



Shape your water future

Our Water Resources Management Plan 2020 – 2100



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Keeping taps flowing for generations to come

Welcome to our Water Resources Management Plan 2020 – 2100.

This Plan sets out the actions we'll take to provide a secure and sustainable supply of water for our customers in London and the Thames Valley over the next 80 years. This is essential for everyday life, the wellbeing of the environment and economic growth.



Where our water comes from

Our world-class water comes from rivers like the River Thames and River Lee as well as underground sources in the Cotswolds and Chiltern Hills.

Did you know?

Every day, we supply our customers with more than 2,600 million litres of drinking water – enough to fill 1,000 Olympic sized swimming pools.

Our challenges

The UK is known for its rain, so it's easy to assume there's plenty of water to go around. But the South East of England is actually one of the country's driest regions, and our capital city gets less rain than Dallas, Rome and even Sydney.

Our water supplies are stretched by:



A growing population

We forecast over 2 million more people in our area by 2045, which is the equivalent of the whole of Birmingham and Leeds moving in. This will increase to approximately 4 million more people by 2100.



A changing climate

Changing weather patterns will affect the amount of water we have to use, reducing available supplies by around 180 million litres a day in London by 2085. They will also bring more extreme weather events such as storms, floods and drought.

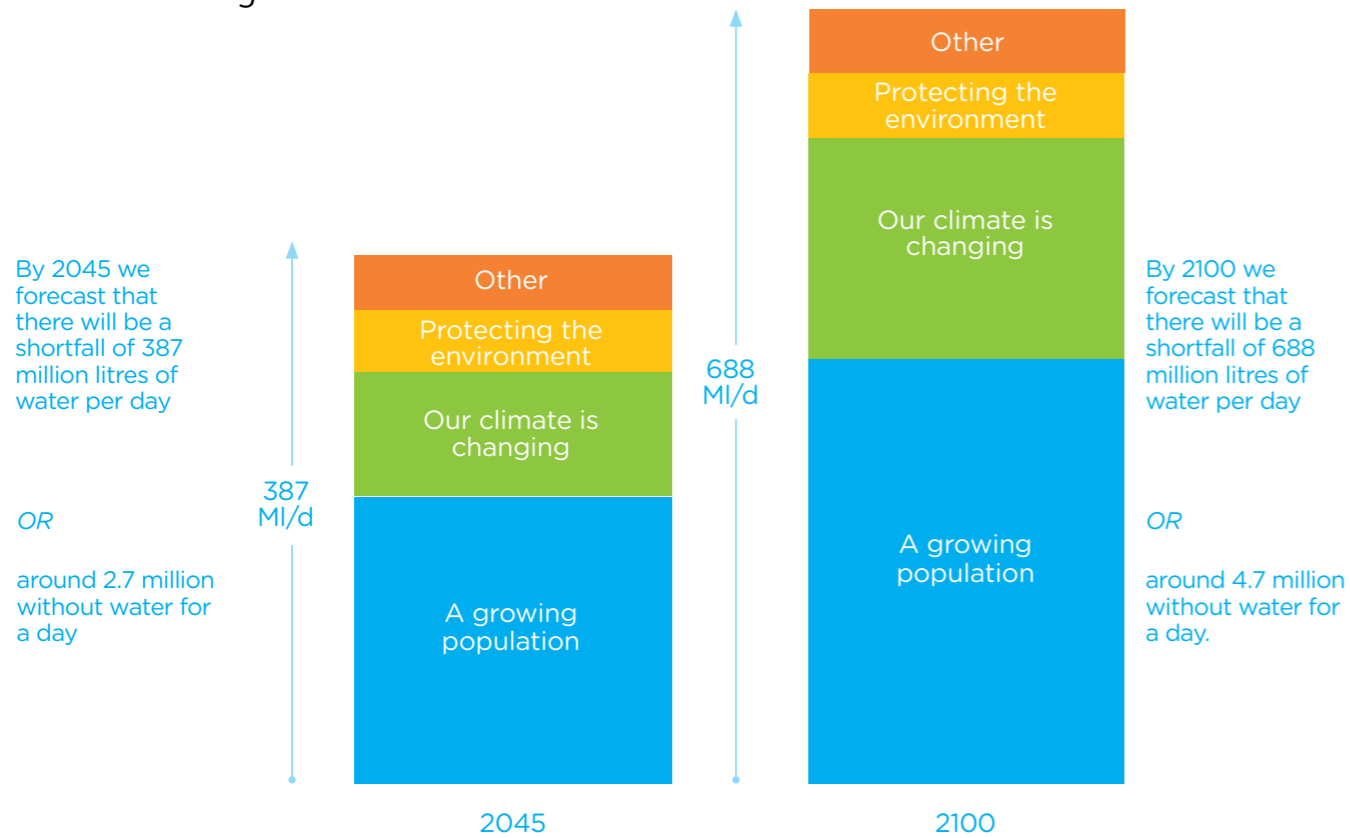


An environment in need

We currently take water from rivers and groundwater aquifers. We need to make sure we leave enough in the environment to protect the health of our rivers and wildlife.

Our predictions for the future

Unless we act now, we forecast a substantial shortfall between the amount of water available and the amount we need in the next 25 years and in the longer term.



Thinking ahead

The consequences of not planning properly are huge – for society, the economy and the environment. We need to take proactive steps to make sure there's enough water for future generations.

We've looked at a wide range of options to plug the shortfall, including:



Making the most of what we have

Reducing the amount of water lost through leaks in our pipes, promoting water efficiency and installing smart meters in customers' homes

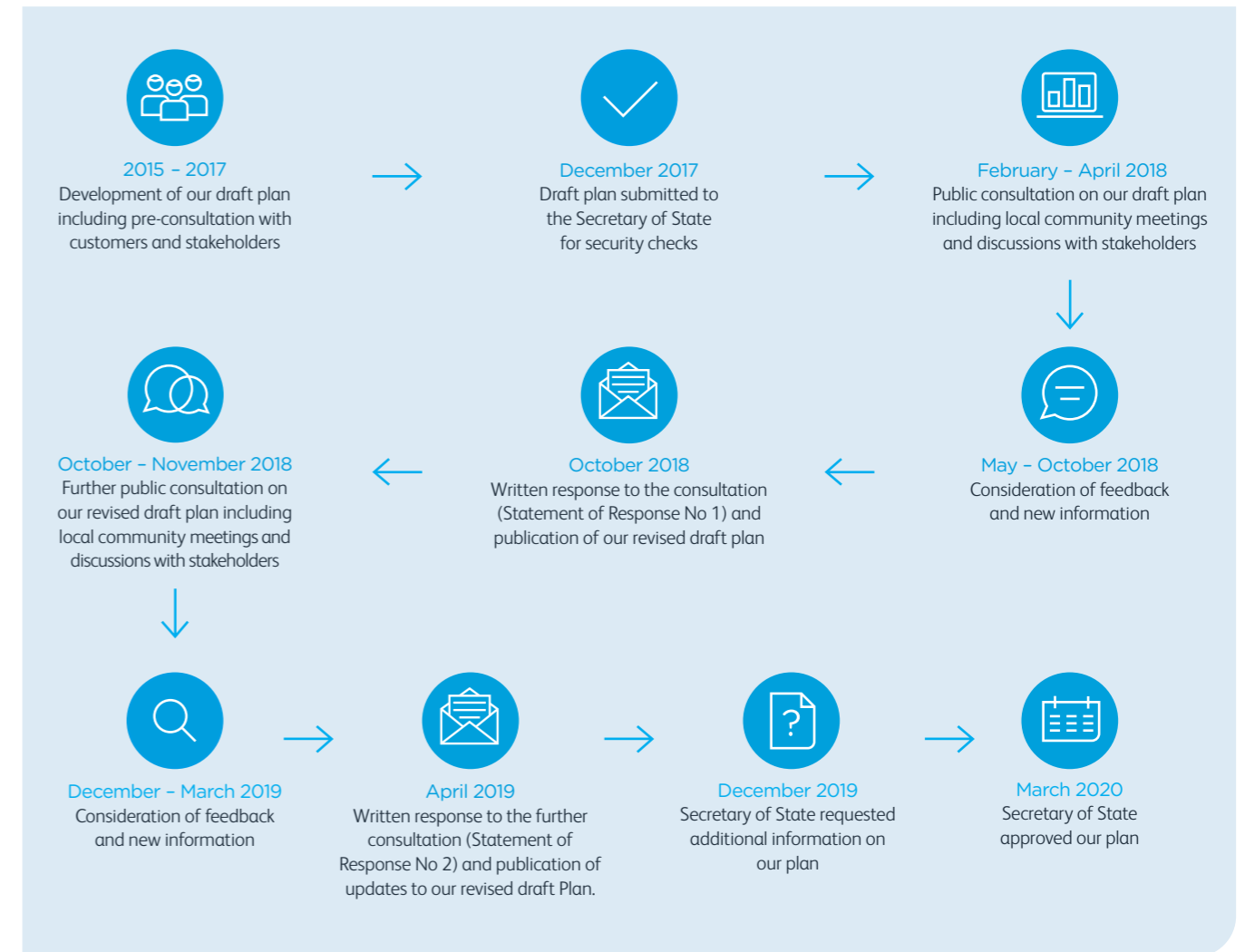


Finding new ways to boost our supplies

Sourcing new groundwater, storing more water, reusing treated wastewater from our treatment works and transferring water from other areas

Your views have shaped our Plan

Over the past five years, we've listened to the views of our customers and stakeholders to develop a robust Plan for our future water supply.



Through the Water Resources in the South East (WRSE) group, we've worked with water companies across the South East of England to look for opportunities to share water and plan secure water supplies for the whole region.

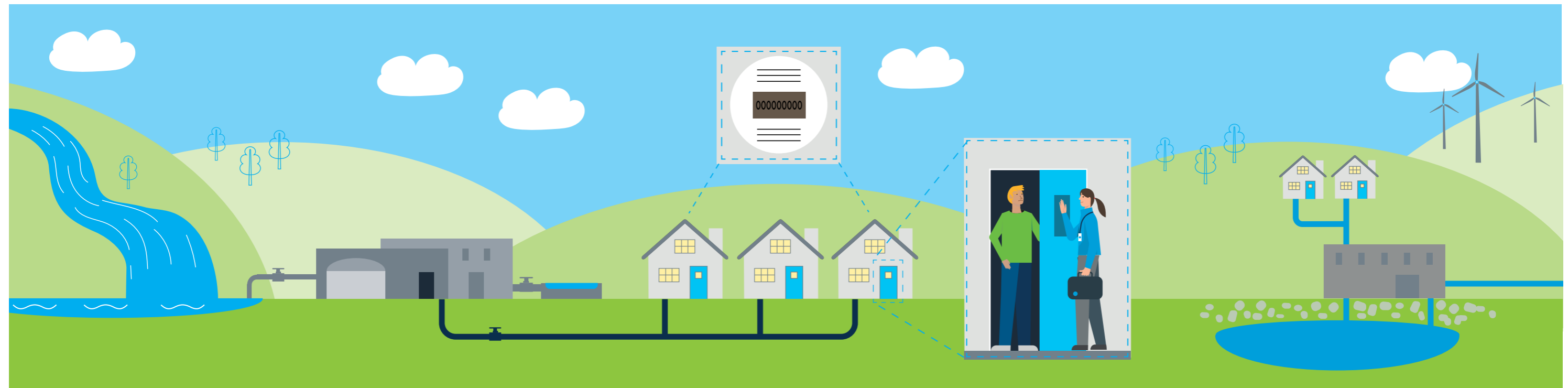
Our adaptive planning approach

We know that things will change over the next 80 years, so we've considered a range of possible futures, some more challenging than others – like more people living in our area than we predicted. This approach, called adaptive planning, means we're ready and flexible whatever the future holds. By looking ahead to 2100, we can lay the best foundation for future generations.

Turn over to see a snapshot of our Plan

A snapshot of our Plan

Our Plan addresses the challenges we face and provides the best value for our customers and the environment.



We'll reduce the amount of water we take from rivers and underground sources to protect the environment.

We'll invest in our network of over 31,000 km of pipes, some of which are over 100 years old. We currently lose around 25% of water through leaks.

We'll install more smart meters, which give us essential information about where water goes, helping us to tackle leakage and helping our customers reduce how much water they use.

We'll help our customers to reduce their water use by providing free water efficient devices and tailored advice.

We'll boost our water supply with innovative new schemes.

- By 2025, we'll reduce our licensed abstraction by 9 million litres per day from the River Cray and River Chess (18 Ml/d in total)
- We'll undertake improvements at 13 locations on vulnerable rivers and carry out a further 23 studies to understand if our current abstractions are damaging the environment, helping to protect sensitive rivers like the Lambourne and Kennet
- By 2050, we'll stop abstracting from sensitive chalk streams and vulnerable watercourses

- By 2025, we'll reduce leakage by 15% by replacing over 700 km of water mains – enough to go around the M25 almost four times – using new technology and smart data to help pinpoint and fix leaks
- By 2050, we'll aim to reduce leakage by 50%

- By 2025, we'll install a further 700,000 smart water meters
- By 2035, we'll have installed smart meters in all our customers' homes where this is possible

- By 2025, we'll complete a further 400,000 Smarter Home and Smarter Business Visits, providing advice and practical support to encourage the efficient use of water
- We'll continue to work with schools, local communities, business and government to achieve long-term sustainable reductions in water use

- By 2030, we'll introduce several new schemes including a new aquifer storage and recovery scheme and a water transfer scheme
- After 2030, we'll develop further new sources of water. We're currently looking at a range of options including a new reservoir and a water transfer from the Midlands and the North West

Turn over to find out more...



Boosting our water supply

Here's a closer look at the schemes that are included in our Plan to boost water supplies in the future.

Before 2030



After 2030



Information in brackets is the amount of water that each scheme provides in million litres per day (MI/d).

What happens next

We've included our actions over the next five years, to make the best use of water and boost our supplies, in our five-year investment plan and we're getting started on these. We'll also continue to examine the options for new sources of water that we'll need in the future.

Working on strategic supply options

We've agreed funding to undertake further studies on five new strategic water supply options, working closely with other water companies to benefit our customers and the wider South East. These studies will be overseen by an organisation called RAPID – a consortium of water industry regulators – and the work will be managed through a new “gated” regulatory process. The process is designed to make sure all new strategic water supply options are considered in a fair and consistent way, with transparency, and that our customers' money is spent wisely.

The five options we're involved with are:

- A transfer of water from Wales, the Midlands and North West, via the River Severn to the River Thames
- A new reservoir in Oxfordshire developed in partnership with Affinity Water
- Water reuse schemes in London
- A transfer from Thames Water to Affinity Water
- A transfer from Thames Water to Southern Water

By 2022 – 2023, we'll know how much water these schemes could supply, how much they'll cost to build and operate, their carbon footprint, and the wider benefits they could bring to the environment and society. We'll then decide which option, or options, to take forwards.

Working with stakeholders

We'll continue to engage with stakeholders as we undertake this work. We've published information on further studies in Section 11 of our Plan and will provide a progress update as part of the annual review of our Plan.

Changing the way we plan for water

In March 2020, the government published a 'National Framework' that looks at the country's need for water as whole – not just the water needed to supply our homes and businesses, but also the water needed by farmers, industries and the environment. It considers the long-term challenges facing all water-using sectors, forecasts the need for water both nationally and regionally, and also sets the focus for planning future water supplies at a regional level, looking beyond individual water company boundaries.

Through WRSE, we're now working more closely with the five other water companies located in the south east of England to develop a multi-sector, regional resilience plan. This plan will be the foundation of our next Water Resources Management Plan, which we'll publish for consultation in 2022. We'll continue to work with stakeholders and customers as we shape our water future. To find out more about regional water planning, visit www.wrse.org.uk.

Our Water Resources Management Plan 2020 – 2100

The documents

Our Plan is made up of an executive summary, technical report and technical appendices. Here's a list of the sections of the technical report, which you can download at thameswater.co.uk/wrmp

Section 1 - Introduction and background

Section 2 - Water resources programme 2015-2020

Section 3 - Current and future water demand

Section 4 - Current and future water supply

Section 5 - Allowing for risk and uncertainty

Section 6 - Baseline supply demand position

Section 7 - Appraisal of resource options

Section 8 - Appraisal of demand options

Section 9 - Assessment of environmental and social effects

Section 10 - Programme appraisal and scenario testing

Section 11 - Preferred programme

Our additional 29 technical appendices provide detailed information on specific topics such as forecasting population growth, leakage reduction and climate change. These are also available on our website.

This document reflects the WRMP19 as prepared in April 2019, with additional information included to respond to comments raised by Defra in October 2019, it may therefore not reflect fully other Thames Water documents that have been published since that time.



If you have any questions or comments please email consultations@thameswater.co.uk

