

# SAFE, RELIABLE DRINKING WATER FOR THE NEXT 25 YEARS



**Water Resources  
Management  
Plan 2020-2045  
Summary**



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# PLAN ON A PAGE

## HERE'S A QUICK SUMMARY OF THIS PLAN:

This plan shows there is enough water for us all if we work together.

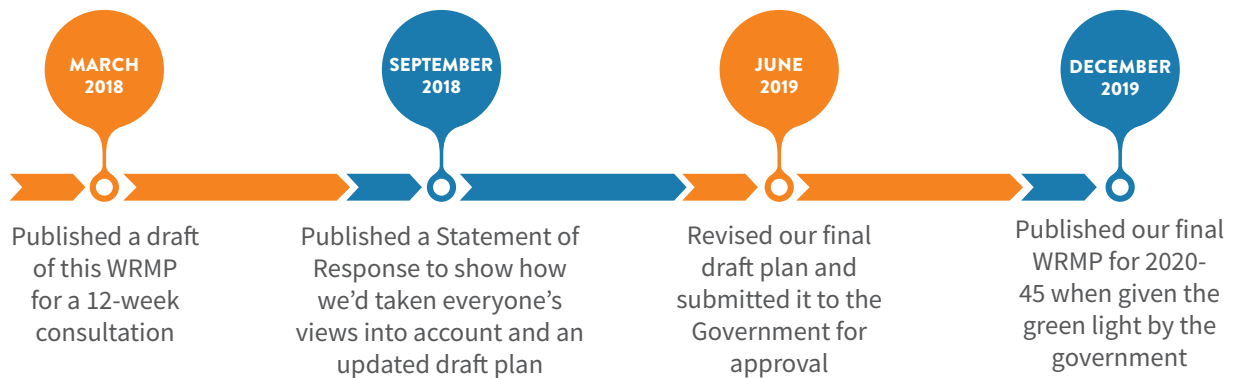
- This plan caters for growth and is part of a solution to supply other areas of the South East where there's less water.
- We can do this by building a new reservoir at Havant Thicket – to store water, create a nature reserve and provide community facilities.
- We're planning for more extreme droughts than we've known before – so we're ready for climate change
- We want to save water by reducing leaks by 20% by 2025\*
- We want to involve you in saving water with water meters, water-saving products and community campaigns
- We've also got an ambitious target to reduce personal water use, during a normal year, to an average of 135 litres by 2025\*

\*In parallel to the aspirations we have for leakage and personal water use in this plan, our economic regulator, Ofwat, has set slightly different targets for us to ensure consistency with all water companies. Ofwat's targets are based on a three-year rolling average, relative to 2019-20 and set for five years. Ofwat expects leakage to reduce by 15 per cent and personal water use to reduce by 6.3 per cent.

# 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.



## 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 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 last Drought Plan in 2019 and we'll be updating it again during the next two years.

### 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. Our Business Plan for 2020-25 was approved in 2019 and includes the actions we'll take to deliver the first five years of our water resources plans.

### 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.

# HOW YOU SHAPED THIS PLAN

We engaged with nearly 40,000 customers to find out what's important to you as we developed our plans for the future. Our conversations with you and a range of organisations were all taken into account.

To hear your views, we:

- Held discussions with a range of customers and carried out online surveys

- Created a panel of 20 customers who met regularly to talk about water topics
- Talked to the water industry regulators and other water companies
- Engaged with interested groups, including local councils, consumer bodies, environmental groups and local businesses
- Held a 12-week public consultation with discussion groups and surveys.

We have a Customer Challenge Group which reviewed our work to engage with you and made sure we heard from as many people as possible.

## WE TALKED TO YOU ABOUT:

Our environment and wildlife

Leakage

Water restrictions

Water efficiency

Water meters

A new reservoir

Resilience of your water supply

## THIS IS WHAT YOU TOLD US AND HOW WE RESPONDED:

**You wanted us to reduce leaks even more**

We're going to reduce leaks by 20% by 2025 – an increase from 15% in our draft plan

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

We've included plans for water restrictions (hosepipe bans) once every 20 years on average – by doing this we can help to keep your water bills low and protect the environment in droughts.

**You wanted us to do more to help you save water**

We're going to install more water meters so you can see how much water you're using and we'll help you save with assessments of your water footprint and water-saving devices.

**Many\* of you want us to develop Havant Thicket Reservoir as a regional water resource and community facility**

We're going ahead with plans to build the reservoir in collaboration with Southern Water by 2029.

**Protecting and improving wildlife habitats is important to you**

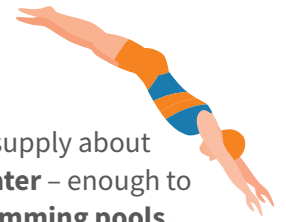
We extended our plans to further protect and improve our environment following feedback from environmental groups.

\* 87% in a survey of 2,000

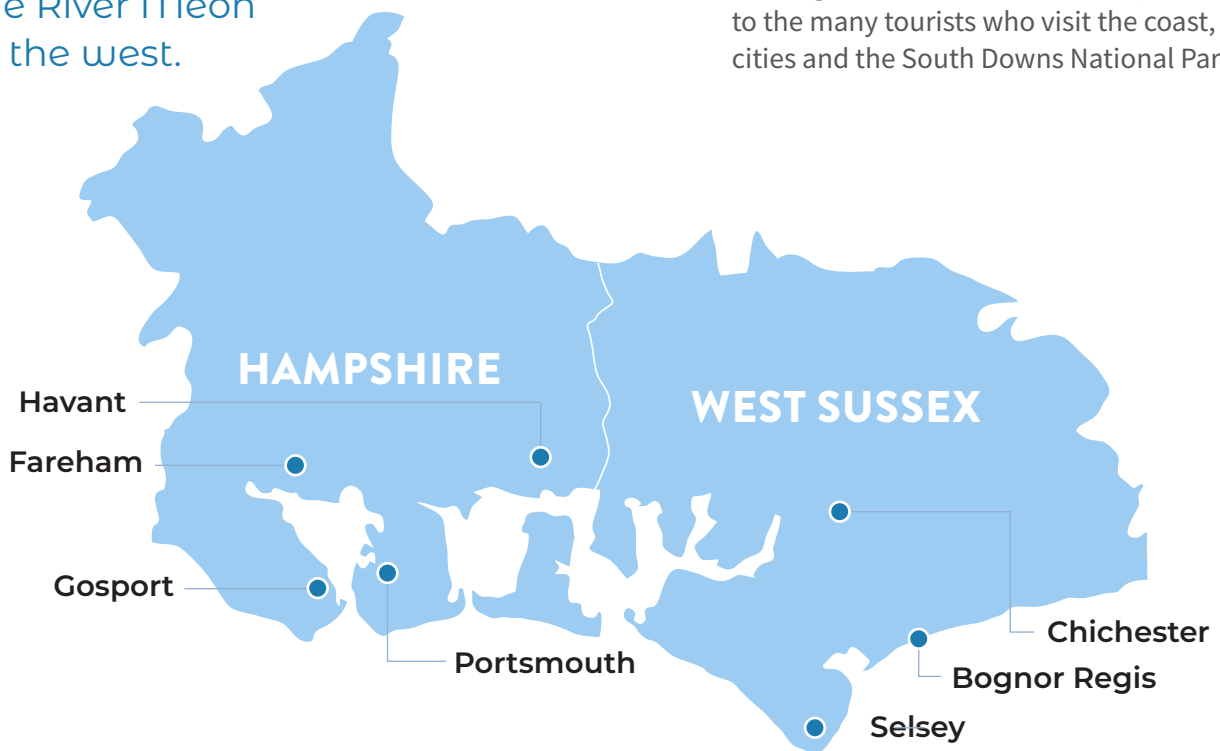
\*\*86% in a survey of 2,000

# YOUR WATER SUPPLIES TODAY, AND IN 25 YEARS' TIME

We currently supply fresh, safe drinking water to 320,000 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 **174 million litres of water** – enough to fill **70 Olympic size swimming pools**. That's enough for about **726,000 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 **382,000 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.



## 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:

## 57% 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.

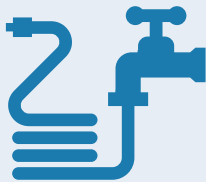
## 30% SPRINGS

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.

## 13% 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.

135



We plan to work with you to reduce your water use by about 5% to 135 litres per person per day.\*



You pay the lowest household water bill in England and Wales currently – an average of £100 each year – which we're working to reduce even further.

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.



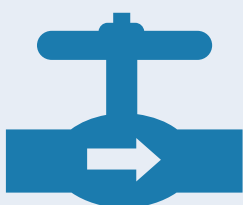
We plan to reduce our leakage rate by 20% by 2025 to 28 million litres of water each day. We're already on track to achieve this.\*



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 currently share up to 30 million litres of water each day with Southern Water to help supply our neighbours in West Sussex and Hampshire. By 2029 this will be 60 million litres.



Your wastewater services are generally provided by Southern Water.

\* see page 3

# HOW WE PLAN


We plan for the future by forecasting how much water we will need to supply over the next 25 years.

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
- How much water we need to leave in rivers and the ground to support the environment and 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.



If we did nothing to reduce leaks or help you save water, we would need to find an extra 12 million litres of water each day by 2045 – an increase of 7%

# HOW WE CHOOSE NEW OPTIONS

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 183 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 25 options – from which we selected a final six. These represented the best overall value for you as bill payers, while protecting the local environment.



# WHAT HAVE WE DONE DIFFERENTLY THIS TIME?

In this plan, 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 drought of two dry summers, similar to those experienced in the 1970s.



## DROUGHT B

This is a drought with two dry summers and a dry winter inbetween.



## DROUGHT C

This is a full two years of dry summers and dry winters.



## DROUGHT D

This is a full three years of dry summers and dry winters.

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 years on average (a 5% chance each year).
- Non-essential use bans (to further limit water use of commercial customers) are only likely to be needed one in every 80 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 125 years on average (a 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.

# 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 sure there are reliable supplies 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 in West Sussex and Hampshire – up to 30 million litres of water each day.

## Supplies to Southern Water from Portsmouth Water

**9 million litres** of water each day to Hampshire **from 2024** – from existing sources freed up after we've developed new groundwater sources

**15 million litres** of water each day to Hampshire – from existing sources – **now**

**15 million litres** of water each day to West Sussex – from existing sources – **now**

**21 million litres** of water each day to Hampshire **from 2029** – from existing sources freed up after we've built Havant Thicket Reservoir

**By 2030**, we'll be sharing up to **60 million litres** of water each with Southern Water – more than a quarter of the water we produce

## Future supplies for Hampshire

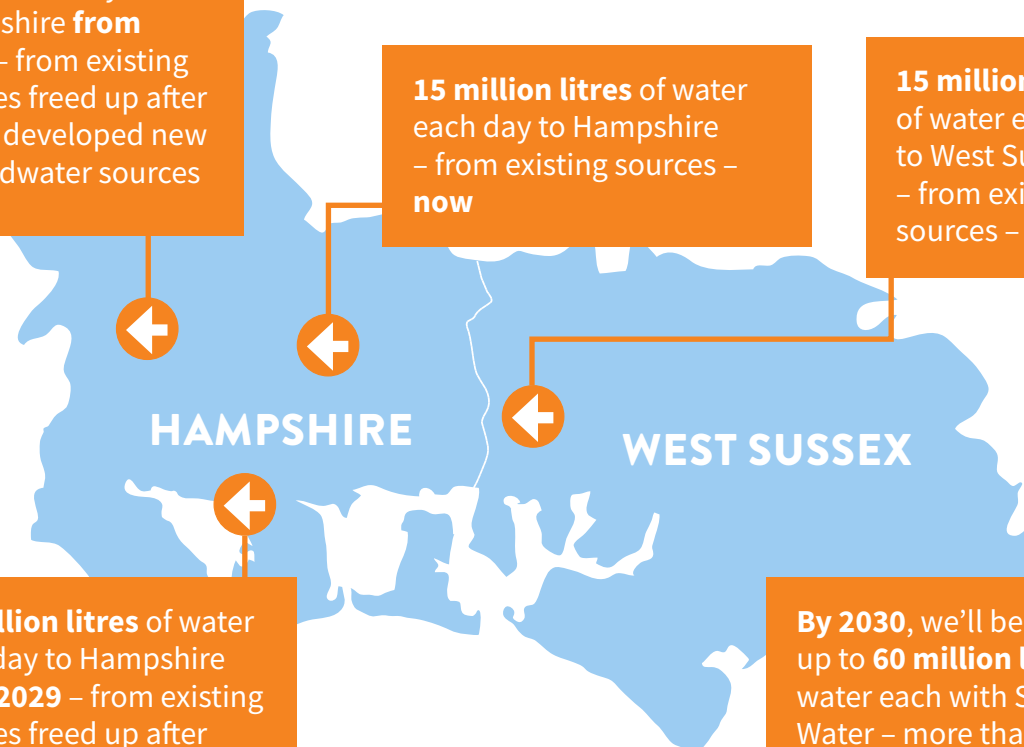
We now plan to share a further 30 million litres of water each day with Southern Water for its customers in Hampshire so it can reduce the amount of water it takes from the River Test and River Itchen.

To do this, we're developing a new reservoir in Havant in collaboration with Southern Water – the first to be built in the South East for decades.

The reservoir was chosen in a wider regional plan developed by the Water Resources in the South East group, of which we're a member.

We'll also be finding extra groundwater to help supply Southern Water.

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



# 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 a normal year in the next 25 years. They are:



MI/d = Million litres of water per day

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 better than the industry average but we think we can do more, especially to find those leaks which are hidden underground and are harder to find.

We've an innovative approach to reducing leaks. We intend to install 'noise loggers' on our water network, which are much

more sensitive to noise than the human ear. Overnight, when there's less noise, they can pick up the sound of leaks and share this information with us wirelessly so we can find and fix the leaks.

We're also continuing to offer assistance on the supply pipes you are responsible for, which connect your homes to our water pipes.

By doing all this, we'll reduce leakage by 20% by 2025 to 28 million litres of water each day – about 85 litres per property, and by a further 10% by 2040.\*

\* see page 3

## 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. We'll help everyone save water by:

- Installing more meters to give you more information about how much water you use
- Offering assessments of your water footprint in your home to let you know how you're using water and install free water-saving devices
- Offering discounts on your bill if you purchase water efficient washing machines, dishwashers, showers and toilets
- Converting your toilets to dual flush – a short flush and a long one
- Fitting aerators to bathroom taps – to add air and reduce water use
- Providing discounted water butts to collect rainwater and trigger guns for hosepipes
- Exploring opportunities to reward schools, communities and housing associations who save 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're in an area of 'serious water stress'.

Our area is one of 'moderate water stress' but we are still encouraging people to sign up for a water meter, to put them in control of their water use and bills.

As households with a water meter pay bills based on the amount of water they use, metering can encourage water savings of up to 16%. This saves water, the energy used to heat water, energy to clean and supply water and treat the wastewater and reduces our carbon footprint.

Anyone can have a water meter free of charge and switch to metered bills at any time, and in the long term we'd like everyone to have a meter. However, in the

meantime, we're planning to:

- Install water meters when people move out of a house
- Install meters in empty properties where no-one is living or working
- Install 8,000 'smart' meters.

The smart meters will provide regular updates on how much water is being used and we'll also provide lots of advice and support about ways to save water. Households who have these meters installed will only move to metered bills if they want to and it looks like they'll save money.

We expect all these water efficiency activities to reduce your daily water use by about 5% to 135 litres per person by 2025 – meaning we need to find less water to meet the demands of climate change and housing growth.\*

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.

\* see page 3

# HAVANT THICKET RESERVOIR

21  
Ml/d

by  
2029



We're investing more than £100 million to develop a new reservoir – in an innovative collaboration with Southern Water.

It will be the first new reservoir to be built in the UK for decades.

The reservoir will create a strategic new water source for the wider region, as well as a new, community leisure facility and new habitats for wildlife in Havant, in Hampshire.

This is the most significant option to secure water in our plan and will help us free up existing supplies in the west of our area to share with Southern Water's customers in Hampshire. Southern Water needs to find new sources of water to protect two unique chalks streams – the River Test and River Itchen in Hampshire – from where it has previously taken most of its supplies.

The reservoir is planned to be built on land we already own, between Havant Thicket woodland, Rowlands Castle, Staunton Country Park and Leigh Park, and will be operational by 2029.

Our plans include a visitor centre, paths, cycleways, bridleways and play areas – creating a new green, leisure hub in the region. We'll also establish a new wetland area to support endangered coastal birds and plant thousands of trees – including the creation of a memorial woodland.

The reservoir will be able to hold about 8,700 million litres of water when full and supply an average of 21 million litres of water each day – enough to supply about 160,000 people during an average year.

It'll be filled with spare water from the springs during winter, which normally flow out to sea, and will mostly be used to top up water supplies when needed during dry weather.

It will be funded by payments from Southern Water for the water we will transfer to its customers in Hampshire from 2029, so it won't increase your bills.

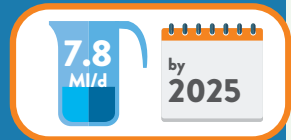
Find out more about the reservoir and its progress at [portsmouthwater.co.uk/havant-thicket-reservoir](https://portsmouthwater.co.uk/havant-thicket-reservoir)

During our public consultation on this plan 87% of customers surveyed said they supported our plans to build the reservoir and 80% supported our plans to share water with our neighbours in Hampshire.



# MAKING THE BEST USE OF OUR GROUNDWATER

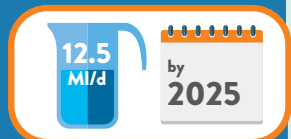
## IMPROVING OUR EXISTING GROUNDWATER SOURCES



We're upgrading some of our existing groundwater sources so they work more efficiently. This will allow us to take more water

from these sources, without impacting on the environment. It'll also help us avoid wasting any of this water as we treat it and supply it to you.

## AN ENHANCED GROUNDWATER SOURCE



We're also going to enhance an existing source in Hampshire to take more water from an underground aquifer (where water naturally collects underground). We already

have groundwater sources in this location and we'll be carrying out investigations to make sure we can take more water without damaging the environment.

## DROUGHT PERMIT TO TAKE MORE WATER IN VERY DRY WEATHER



This option is only needed in severe droughts to make sure we can continue to supply water for your essential daily activities like washing and cooking. It involves taking more water from a groundwater source in West Sussex and it's only likely to be needed once in every

80 years on average (1.25% chance each year).

If we need to apply for this drought permit, we'll monitor the effect on the environment and wildlife and take steps to protect and improve them if we need to.

# 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.

## 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.

# CHANGING THE WAY WE PLAN

The way we, other water companies and the Government plan to secure reliable water supplies is changing.

In the future, we'll work together more to look at the country's entire need for water – not just water to supply people and businesses but the wider needs of farmers, industry and wildlife.

The water industry regulator Environment Agency has developed a 'National Framework' –

setting out how much water is needed across England and Wales and the best ways to secure it.

This country-wide plan will inform regional plans, which in turn will inform our next plan in 2024.

The regional plan we are part of is a 75-year multi-sector regional resilient plan being developed by Water Resources in the South East – along with South East Water, Affinity Water, SES Water, Southern Water and Thames Water, as well as industry regulators.

**Find out more at [wrse.org.uk](https://www.wrse.org.uk)**

Read our full Water Resources  
Management Plan at  
[portsmouthwater.co.uk](https://portsmouthwater.co.uk)

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