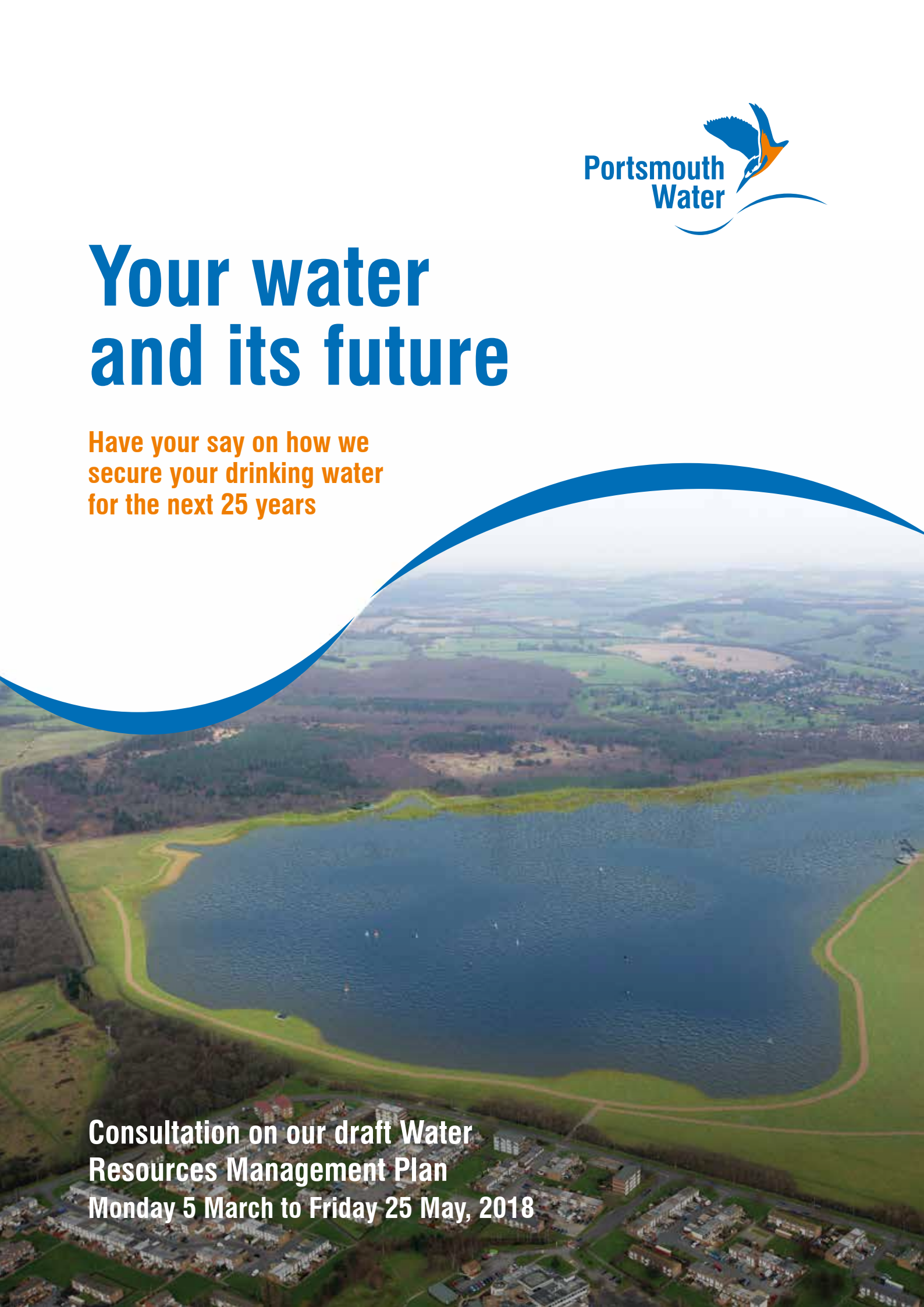


Your water and its future

Have your say on how we
secure your drinking water
for the next 25 years



Consultation on our draft Water
Resources Management Plan
Monday 5 March to Friday 25 May, 2018

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**Find out more and have your say at
portsmouthwater.co.uk**

Welcome to our long-term plan to supply your water



Welcome to this summary of our plan to secure fresh, reliable drinking water supplies for you for the next 25 years.

Water is essential for every part of our daily lives – our health, our environment, our jobs – so it's vital we plan ahead to make sure we can continue to supply you under changing weather and at a price everyone can afford.

Because water is such a precious resource, we are particularly focusing on ways to make the most of what we already have – by reducing leaks, helping you to save water and installing more water meters.

We're also planning a major new water resource for the South East – a reservoir at Havant Thicket – so we can share resources with other water companies and increase the reliability of your supplies. This reservoir also has great potential to create new community leisure facilities and wildlife habitats.

By planning 25 years ahead in this way, we are confident that we are ready for the challenges of an increase in housing, population growth and climate change, at the same time as improving our environment and supporting communities, businesses and industry to flourish.

We've been reliably supplying your water for 160 years and this plan ensures we can continue to do so for many more years to come.

We've already talked to many of you about our plans for the future, and now we'd really like to hear your feedback on this plan during a public consultation between 5 March and 25 May. If you'd like to read our full technical plan, it is available on our website at portsmouthwater.co.uk. We know you all have busy lives, so thank you for your time, and we look forward to hearing from you.



Neville Smith,
Managing Director
Portsmouth Water

Here's a quick summary of this plan:

- This plan caters for growth and is part of a solution to supply other areas of the South East where there's less water
- We can do this by building a new reservoir at Havant Thicket – to store water, create a nature reserve and provide community facilities
- We're planning for more extreme droughts than we've known before – so we're ready for climate change
- We want to save water by reducing leaks by 15%
- We want to involve you in saving water with water meters, water-saving products and community campaigns
- This is your water supply and it's your chance to have your say

What is a water resources plan?

All water companies prepare Water Resources Management Plans (WRMPs) which show how they will secure resilient water supplies for their customers for the next 25 years. We consider how much water we have available today, how

much we need to supply in the future and then develop options to make up any difference. These plans are updated every five years to make sure they always reflect the latest information, innovation and customer views.



TIMELINE FOR THIS PLAN

HOW DOES THIS FIT WITH OUR OTHER PLANS?

As water is such a vital resource in our daily lives, we develop a number of plans to make sure we're ready to provide resilient water at a price everyone can afford. Our other plans include:

Drought Plan

Our five-year Drought Plan sets out the actions we would take in a drought to make sure we can still supply water for your essential daily needs. We published our draft Drought Plan for 2018-23 for consultation on 8 January this year.

Business Plan

Every five years we also publish a Business Plan, which shows how the price of your water will change and how we'll invest to make sure you receive a great value, high-quality, reliable service all year round. The business plan will include the first five years of the options from this WRMP. We're currently developing our business plan for 2020-25 and we'll ask for your views on it later this year.

Water Resources in the South East (WRSE)

We are part of the WRSE Group, along with five other water companies, including Southern Water, and also the Environment Agency, Ofwat, Defra, the Consumer Council for Water and Natural England. Together we develop a joined-up water strategy for the whole of the South East.

What you've told us so far

We've already held conversations with you about your water supplies and what's important to you and these have been taken into account in this draft plan.

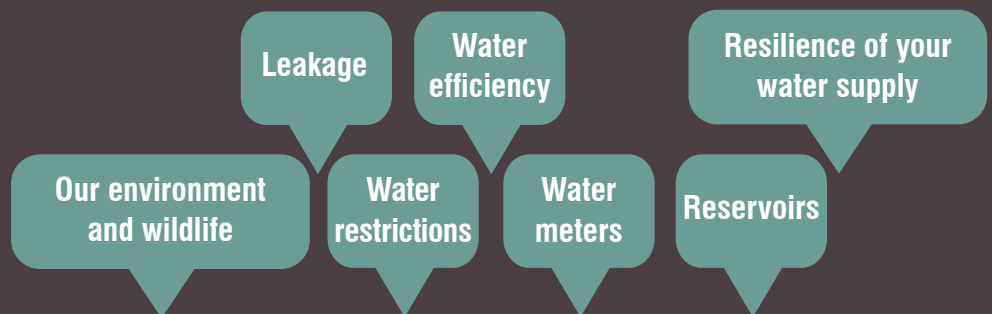
To hear your views, we've:

- ✓ Held discussion groups with a range of customers
- ✓ Discovered more about what's important to you in online surveys

- ✓ Created a panel of 20 customers who met regularly to talk about water topics
- ✓ Written to the water industry regulators and neighbouring water companies to understand their views
- ✓ Engaged with interested groups to hear their thoughts, including local authorities, consumer organisations, environmental groups and local businesses.

We also have a Customer Challenge Group which is reviewing our work to engage with you and making sure your views are incorporated into all our future plans.

We talked to you about:



So far, you've told us the following is important:

You'd like us to reduce leaks even more

You'd like us to carry on our work to help you save water

Protecting and improving wildlife habitats is important to you

You think it's acceptable to introduce water restrictions in a drought

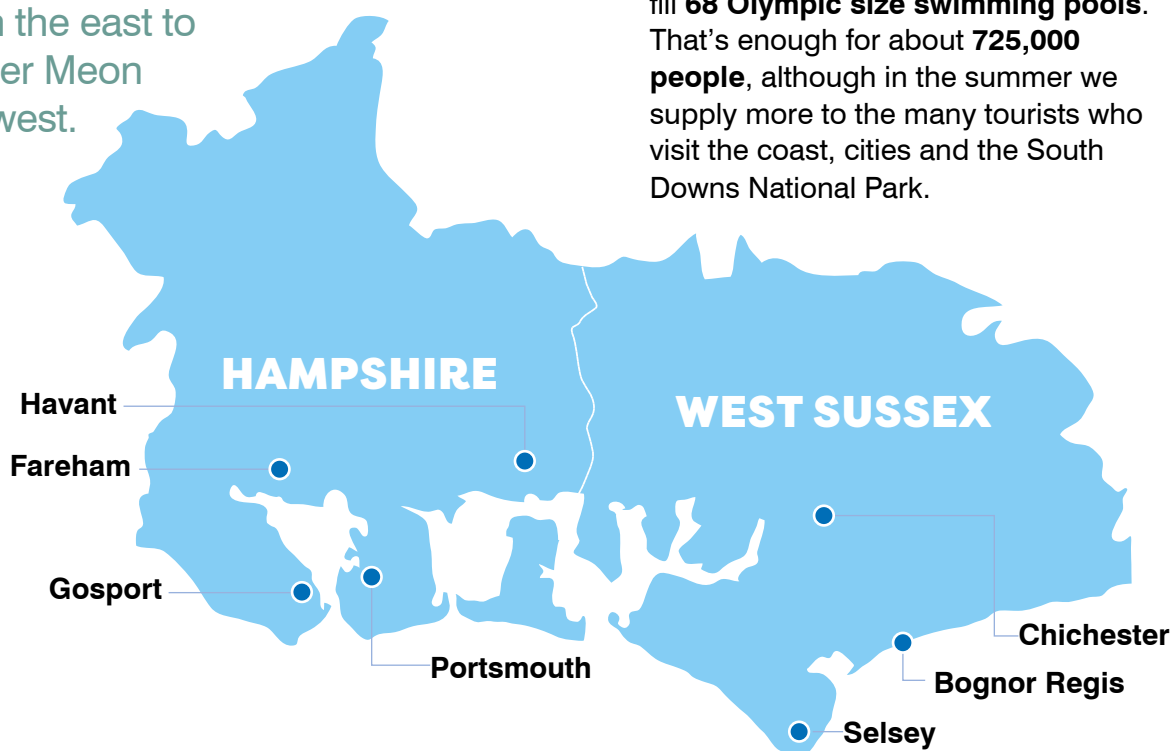
This plan includes a proposal for a new reservoir at Havant Thicket. When we first explored this option back in 2008, we held several public exhibitions attended by more than 850 people and 250 people gave feedback to help develop the scheme. At that time, you supported the reservoir and now we're keen to hear if you still feel the same.

Your water supplies today, and in 25 years' time

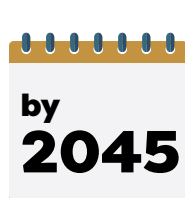
We currently supply fresh, safe drinking water to 311,000 homes and business in West Sussex and Hampshire, in an area which stretches from the River Arun in the east to the River Meon in the west.



On an average day, we supply about **170 million litres of water** – enough to fill **68 Olympic size swimming pools**. That's enough for about **725,000 people**, although in the summer we supply more to the many tourists who visit the coast, cities and the South Downs National Park.



By **2045** we expect to supply a similar amount of water but to more people – **833,000 people** in **374,000 homes** and businesses. We'll be able to do this because we'll have reduced the amount of water lost to leaks and you'll be more efficient with water in your homes and businesses.



374,000 **833,000**

WHAT IS RESILIENCE?

Resilience is the ability to cope with and recover from extreme weather, such as droughts and floods, with as little impact as possible on our customers, the environment and wildlife.

The water we supply currently comes from three main sources:

60% Groundwater

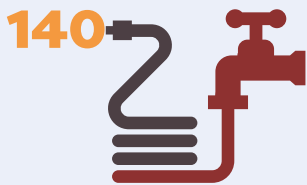
Most of the water we supply comes from underground aquifers, where water is stored in the gaps between rocks in the South Downs National Park. We pump this to the surface from boreholes and wells – it's a very clean supply of water.

31% Springs

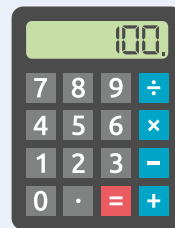
Nearly a third of your water comes from the springs at Havant, which have been supplying the area since 1857. We capture this water where it 'springs' to the surface, just before it flows out to sea.

9% River

The rest of the water we supply is taken from the River Itchen, in Hampshire, which is fed by groundwater sources. This water needs more treatment to meet our high standards.



The average amount of water you use each day is 140 litres – by 2045 we expect this to fall to 132 litres.

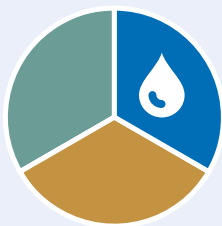


You pay the lowest household water bill in England and Wales currently – an average of £100 each year.

All our water sources are very reliable and resilient to droughts of one or two years. However, they do rely on rain falling every winter to refill them for the year ahead.



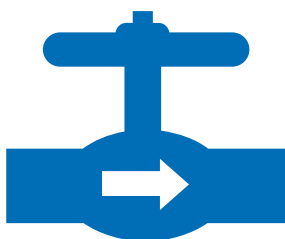
Our leakage rate is 35 million litres each day – we plan to reduce this by 15% by 2025.



Nearly a third of you pay bills based on the amount of water you use (on a water meter) – by 2045 we expect this to be two thirds.



Our region includes a number of rare chalk streams, which are home to a range of wildlife, so it's important our activities don't have an adverse impact on these.



We share up to 15 million litres of water with Southern Water each day to supply our neighbours in West Sussex. Later this year we'll share a further 15 million litres with them in west Hampshire, and a further 30 million litres by 2045.



Your wastewater services are generally provided by Southern Water.

What we've done since our last plan

Our last water resources plan was published in 2014, and we've been busy since then improving the quality and security of your water supplies. We've:

- ✓ Improved our network of water mains and treatment works – so that it's easier to move water around
- ✓ Increased the number of homes with water meters to measure the amount of water you use
- ✓ Repaired leaks on our water mains and your private supply pipes
- ✓ Given you more than 230,000 water-saving devices, including showerheads and Save-a-Flush bags for toilets
- ✓ Connected our network to a new water main built by Southern Water in Hampshire to share water resources
- ✓ Assessed how climate change could affect our water supplies
- ✓ Planned for more extreme droughts than we've experienced in the past.



During the last few years, we've also done a lot to learn more about our local environment and how it is affected when we use water for your supplies.

Following this, we've taken steps to improve our rivers and water habitats by making changes to our abstraction licences. These are set by the Environment Agency and state how much water we can take, where we can take it from and at what time of year.

We've agreed to reduce the amount of water we are allowed to take from the River Itchen, a world-renowned chalk stream, and also from some of our groundwater sources.

We've also carried out restoration work to improve the health and biodiversity of other rivers in Hampshire – including the River Ems and River Hamble.

How we plan

We plan for the future by forecasting how much water we will need to supply in five, 10 and 25 years' time.

We do this by considering

- ☒ how many new houses will be built
- ☒ how the population will grow
- ☒ how climate change could increase demand for water and reduce the amount of water available.

We also discuss with the Environment Agency and Natural England if we need to leave more water in rivers and the ground to protect the environment and support wildlife.

When we know how much water we may need, we consider the different ways we can make better use of the water we have and, when we need to, develop new sources of water.

By 2045, we expect the population we supply to have risen by nearly 15% to 833,000 people.

By 2045, we expect the number of properties we supply to have risen by nearly 20% to 374,000.

If we did nothing to reduce leaks or help you save water, we would expect to supply 6.6 million litres of water extra each day by 2045 – an increase of 3.8%.



What have we done differently this time?

This time, we've taken steps to make your water supply more resilient to climate change and extremes of weather.

We've done this by updating the way we plan for climate change and planning for a wider range of droughts.

This means we need to plan to supply 7% more water at peak times than we have in the past – just to supply the same amount of people and homes – to make your supplies more secure to future droughts.

These are the types of droughts we're planning for now – three of which are more extreme than ones we've experienced, or planned for, in the past.



DROUGHT A

This is based on a two-year drought similar to those we experienced in the 1970s.



DROUGHT B

This is a two-year drought with one dry winter.



DROUGHT C

This is a two-year drought with two dry winters.



DROUGHT D

This is a three-year drought.

By planning for these four droughts, we can make the following commitments to you:



Temporary use bans (restrictions in water use for households, including hosepipe bans) are only likely to be needed one in every 20-40 years on average (a 2.5% to 5% chance each year).



Drought orders (to further limit water use of commercial customers) are only likely to be needed one in every 80-125 years on average (a 0.8% to 1.25% chance each year).



Drought permits (to allow us to take more water from the environment) are only likely to be needed one in every 80-125 years on average (a 0.8% to 1.25% chance each year).



Emergency drought orders (to restrict water use to a few hours each day or standpipes in the street) should only be needed less than once every 200 years on average (less than a 0.5% chance each year).

*We have only needed to introduce water restrictions in West Sussex and Hampshire once in our 160-year history, in 1976 when there was a drought nationally.

How we choose new options to supply your water

When we know how much water we need, we draw up a list of options for how we can make the water we already have go further and how we can develop new water sources.

For this plan, we started off with a list of 180 options – ranging from new reservoirs, to compulsory metering, desalination plants (creating drinking water from seawater) and recycling cleaned wastewater.

We considered each of these options to work out:

- How much water it could supply – even in an extreme drought
- How reliable it would be
- How difficult it would be to build and operate successfully
- How much it would cost to build and run
- The impact on the environment and society
- Its carbon footprint.

By doing this we reduced the list to 21 options – from which we could select a final six. These represented the best overall value for you as bill payers, while protecting the local environment.



A plan for the wider South East

Our focus is on securing high-quality, reliable water supplies for you for the next 25 years.

However, we also have a responsibility to work with our neighbouring water companies in the South East to develop a wider strategy and make the best use of resources for everyone.

The majority of the South East is classed as 'seriously water-stressed', so we plan to share water where we can, as long as it doesn't put your supplies at risk, or our environment.

This is not new. We already share supplies with Southern Water's customers in West Sussex – up to 15 million litres per day – and have done since 2004.

This year, we'll also start sharing a further 15 million litres a day with Southern Water's customers in Hampshire. We allowed for this in our last water resources plan in 2014.

FUTURE SUPPLIES FOR HAMPSHIRE

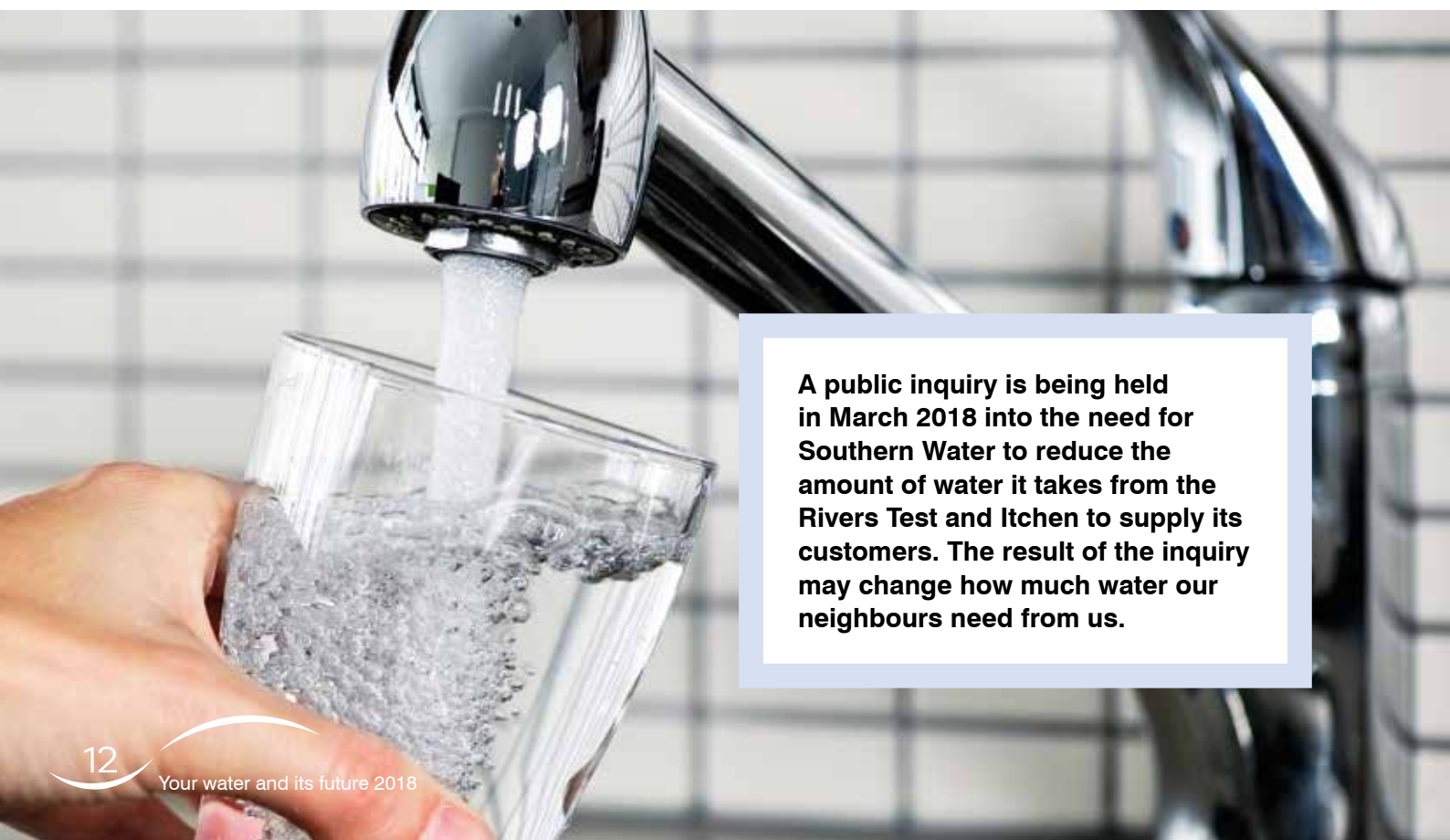
Southern Water is now looking for a further 30 million litres of water each day to supply its customers in Hampshire. This is because the company needs to reduce the amount of water it can take from the River Test and River Itchen.

So, in this plan, we're proposing to develop options to allow us to share more water in Hampshire.

This means we need to find an extra 30 million litres of water than we had already planned for.

To do this, we need to find a substantial new resource to make up the difference – so we are proposing a new reservoir at Havant Thicket – as a regional resource for the South East.

You can find out more about all the options we are proposing on the following pages.



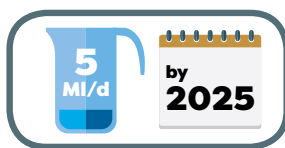
A public inquiry is being held in March 2018 into the need for Southern Water to reduce the amount of water it takes from the Rivers Test and Itchen to supply its customers. The result of the inquiry may change how much water our neighbours need from us.

How we'll provide your water for the next 25 years

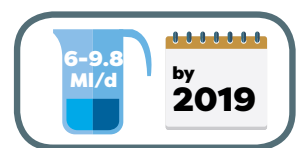
We have chosen six schemes to secure the water we need to provide resilient supplies to you and our neighbours in the next 25 years. They are:

MI/d = Million litres of water per day

Reduce leakage



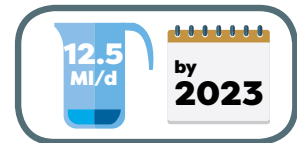
Groundwater improvements



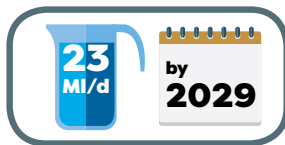
Water efficiency (Metering)



Enhanced groundwater source



Havant Thicket Reservoir

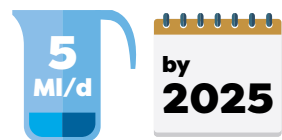


Drought permit



These options will make the best use of our existing resources, as well as developing new sources, which together will make water supplies in the South East more resilient.

FINDING AND FIXING MORE LEAKS



We have an extensive network of water mains – more than 3,300 kilometres – with multiple joints which can leak water, especially during cold weather. The private supply pipes which connect your homes and businesses to our water mains can also leak.

Currently our level of leakage is 35 million litres of water each day – about 110 litres per property each day. While this is better than the industry average, we think we can do more, especially to find those leaks which are hidden underground and are harder to find.

In this plan, we propose installing more meters on our network so we can monitor the flow of water in smaller areas, and find leaks more easily. These are called District Meter Areas.

We will also continue to carry out up to two free repairs on the supply pipes you are responsible for, which connect your homes to our water mains, when you find leaks on them.

By doing this, we aim to reduce leakage by 15% in the first five years of the plan – by 2025.

WATER EFFICIENCY – MAKING BETTER USE OF OUR EXISTING WATER



Water efficiency is about making better use of the water we have so we can leave more in the environment.

This option could include:

- Installing meters to give you more information about how much water you use
- Offering vouchers towards water efficient washing machines and dishwashers
- Converting your toilets to dual flush – a short flush and a long flush
- Fitting aerators to bathroom taps – to add air and reduce the amount of water
- Providing water butts to collect rainwater and trigger guns for hosepipes
- Running campaigns to involve schools, housing associations and communities in saving water.

WATER METERS – PUTTING YOU IN CONTROL

Most of the water companies in the South East have already installed water meters for their customers. They can do this because they are in an area of ‘serious water stress’ – and metering has been shown to save up to 16% of household water.

Our area is one of ‘moderate water stress’ so we can only encourage you to voluntarily sign up for a water meter, and pay bills based on the amount of water you use.

You can have a water meter and switch to metered bills at any time, free of charge, but in the meantime, we plan to install them just to give you more information on your water use.

We want to install 5,000 meters. We’ll give you regular updates on your water use –

through emails, letters or ‘smart’ devices in your home – and lots of advice on ways to save water. If it looks like you’ll save money on a meter, you can choose to swap to metered bills.

We are also considering installing meters in homes when people move house.

At the same time, we’ll continue to install meters in all new homes and talk to you and the government about installing water meters for everyone.

Water meters are fairer because then everyone pays for the amount of water they use, rather than bills based on the rateable value of their home. They put you in control of your bill and by saving water you can also save on your Southern Water wastewater bill and on the energy you use to heat water – better for you and the environment.

*We expect all these water efficiency activities to reduce your daily water use from 140 litres of water per person to 132 litres by 2045 – meaning we need to find less water to meet the demands of climate change and housing growth.

HAVANT THICKET – A NEW RESERVOIR FOR THE SOUTH EAST

23
Ml/d

by
2029



We are proposing to build a new reservoir at Havant Thicket to create a strategic new water source for the South East, a community facility and new habitats for wildlife.

This is the most significant option in our plan and one we have discussed with you in the past. We last considered this reservoir in 2008, and at the time, you helped us decide where it should be located and what leisure and wildlife facilities it should include.

The reservoir, which would take 10 years to plan, build and fill with water, would be located on land we already own next to Havant Thicket, Rowlands Castle, Staunton Country Park and Leigh Park.

It would be filled with water taken from the springs in Havant during winter, when flows are at their highest, and used to top up your water supplies in the summer when needed.

We would also need to build a pipeline from the springs to the reservoir, to fill it during winter and to draw off the water in the summer to our treatment works.

The reservoir would include a visitor centre, paths, cycle ways, play areas and water sports facilities – creating a new leisure hub in the region. It would also include a wetland area for birds and be supported with planting of trees and hedgerows.

We have included this option to allow us to provide more water to customers in west Hampshire, who are supplied by Southern Water. The water from the reservoir would not be supplied to Southern Water, it would be used for your supplies, however, it would free up our current sources from the River Itchen to share.

We would charge Southern Water for this extra water. This would pay for the reservoir to be built – so we don't expect it to increase your bills.

The storage in the reservoir would also make our own water supplies more resilient to drought.

We have a dedicated section on our website with lots of information about the reservoir proposal at portsmouthwater.co.uk/havant-thicket-reservoir

Making the best use of our groundwater

IMPROVING OUR EXISTING GROUNDWATER SOURCES



We also plan to upgrade some of our existing groundwater sources so they work more efficiently. This would allow us to take more water from these sources,

without impacting the environment, and make sure we do not waste water as we treat it and supply it to you.

AN ENHANCED GROUNDWATER SOURCE



Another important option in our plan is to enhance an existing groundwater source in Hampshire to take more water from an underground aquifer.

We already have groundwater sources in this location and our investigations have shown we could take more without damaging the environment.

DROUGHT PERMIT TO TAKE MORE WATER IN VERY DRY WEATHER



**only in
severe
droughts**

Our final option would only be needed in severe droughts to ensure we could continue to supply water for your essential daily activities. It involves taking more water from a groundwater source in West Sussex and is only likely to be needed one in every 80-125 years

on average (a 0.8% to 1.25% chance each year).

If we needed to apply for the drought permit, we would monitor the effect of our abstraction on the natural environment and wildlife and take steps to improve them if required.

**Find out more in our draft Drought Plan at
portsmouthwater.co.uk/droughtplan**

The best value for you and the environment

The options in our water resources plan have been carefully chosen to make sure they offer the best value for money and are sustainable and resilient for the future.

This is part of our long-term aim to continue to provide an excellent service at a price everyone can afford.

We've done this by balancing the need to save water with developing new sources in good time to meet the challenges ahead.

We aim to deliver this plan without increasing your bills above the rate of inflation. At an average of £100 per household per year, our bills will remain the lowest in the country.

PROTECTING THE ENVIRONMENT

As part of developing this plan, we also carried out an environmental assessment of our options – considering factors such as biodiversity, water quality, risk of flooding, the effects of climate change, historic landscapes and protecting your health.

We also assessed any potential impact of our plan on the water environment.

We have published our Strategic Environmental Assessment for consultation online at portsmouthwater.co.uk.

CARBON FOOTPRINT

Reducing our carbon footprint and our impact on our planet is very important to us – we already operate our network with renewable energy.

Have your say

Thank you for taking time to read our plans on how we'll secure resilient water supplies in West Sussex and Hampshire.

We'd really love to hear your thoughts and we are holding a consultation between 5 March and 25 May, 2018.

All your responses will be shared with the Department for Environment, Food and Rural Affairs (Defra) and will be considered by us when we develop our final Water Resources Management Plan later this year.

There are lots of ways you can have your say:



ONLINE

Take a look at the questions on the next page and fill in our online survey at **portsmouthwater.co.uk**



EMAIL

Email Defra at **water.resources@defra.gsi.gov.uk** (Subject: Portsmouth Water draft water resources management plan). Please copy in wrmp@portsmouthwater.co.uk, wrmp@ofwat.gsi.gov.uk and water-company-plan@environment-agency.gov.uk



WRITE

Write to Defra at:
Secretary of State,
Department for Environment
Food and Rural Affairs (Defra)
Portsmouth Water
Water Resources Management
Plan Consultation
Water Resources
Area 3D
Nobel House
17 Smith Square
London
SW1P 3JR

Thank you

All your responses will be automatically entered in a prize draw to win an iPad for you or your organisation.* (Terms and Conditions at portsmouthwater.co.uk)

15 questions we'd like to ask you

We're asking 15 questions which will help us update this plan so it reflects your views.

You can answer these online at portsmouthwater.co.uk or send your answers to Defra using the contact details on the opposite page.

Thank you for your time.



- 1** Have you read the consultation document?
- 2** Do you support our approach to providing your water supplies in the future?
- 3** We plan to introduce water restrictions (hosepipe bans) in droughts that occur every 20-40 years on average and further water restrictions and a drought permit once every 80-125 years on average. Do you think this is about right?
- 4** Do you believe that rota cuts (which restrict water use to a few hours each day) or standpipes in the street are acceptable in an extreme drought?
- 5** Do you support our plans to install water meters to give you more information on how much water you are using?
- 6** Would you support us installing meters in homes when people move house?
- 7** The South East as a region is short of water and most people have water meters – do you think we should also install water meters for most people in our supply area?
- 8** Do you support our plans to reduce leaks from pipes by 15% by 2025?
- 9** Do you think it's important we help you to use water efficiently?
- 10** Do you support our plans to build Havant Thicket reservoir as a regional water source and community facility?
- 11** Do you support our plans to share water with our neighbours in Hampshire (who are supplied by Southern Water) as part of a solution for the shortage of water in the South East as a whole?
- 12** Do you support our plans to provide an enhanced groundwater source?
- 13** Would you like to hear more or get involved as we develop these options to supply water?
- 14** Do you trust us to continue to supply your drinking water for the next 25 years?
- 15** How did you hear about this consultation?

Read our full Water Resources
Management Plan and have your say
at portsmouthwater.co.uk

This report is printed on 100% recycled materials at a factory powered by 100% renewables, using zero water and chemicals, while generating zero landfill.