



Shape your water future.

Feedback from the public consultation on our draft Water Resources Management Plan 2019 and a summary of our revised draft plan.

October 2018



Introduction

Every five years we produce a Water Resources Management Plan which sets out how we plan to provide a secure supply of water to our customers in the future.

In February 2018 we started a public consultation on our draft Water Resources Management Plan 2019 (draft plan) and asked for your feedback. We received over 540 responses. Thank you to everyone who took part.

This document is a summary of what you told us and the changes we have made to our draft plan in response to your feedback and new information that has become available. It also includes an overview of our revised draft plan.

We would like to hear any new comments that you have on the changes and revisions we have made to our draft plan. The period for further consultation starts on 3 October 2018 and closes on 28 November 2018. Your feedback will help us decide how to meet our customers' needs in the future. For further details of how to provide feedback please go to the back cover of this report.

We have published a report responding in detail to the responses we received to the consultation, called the statement of response. In the report we set out the comments we received and how we have taken these into account in revising our draft plan. We have also published our revised draft plan. If you would like to read these reports please go to our web site: thameswater.co.uk/wrmp.



This symbol signposts the relevant sections of the revised draft plan if you want to read more.

What is a Water Resources Management Plan?

Water resources management is about making sure there is enough water for our customers now and in the future. In developing our Water Resources Management Plan we look ahead to see how much water we will need and how we can provide it. We take account of a range of information including your views and priorities, environmental impacts and cost. In our plan we outline how we propose to provide a sustainable and secure water supply over the next 80 years, from 2020 to 2100. We review and update our plan every five years.



Section 1: Introduction and background

About us

We supply safe drinking water to more than 10 million people and 215,000 businesses in London and across the Thames Valley.

Water is essential for everything we do - from having a drink, to washing our clothes and flushing the loo. It's also essential for a healthy environment and a prosperous economy.

In the Thames Valley, around 70% of our water is taken from underground sources in the Cotswolds and the Chiltern Hills.

In London, about 80% of our water is taken from the River Thames and the River Lee.

Water is stored in reservoirs to use when the flow in rivers is low, or of poor quality. Our reservoirs hold about 100 days supply of water.



The Thames river catchment is the most intensively used water resource system in England. It is classified as seriously water stressed.

We manage more than 31,000 km of water pipes. Our pipes in many areas of London and some parts of the Thames Valley are amongst the oldest in the UK.

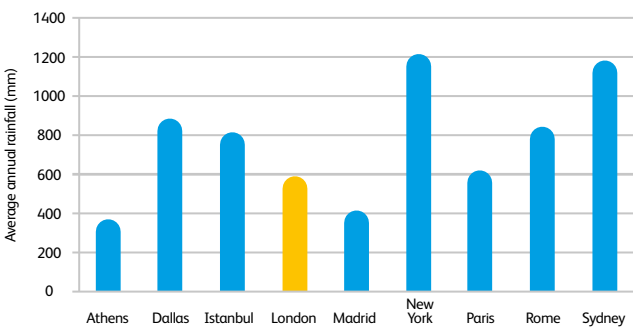
We built a desalination plant in East London in 2010. It is an important reserve but is used as a last resort as it is expensive and uses lots of energy.



Growing pressure on water resources

1 million litres of water (MI) is the amount used by around **7,000** people each day.

Many people think there is plenty of water in the UK, but the South East is a very dry region and London gets less rain than Rome, Dallas and even Sydney.



Our water resources are already under pressure, and this will increase due to a growing population combined with less rainfall due to changing weather patterns and more focus on protecting the environment.



A growing population

London and the Thames Valley is already one of the most populated parts of the country, with a current population of 10 million. It is forecast that by 2045 there will be nearly 12 million people living in our area growing to nearly 14 million by 2100. They will all need water.



A changing climate

There will be less water available. Climate change is expected to lead to hotter, drier summers which mean increased demand for water, and droughts are likely to be more common and could last for longer.



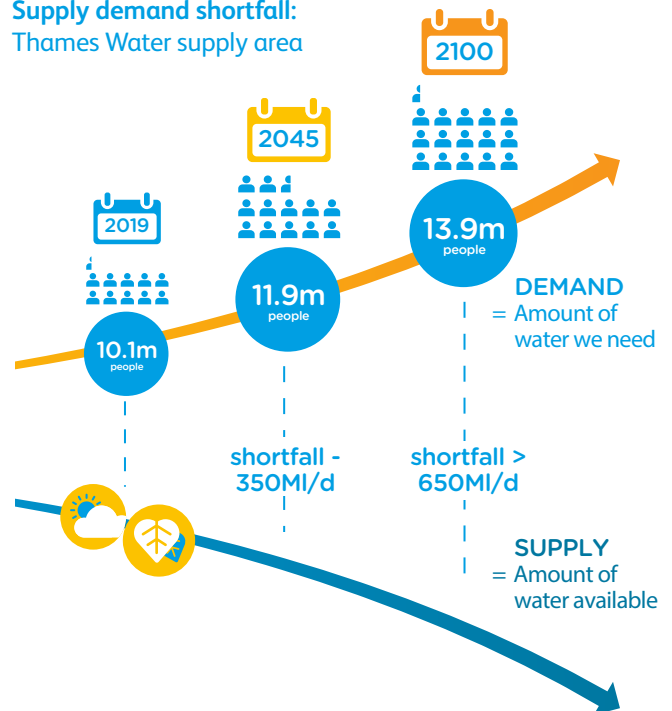
Protecting the environment

A number of our abstraction licences, which set out how much water we can take from rivers and groundwater, are reducing to improve the natural environment.

Taking all these factors into account, we predict there will be a shortfall between the amount of water available and the amount we need. By 2045 we will need to find an additional 350 million litres of water a day. This will increase to over 650 million litres by 2100. That's nearly a quarter of the water that we currently supply.

The challenge is most severe in London, but we also forecast a significant shortfall in the Swindon and Oxfordshire region, and other parts of the Thames Valley.

Supply demand shortfall: Thames Water supply area



Section 6: Baseline supply demand position

We're planning ahead to make sure we can provide a secure and sustainable water supply to our customers over the next 80 years, from 2020 to 2100.



Section 3: Current and future demand for water
Section 4: Current and future water supply

Developing our plan

Over the past four years we've been developing our draft Water Resources Management Plan 2019. We talked to our customers to understand what is important for them, and to organisations, businesses and government bodies to understand their issues and concerns. We have reflected their priorities in our draft plan.

We've also worked with water companies across the South East, to find the best ways to provide new water resources and to share water both across the region and nationally.

We looked at more than 200 options to help to fill the shortfall between the amount of water available and the amount we need. Our priority is to make the most effective use of water resources and we have set ambitious targets to reduce the amount of water lost through leakage, and the promotion of the efficient

use of water by our customers. We hope that this will help to achieve lower water consumption per person. However options to manage demand will not be enough to meet future water resource challenges, and we are also proposing to develop new water resources.



Section 7: Appraisal of resource options
Section 8: Appraisal of demand management options

We recognise that there will be uncertainties in planning over 80 years, so we have studied how things could change and have planned for a wide range of scenarios – from extreme climate change to a future where we are all much more efficient with water. By doing this we are sure we can adapt to the future, whatever it brings.

In February 2018 we published our draft Water Resources Management Plan 2019 and asked for feedback. The public consultation closed on 29 April 2018 and we received over 540 representations from customers, employees, community and stakeholder organisations, businesses and government bodies.



Customers are at the heart of our decision making, we have used the insights of nearly **1 million** people to build our future plans.

Your feedback

We received over 540 representations in response to the public consultation on our draft plan, as well as other feedback from our customers. The comments covered a wide range of topics, from our approach to planning future water supply, through to the solutions. Here's a summary of what you told us, and our response.



What you told us	Our response
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Make sure there's enough water in the future

We have looked ahead 80 years to 2100. We have considered lots of different futures, such as what would happen if there was extreme climate change, to make sure we are ready whatever the future holds.



Population forecast - some stakeholders questioned whether they were too low, while others thought they were too high.

We have reviewed the forecasts. The forecasts to 2045 are robust. The forecasts from 2045 to 2100 have been revised in line with new government data.



Ensure supplies are resilient to severe droughts as well as other hazards.

We have planned new resources to allow us to provide enhanced resilience to severe droughts from 2030.



Take a regional approach, given the challenges faced in the South East.

We continue to work closely with the other water companies to understand their future water needs and to ensure that our plans are coordinated. We are proposing to jointly develop a new reservoir with Affinity Water.



Too much water is lost through leaks in pipes, there was strong support for more ambitious targets to reduce leaks now and in the longer term. Contingency plans are needed if the programme does not save as much water as planned.

We have confirmed our commitment to reduce leakage by 15 per cent by 2025. We have also set a target to halve leakage by 2050; this is equivalent to 16 per cent of the amount of water we put into supply. These are ambitious targets. We have developed contingency plans in case these are needed, such as a commercial water trade agreed with RWE NPower.



Support the need to make the most of the water supplies we have already, including more water meters and help to customers to use water efficiently.

Making the most effective use of the resources is the foundation of our revised draft plan. It aims to achieve a reduction in the amount of water used per person from 144 litres a day in 2018 to 121 litres a day in 2045.



Teddington Direct River Abstraction scheme - While the scheme was considered to be cost effective, there were significant concerns about the impact on the river ecology and navigation on the River Thames.

We have removed the Teddington Direct River Abstraction scheme from our revised draft plan in response to the concerns raised. We have committed to undertake further work to address environmental and navigational issues in the next five years. In its place, we have brought forward a water transfer scheme and proposed a water reuse scheme.



A new reservoir in Oxfordshire – There was support for a new reservoir to ensure a secure water supply and to protect the environment, particularly chalk streams, with calls for it to be developed sooner. There was also local opposition.

We have confirmed that the reservoir is the most cost effective strategic resource, as well as providing resilience to drought and opportunities for wider benefits. We have brought it forward in our revised draft plan from 2043 to 2037. It will be jointly developed with Affinity Water and will provide a potential resource to the wider South East region.



There was strong support to protect the environment, specifically vulnerable chalk streams and watercourses.

We have made a commitment to stop further abstractions from adversely affected vulnerable chalk streams. The new reservoir, with additional infrastructure, could provide the water needed to reduce abstractions.



Transfers of water – There were both positive and negative views. The majority of supporters called for the restoration and use of the Cotswold canals as part of a transfer scheme. Concerns focused on the security of the supply and environmental impacts.

We have included water transfers via the River Severn in our revised draft plan from the 2080s and committed to continue to work with other water companies and regulators to fully understand the viability of a large water transfer. We have confirmed that a pipeline remains our preferred way of moving the water rather than the use of the restored canal network. Detailed information is provided in the Statement of Response, Appendix H.



Develop a best value plan which takes account of a range of factors and clearly explain how you have made the decisions.

We have enhanced our approach to prepare a best value plan, with the use of additional modelling tools, more testing under different future conditions and scrutiny through an independent panel of experts.



Statement of Response Main Report

In summary the main changes to our draft plan are:

- A revised forecast of population growth from 2045. The forecast population has been lowered from 15.4 million to 13.9 million people in 2100.
- The introduction of targets to reduce leakage by 15 per cent by 2025 and to halve leakage by 2050.
- The removal of the Teddington Direct River Abstraction scheme. To compensate for this we have proposed additional activity to manage demand and to develop new water resources including innovative groundwater development in London, a new reuse plant in north London and earlier delivery of the water transfer from the Canal and River Trust via Oxford Canal.
- The reservoir in Oxfordshire has been brought forward from 2043 to 2037 to address, amongst other things, an earlier requirement for water from Affinity Water. The scheme will be jointly promoted by both companies and will improve resilience of the water supply system in the South East.
- Including allowances for reductions in existing water abstractions which are perceived to have a negative environmental impact on vulnerable chalk streams and watercourses.
- The development of a Severn Thames Transfer in the 2080s, with further studies over the next five years to examine regulatory, operational and environmental issues.

Our revised draft plan

We have considered your feedback, as well as new information, and have revised our draft plan.

Our revised draft plan combines a more ambitious programme to reduce leakage and manage demand, and to develop new water resources. It will strengthen our resilience to drought to withstand a 1 in 200 year event by 2030, and will help to create a sustainable water supply for the South East as a whole.

Reducing the amount of water lost from leaks



Currently around 25 per cent of the water that we put into our network is lost through leaks in our water supply pipes and our customers' pipes. We have set targets to reduce leakage. We will do this through using smart data to make better decisions on how to tackle leakage in a particular area and new technology to help us pinpoint leaks.

By 2025, we will reduce leakage by 15 per cent, and by 2050 we will halve the amount of water lost through leaks.

Saving water



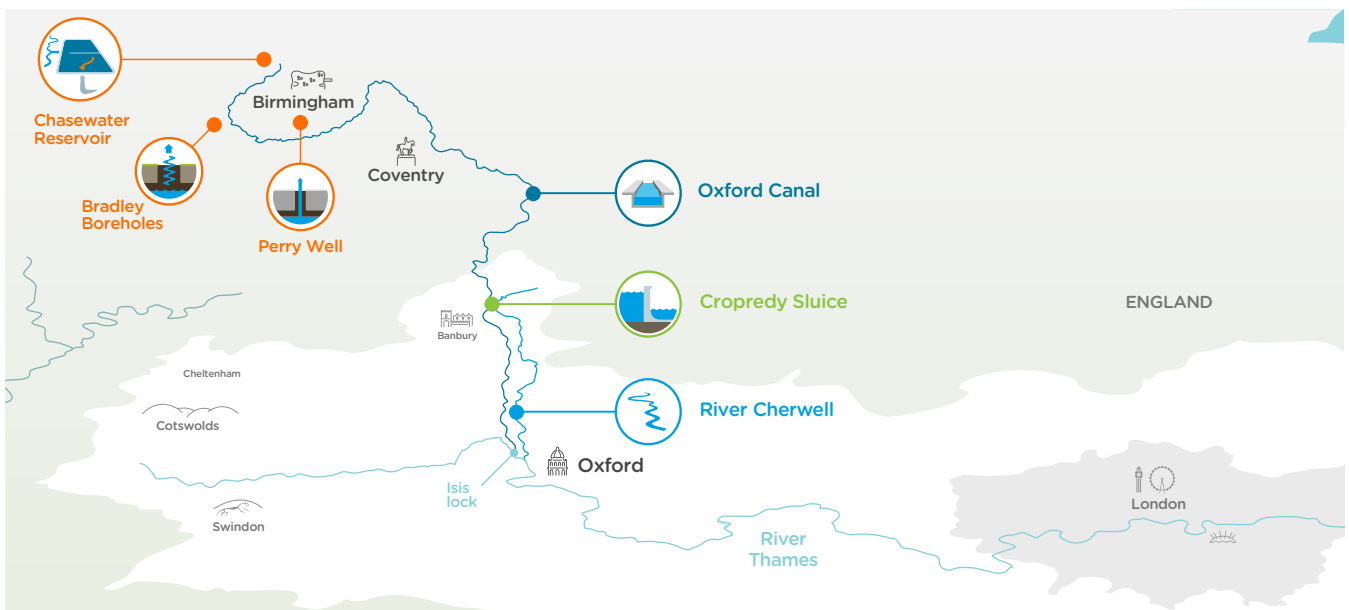
On average, our customers use about 144 litres of water each day. We will provide smart meters to help our customers to save water and help us to manage the water network, including finding leaks. We will also provide information, advice and help to our customers to encourage them to save water at home, as well as working with schools and businesses to do the same. We'll also explore more innovative approaches such as greywater reuse and the use of innovative tariffs. We're aiming to reduce average daily water use per person to 121 litres per person per day by 2045.

By 2025 we will install a further 700,000 smart meters, and by 2030 over 77 per cent of customers' homes will have a meter.

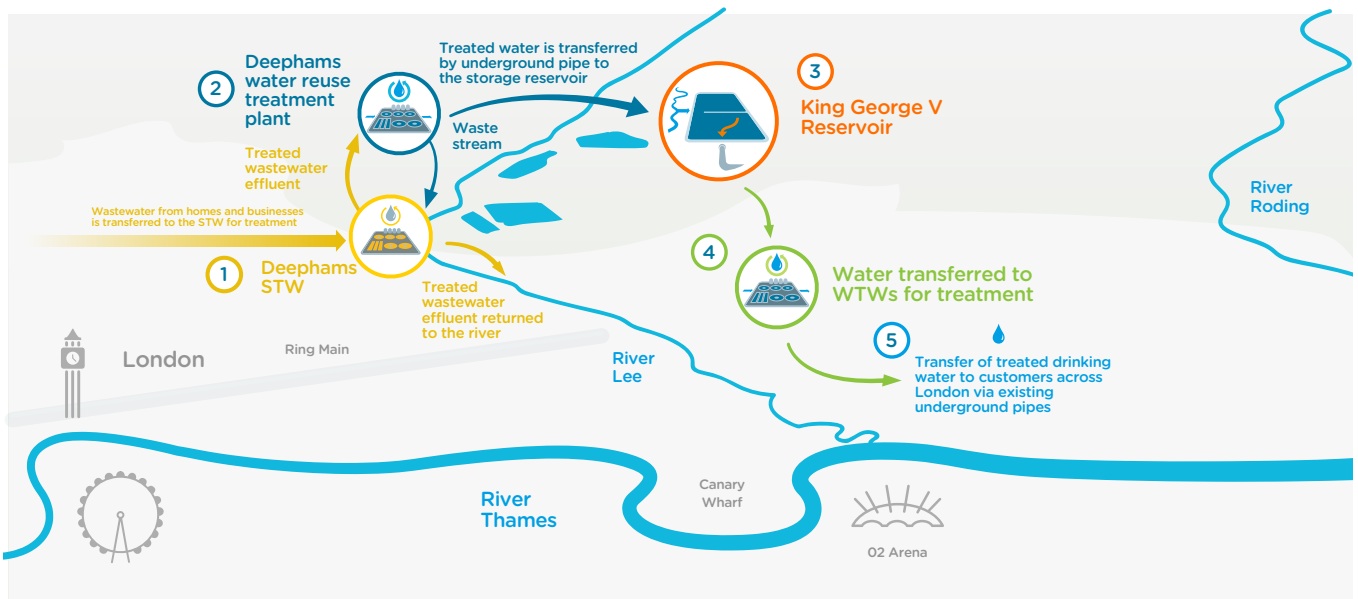
Developing new water resources

To meet future water challenges we will also have to develop new sources of water, including:

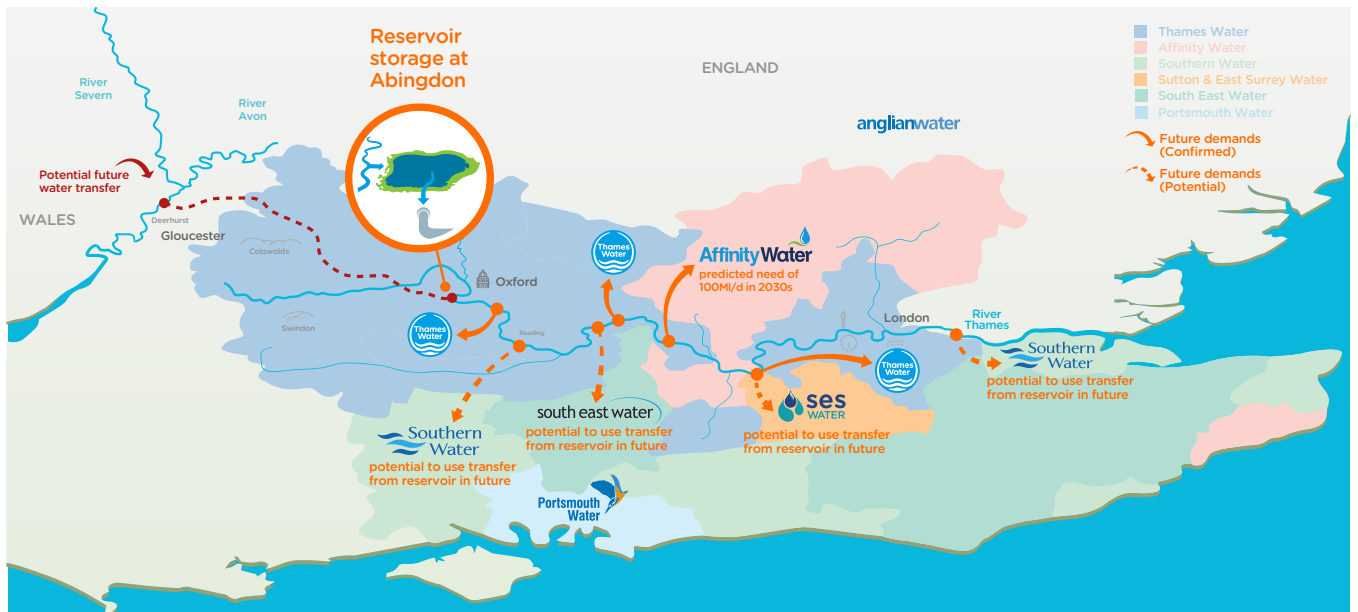
- New, sustainable sources of groundwater in Kidbrooke, Addington and Merton in south London and Horton Kirby, Greenhithe and Southfleet, east of London.
- A commercial water trade with the Canal and River Trust that will transfer additional water using the existing Oxford canal, as illustrated below.



- An innovative water reuse plant in north London in 2030, as illustrated below.



- A new reservoir close to the River Thames in Oxfordshire in partnership with Affinity Water. We will start work on the planning, engagement and design, with the reservoir in use by 2037. This will provide water to nearly 2.5 million customers in the South East region and will mean that we can abstract less water from chalk streams and vulnerable watercourses, as illustrated below.



- A raw water transfer from the River Severn from the 2080s. We will undertake further studies to explore key issues including the security of the supply, environmental impacts and regulatory requirements.

Further studies

We will continue to explore other options to provide more water. These include transferring water from other areas of the country, examining options to take more water from the River Thames without damaging the environment, and innovative approaches to make sure we use the water resources that we have efficiently and effectively, such as recycling grey water and new tariffs.

We believe that our plan provides the best value solution to secure resilient water supplies for you, your family, the environment and the economy to the end of the century.

Shape your water future

The next steps.

Thank you to everyone who provided feedback to the public consultation on our draft plan.

We have considered your feedback and made changes to our draft plan, taking account of your views and new information. In October 2018 we published our statement of response and revised draft plan. These are available on our website thameswater.co.uk/wrmp

We want to know what you think about the changes we have made to our draft plan. Your feedback will help us decide how to meet our customers' needs in the future.

From 3 October 2018 you can feedback any new comments that you have on the changes we have made to our draft plan. We request that you do not provide any comments on the plan where no changes have been made as this has already been addressed under the earlier consultation and our Statement of Response. This opportunity for further comment ends on 28 November 2018.

There are lots of ways you can have your say:



Complete our online feedback form at thameswater.co.uk/wrmp.



Send your feedback by email to Defra at water.resources@defra.gsi.gov.uk, with 'Thames Water's draft water resources management plan' in the subject line. Please also copy in Thames Water at consultations@thameswater.co.uk, the Environment Agency at water-company-plan@environment-agency.gov.uk and Ofwat at wrmp@ofwat.gsi.gov.uk.



Write to Defra at:
Thames Water's draft water resources management plan consultation,
Secretary of State, Department for Environment Food and Rural Affairs (Defra),
c/o Water Resources Policy
Department for Environment Food and Rural Affairs,
Seacole 3rd Floor,
2 Marsham Street,
London SW1P 4DF

A paper copy of the revised draft plan will be available to view in our main office in Reading. To book an appointment please email: consultations@thameswater.co.uk

What happens next?

We'll carefully consider all the new comments we receive. In 2019 we'll publish a report summarising the comments we received and explaining how we have taken these into account in making further revisions to our plan.

The report will be sent to everyone who has participated in the consultation and will also be published on our website.

Thank you for helping us to shape your water future.

