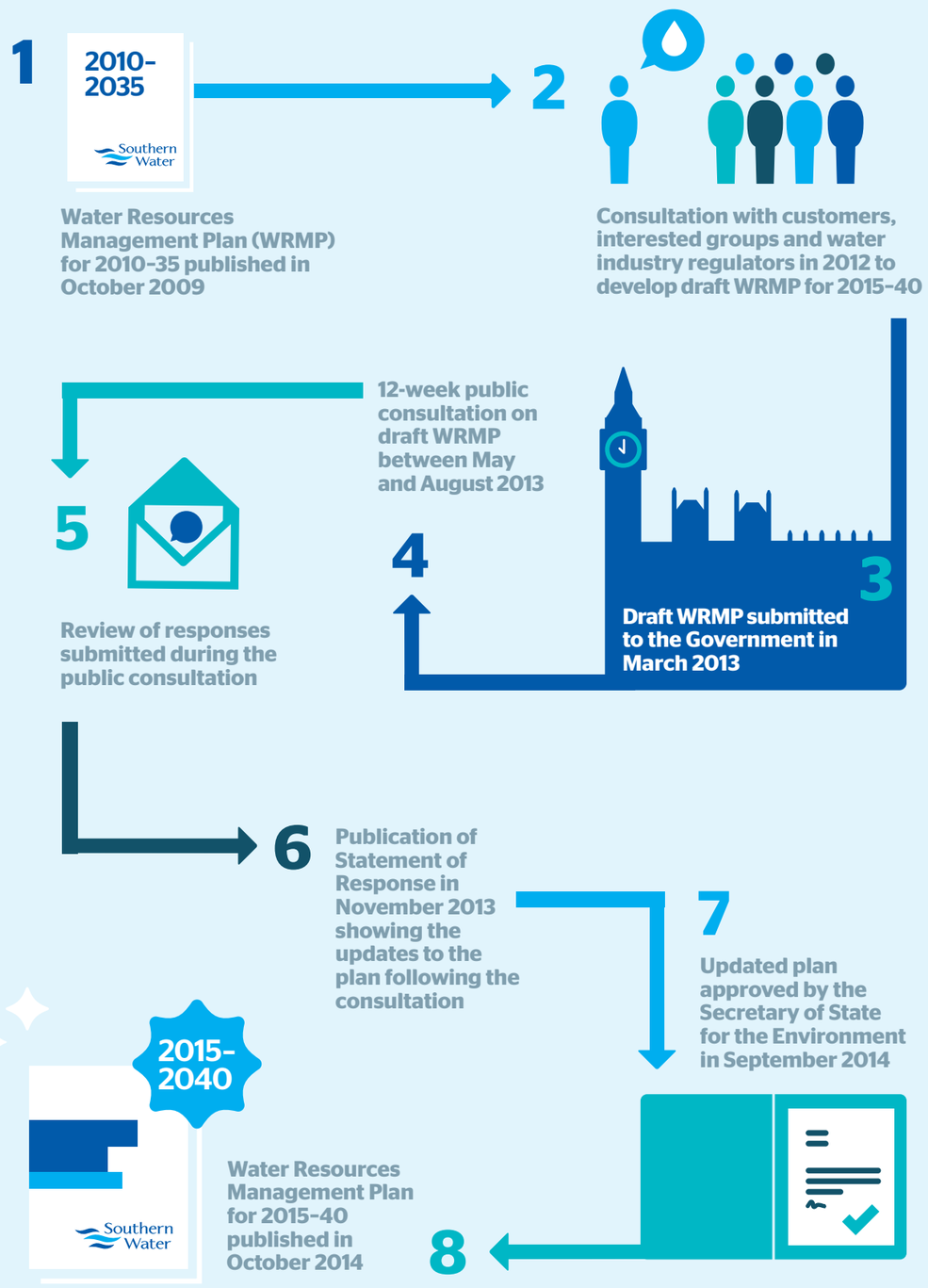
Water Resources & Drought Strategy

Summary of our plans

Southern Water

Water resources journey



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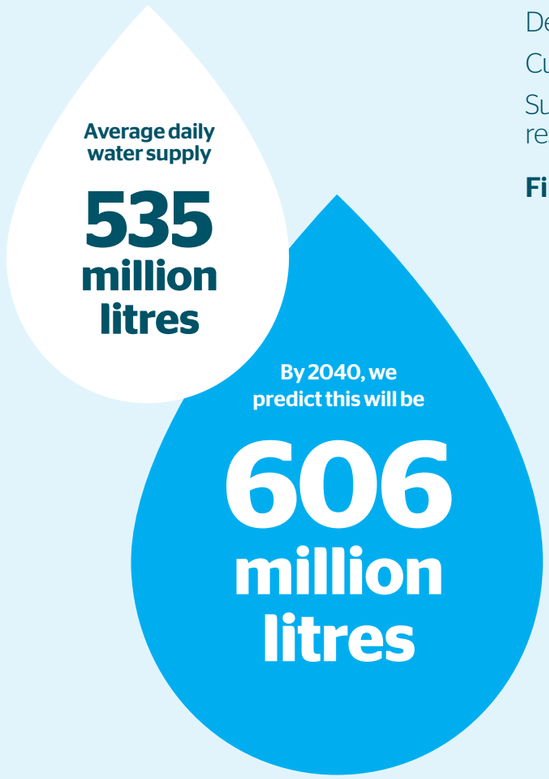


Introduction

Welcome to our strategy for how we will ensure our customers have access to healthy drinking water supplies for the next 25 years.

This document sets out our plans to secure reliable water supplies for our customers in Kent, Sussex, Hampshire and the Isle of Wight whatever the weather, in the short term and the long term.

It brings together our 25-year Water Resources Management Plan for 2015–40 and our Drought Plan for 2013–16.

These plans were shaped through our biggest programme of customer research, undertaken with thousands of customers and interested groups. You told us your preferences for schemes, such as underground reservoirs or water efficiency; how often it is acceptable to introduce temporary water restrictions during droughts and how much more you would be willing to invest to secure resilient water supplies.

Based on this, we developed a robust strategy which reduces the risk of water restrictions and continues to build on our industry-leading work to reduce leakage.

10%

less water used by households on a water meter

This work has reduced the amount of water lost to leaks by two-thirds since privatisation in 1989.

During the last five years, we have also led the industry with the first major programme in the UK to install water meters for the majority of the homes we supply.

Households on a meter use at least 10 per cent less water and our strategy aims to continue to support homes, schools and businesses to save water through awareness campaigns, advice and fitting water-saving products.

Water re-use

We are also investing in large-scale schemes, such as water re-use, which will ensure we have sufficient supplies to face the challenges ahead, including housing growth and more severe droughts than we have experienced in the past.

In fact, this plan is leading the water industry in planning for more severe droughts in the future. We have used a new way of planning that considers more than 2,000 rainfall patterns and a wider range of droughts. This will increase our resilience to more extreme weather in the future compared to the traditional approach, which only plans for the droughts we have experienced in the last 100 years.

This document sets out how we will ensure supplies for the next 25 years, but also details the short-term actions we will take to maintain supplies when droughts do hit.

Our commitments are also reflected in our five-year Business Plan for 2015–20, in which we make promises to you, our customers, to ensure a constant supply of high-quality drinking water, offer better information and advice, look after the environment and keep bills affordable.

We would like to thank you for contributing to this plan and we will consult with you further as we develop our schemes.

Matthew Wright
Chief Executive Officer

Your water, your say

Our strategy to supply drinking water was developed following the most extensive consultation we have ever undertaken with our customers and interested groups.

We heard the views of more than 4,000 customers as we drew up our plans to supply water in the long term, during droughts and to develop our 2015–20 Business Plan.

Our engagement ranged from customer research, through focus groups, telephone and online surveys, to media and advertising campaigns. We also held workshops with a wide range of groups, including local authorities, environmental organisations such as river trusts, horticultural bodies and water-saving and consumer interest groups.

In addition, we regularly engaged with our regulators, the Environment Agency, Defra, Ofwat, Natural England and the Consumer Council for Water, as well as our own Customer Challenge Group, which offered advice on our customer engagement.

We heard the views of

4,000

customers as we drew up our plans

This extensive research told us that:

- A resilient water supply is very important – extreme restrictions, such as rota cuts or standpipes, are not acceptable to our customers
- Water restrictions, such as hosepipe bans, are acceptable in a drought – but less often than in previous years
- Water re-use (recycling treated wastewater to rivers for drinking water) makes sense
- Leakage and water efficiency are important
- Aquifer storage and recovery and water re-use are customers' preferred schemes to secure water.

Responding to the research

We developed our plans around these views and published a draft Water Resources Management Plan for a 12-week public consultation in 2013. We carried out customer workshops and phone surveys, published adverts in newspapers and featured on radio and television to encourage as many people as possible to share their feedback.

We published the feedback in a Statement of Response on November 18, 2013. After considering these responses, we updated our plans to reflect the feedback we received and submitted them to Defra for final approval.

The changes we made included:

- Bringing forward popular schemes, such as aquifer storage and recovery and water re-use
- Including more water efficiency schemes for homes, schools and businesses
- Focusing on more partnership projects to improve rivers and the environment.

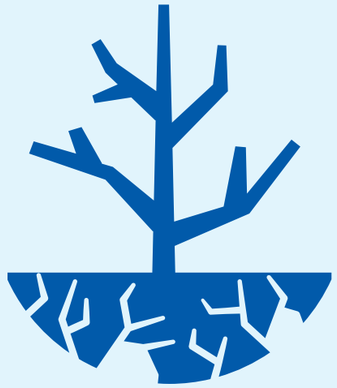
A selection of responses received during the public consultation are shown on the following pages.

Your survey responses

To view all the responses, read our Statement of Response summary at **southernwater.co.uk/wrmp**

Do you think it is sensible for us to plan for more severe droughts in the future?

85% Yes
11% No
4% Don't know



Do you want us to continue to set a target of saving one litre of water per property per day until 2040?

92% Yes
6% No
2% Don't know

How often do you think we should plan to introduce restrictions?*

21% Less than once in every **10 years**
41% Once in every **10 years**
26% More than once in every **10 years**
12% Don't know

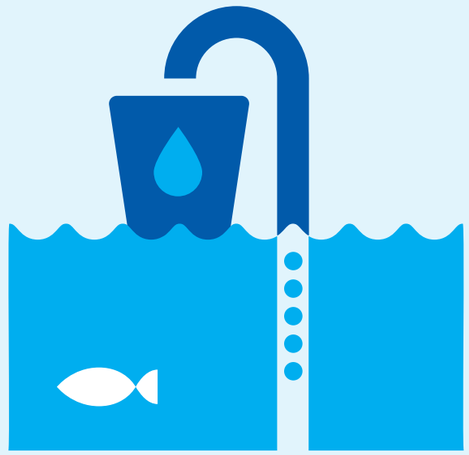
*Our plan includes the use of water restrictions (including hosepipe bans) during a drought once in every 10 years **on average** from 2019.

Do you think water re-use has a role to play in securing water supplies for the future?

96% Yes
2% No
2% Don't know

Do you think desalination has a role to play in securing water supplies for the future?

79% Yes
16% No
5% Don't know



Do you support schemes to work in partnership with landowners, farmers and river trusts?*

96% Yes
1% No
3% Don't know

*To improve the quality and flow of water in rivers and help keep them available for water supplies for longer.

Your water supply

Southern Water supplies high-quality drinking water to more than two million people each day. We also safely collect and recycle the wastewater from more than four million people.

Our supply area includes parts of Kent, Sussex, Hampshire and the Isle of Wight. This region is classified as water-stressed.

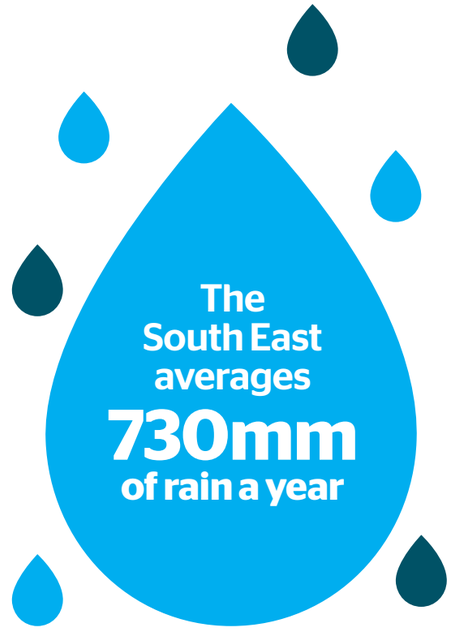
The majority of the water we supply (70 per cent) comes from groundwater (underground aquifers), with the rest coming from rivers (23 per cent) and reservoirs (seven per cent).

The amount of water we can abstract from aquifers and rivers is strictly controlled by the Environment Agency through licences. The amount we actually abstract varies on a daily basis according to customer demand.

All of the water we supply relies on rainfall, yet the South East is one of the driest regions in the country, with an average of 730mm a year. The amount of rain in a year can vary widely from a maximum of 1,070mm to a minimum of 340mm.

Most of this rain falls between October and March and is critical to restock groundwater each year. Rain during the rest of the year is usually taken up by plants, lost through evaporation or runs off the land.

We operate in three water resource areas – **Western**, **Central** and **Eastern**. Each area is connected and shares supplies. We also share supplies with neighbouring water companies. The three areas take their supplies from different sources and react very differently to weather patterns.



Where our water comes from

70%

Groundwater

As rain soaks through the ground, it is stored in porous rock called aquifers. We pump this water to the surface, where it is treated and put into supply.

23%

Rivers

We abstract water from rivers to fill our reservoirs or pump to water treatment works. We take water from the Eastern Yar and Medina on the Isle of Wight; the Test and Itchen in Hampshire; the Western Rother and Arun in West Sussex; the Eastern Rother and Brede in East Sussex and the Teise, Medway and Great Stour in Kent.

7%

Reservoirs

We operate four surface water reservoirs. The largest is Bewl Water on the Kent/ Sussex boundary, followed by Weir Wood, Darwell and Powdermill in Sussex.

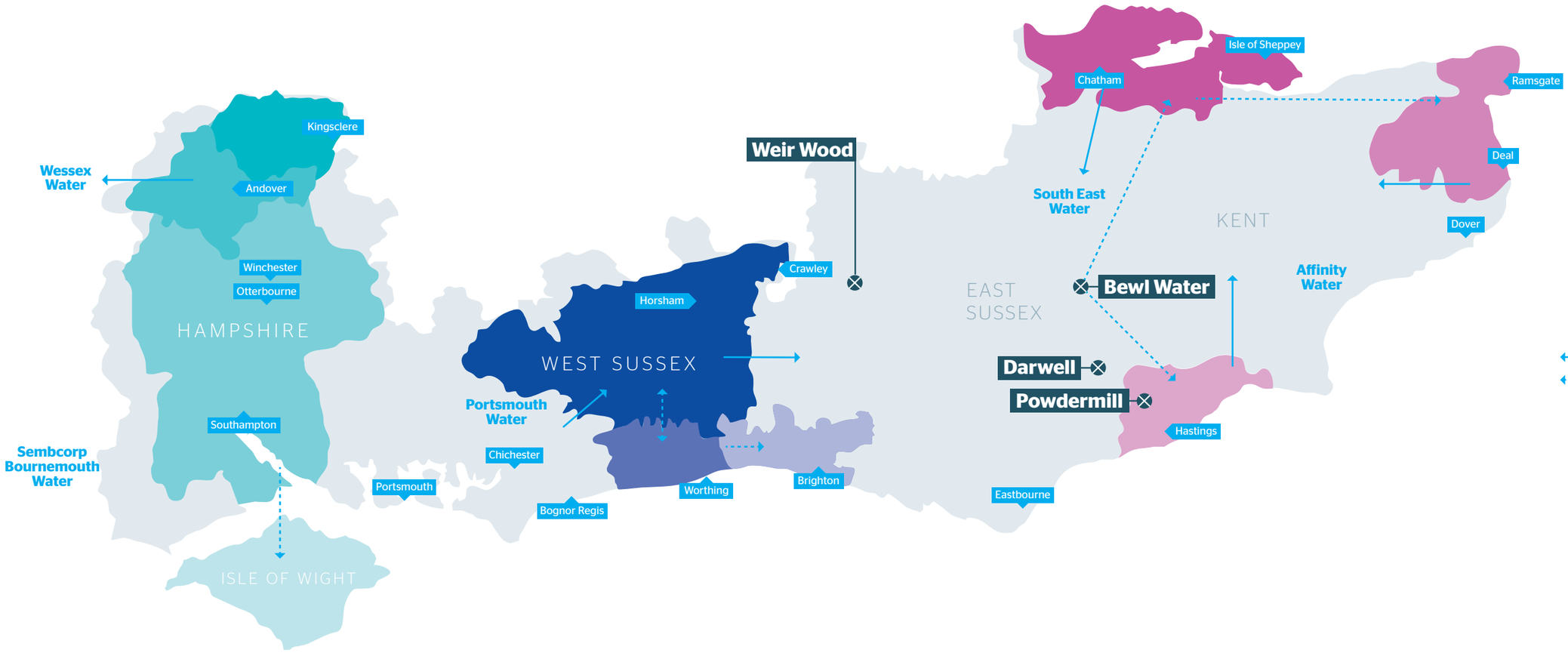
Our water supply areas

This map shows the three water resource areas where we supply water.

Western – Hants Kingsclere, Hants Andover, Hants South and the Isle of Wight

Central – Sussex North, Sussex Worthing and Sussex Brighton

Eastern – Kent Medway, Kent Thanet and Sussex Hastings



Eastern area

Kent Medway and Thanet take most of their water from groundwater and the rest from the River Medway, some of which is stored in Bewl Water reservoir and later released into the River Medway. Sussex Hastings takes the majority of its water from Darwell and Powdermill reservoirs, with the rest from groundwater. Water is transferred by pipeline from Medway to Thanet and from Medway to Hastings.

Water use per person per day (metered) 124 litres

Water use per person per day (unmetered) 166 litres

Current level of restrictions: Temporary Use Bans (including hosepipe bans) once every six years

Eastern water sources

- **Kent Medway** 75% groundwater, 25% river
- **Kent Thanet** 77% groundwater, 2% river, 21% transfers
- **Sussex Hastings** 5% groundwater, 79% reservoir, 16% transfers

Western area

North Hampshire takes all of its water from groundwater. South Hampshire takes one-third from groundwater and two-thirds from the Rivers Test and Itchen. The Isle of Wight takes its water from the River Yar and groundwater, but also relies on water pumped across from south Hampshire for a third of its drinking water.

Water use per person per day (metered) 126 litres (Hampshire) 119 litres (Isle of Wight)

Water use per person per day (unmetered) 164 litres

Current level of restrictions: The last restrictions in Hampshire were in 1976 and 2006 on the Isle of Wight

Western water sources

- **Hants Kingsclere** 100% groundwater
- **Hants Andover** 100% groundwater
- **Hants South** 37% groundwater, 63% river
- **Isle of Wight** 47% groundwater, 23% river, 30% transfers

Central area

Brighton, Worthing and surrounding areas take all their water from groundwater, while north Sussex has a mix of water from rivers, groundwater, a reservoir and a supply of water from Portsmouth Water.

Water use per person per day (metered) 137 litres

Water use per person per day (unmetered) 168 litres

Current level of restrictions: Temporary Use Bans (including hosepipe bans) once every six years

Central water sources

- **Sussex North** 35% groundwater, 51% river, 8% reservoir, 6% transfers
- **Sussex Worthing** 98% groundwater, 2% transfers
- **Sussex Brighton** 100% groundwater

How we plan

Water companies have a duty to supply water to the customers who live and work in their supply area, so it is vital we plan ahead to ensure we can.

To do this, we develop Water Resources Management Plans (WRMPs), which look 25 years ahead, and Drought Plans so we can be confident we can always secure reliable drinking water supplies.

The WRMPs are updated every five years to ensure they always reflect the latest information, technology and customer views.

This means the options we describe for the later years in this plan may change in future ones as we carry out further investigations, review new technologies and update our forecasts.

Simple equation

The way we plan to secure water resources is essentially a simple equation. We consider how much water we will need in the future and how much we can supply today, even in a severe drought.

At the point where the amount of water we need becomes more than the amount we are able to supply, we develop schemes to make up the difference – and make sure they are available in good time.

When choosing new schemes, we start with a 'blue sky' list of more than 500 options, including international water transfers, building pipelines from other parts of the country or creating reservoirs.

We then review each option to consider:

- Customers' preferences
- Resilience to drought
- Impact on the environment
- How much water it will provide
- Carbon footprint
- Social impact
- Cost and timescale to build and operate.

This gives us a shortlist and, from this, we select the options to deliver the most sustainable and cost-effective water supplies for the next 25 years.

Drought planning

A key part of our overall water strategy is planning for droughts and the impact they can have on our ability to supply drinking water.

To do this, we develop Drought Plans, which set out the actions we would take as droughts develop to ensure we can continue to secure reliable supplies.

These actions include campaigns to encourage reduced water use, additional work to reduce leakage, the introduction of Temporary Use Bans (previously known as hosepipe bans), as well as applications for Drought Permits and Drought Orders to allow us to continue to take water from the environment.

Our latest Drought Plan was published in 2013 and a summary is included in this document from page 31. Drought plans are updated every three years, so we will start to consult on our next plan in 2015.

We will reduce leakage by nearly 2 million litres a day by 2020

Protecting the environment

As we develop our water strategy, we also consider the impact that each action or scheme would have on the environment and how this could be mitigated.

Alongside our Water Resources Management Plans and Drought Plans, we develop and publish Strategic Environmental Assessments (SEAs) and Habitats Regulations Assessments (HRAs). The HRAs look particularly at European-designated sites.

These documents can be read, alongside our full technical reports, at southernwater.co.uk/wrmp

The bigger picture

We share boundaries with several water companies in the South East and work closely with them to plan for the best value water resources. Together we make up the Water Resources in the South East (WRSE) group, along with Defra, the Environment Agency, Ofwat, Natural England and the Consumer Council for Water.

This group develops a regional plan, which takes account of demand for water, the environment and the ability of companies to share water resources.

In this way, we are growing a 'regional grid' in the South East to move water around and develop new joint water resources where they are most needed.

Our promises

Our water strategy forms part of Southern Water's overall strategy, which also includes water quality, wastewater services, customer service and affordable bills.

We set out our future vision in our 25-year Strategic Statement and our investment plans for the next five years in our Business Plan for 2015–20.

In our Business Plan, we have outlined 26 promises we are making to our customers. Several of these relate to our water strategy for the next five years. We also commit to increase customer bills by less than inflation by 2020.

A constant supply of high-quality drinking water

- No restrictions on water use, such as hosepipe bans, unless there are at least two dry winters in a row
- Reduce leakage by 2020 – target of 86 million litres a day by 2020, equating to a reduction of almost two million litres a day.

Looking after the environment

- Maintain the proportion of renewable energy we use – renewable energy currently makes up 15 per cent of energy we use
- Reduce the amount of we take from the environment by 1.4 per cent despite predicted population growth of four per cent.

Better information and advice

- 10 per cent reduction (15 litres per person, per day) in average water use by 2020 with better advice on saving water, energy and money – we will reduce average water use from 148 litres to 133 litres per person per day.

Challenges for tomorrow

We face many challenges to secure reliable water supplies for the future and we make allowances for these in our plans.

Our aim is to balance the need to supply drinking water at an affordable price with protection of our rivers and the environment. The challenges become less certain as we look 25 years ahead and that is why we update this plan every five years to take the latest information into account. The main challenges are as follows.

Energy and economy

We are mindful that our customers expect more cost effective and efficient services than ever before, at a price they can afford.

One thousand litres of water weigh one tonne, so a lot of energy is needed to pump it around. We must consider the rising cost of this and the impact on the environment and our carbon footprint.

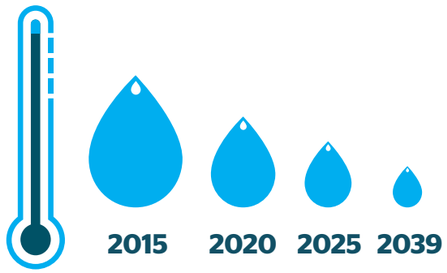
We have made commitments that customer bills will rise by less than inflation between 2015 and 2020. We have also committed to maintain the percentage of renewable energy we generate at 15 per cent, despite an increase in demand.

Climate change

Climate change is likely to make extreme weather more common in the future, leading to more severe droughts and a change in the seasonal demand for water.

The effects are likely to be a rise in the average annual temperature, up to 6°C above 1990 levels by the end of this century, and rainfall reducing by half.

We have planned for how these changes could increase demand for water as well as reduce the amount of water available in the future.



Potential reduction in water available due to climate change

Stricter laws on abstraction

One of the biggest challenges facing water companies is the need to meet new European legislation which could significantly reduce the amount of water we can abstract from the environment.

The Environment Agency regulates abstraction by issuing licences which set out how much and how often organisations can take water from the environment.

These licences are being reviewed as part of the Water Framework Directive. If rivers, groundwater and streams are felt to be under pressure, 'sustainability reductions' can be put in place to reduce the amount of water which can be abstracted.

In our region, five licences are either under review or the amount of water we can abstract under them has already been reduced. However, we don't yet know the full extent of the sustainability reductions that could be introduced in the next 25 years. In the worst case scenario, they could add up to more than half of the water we currently supply.

Where possible, we will invest in improvements to rivers and the environment to increase their biodiversity and resilience to drought to allow abstraction to continue.

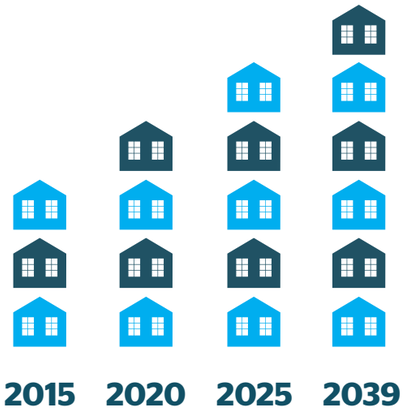
Housing and population growth

House building and population growth will increase demand for water in the next 25 years and our plans ensure we can secure sufficient supplies to meet those needs. We have used Census data and worked with local authorities to understand planned development in the South East and promote water efficiency in new homes.

During the next 25 years, we expect 181,000 new properties to be built in our region and the population to grow by 19 per cent. The fastest growing regions are predicted to be Medway in Kent, Worthing in Sussex, and north Sussex, with lower growth in Hampshire.

Changing lifestyles

The increasing trend for smaller households and people living on their own is also adding to the pressure on resources because water used for washing machines, dishwashers and gardening is shared among fewer people.



Potential increase in properties in the Southern Water region

Leading with innovation

Our plans for the future will secure an additional 210 million litres of water each day by 2040 to cater for growing demand and replace supplies lost through climate change and licence reductions.

In developing our strategy, we took account of customers' wishes for a more resilient supply of water, whatever the weather.

We have used a technique to create

2,000

alternative patterns of rainfall

As a result, this plan is based on the most sustainable and cost effective schemes which will provide the best overall value for our customers and the environment.

It marks the start of a journey to build on innovation and work in partnership to ensure we can meet all the challenges ahead.

In the past 25 years, we have focused on reducing the amount of water we need to supply through our industry-leading work to find and repair leaks and install water meters in customers' homes.

Now we are building on these foundations with a balance of schemes to save water, protect our existing sources and secure new supplies.

Droughts of tomorrow

We have introduced an innovative way of planning in our strategy to guarantee a more resilient water supply for customers and the environment.

In the past, water companies have drawn up plans based on droughts which have already happened. They look at the patterns of rainfall which caused the droughts and how they affected water sources.

We have taken these rainfall patterns and used a technique to create 2,000 alternative ones, some of which result in more severe droughts than those we have experienced.

These results influence how we plan and also which schemes we select in the future, for example, water re-use. This involves taking treated and cleaned wastewater, which is recycled into rivers upstream and abstracted downstream, to be processed to high-quality drinking water standards.

This water would still be available in severe droughts, even when groundwater, rivers and reservoirs are starting to come under pressure.

Our plan

1. **Is less vulnerable to changing weather patterns**
2. **Reduces the likelihood of water restrictions to one in 10 years (from one in six in Sussex and Kent)**
3. **More than halves the likelihood of rota cuts and standpipes, so they are unlikely to happen in our lifetime (from one in 80 years to one in 200 years)**
4. **Helps reduce the number of times we need to apply to continue to take the water we need from the environment during droughts.**

How we will secure supplies

We want to continue to lead the industry with our programme to detect leaks, replace water mains, install meters with leak alarms and take advantage of new innovation.

Our plan includes several schemes to further reduce the amount of water lost through leaks and our target is to reduce leakage to 75 million litres each day by 2040.

In addition, we have made a promise to our customers to meet a target of 86 million litres a day by 2020.

We promise to reduce average water use to

133

litres per person per day by 2020

We are also promising to reduce the average water use of our customers by 15 litres per person per day by 2020 to 133 litres. This promise is supported by several projects in this plan to install water-saving devices in homes, schools and businesses.

New resources

While making the best use of the water available, we are also investing in a number of significant schemes to secure new water resources.

These include an aquifer storage and recovery scheme in Sussex to store water in an underground 'bubble' for use in the summer when demand is at its highest. The water is pumped into the bubble from rivers in the winter when flows are usually high and when the water would otherwise be lost out to sea.

Other key investments include water re-use schemes in Kent and Sussex and a desalination plant in Hampshire further down the line.

Sharing water supplies

An important part of our strategy is to move water resources around the region from areas where there are 'spare' supplies to areas where there are not enough.

In some cases, this means laying new pipelines in our own supply area across Kent, Sussex and Hampshire. In other cases, this involves sharing water supplies with neighbouring water companies. In this plan, we are providing water supplies to South East Water in Kent and receiving water supplies from Portsmouth Water in Hampshire.

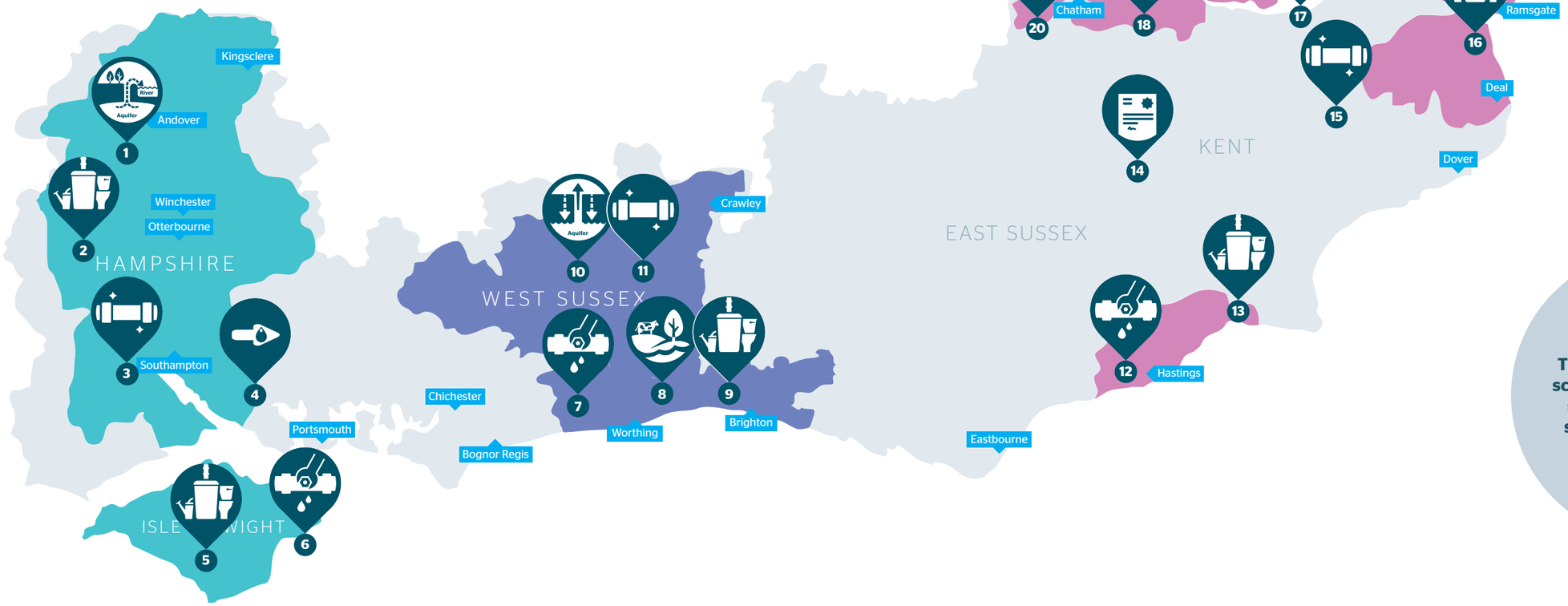
Working in partnership

Working in partnership is an important part of our strategy to improve the quality and flow of water in rivers and underground aquifers so that we can rely on them for longer. For example, we have included several schemes to work with landowners to reduce the amount of nitrates that reach river and groundwater supplies.

By working with landowners and environmental groups, we can also improve the flow and biodiversity of rivers. This makes them more resilient to water abstraction, particularly in droughts.

Summary of water resource schemes for 2015–20

The following pages give a summary of the schemes in this plan and provide more detail about the schemes we will deliver in the first five years.



The dates show when the schemes will be delivered, so, in most cases, work starts years in advance.

Western area

1. Operation of the Candover Augmentation Scheme – a **groundwater source** currently operated by the Environment Agency. This will transfer ownership to Southern Water and be used to increase flows in the River Itchen in Hampshire **by 2018**.
2. **Water efficiency schemes** in homes, schools and businesses in Hampshire **by 2019**.
3. **Upgrade Testwood Water Supply Works** and build a new pipeline to pump water to Otterbourne Water Supply Works in Hampshire **from 2018–19**. (This allows us to reduce the amount of water we take from the River Itchen to meet a sustainability reduction as part of the Habitats Directive).
4. **Transfer** up to 10 million litres of water each day from Portsmouth Water to Hampshire **from 2017**.
5. **Water efficiency schemes** in homes, schools and businesses on the Isle of Wight **by 2019**.
6. **Leakage reduction** on the Isle of Wight to save 0.4 million litres of water each day **by 2015**.

Central area

7. **Leakage reduction** in Sussex Worthing to save one million litres of water each day **by 2019**.
8. **Catchment management schemes** and nitrate removal plants at two water supply works in Sussex Worthing and two in Sussex Brighton **by 2016**.
9. **Water efficiency schemes** in homes, schools and businesses in Sussex Worthing and Sussex Brighton **by 2019**.
10. Restructure our 'well field' near Pulborough in Sussex **by 2019** where we take **groundwater** to enable the wells to operate more efficiently all year round. There will be no increase in the overall amount of water we abstract.
11. Stage one of a **new pipeline** in Sussex **by 2018** to help move water around the region more easily and to help preserve storage at our Weir Wood reservoir during droughts.

Eastern area

12. **Leakage reduction** in Sussex Hastings **by 2019** to save 0.4 million litres of water each day.
13. **Water efficiency schemes** in schools and businesses in Sussex Hastings **by 2017**.
14. **Change our abstraction licence** on the River Medway in agreement with the Environment Agency to allow us to take more water in the winter and less in the summer **by 2015**.
15. **Build a pipeline** to help move more water around the Medway region **by 2017**.
16. **Water efficiency schemes** in schools and business in Kent Thanet **by 2019**.
17. **Catchment management scheme** and nitrate removal plant at Gore Water Supply Works in Medway to allow us to continue taking groundwater **by 2019**.
18. **Change our abstraction licence** at Danaway in Medway in agreement with the Environment Agency to allow us to take more groundwater **from 2016**.
19. **Water efficiency schemes** in schools and businesses in Kent Medway **by 2015**.
20. **Supply** 6.1 million litres of water each day to South East Water from Bewl Water as part of the Water Resources in the South East regional plan **from 2015**.

The first five years

The following pages provide more information about the schemes we are developing between 2015 and 2020 to secure healthy, reliable water supplies.

They also show how the schemes relate to promises in our Business Plan for 2015-20.

The schemes include a mixture of options to secure new water and options to make the best use of the water already available. We will also be carrying out investigations into the schemes we have included in our plan for later years to make sure they are feasible and can supply the amounts of water we need.

We will continue to consult with our customers and interested groups as we investigate, develop and deliver these schemes and regularly report on our progress.

Leakage reduction

The scheme: Repair and replace pipes that lose treated water from our 13,700 kilometres of distribution network.

- **Volume of additional water available:** 1.8 million litres of water each day
- **Timescale:** 2015 to 2020
- **Where:** Region-wide with targeted schemes in Sussex and on the Isle of Wight.

We have a comprehensive programme to find and repair leaks across our region from 2015-20, with additional targeted campaigns in the Worthing and Hastings areas of Sussex and on the Isle of Wight. Reducing the amount of water which leaks from pipes reduces our need to abstract water from rivers and groundwater, so helps protect the environment.

We currently have one of the lowest levels of leakage per property of all the water and wastewater companies. Since privatisation of the water industry in 1989, we have reduced the amount of water lost to leaks by two-thirds. This means that, overall, the amount of water we supply has reduced by a quarter – despite an increase in the number of customers we supply and the amount of water they use.

southernwater.co.uk/leakage

Reduce leakage to 86 million litres a day by 2020

Well field – groundwater supplies

The scheme: The restructure of wells for more efficient abstraction of groundwater.

- **Volume of additional water available:** 4 million litres of water each day
- **Timescale:** 2019
- **Where:** West Sussex.

In West Sussex, we operate a series of 'wells' through which we can abstract up to 27 million litres of water a day from the chalk aquifer for drinking water. The wells, near Pulborough, are not operating as efficiently as they could, so we propose to drill new wells and refurbish existing ones to maximise the benefits of the water stored underground.

We will not abstract more water overall and will still operate within our licence. However, we will be able to become more flexible about when and how often we abstract water.

southernwater.co.uk/wells

A constant supply of high-quality drinking water

Aquifer storage and recovery

The scheme: Aquifer storage and recovery (ASR) involves storing drinking water in natural underground reservoirs until it is needed.

- **Volume of additional water available:** 4 million litres of water a day
- **Timescale:** A pilot in 2015, followed by the full scheme after 2020
- **Where:** Worthing, West Sussex, to provide supplies for the Worthing and Brighton areas and also north Sussex.

In this scheme, water would be abstracted from the River Rother and groundwater when levels are high during the winter. It would then be treated to drinking water standards and pumped underground to be stored in a 'bubble' in the permeable rock in the Lower Greensand aquifer.

In dry, hot summer months and during droughts, the water would be pumped back to the surface before being disinfected and put into supply to help meet demand.

A pilot scheme is scheduled for 2015 to establish how much water can be stored. If this is successful, we plan to develop a permanent scheme after 2020. ASR has significant advantages over storing water in surface reservoirs because the impact on the environment is very small. In research with customers, ASR was chosen as the most popular option to provide future water.

southernwater.co.uk/ASR

A constant supply of high-quality drinking water

Water efficiency

The scheme: Projects in homes, schools and businesses to measure water use, install water-saving devices and promote water efficiency.

- **Volume of additional water available:** 6 million litres of water each day
- **Timescale:** 2015 to 2019
- **Where:** Sussex, Kent, Hampshire and the Isle of Wight.

During the last five years, we have installed water meters for the majority of our domestic customers. Many of our business customers are already on a water meter.

We want to continue to support our customers to save water, energy and money with packages of water efficiency projects for homes, schools and businesses. These schemes will include measuring water use, installing water-saving devices, such as efficient showerheads, and education campaigns to encourage people to use water wisely.

Small savings across our two million customers can add up to significant amounts and help reduce the amount of water we need to abstract from rivers and groundwater for supply. We will work in partnership with organisations, such as local authorities, to target projects where they will be most effective and support customers struggling to pay their bills.

southernwater.co.uk/waterefficiency

10 per cent reduction (15 litres per person, per day) in average water use by 2020

Catchment management and nitrate removal schemes

The scheme: The installation of nitrate removal plants at water treatment works in Sussex and Kent and supporting catchment management projects to secure long-term protection for water stored in chalk aquifers from nitrates.

- **Volume of water secured:** 95 million litres of water each day
- **Timescale:** 2016 for four nitrate removal plants in Sussex and 2019 for one in Kent, with supporting catchment work in 2015-20.
- **Where:** The Brighton and Worthing areas of Sussex and Medway in Kent.

We will work in partnership to reduce the amount of nitrates (for example, from fertilisers) used in Groundwater Protection Zones. These zones cover the land above the chalk aquifers from which we abstract the majority of water we supply for drinking. By protecting these sources, we are able to avoid the need to develop new sources to replace them if nitrate levels became too high.

This option runs in parallel with the addition of nitrate removal plants at five water treatment works – two in the Worthing area by 2016, two in the Brighton area by 2016 and one in Medway, Kent, by 2019. These will remove nitrates from the water supplies in the short term and will be needed less and less often as the catchment management schemes begin to take effect.

The catchment management schemes will provide a long-term sustainable solution to protect water sources from rising levels of nitrate. They are more cost effective and therefore have a lower impact on customer bills because they do not involve the maintenance and operational costs of running equipment at the treatment works.

We will work with landowners, environmental organisations and local authorities, such as the South Downs National Park, to deliver the catchment schemes.

southernwater.co.uk/catchment

A constant supply of high-quality drinking water

Water re-use

The scheme: To recycle treated wastewater to the River Medway to abstract downstream and treat to high drinking water standards.

- **Volume of additional water available:** 20 million litres of water each day
- **Timescale:** 2022
- **Where:** Medway area in Kent.

Water re-use was one of the preferred options chosen by customers in consultations during the development of this plan because it secures resilient supplies which can be relied on even during droughts.

The scheme would involve recycling wastewater which has been treated to higher than usual standards at Aylesford Wastewater Treatment Works. The treated water would then be pumped through a pipeline and recycled upstream to the River Medway. The water would then be abstracted further downstream and treated to the highest drinking water standards before being put into supply.

This is a joint scheme with South East Water and will provide a significant new resource in Kent to help meet demand in one of the fastest growing regions. It also increases the resilience of water supplies and protects the ecology in the river during droughts.

This scheme is not due to come into operation until 2022, however, between 2015–20 we will consult with our customers and apply for planning and other permissions to upgrade the treatment works and lay new pipelines.

southernwater.co.uk/re-use

A constant supply of high-quality drinking water

Licence changes

The scheme: Changing two abstraction licences in Kent to allow us to take more groundwater from an aquifer in Medway and more water from the River Medway during the winter, when flows are at their highest.

- **Volume of additional water available:** 6.6 million litres of water each day
- **Timescale:** 2015 on the River Medway and 2016 for the groundwater source
- **Where:** River Medway and Danaway in Kent.

The Environment Agency issues licences which set out how much water we can abstract from underground aquifers and rivers and how often. We want to update our licences for two Kent water sources to allow us to make the most of the water available.

We currently abstract water from the River Medway for daily supplies and to help fill Bewl Water reservoir for use at a later date. We want to agree a change to this licence with the Environment Agency so we can abstract more water from the river during the winter, when flows are high, and less in the summer, when flows are at their lowest. Overall, we will not take more water from the river – just use the allowance more efficiently.

We would also like to change our abstraction licence at a groundwater source in Danaway in Medway to allow us to take more water from the aquifer, which has the capacity without any impact on the environment.

southernwater.co.uk/abstraction

A constant supply of high-quality drinking water

Sharing water

The scheme: Sharing water with neighbouring water companies to extend the regional grid in the South East and move water to where it is most needed.

- **Volume of additional water shared:** 16 million litres of water each day
- **Timescale:** 2015 in Kent and 2017 in Hampshire
- **Where:** Medway region in Kent and south Hampshire.

These water-sharing schemes were identified through the Water Resources in the South East (WRSE) group, which developed a 25-year over-arching strategy for five water companies in the region.

In Kent, we have agreed to transfer 6.1 million litres of water to South East Water each day from 2015 to supply its customers. We are able to share this water because of new schemes we are developing in Medway.

In Hampshire, we have agreed Portsmouth Water will supply us with 10 million litres of water a day from 2017. This transfer will help balance the amount of water we currently abstract from the Rivers Test and Itchen to supply to customers.

A constant supply of high-quality drinking water

New pipelines

The scheme: New pipelines in Kent, Sussex and Hampshire to move water around the region to where it is most needed and extend the mini grid in the South East.

- **Volume of additional water transferred:** 38 million litres of water each day
- **Timescale:** 2017-20
- **Where:** Kent, West Sussex and Hampshire.

We have three schemes to install new pipelines to extend and connect our own network of water mains. These will help us move water from where we have a surplus to where it is most needed.

In Kent, we are installing a 6.9km pipeline to connect Wigmore and Borstal. This will help balance water supplies between Medway and Thanet and is due to be in place by 2017.

In Sussex, we are laying the first section of a three-stage pipeline, which will strengthen our connections between north Sussex and the Worthing and Brighton areas when fully completed in 2037. The first stage is a 0.7km pipeline near Pulborough in West Sussex.

In Hampshire, we are planning to lay a 22km pipeline to link our water supply works at Testwood, near Southampton, and Otterbourne, near Winchester, by 2018-19. This will help us balance the amount of water we take from the River Test, the River Itchen and other water sources during droughts to secure drinking water supplies for all of our customers in southern Hampshire.

southernwater.co.uk/pipelines

A constant supply of high-quality drinking water

Hampshire and the Isle of Wight

The scheme: A review of the options to secure water resources for customers in Hampshire and the Isle of Wight and development of the preferred options.

- **Volume of additional water required:** 40 million litres of water each day
- **Timescale:** 2015-19
- **Where:** Hampshire south and the Isle of Wight.

Hampshire and the Isle of Wight have historically benefited from extremely resilient water resources because of the geology of the area and the availability of water from two chalk streams, the River Itchen and the River Test.

Under European legislation, we have agreed to introduce a 'sustainability reduction' on the River Itchen, which will reduce the amount of water we can abstract for public water supplies in the summer months and when flows in the river are low. Therefore, we need to secure new resources to replace these and this plan includes a set of schemes to achieve this at the earliest possible date (2018-19). These include:

- Upgrading Testwood Water Supply Works (WSW) to treat more water from the River Test during droughts
- Laying a pipeline to connect Testwood WSW to Otterbourne WSW, near Winchester
- Using a groundwater source near Candover to increase flows in the River Itchen
- A transfer of water supplies from Portsmouth Water.

These schemes are in addition to leakage reduction and water efficiency and we are also proposing a catchment scheme to work in partnership with environmental organisations and landowners to improve the flow and biodiversity of the River Test and its surrounding areas to increase its resilience to drought.

We have set up a steering group with representatives from the Environment Agency, Natural England, WWF, the Hampshire and Isle of Wight Wildlife Trust, Consumer Council for Water and Test Valley Borough Council to explore these schemes further as well as potential future reductions to our abstraction licences.

Alongside these schemes, we are also investigating alternative options for large-scale water re-use and desalination.

We will continue to consult with our customers and interested parties on all these schemes as they progress between 2015 and 2020.

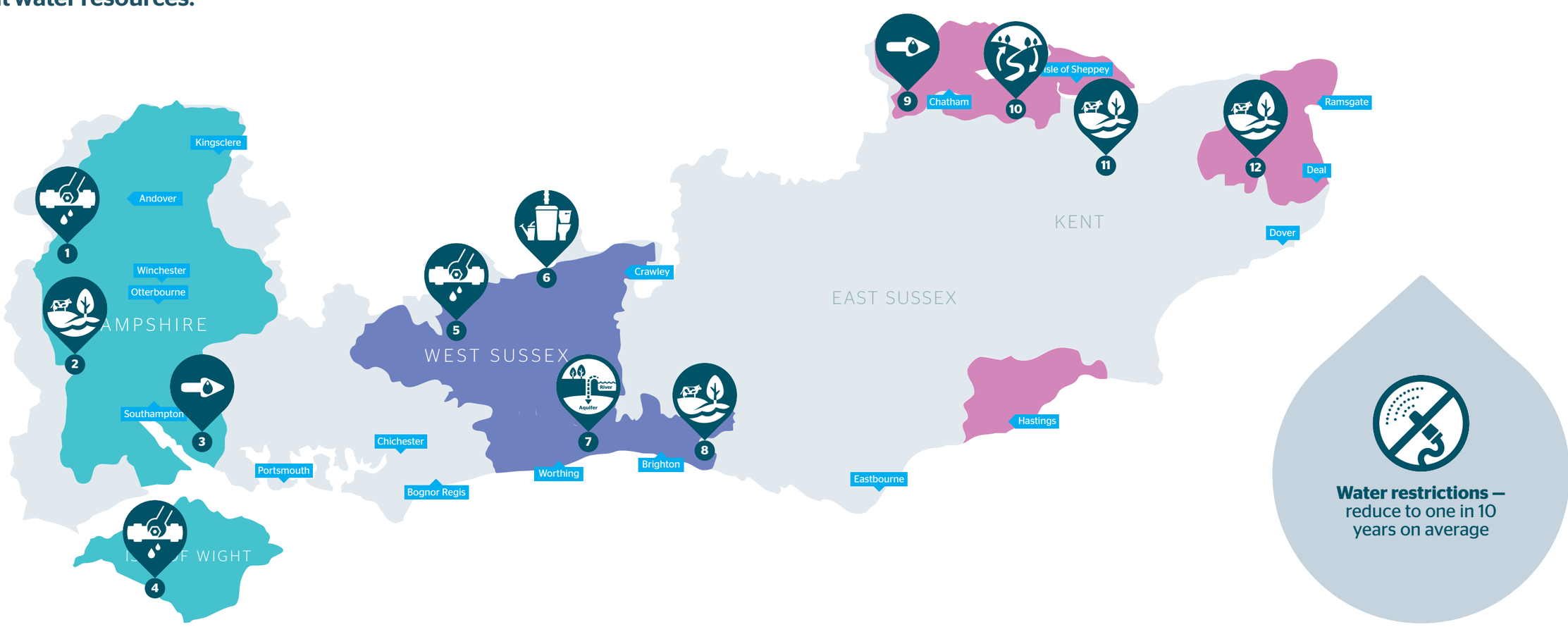
southernwater.co.uk/Hampshire&IoW

A constant supply of high-quality drinking water

Summary of water resource schemes for 2020–25

The next two maps show the schemes we are planning to deliver between 2020 and 2040 to secure long-term, resilient water resources.

These may be updated as we carry out investigations and update our plans every five years.



Water restrictions – reduce to one in 10 years on average

Western area

1. **Leakage reduction** in Hampshire to save two million litres of water each day **by 2022**.
2. **Catchment management schemes** at two water supply works in Hampshire **by 2024**.
3. **Transfer** an extra five million litres of water each day from Portsmouth Water to Hampshire **by 2024** to make a total of 15 million litres each day.
4. **Leakage reduction** on the Isle of Wight to save a further 0.4 million litres of water each day **by 2022.**

Central area

5. **Leakage reduction** in Sussex North to save two million litres of water each day **by 2024**.
6. **Water efficiency schemes** in homes, schools and businesses in Sussex North **by 2020**.
7. **Aquifer storage and recovery** in Sussex to store water underground in the winter for use in the summer after **2020**.
8. **Catchment management schemes** to help reduce the amount of nitrates in the water we abstract at seven water supply works in Sussex Brighton **by 2024**.

Eastern area

9. **Increase the supply** to 17.5 million litres of water each day to South East Water from Bewl Water as part of the Water Resources in the South East regional plan **from 2022**.
10. **Water re-use** in Medway to recycle cleaned wastewater to the river to abstract downstream to treat for drinking water **by 2022**.
11/12. **Catchment management schemes** to help reduce the amount of nitrates in the water we abstract at a water supply works in Medway and another in Thanet **by 2024**.

Summary of water resource schemes for 2025–40

Western area

1. **Water efficiency schemes** in schools and businesses in Hampshire Kingsclere **by 2033**.
2. **Leakage reduction** in Hampshire Kingsclere to save 0.2 million litres of water each day **by 2038**.
3. **Leakage reduction** in Hampshire to save one million litres of water each day **by 2026** and a further one million litres each day **by 2038**.
4. **Desalination** on the coast at Marchwood Industrial Park **by 2028**.
5. **Increase the transfer** of water to the Isle of Wight via the Cross Solent Main to 20 million litres of water each day **by 2032**.
6. **Leakage reduction** on the Isle of Wight to save 0.4 million litres of water each day **by 2025** and a further 0.4 million litres per day **by 2029**.
7. **Upgrade to a water supply works** near Cowes on the Isle of Wight to treat more groundwater **by 2027**.

Central area

8. **Water re-use** at Ford in Sussex North to support river flows in the River Rother upstream of our water treatment works near Pulborough **by 2026**.
9. Stage two of a **new pipeline** in Sussex to help move water around the region more easily, including upgrades at our water supply works near Pulborough **by 2036**.
10. Stage three of a **new pipeline** in Sussex to help move water around the region more easily, including a new water main between Shoreham and Brighton **by 2037**.
11. **Pipelines** in Sussex Brighton **by 2034** to help move water around.

Eastern area

12. **Licence trading scheme** in Medway to buy an existing licence from another organisation to abstract water **by 2034**.
13. **Leakage reduction** in Thanet to save 0.75 million litres of water each day **by 2039**.
14. **Water efficiency schemes** in homes in Kent Thanet **by 2035**.

Costs, carbon and next steps

Our water strategy is based on the best mix of solutions to secure sustainable and resilient water supplies for our customers at the best value for the next 25 years.

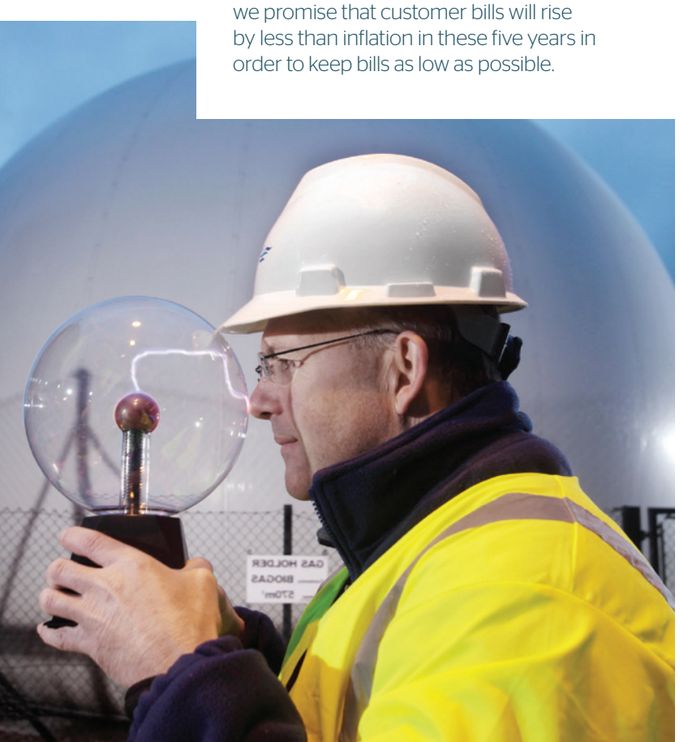
We have included a mix of schemes to both reduce demand for water and to increase the amount we can supply, particularly during droughts, and we have also taken into account feedback from our customers.

Our plan is based on an innovative new approach to plan for droughts more severe than those in the past – one which our customers have asked us to invest in.

The cost of delivering the schemes in our 25-year Water Resources Management Plan is £252 million.

We will need to borrow money to finance this investment and we also raise finances through customer bills.

However, in our Business Plan for 2015–20, we promise that customer bills will rise by less than inflation in these five years in order to keep bills as low as possible.



Carbon footprint

The construction and operation of new water sources will increase our use of energy.

Overall, we expect our carbon emissions to increase from an average of 211 tonnes per day from 2013 to 220 tonnes per day by 2040 for water supply.

Where possible, we will use renewable energy when developing new resources and in our Business Plan for 2015–20, we have promised to maintain the proportion of renewable energy we use at 15 per cent, despite an increase in demand.

As we developed our water resources strategy, we considered the carbon cost to build and operate each of the schemes as part of our selection criteria. This ensures we balance the need to supply water with protection of the environment.

Investigations for the future

Our strategy includes investigations for schemes which are due to come into operation later on in the 25-year plan. These will help ensure that the options we have chosen can be built and provide the benefits we need in time.

The investigations will include more consultation with customers and the communities in which the schemes are planned. In particular, we will be looking at our schemes to develop water re-use, desalination and catchment management partnerships.

We will also continue to work with the Government to explore reform of the abstraction system in the UK and new opportunities to trade water.

Drought Plan

Our Drought Plan 2013–16

Our Drought Plan forms an important part of our overall water strategy.

While our Water Resources Management Plan sets out how often we plan to introduce restrictions in droughts, our Drought Plan explains the actions we will take during one.

This section shows the range and timing of actions we could take to secure essential drinking water supplies as droughts develop and worsen.

What is a drought?

A drought is a period of water shortage caused by exceptionally low rainfall. According to the Environment Agency: "A drought happens when a period of low rainfall creates a shortage of water for people, the environment, agriculture, or industry."

However, all droughts are different – they last for varying lengths of time, are of different severity and affect water sources and demand for water in different ways.

One single hot, dry summer with high demand is very different to a drought which lasts over a number of years and severely depletes groundwater and river flows.

Weather can also vary across our region, so there can be a drought and restrictions in one area, such as Kent, but no restrictions in another county, such as Hampshire.

Different types of drought

Each drought is different, but we can identify several types from our experience of previous droughts and predictions for droughts in the future.

One dry winter – most of the water we supply comes from groundwater sources which are fairly resilient to a single dry winter because there is a large amount of storage in the underground chalk. However, rivers can be severely affected by a dry winter because it causes lower flows the following year. This can limit the amount of water we can abstract to supply and to refill reservoirs. Our reservoir at Weir Wood in Sussex can be affected by one dry winter because it is filled only by rain running off the land.

One hot summer – long, hot periods in the summer tend to create a higher demand for water because people water their gardens and take more showers. A period of high demand can affect all water sources, however, our metering programme is helping to reduce the very high peaks we have seen in the past as people use water more wisely.

Two dry winters – after two dry winters of low rainfall, groundwater and reservoirs such as Bewl Water and Darwell, in East Sussex, which are filled from rivers, come under pressure as

their storage begins to run low. This is the point where restrictions are likely to be introduced.

Three dry winters – we have yet to experience three dry winters in a row, however, our predictions suggest it is possible in the future. After three dry winters, schemes such as water re-use and desalination would provide the most reliable sources of water because the storage in groundwater and reservoirs would reach very low levels.

Drought triggers

All water companies use 'triggers' to identify when a drought is starting. This ensures steps are taken early to help reduce demand for water and secure vital supplies. We monitor rainfall, water levels in rivers, reservoirs and groundwater and other factors, such as demand for water, to work out when we need to take action.

The steps we take are introduced in phases as a drought develops. These are shown in a traffic light system.

Drought actions

We take a wide range of actions to maintain supplies during a drought, starting with awareness campaigns and progressing to water restrictions and we could, if needed, commission emergency desalination plants.

As a drought develops, we launch campaigns to encourage our domestic and business customers to use water wisely and we increase our work to find and fix leaks. This is followed by the introduction and escalation of water restrictions for domestic and then business customers and Drought Permits and Drought Orders to continue to take water from rivers and groundwater and new sources, even during lower flows.

In severe droughts, we will bring back into operation water resources which are not usually used, often because they are an expensive source of water. We will also investigate the need to set up temporary desalination plants or tanker in water from areas which are not affected by drought.

The steps we take fall into two categories – actions to make the most of existing sources and secure water supplies and actions to reduce demand for water.

One dry winter

- Awareness campaign
- Promote water efficiency and water savings
- Increase work to find and fix leaks beyond our target
- Begin to operate our water sources in 'drought mode'

Two dry winters (winter actions)

- Continue to operate our water sources in drought mode and rest groundwater sources
- Bring forward schemes to secure additional water
- Implement regional drought strategy and water sharing with neighbouring water companies
- Continue all previous activities

Two dry winters (summer actions)

- Introduce Temporary Use Bans
- Increase media and public awareness campaign
- Plan for the possibility of a third dry winter
- Continue all previous activities

Three dry winters (winter actions)

- Apply for Drought Permits to abstract water from the environment
- Apply for Drought Orders to implement Non Essential Use Bans
- Apply for Drought Permits to increase abstraction from existing sources
- Continue all previous activities

Three dry winters (summer actions)

- Apply for Drought Orders to abstract water from new sources
- Implement emergency desalination and water re-use
- Tanker water from non-drought regions
- Continue all previous activities

Drought breaks

- Lift restrictions when sources restored to 'stable' levels
- Continue with media and awareness campaign
- Gather feedback from customers

Key:
Normal
Impending drought
Drought
Severe drought

Supply actions

As drought triggers are reached, we can take a number of actions to help secure water supplies.

Some of these involve reducing demand for water and others involve supply actions to secure existing water supplies and find alternative sources.

In the early stages of a drought, these can include increasing our work to find and fix leaks and operating our sources in 'drought' mode to prolong resources.

We will also investigate bringing old sources back into action, creating new boreholes to abstract water and increasing our abstraction in areas where water is available.

In extreme droughts, we can introduce emergency desalination to treat seawater, recycle cleaned wastewater to boost river flows or tanker in water from areas where supplies are under less stress. To support some of these supply actions, we need to apply for Drought Permits or Drought Orders.

Drought Permits

When securing drinking water supplies in a drought, we need to balance the actions we take to secure water with protecting the environment.

In some cases, we need to apply for Drought Permits to allow us to continue to abstract water from rivers and groundwater when they drop below the levels that we are normally licensed to take water.

The permits can also increase our abstraction, vary seasonal limits on licences or reduce the amount of water we have to release from our reservoirs in the summer to support the environment.

The decision to grant a Drought Permit sits with the Environment Agency and we work alongside them to implement monitoring and mitigation measures on rivers and groundwater where we need to continue taking water.

The permits are issued for a short period of time and can only be renewed for limited periods.

In prolonged droughts, we may apply for a winter permit, when flows are higher, in order to refill reservoirs and reduce the need to apply for permits in the summer.

Drought Orders (supply)

We can also apply for Drought Orders to abstract water from sources for which we don't already hold a licence. Drought Order applications are determined by the Secretary of State for the Environment and can also include applications to increase the level of water restrictions.

Permits and orders may not necessarily be introduced across our whole region at the same time, only in the areas where they are needed. We may also apply for a permit or order which is then not put into action because the situation improves in the meantime.

Demand actions

Reducing demand for water also plays a critical role in securing drinking water supplies during a drought.

We promote water efficiency all year round, but, as a drought starts to develop, we launch awareness campaigns and encourage customers to use water wisely.

As a drought worsens, we may need to introduce water restrictions to ensure that we can continue to supply vital supplies for drinking and washing.

Temporary Use Bans

In the past, we have introduced hosepipe and sprinkler bans to restrict their use for watering gardens, washing cars and other activities. These have now been replaced by Temporary Use Bans (TUBs), which were introduced in the Flood and Water Management Act 2010.

TUBs include the former hosepipe and sprinkler bans as well as other activities, such as filling private swimming pools. They can be introduced quickly – seven days after an advert has been placed in newspapers in the area which will be affected. The restrictions predominantly focus on water use by domestic customers because this provides the largest water saving and helps protect public services and the economy by allowing businesses which rely on water to continue trading.

Drought Orders (demand)

We work closely with businesses and trade organisations to encourage them to use water wisely in order to delay the introduction of restrictions which could impact their operation.

However, if a drought continues to worsen, we can also apply to the Secretary of State for the Environment for a Drought Order to introduce more severe water restrictions. In some cases, the Government may hold a public inquiry before permission is granted.

The full set of restrictions is set out on pages 38 to 41.

Exceptions to the restrictions

Some customers are exempt from the restrictions or can apply to their water company to request an exemption, for example, holders of a Blue Badge.

Since the last drought in 2012, all water companies in the UK have signed up to a common list of restrictions and discretional exceptions to make it easier for customers to understand when they can use water and when it is restricted.

These include:

- Blue Badge holders
- Customers using an approved drip or trickle irrigation system fitted with a pressure-reducing valve and timer system
- Commercial customers who use hosepipes as part of their business.

Customers can also contact us directly to request a discretionary concession from restrictions.

Customers and the environment

Our water strategy is based on the use of Temporary Use Bans, such as hosepipe restrictions, once every 10 years on average. Our customers have said this is acceptable to them.

This is the 'level of service' we have planned for. We have also made a promise in our Business Plan for 2015-20 that we will not introduce water restrictions unless there have been at least two dry winters in a row.

If we planned for less frequent restrictions, we would have to invest much more in new resources. These would not be used very often, but the cost of building and maintaining them would significantly increase customers' bills.

We also set 'levels of service' for the frequency of Drought Permits and Orders during a drought and these are set out below.

Type of restriction or measure	Frequency (average)
Customer level of service	
Campaign to promote water-saving with customers	One year in five
Temporary Use Bans on certain uses of water (See page 39)	One year in 10
Drought Orders to restrict wider water use (See pages 40-41)	One year in 20
Emergency Drought Order for widest restrictions	One in every 200 years
Environment level of service	
Drought Permits or Orders to increase water supplies available from groundwater and rivers	One year in 20

Communication

Critical to managing a drought is working in partnership with our customers, interested groups, the organisations which regulate the water industry and the Government.

When we hit drought triggers, we set up Drought Management Groups and work closely with the Environment Agency and other water companies to share information and co-ordinate awareness and engagement campaigns.

We have a Drought Communications Plan which we implement as a drought starts. We launch campaigns to promote water efficiency, raise awareness of the developing drought and share information about the steps we are taking to manage it.

Drought information is made available on our website, **southernwater.co.uk**, and we work with the media and other partners to raise awareness through newspapers, radio, television and social media, leaflets, posters, newsletters and advertising.

Protecting the environment

Our region contains a large number of sites which are protected under national or international designations.

Some of these sites contain water sources which may be affected by the actions we take to secure water in a drought. As we prepared our Drought Plan, we carried out an environmental assessment of the potential impacts of drought actions and published this in a Strategic Environmental Assessment (SEA).

If we apply for Drought Permits and Orders, we would work with the Environment Agency to further evaluate the impact of our actions to secure drinking water supplies and put in place monitoring and mitigation measures.

When a drought 'breaks'

A drought normally ends following a sustained period of rain. This usually means a number of months of rain rather than a few days because it takes time for groundwater, rivers and reservoirs to fully recover.

We will leave restrictions, Drought Permits and Drought Orders in place until we are confident there are enough flows to recharge water sources and we can secure reliable supplies for our customers.

If restrictions have been in place during a summer, we may need to wait until spring to make sure there has been sufficient rain to recharge sources. This can be difficult to explain, particularly if rain during winter also causes flooding.

Following a drought, we review our actions and ask our customers for feedback so we can improve our actions and campaigns in the future.

Emergency measures

If we experience a drought more severe than we have planned for, we may need to consider applying to the Government for an Emergency Drought Order.

We would only apply for this after we have implemented the full range of restrictions and Drought Permits and Orders available to us, and only in a civil emergency.

An Emergency Order allows for the introduction of standpipes or water tanks in the street and rota cuts, where water supplies are restricted to a few hours each day.

In such an emergency, we would work with local fire authorities to secure water supplies for fire-fighting, as well as all other key organisations.

The possibility of these restrictions being introduced is extremely unlikely and we would take every step to avoid them.

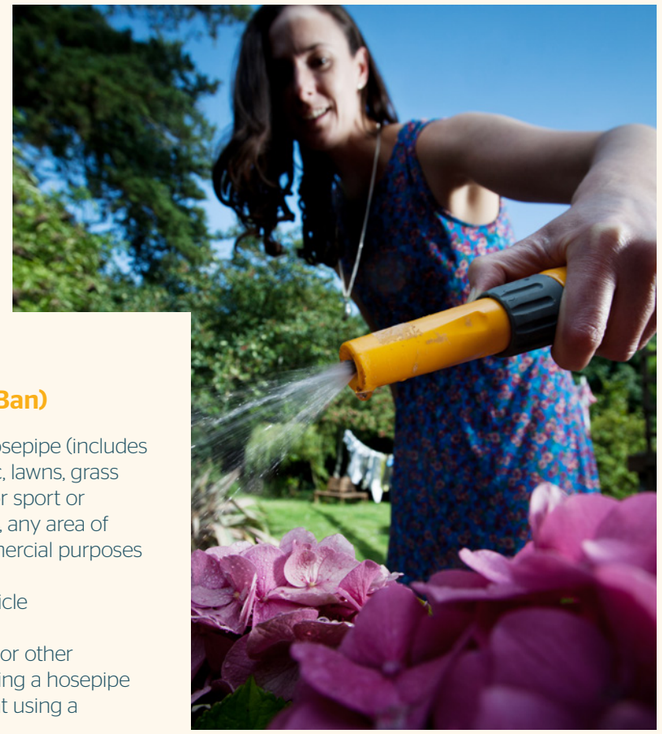
The last time restrictions of this type were introduced was in 1976. Since then, we have developed a more resilient supply network, so, if the same conditions happened today, the emergency restrictions would not be required.

Summary of potential water restrictions

Normal

Impending drought

- No restrictions on water use
- Promotion of water efficiency advice and products
- Media campaign to raise awareness of impending drought
- Engagement with partner organisations.



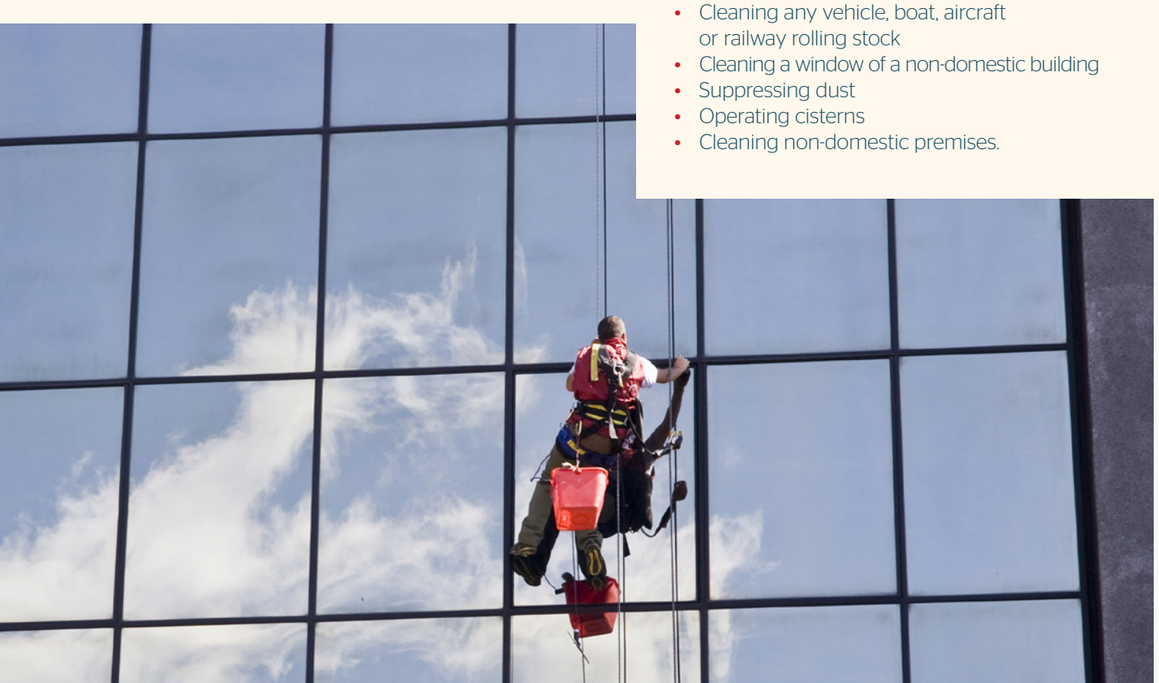
Drought conditions (Phase 1, Temporary Use Ban)

- Watering a garden using a hosepipe (includes parks, gardens open to public, lawns, grass verges, areas of grass used for sport or recreation, allotment gardens, any area of allotment used for non-commercial purposes and any other green space)
- Cleaning a private motor vehicle using a hosepipe
- Watering plants on domestic or other non-commerical premises using a hosepipe
- Cleaning a private leisure boat using a hosepipe
- Filling or maintaining a domestic swimming or paddling pool
- Drawing water, using a hosepipe, for domestic recreational use
- Filling or maintaining a domestic pond using a hosepipe
- Filling or maintaining an ornamental fountain
- Cleaning walls or windows of domestic premises using a hosepipe
- Cleaning paths or patios using a hosepipe
- Cleaning other artificial outdoor surfaces using a hosepipe.

Severe drought conditions (Phase 2, Drought Order)

As Phase 1 with the addition of:

- Watering outdoor plants on commercial premises
- Filling or maintaining a non-domestic swimming or paddling pool
- Filling or maintaining a pond
- Operating a mechanical vehicle-washer
- Cleaning any vehicle, boat, aircraft or railway rolling stock
- Cleaning a window of a non-domestic building
- Suppressing dust
- Operating cisterns
- Cleaning non-domestic premises.



Severe drought conditions (Phase 3, Drought Order)

As Phase 1 and 2 with the addition of:

- Watering national or international sports events grass surfaces used for sport or recreation where watering is undertaken in relation to particular playing or other surfaces designated by the company for no more than two hours a week and only between the hours of 1900hrs and 0700hrs
- Cleaning a private motor vehicle using a hosepipe, including businesses specialising in hand car washing using hosepipes as part of their process
- Cleaning walls or windows of domestic premises using a hosepipe, including small businesses using water-fed poles to clean domestic walls and windows where the purpose of cleaning is the removal of graffiti
- Cleaning paths or patios using a hosepipe, including small businesses whose sole operations are the cleaning of paths and patios where the purpose of cleaning is the removal of graffiti
- Cleaning other artificial outdoor surfaces using a hosepipe, including small businesses whose sole operations are the cleaning of hard standings where the purpose of cleaning is the removal of graffiti
- Watering outdoor plants on commercial premises, including watering of newly-bought plants and plants watered using certain water efficient apparatus, such as drip or micro-irrigation through perforated hosepipes and sprinker irrigation systems
- Operating a mechanical vehicle-washer, including washers that recycle water and, as a consequence, use less than 23 litres of mains water per vehicle
- Cleaning any vehicle, boat, aircraft or railway rolling stock, including where the purpose of cleaning is the removal of graffiti
- Cleaning non-domestic premises, including where the purpose of cleaning is the removal of graffiti
- Cleaning a window of a non-domestic premises, including small businesses using water-fed poles to clean non-domestic windows
- Cleaning industrial plant.

Find out more

This document is a summary of our Water Resources Management Plan for 2015–40 and our Drought Plan for 2013–16.

The following supporting documents can be downloaded on our website at **southernwater.co.uk**

Water Resources Management Plan
- Technical Report
- Strategic Environmental Assessment (Summary)
- Habitats Regulations Assessment (Summary)
- Appendices
- Water Tables (Summary).

Drought Plan
- Drought Plan Technical Report
- Strategic Environmental Assessment (Summary).

What's ahead:

Consultation for Drought Plan – 2015

Consultation for WRMP – 2017

Consultation for Business Plan – 2017

Get in touch:
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Find out more online
southernwater.co.uk

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October 15, 2014

"We need to take a fresh look at the options we have for managing future supply and demand, and ensure that we build in flexibility and resilience to uncertain and changing conditions."

— Water for Life