

# Southern Water's draft Water Resources Management Plan

## What is a Water Resources Management Plan (WRMP)?

We produce a Water Resources Management Plan or **WRMP** every five years, as required by the Water Industry Act 1991. This sets out how we'll secure high quality, sustainable supplies into the future.

To do this, we work out how much water we will need in the future and how much will be available to supply from our existing sources. If we need extra water, we identify ways to secure additional supplies. This includes schemes that can either provide more water or reduce demand.

For the first time, a **regional plan** has informed our WRMP. Water Resources South East (**WRSE**) is producing the regional plan for the South East. The draft regional plan considers the future water needs of the whole region, including the environment and large water-using sectors. Working in this way enabled us to develop a **best value plan**.

This means the options we considered were measured on a range of criteria **wider than economic cost**. We evaluated options based on the **benefits they could bring** to the environment, including biodiversity and natural capital gain, as well as their carbon footprint and how they increase resilience. We also assessed them against customers' preference and how the costs could be fairly shared between generations.

## What challenges are we addressing?

There are **four main drivers** behind our plan – meeting the needs of a growing population, mitigating the impact of climate change, increasing our resilience to droughts and protecting and improving the environment.

In 2018, the National Infrastructure Commission reported there was a one in four chance emergency restrictions on water use – such as standpipes and tankers – could be needed by 2050. This could cost as much as £40 billion and cause significant economic and social disruption.

Through the National Infrastructure Strategy, Government increased the level of resilience water companies need to plan for so emergency restrictions would only be needed in a **one in 500-year drought event**. The UK has not experienced a drought this severe since we started recording rainfall data over 100 years ago.

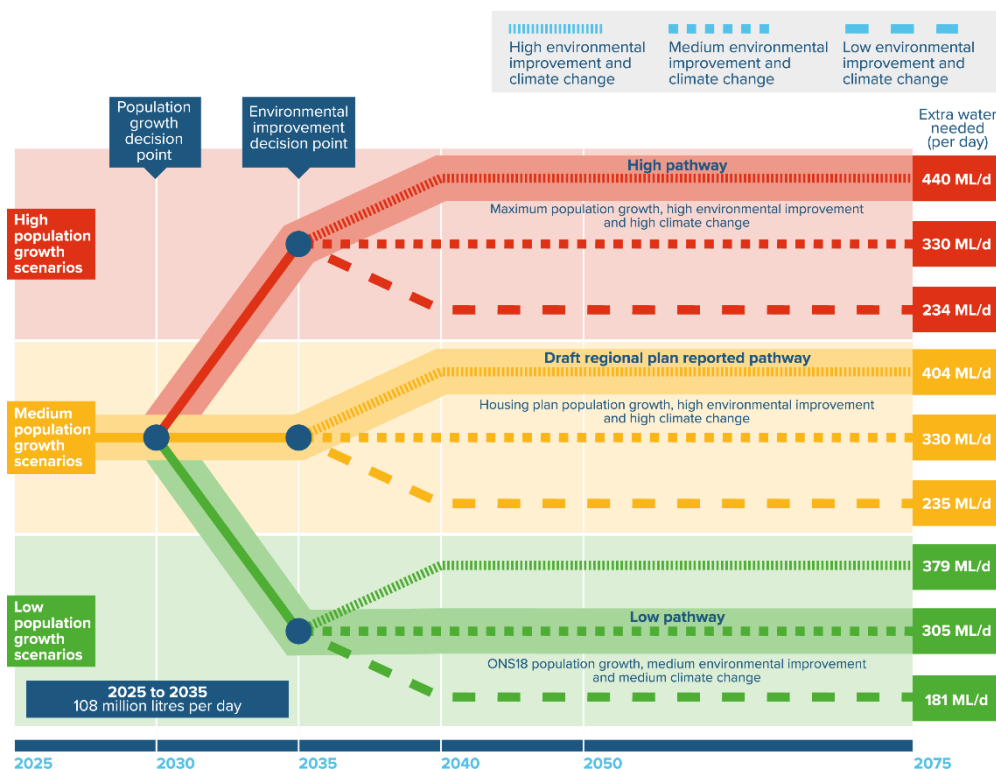
We already plan to this level of resilience. However, we rely on drought orders and drought permits that allow us to continue abstracting water during dry weather. Our aim is to **stop using them by 2041** at the latest. To do this, we need to find 120 million litres of extra water per day. This will help protect the environment and increase our resilience. After 2040, we would only use them if we experienced a drought more severe than a one in 500-year event.

The most significant challenge to our water supplies is how we **continue to provide water without damaging the environment** and contribute to its long-term improvement as set out in The Environment Act. This accounts for over half of the investment needed and is driving our Water for Life Hampshire programme.

We know the future is uncertain which is why we have developed an **adaptive plan** to secure our future water supplies. Our plan is based around **nine scenarios** incorporating different projections of climate change impact, population growth and environmental protection.

It starts with a “core pathway” to 2035 which then branches into three pathways depending on the levels of population growth. After that, each pathway splits into three different pathways depending on the impacts of climate change and how much water we need to leave in the environment.

The graph below shows how much water we might need under each of our nine adaptive pathways.



## What's in our plan?

Our draft WRMP is based around the “draft regional plan reported pathway” in the diagram above. For the first ten years (to 2035) it outlines the ‘no regrets’ **options needed in all future scenarios**. After that, our plan can adapt to meet any of the future scenarios so may change in the future.

This pathway is our best value way of complying with the Water Resources Planning Guideline, produced by the Environment Agency, and wider regulatory and policy guidance.

Our plan is based around the four priorities from the regional plan:

- Efficient use of water and minimal wastage across society
- New water sources that provide sustainable and resilient supplies
- A network that can move water around the region
- Catchment and nature-based solutions that improve the water environment we rely upon

## Efficient use of water and minimal wastage across society

Reducing demand and leakage contributes **over half of the water we need in the short-term**.

Reducing leakage is at the forefront of our activity to secure resilient and sustainable water resources. We're proposing to **reduce leakage by at least 50% by 2050** and **could increase this to 62%** depending on our progress.

We'll reduce leakage by improving how we monitor our network and using this data to prioritise finding and fixing leaks, replacing mains that are prone to frequent bursts and breaks and embracing innovation such as thermal and satellite imagery, drones and fibre optic sensors to detect leaks and improve our data collection.

Our draft WRMP includes the target to **reduce daily household use to 109 litres per person by 2040**. This aligns with the regional plan and is more ambitious than government's target of 110 litres by 2050.

We'll achieve this by introducing smart meters to improve the data we collect and use this to target support and advice to customers, run public awareness campaigns, explore innovative tariffs to encourage water efficiency and work with government and policy makers to promote water efficient policies.

This level of reduction relies on **government implementing policies** such as mandatory water labelling of household goods like as washing machines and dishwashers from 2024, minimum standards on water using products from 2040 and new building regulations and retrofits from 2060. If these policies are not introduced, we would need additional investment in infrastructure.

Through our **Target 100** programme, we've been supporting our customers become some of the most water efficient in the country on the path to **reducing average demand to 100 litres per person per day**. However, changes to working patterns and household demand have made this more challenging to deliver. We're asking stakeholders for their views on whether we should retain our more ambitious target.

## New water sources that provide sustainable and resilient supplies

Our plan contains a **mix of new sources** to secure the water we need in the future. The table below shows some of the options included in our plan.

Between 2025 and 2035 we need to:	Between 2035 and 2075 we need to:
<ul style="list-style-type: none"><li>• Complete one new reservoir in Hampshire and start work one more in West Sussex</li><li>• Develop water recycling schemes in Kent, Sussex, Hampshire and the Isle of Wight</li><li>• Build a desalination plant on the Sussex coast</li><li>• Improve how we store water underground to take more from rivers when flows are higher</li><li>• Improve some existing sources and supply works so we can treat more water</li></ul>	<ul style="list-style-type: none"><li>• Complete a reservoir in West Sussex and increase the size of an existing one on the Kent and East Sussex border</li><li>• Build a new pipeline to receive up to 120 million litres a day from Thames Water</li><li>• Invest in desalination plants on the Kent coast and Thames Estuary and possibly an additional plant in Sussex</li><li>• Introduce water recycling in more locations in Sussex and Hampshire</li></ul>

Enabling and investigative work for many of these schemes is already underway. All significant infrastructure investment will be subject to statutory planning processes and consultations where required.

## A network that can move water around the region

Sharing water between companies is a crucial part of our regional resilience. We're working with our neighbouring companies to further develop our network to move more water to where it's most needed.

Some transfers will be enabled by new supplies, such as Havant Thicket reservoir. When this is complete, we'll receive up to 21 million litres per day from Portsmouth Water. We could also develop a new transfer from the reservoir to supply parts of Sussex.

Longer term, we're investigating a transfer of up to 120 million litres per day into Hampshire from Thames Water – though this depends on new sources being developed by Thames Water.

## Catchment and nature-based solutions that improve the water environment we rely upon

Using catchment and nature-based schemes will protect and improve the environment we rely upon. These schemes don't generate much new water, but increase the resilience of our existing sources.

We'll work with farmers, other land users and local stakeholders to protect 42 of our groundwater sources from nitrate pollution and understand other impacts to the quality of our water sources – and act to mitigate these risks while delivering wider environmental benefits.

## What this means for customers

Our plan outlines a significant long-term investment programme, including in new infrastructure. The table below shows the total cost of our plan over our next three five-year investment periods, known as AMPs. It also shows how the average impact on bills at the end of each AMP, compared to bills in 2019/20.

	AMP 8 (2025 - 30)	AMP9 (2030 - 35)	AMP10 (2035 - 40)
Total cost*	£1,529m	£561m	£2,064m
Average increase from customers' bills in 19/20	£84.57	£110.91	£178.14

Later in 2023, we'll submit our business plan to Ofwat for approval. This plan will outline the business case for the investment we need. Our business plan will be finalised with Ofwat in 2024 before we start delivering on it in 2025.

## Key facts and figures

- We need to secure an additional 108 million litres per day by 2035
- The total cost of our draft plan between 2025 and 2030 is £1.5 billion
- We'll at least halve leakage, and could reduce it by up to 62%
- We'll reduce demand to at least 109 litres per person by 2040 – but want to go further through Target 100
- Environmental protection is the biggest driver of investment in our plan
- Temporary restrictions continue to be used in line with our drought plans – approved by government. These restrictions are shown to reduce consumption by up to 10%

## Our asks

- Views on / support for retaining Target 100
- Support for lobbying government on tighter water efficiency standards
- Support identifying opportunities to work with other water users
- Sharing information about the consultation with constituents / members: [Water Resources Management Plan \(southernwater.co.uk\)](https://www.southernwater.co.uk/water-resources-management-plan)