on the content of the PR24 Business Plan and outline and reflect the support and challenge the given the plan.

To achieve this, we built significantly upon our BAU Board Assurance Statement process and referred to the Ofwat methodology and guidance in April 2022. The prescriptive guidance from Ofwat is reflected in Figure 5 below.

This checklist has been used to ensure that the Board have considered, supported and challenged each of the specific test areas. As with the BAU process we have been able to evidence the diligent enquiry and evidence for each statement the Board have made.

Statement components	Ofwat's expectation
Statement 1: Long-term delivery	That the Board has challenged and satisfied itself that the Long-term Delivery Strategy is high-quality. The company Board should provide an assurance statement that explains how strategies it has challenged and satisfied itself that the strategy: • Reflects a long-term vision and ambition that is shared by the Board and company management • Is high quality, and represents the best possible strategy to efficiently deliver its stated long-term objectives, given future uncertainties • Is based on adaptive planning principles • Has been informed by customer engagement • Has taken steps to secure long-term affordability and fairness between current and future customers • Will enable the company to meet its statutory and licence obligations, now and in the future The Board should provide evidence of where it has challenged company management and an explanation of the process it has used to arrive at the view that its strategy is the best it can be. It is for companies and their Boards to determine how best to provide this assurance, including the role of external assurance.
Statement 2: Affordability	That the Board has challenged and satisfied itself that: • The full implication of the 2025–30 Business Plan for customers was considered and that the plan achieves value for money • The Long-term Delivery Strategy protects customers' ability to pay their water bill over the long-term and delivers fairness between what existing customers will pay and what is paid for by future customers
Statement 3: Costs and outcomes	That the Board has challenged and satisfied itself that: • The performance commitment levels in the plan are stretching but achievable and reflect performance improvements expected from both base and enhancement expenditure • The plan includes price control deliverables covering the benefits of material enhancement expenditure (not covered by performance commitments) • The expenditure forecasts included in the company's Business Plan are robust and efficient • The options proposed within the Business Plan are the best option for customers and a proper appraisal of options has taken place • The plan and the expenditure proposals within them are deliverable and that the company has put in place measures to ensure that they can be delivered • That the expenditure proposals are affordable by customers and do not raise bills higher than necessary • The expenditure proposals reflect customer views, and where appropriate are supported by customers
Statement 4: Financeability	That the Board should: • Provide assurance that the Business Plan is financeable and consistent wrth maIntamIng the target credit rating on the basis of the notional capital structure and provides sufficient headroom to a minimum investment grade credit rating under stress scenarios, taking account of mitigating actions. We expect companies to provide evidence of the steps taken by their Board in giving that assurance • Take account of all components of the Business Plan and set out clearly the steps taken to provide assurance, including the consideration of the financial ratios
Statement 5: Financial resilience	That the Board should: • Provide an assurance statement that the actual company is financially resilient over the period of the price review and beyond under its Business Plan • Set out the steps it has taken to enable it to make that statement, the factors it has taken account of, and the suite of financial metrics used to ensure the company is financially resilient We expect the plan to demonstrate the basis on which the assessment has been carried out, including how the base case and downside scenarios have been established and assessed.
Statement 6: Customer engagement	That the Board should provide assurance that the company's customer engagement and research meets the standards for high-quality research and any other relevant statements of best practice and has been used to inform its Business Plan and Long-term Delivery Strategy.

Figure 5: Board assurance guidance from Ofwat

As we worked through the PR24 process we have refined the outputs of the Board Assurance Statements. This has reflected the Board's desire to sign off a summary statement, supported by more detailed content that has been considered. In particular the Board were keen to ensure coverage on three key areas:

- Providing material outlining the board engagement on the PR24 assurance process
- Outlining some of the key uncertainties that the Board have actively considered when engaging and approving the PR24 plan, and which are inherent in the PR24 plan. This reflects the challenging and dynamic environment in which the plan has been produced
- Providing a series of statements that support the key assurance test areas (this includes the detailed guidance on the LTDS)

This process is summarised in Figure 6 below.

Summary Statement	Board Assurance Statement	Evidence to Support Statements	Aligned to Board Governance
Summary to cover each main assurance test areas	Detailed statements aligned to Ofwat prescriptive guidance	Evidence of material to demonstrate diligent enquiry from Board	Effective Board governance and sign off
• An executive summary of the Board Assurance Statement • Reflecting key uncertainties • Aligned to wider executive summary • Outlines how board have discharged their responsibilities • Board involvement: Review and comments from all Board members. Signed off at session on 19 September 2023	• Detailed statements to ensure compliance with detailed Ofwat guidance • Ensure that we are meeting our regulatory and statutory duties • Aligned to content of assurance letters from key external assurers ◦ KPMG, PwC, Jacobs, Sia, HSF • Detailed content featured in the Data and Assurance chapter of PR24	• Following BAU approach • Evidence of material to support and evidence statements • Demonstrate that material shared with Board is detailed and backs up statements • Included in evidence technical annex • Linked to Board engagement timetable • Demonstrating diligent enquiry thought outlining Board engagement on each assurance test area	• Underpinned by board engagement timetable • Board sign off process: • **05 September:** Main content of plan approved by Board • **19 September:** Exec summary assurance, deliverability and financeability approved by Board • **28 September:** Sign-off of final submission

Figure 6: Board engagement and the Board Assurance Statements

Producing statements that can be backed up by evidence of engagement, and diligent enquiry form the Board has been key to this process. This has been demonstrated in the annual Condition P assurance process, which we have developed for the PR24 plan. The outputs of this process are outlined in the following sections. This includes:

- Summary Board Assurance Statement – this statement acts as an overall statement that draws on key supporting information and the content of the plan itself
- Supporting information that the Board has considered on Key Uncertainties – the Board are clear that they want to demonstrate that they have engaged fully on the key uncertainties that the plan contains as reflected in the supporting information
- Supporting information that the Board has considered on Ofwat key test areas and a standalone LTDS statement – building on our BAU assurance process this work ensured the statements fully considered the requirements of the Ofwat guidance
- The Board Assurance Statements and process was discussed at the Board session on the 05 September 2023 and was approved by the Board at the session on 19 September 2023. The statements were approved in parallel with the wider approval of the Business Plan

11.4.4 Summary Board Assurance Statement

We, the Board of Southern Water (SWS), have carefully considered the requirements of the PR24 Board assurance process and are pleased to provide the following Board statement:

The Board endorses the plan and gives its support to the proposals contained in it.

As a Board we have had to debate and make difficult trade-offs. Not everything we would like to do can be financed or delivered in the timescale we would ideally like to see. Elements of our investment programme are subject to uncertainty mechanisms because there is continuing regulatory engagement on the form and timing of delivery, and we propose innovative alternative investment structures to secure our desired full programme.

The plan, inevitably, carries uncertainty. It represents a near doubling of activity which will make big and new demands on our management and colleague capability and on our supply chains. Some of our proposed solutions are unproven but we believe it is right to experiment, to learn and to adapt. This will require continuing engagement with our regulators as plans progress.

Our endorsement, reflected in the Board Assurance Statements, which are necessarily qualified by the plan's inherent uncertainties, comes after reviewing extensive internal and external scrutiny and significant testing and challenge: have we fully addressed our key risks and our customers' ambitions; can they be delivered; are we laying foundations for a future in which water is valued as a scarce resource and critically; can the plan be sustainably funded by customers and shareholders?

The Board has taken its lead from our deep engagement with customers in deciding trade-offs. We support the testing and use of innovative alternative delivery mechanisms to achieve some of our plans.

We know delivering investment at this scale and pace will be a challenge and that our performance and delivery has not where it needed to be. We want to work with our regulators to ensure that this expansion in programme is managed and interfaces with the regulatory model in a fair and proportionate manner.

Given the challenges the water sector as a whole face and the scale of investment required, and against a background of volatility in interest rates, we believe there is a growing need for the sector to attract new equity capital, based on reasonable risk and reasonable returns. Our plan assumes risk mitigation that allow an appropriate risk and return that was not possible on the basis of notional company risk modelling.

Taken together, the Board believe that our plan is customer-led; affordable, supportive of the vulnerable, financeable, and deliverable. It has water resilience, surface water management and the environment at its heart and delivers what our regulators, customers and stakeholders expect.

The considerable uncertainties when we look far ahead have been recognised by the Board, but the broad trends of increasing demands are clear to see. It is an adaptive plan. It may change over time depending on the impacts of climate change and population growth – as well as how technology changes, the benefits of nature-based solutions and potential regulatory changes.

We have been involved with the testing of assumptions that underpin the PR24 submission and are aware of the impact that alternative assumptions may have. We have also provided a clear steer on the direction of the plan as it has evolved into the final submission.

Our work to support the formation of the plan has been discharged through the SWS Board and its relevant Committees (most notably the Audit Committee and the PR24 Committee). We have engaged in over 50 specific sessions with the wider SWS team to help shape and guide the formation of the plan. This has included deep dive sessions on all key areas of the plan, culminating in approval of all aspects of the plan in September 2023. This is in addition to extensive engagement on the development of key statutory submissions including the WRMP, DWMP and WINEP. The plan recognises our responsibility to ensure that the company can meet its statutory and licence obligations, now and in the future.

These statements should be read in conjunction with the detailed statements on key uncertainties in the plan and the detailed assurance test areas as required in the Ofwat assurance guidance as outlined in the SRN11: Data and Assurance chapter.

Keith Lough,
Chairman

Malcolm Cooper,
Chair of the Audit Committee

Lawrence Gosden,
Chief Executive Officer

Stuart Ledger,
Chief Financial Officer

11.5. Supporting Assurance Information: Board Assurance statement

11.5.1 Key uncertainties

11.5.1.1. Key uncertainties: WRMP and WINEP

We fully understand that protecting, conserving, and enhancing this beautiful natural environment of which we are a custodian is not just our statutory duty but is essential for our resilience, and expected of us by our customers.

This presents a unique combination of challenges, including the need to find new sources for 30% of our water supplies in Hampshire, deliver enhanced nutrient treatment at 40% of our Wastewater treatment works, invest significantly across drainage systems to reduce spills from storm overflows and to provide significant levels of investment to support the extensive population growth we see across the Southeast.

For our PR24 plan the combination of our environment programme and Water Resources Management Plan represents a step change in investment to an unprecedented level. At nearly £4 billion the full scope of this investment is four times larger than our equivalent plans in AMP7. The Board is aware that the scale of the WINEP investment is close to requiring the five-year total AMP7 level of investment every year of the AMP8 period.

The Board support the view that the cumulative impact of the current programme on customer bills and the sheer volume of deliverable measures in AMP8, presents a significant risk to the whole plan.

The Board appreciate the efforts over the last few months within the EA, alongside Defra and Ofwat to work with us to find sustainable ways to deliver these statutory programs in a timeframe that can be afforded by our customers, and we will need to continue this dialogue if we are to arrive at plans all of us believe can be delivered.

We as a Board are committed to making this all happen and have supported options that could sensibly phase our WINEP investment phased over 8 years to balance affordability and deliverability. The final WINEP phasing will be concluded through the regulatory process to maintain full statutory compliance. Rephasing from 8 years to 5 years would add £100 to bills per household over the PR24 period. Without the proposed re-phasing the plan is neither affordable nor deliverable.

11.5.1.2. Key uncertainties: WRMP mitigations

The Board recognises that the PR24 plan needs to deal with the significant challenges and risks of the major schemes we must deliver to secure supplies in Hampshire and Sussex to ensuring that the risk of using drought orders and drought permits is minimised.

The Board recognises the absolute needs of the water environment, in particularly in our western area, and as this submission and the linked WRMP submissions in August and September 2023 does not yet close all the deficits. The Board supports efforts by the company to continue to work with regulators to develop mitigations over the medium term to provide drought contingency as the solutions are built. Within the PR24 process we will be positioning the mitigation actions as an area of uncertainty to ensure we have mechanisms in place for the final WRMP to receive the funding required in the final AMP8 Ofwat determination.

11.5.1.3. Key uncertainties: Challenges on Alternative Delivery

A significant element of our plan is delivered through alternative delivery. This has been driven by our need to support our affordability agenda, support financial resilience and financeability and meet our regulatory and statutory obligations.

The Board support the use of alternative delivery and its benefit of spreading the costs of investment over a longer period and freeing up internal resource to focus on the delivery of other elements of our plan. The Board is aware that prior to submission Ofwat has yet to agree to circa £2 billion of Alternative Delivery projects. We are aware that these will not be subject to agreement before the Business Plan submission. We are clear that the plan is contingent on gaining these agreements after submission.

11.5.1.4. Key uncertainties: Deliverability

Our plan for 2025 to 2030 will see a major increase in our current investment programme. We know delivering investment at this scale and pace will be a challenge – and that our performance and delivery has not where it needed to be. A key focus for the Board has been to support and challenge the strategies put forward to mitigate this challenge. The strategies include an updated supply chain strategy, a novel approach to portfolio planning delivery and performance and a strategic workforce review.

Increased investment programmes across the water sector will lead to heightened demand on the supply chain. We will need to ensure careful co-ordination and collaboration to ensure sufficient capacity and capability. We must also work hard to drive best value. Our plans for the period include the use of more advanced solutions and technologies, which will require specialist skills. We will face challenges in attracting and retaining key people, from field force to skilled environmental scientists, in a highly competitive region of the UK.

11.6. Ofwat assurance test areas

11.6.1. Approach to the assurance and governance of the PR24 Plan

Our approach to assurance and governance for the PR24 submissions significantly expands in scale upon our established approach to assurance and governance we use for the production and publication of our annual reports and accounts. This builds and expands upon the annual Board review, approval and sign-off of our Condition P licence conditions, and the Board Assurance Statement on the Accuracy and Completeness of Data, both of which are published as part of our Annual Performance Report.

The Board has actively engaged and challenged the assurance processes we adopted. The Board are satisfied that the processes have appropriately identified and addressed any risks to the provision of accurate and complete data and information. The assurance process has supported the Board to challenge the plan, assure itself that it delivers long-term resilience, is of high quality, and responds to the evidence from extensive customer involvement and engagement.

This has included an extensive programme of internal and external assurance covering the content of the plan, finally drafted chapters and technical annexes, and data tables. This assurance has been supported by key external partners including KPMG, Jacobs, PwC, Sia, and legal review by Herbert Smith Freehills. Assurance letters from our partners are included in this submission.

We are confident that the overall strategy for data assurance and governance processes delivered high-quality data across all aspects of the plan and Long-term Delivery Strategy and are confident that we had access to a complete and transparent view of the company's historic and expected performance when making decisions. Furthermore, we are satisfied that all the elements add up to a submission that is high quality in the round.

11.6.2. Long-term Delivery Strategies (LTDS)

We have challenged the business and satisfied ourselves that the Long-term Delivery Strategy is high-quality. We commissioned a range of technical and strategic assurance that was conducted to support the development of the PR24 Plan and our LTDS. Our engagement on our long-term strategy and priorities culminated in a full Board session on the topic in November 2022. The approach to LTDS is based on adaptive planning principles and we have developed it in line with specific Ofwat guidance. The LTDS has also been informed and guided by input from our customers – material that has been shared with the Board at regular intervals throughout the development of the PR24 plan.

Central to the LTDS has been the development of both our WRMP and the DWMP. The Board has been fully engaged and approved key submissions on the DWMP and the WRMP both of which meet our statutory and regulatory obligations, as reflected in the assurance we have had on both submissions (accepting that there is uncertainty in some elements of the WRMP and WINEP). As discussed above, the Board understand the uncertainty around the WRMP and WINEP and supports the on-going dialogue on the matter with our regulators. (Please see SRN12: Long-term Delivery Strategy technical annex for a more detailed LTDS Board Assurance Statement.)

11.6.3. Affordability

We have challenged the Executive and are satisfied that the full implication of the 2025–30 Business Plan for customers has been considered and that the plan achieves value for money. We are also satisfied that the Long-term Delivery Strategy protects customers' ability to pay their water bill over the long-term, delivering fairness between what existing customers will pay and what is paid for by future customers.

An investment programme on this scale carries costs for our customers. It will require an average increase in water bills of 65% over the period. Customers have told us that they see the case for this level of investment and consequent increase in bills. But there will remain a section of vulnerable customers for whom the plan makes special provision.

11.6.4. Customer engagement

Assurance of our customer engagement activity, conducted by Sia, has provided us with confidence that the company's customer engagement and research meet the standards for high-quality research and any other relevant statements of best practice and has been used to inform our Business Plan and Long-term Delivery Strategy.

We have had visibility of the outputs of engagement with more than 20,000 customers, providing a rich and robust insight into the needs of current and future customers. We have also seen the rich engagement of customers in the creation of the LTDS.

We have engaged deeply with our customers about their wishes and priorities. They expect us to be much more than providers of clean water and removers of wastewater. They say, and we accept, that we have a critical role in safeguarding the unique environment of our region. Customer insight on acceptability testing helped identify three areas where customers want to see real ambition for storm overflows, pollutions, and leakage. This was a key input in helping the Board help to steer the content of the plan and helped to define the priorities of the plan and the LTDS.

11.6.5. Costs and outcomes

We have challenged the Executive and are satisfied that the performance commitment levels in the plan are stretching but achievable and reflect performance improvements expected from both base and enhancement expenditure. Further the plan includes price control deliverables covering the benefits of material enhancement expenditure.

We have reviewed and are satisfied that the expenditure forecasts included in the company's Business Plan are robust and efficient and that the options proposed within the Business Plan are the best option for customers and a proper appraisal of options has taken place.

As part of the PR24 planning process we were presented with detailed customer feedback on the options available and are clear on the areas our customers want us to be more ambitious. As a Board we support the focus on key metrics and the push for upper quartile performance in CSOs, pollutions and leakage. This approach reflects our pragmatic view that we need to make choices on the areas of focus and the need to align these to customer informed priorities. We believe that the options proposed within the Business Plan are the best option for customers and have had visibility of the detailed process and appraisals that has taken place.

The Board is acutely aware that the package of proposals outlined in the plan do raise customer bills significantly. We support these proposals as we feel these are necessary to support the ambitious programme, which has itself been supported by customer views.

11.6.6. Financeability

The Board is clear that our Business Plan is financeable, consistent with maintaining the target credit rating on the basis of the notional and actual capital structures and provides sufficient headroom to a minimum investment grade credit rating under stress scenarios, taking account of mitigating actions as set out in the SRN10: Risk and Return chapter. For this assessment, the Board has considered the plan using a WACC of 3.77%. This is in line with the WACC and ranges set in the PR24 methodology update for market movements. For the actual company we have assumed a WACC of 4.58% in line with our expectation for the WACC as set out in SRN60: Financeability and cost of capital technical annex. As part of this process the Board has scrutinised a range of relevant financial ratios including interest cover ratios and gearing ratios.

The Board is aware that there is limited financial headroom against the key financeability ratios for both the notional and actual capital structures. Mitigation of material financial risk will therefore need to include a re-prioritisation of expenditure, which is not detrimental to the long-term health of the business.

The Board has received regular updates on notional and actual financeability during the development of the PR24 plan, as well as a regular update of the impact on average household bills. These updates have included an assessment on a range of plan sizes and a review of sensitivity of the plan to financeability inputs such as the cost of capital and RCV depreciation.

Given the challenges the water sector as a whole faces, and the scale of investment required, and against a background of volatility in interest rates, we believe there is a growing need for the sector to attract new equity capital, based on reasonable risk and reasonable returns.

We have adopted Ofwat guidance provided in the PR24 Final Methodology. We have, however, made representations in our Plan on the cost of capital guidance provided in the Final Methodology.

For the future, it is important that there continues to be a reasonable balance of risk and return which in turn incentivises investment and operational improvements. The plan expresses our concern about the risk exposure in Ofwat's methodology, as well as the proposed return. We are proposing some, limited changes, in the interests of our customers.

11.6.7. Financial resilience

The financial resilience of the company is improving, supported by equity injections into the group funds managed by Macquarie Asset Management, amounting to £1.65 billion in the current investment period. The Board is satisfied that the company is financially resilient over the period of the price review and beyond under its Business Plan. Successful delivery of the operational Turnaround Plan to 2025 will be an important part in stabilising the credit ratings of the company and in building confidence with financial stakeholders.

However, the demand of significant investment from our environmental regulators, and the support from customers to improve water resilience and environmental performance, will improve operational resilience, but place pressure on financial resilience due to a large investment plan for PR24 and associated rapid growth of the business. Financial resilience is therefore limited.

The Board has been extensively briefed on the financial resilience of the company. This has included the work of a specific treasury working group (comprising members of the Board with financial backgrounds) who reported back to the full Board on a number of assessments including:

- An assessment of financial risk for the notional and actual geared companies, and a comparison of risk assumed in the Final Methodology. This forms a separate Risk Annex (SRN57: Risk technical annex) in our plan
- A representation of mitigations, including collars (Regulatory Adjustment Mechanisms), to reduce financial risk
- A review of the cost of capital and a representation for an inclusion of a risk adjustment to compensate for asymmetric risk

11.7. How the plan meets our statutory and regulatory obligations

11.7.1. Modern Compliance Framework

As a regulated service provider, our primary obligations and duties are set out in the Water Industry Act 1991, the Drinking Water Regulations, and our Instrument of Appointment (the Licence). These set the standards under which we must provide our services. We are also subject to a range of environmental quality obligations including the Environment Act, the Water Framework Directive, the Urban Wastewater Treatment Directive, the Bathing Water Regulations and the Farming Rules for Water. These are in addition to our wider corporate responsibilities that all companies are required to meet.

We are committed to driving structural and cultural change to support the development of a transparent and ethical compliance framework.

We operate our Modern Compliance Framework (MCF) which was introduced six years ago and has become our 'Business as Usual' approach to managing compliance. The framework brings together key elements of our approach to risk and compliance (see Figure 7) including our regulatory obligations, our policy framework, ethical business practice and work to manage the quality and transparency of our regulatory reporting.

The MCF is designed to promote transparency and accuracy across our operation, drive compliance improvements and improve reporting results:

- Provide oversight over a range of compliance improvements across our business
- Provide a structure on which compliance can be build and managed in all areas
- Further improve our performance and increase the trust our customers, stakeholders and regulators can have in us

Figure 7: Embedded Approach of our Modern Compliance Framework.

The MCF is supported by strong governance in key areas of our operation – most notably in our monitoring and reporting programmes – supported by extensive training programmes to ensure good practice is embedded across our company. This work has been embedded into our BAU processes. Key elements of the MCF are outlined in more detail below.

11.7.2. Statement of Compliance (SoC)

All members of the Executive are required, every six months, to provide a declaration that they and their teams are fully compliant with our procedures and controls for areas of the business for which they are accountable.

During the current price control period, our Statement of Compliance (SoC) programme has been consistently applied and is now well established, entering its sixth year. The six-monthly self-assessment that each directorate conducts includes a review of their maturity and compliance with their various legal and regulatory obligations. This provides the Board with:

- Reasonable assurance that key risk areas covering Governance, Compliance and Ethical Business Practice are reviewed and assessed regularly to drive improvement
- A prompt for assessment and update of the accountability and responsibility for core obligations (Register of Obligations)
- A reminder for the review, and where necessary update, of key policies supporting business activities (Register of Policies)
- A check on the Directorate's risk management controls

An action plan is required to address any areas of non-compliance. We have made improvements to this 'Statement of Compliance' process during the last six years. The updated process includes additional internal assurance and co-ordination of resulting action plans, providing a compliance maturity assessment of each directorate.

The programme promotes second line of defence assurance to more accurately identify high risk areas of concern. Our dedicated risk and assurance, water quality and environment quality teams have a clear role and responsibility to provide a separation of duties in monitoring key performance metrics of drinking water quality and wastewater performance. These teams also provide 'second line' internal assurance of our front-line teams and also manage key 'third line' external assurance of key aspects of our front-line performance.

Now in its 12th edition, our SoC programme offers a regular 'temperature check' to track the overall status and maturity of compliance and using a measured way of making comparisons and driving improvements at Directorate level. We have honed the SoC template and Guidance, so that the information gathered is presented in consistent measures that we report at regular intervals across the business and at regular intervals to the Board's Audit Committee.

11.7.3. Register of Obligations (RoO)

The Register of Obligations (RoO) is a centralised listing of over 300 laws, standards, rules, and regulations we must adhere to, to remain compliant. This register brings together all technical and regulatory requirements to which we are subject, including non-binding guidance and codes of practice.

The RoO outlines Executive sponsorship and allocation of responsibilities to Directors and Heads of Department, and identifies the central point of control for each obligation. The Register is reviewed and updated as new requirements are identified and at least every six months in association with our Statement of Compliance programme.

11.7.4. Register of Policies (RoP)

The Register of Policies (RoP) is our centralised listing of Policies which underpins the arrangements for governance set out in our Policy Framework, and it records the Executive sponsorship, responsible Directors, and a business owner for each policy.

The register helps us to maintain oversight of the timely and consistent management of policy reviews as well as providing a reference list for the completion of the Statement of Compliance (SoC) reviews and associated maturity assessments.

The RoP additionally identifies Policies requiring public publication and for reference in our mandatory training for colleagues. The register provides visibility of the frequency of policy update required, on either an annual or three-yearly basis (dependent on the nature of the policy). The RoP is also linked to our six-monthly SoC process which gives directors and the Executive oversight of the status of policies in their part of the business.

11.7.5. Ethical Business Practice (EBP)

Throughout AMP7 we have maintained an active and inclusive Ethical Business Practice (EBP) values-based approach to performance and compliance across our company in parallel with our culture change programme – underpinning our commitment to improvement.

We have maintained corporate membership of the Institute of Business Ethics (IBE) and actively engage in networking with other utilities and wider industry corporate members to understand best practice and to access and review research for application to our own EBP programme.

We require all colleagues, Executives, and Board members to sign up to our Code of Ethics (CoE) which we benchmark against good practice offered by the IBE. The CoE is reviewed and updated annually and tabled for Board review and endorsement. A values-based decision-making tool is included in the CoE, and copies are distributed across our offices and workplaces.

We provide mandatory training on our values of Doing the Right Thing and Speaking Up. We champion our colleagues' rights to safely Speak Up without fear of recrimination and offer a dedicated Ethics mailbox to provide a safe place to raise issues and report concerns for investigation and action.

We offer our teams workshops on 'Ethics Moments' to challenge their thinking. 'Ethics' as a golden thread is referenced in other offerings of technical and operational training. We also have specific course offerings around decision making and ethical approaches delivering though our Inspire Leadership Development programme.

We survey our colleagues annually on matters of ethical practice to track how our programme is embedding across the business and have included in our regular Statement of Compliance programme references to assess the maturity of these arrangements.

11.7.6. Regular licence review

We carry out an annual assessment of our compliance with the terms of the our Licence. The assessment, which emerged from our S19 undertakings to Ofwat, is reported to our Audit Committee in March each year.

The assessment looks at each element of our Licence and requires evidence that we are compliant with the terms of each element. The licence review has been conducted for the last three years. Where gaps have been identified these have been reported to the Board Audit Committee and tracked as a priority until they have been closed.

In January 2023, we completed our most recent annual assessment of compliance with our company Licence. The review provides a key evidence base and additional assurance for our Board Assurance Statement, our Ring-Fenced Certificate (required under Condition P of our Licence), and the assurance requirements of the undertakings agreed with Ofwat in 2019 in connection with historical misreporting of our wastewater performance (see section 11.7.8.below).

Overall, the assessment found that the business has in place processes and evidence to demonstrate compliance with the Licence. Our maturity assessment is that our compliance with the terms of Licence is adequate. Overall, the business has in place processes and evidence to demonstrate compliance with the Licence for all 21 key licence conditions.

11.7.7. Condition P Review and Assurance

In order to meet the Licence Condition P Certificate requirements of the Ofwat Licenceand the Section 19 undertakings, our Board needs to be able to clearly evidence the level of diligent enquiry that the board has undertaken, to ensure that it can demonstrate that the company will have sufficient:

- Financial resources and facilities
- Management resources
- Systems of planning and internal control

Our Board reviews, approves and signs-off Condition P assurance statements. These enable the Board to clearly demonstrate it has discharged its responsibilities and has made diligent enquiry into the principal risks facing both the wider business and the wastewater business (to support the Ofwat Section 19 undertakings).

The Condition P certification process was subject to an external review of Assurance Statements from our external auditor Deloitte LLP. The external assurance to support the discharging of our Condition P obligations also acts as key evidence for our Board Assurance Statement on the accuracy and completeness of data. Whilst not specifically assured by independent assurers, the Board Assurance Statement draws from evidence that has been provided by our external auditors and our technical assurers.

11.7.8. S19 undertakings

As reported previously, Ofwat investigated our wastewater reporting and imposed a financial penalty of £3 million. In addition, we agreed to make significant customer bill rebates, totalling £122.9 million (in 2017–18 prices) between 2020 and 2025.

On 8th October 2019 we signed formal Undertakings pursuant to Section 19 of the Water Industry Act 1991 relating to the numerous changes we have put in place, and continue to develop, to ensure that the issues identified in the investigation have stopped and cannot be repeated.

The Undertakings contain a wide range of corrective actions and interventions across seven themes:

A. Customer redress measures

B. Technical review of Wastewater Treatment Works

C. Organisational compliance process measures

D. Organisational cultural change measures

E. Ensuring transparency

F. Condition P Certificate assurance undertaking and

G. Reporting on compliance with the undertakings

We continue to make good progress on all the Undertakings, with most of them now substantially complete. Our focus now moves to embedding the improvements and monitoring the effectiveness of that embedment, whilst closing out remaining actions. Compliance with the Section 19 Undertakings is subject to a formal assurance regime which is reported to our Board and then to Ofwat on a regular basis.

In our February 2023 update to Ofwat we were able to report that the actions arising to ensure compliance have either been completed or are on track to be fulfilled within the five-year period of the undertakings, which run until 9th October 2024.

11.8. Applying the MCF to PR24

Our PR24 Business Plan has been subject to an expansive programme of assurance. This has been further supported by the application of our embedded ‘business as usual’ compliance focus and our commitment to operating our MCF.

In developing the core elements of our PR24 Plan, our MCF principles have guided our behaviours, the management of information, the application of controls, consideration of risk and uncertainties and transparency in reporting performance, assumptions and resilience. Review and testing has been applied to key areas of the PR24 Plan to ensure accuracy and confidence in our Technical Annexes, Enhancement Business Cases, Cost Adjustment Claims and data table submissions.

11.8.1. Meeting our statutory and licence obligations

In a step-change from our PR19 submission that demonstrates how compliance has become more embedded in our day-to-day activities, we have assessed each element of our PR24 Business Plan against our statutory and Licence obligations. Each chapter of our plan reflects the relevant legislative and regulatory drivers, now and into the future, to determine what funding is sought to deliver performance that meets our obligations and acknowledges the known risks and uncertainties. This is dependent upon the relevant authorities confirming that they are content with our proposed phasing of our WINEP programme and the proposals in our WRMP as supplemented by our proposed mitigations. Central to this approach is

the reliance on the embedded MCF approach with the six-monthly Statement of Compliance and the Register of Obligations being key tools to support the business in understanding its relevant obligations.

Each of the main elements of the plan have been subject to technical assurance from an assurance provider (e.g., Jacobs) and a legal review from Herbert Smith Freehills LLP. Both have looked at the content of the plan from a quality perspective – focusing on the requirements in Ofwat's guidance and our approach to ensuring the plan enables us to meet our regulatory and statutory obligations. This has provided a top-down view on the compliance of our plan. These inputs have been key to identifying key uncertainties in the plan (as detailed in our Board Assurance Statements above – see section 11.5).

To support this top-down assessment of our regulatory and statutory obligations we have supported teams by providing considered information gathered from our regular periodic Statement of Compliance reviews, our annual License assessment, and our horizon scanning for new, developing and changing requirements. We have referenced our full listing of responsibilities, maintained in our Register of Obligations and considered what is needed to ensure compliance is met overall and in each of the separate aspects of the plan.

11.8.2. Attestation process

As part of our governance, we have set up a one-off attestation process to cover the key content in the chapters of our plan. The process allows chapter owners to state and evidence that our identified obligations have been considered and reflected in our proposals. Statements from the individual authors of our plan chapters attest to their understanding of this methodology. This approach has enabled checks into areas or aspects of the plans where potential risk had been identified, to inform changes to the plans and other mitigations, and to inform our reporting of key uncertainties.

The bottom-up process has allowed chapter owners to identify areas of risk which have been a key input, alongside that of our technical and legal assurers, to identify and evidence the key uncertainties to the plan and has functioned as an input into the Board Assurance Statement process.

11.8.3. Data and assurance – obligations

In preparing this part of our Business Plan we have had full regard to ensuring we continue to comply with existing statutory and Licence obligations through our business-as-usual assurance process and we have provided details in this chapter as they relate to matters of data and assurance.

We are satisfied that the proposals in relation to data provision and assurance in this section of the plan are such as will enable us to meet relevant statutory and licence obligations both now and (to the extent known) in the future. We are not aware of any new statutory and licence obligations which are anticipated to emerge in the course of AMP8 in relation to data and assurance.

In meeting our wider responsibility for the assurance of our PR24 Business Plan overall, we have ensured that, for those areas or aspects of the plan proposals where there is a potential risk that the Business Plan may not be sufficient to enable us to meet our statutory and licence obligations, there has been appropriate review and scrutiny.

Throughout the Business Plan any relevant and emerging obligations have been identified, considered, and addressed within our proposals, and mitigated or reported openly as areas of uncertainty.