A young child with curly hair is shown in profile, watering a green plant in a metal bucket. The child is holding a clear plastic bottle with a green cap, tilted to spray water onto the leaves. The background is a wooden fence. A blue circular graphic is overlaid on the left side of the image.

Wessex Water's
Drought Plan
2022

Non-technical summary



Wessex Water
YTL GROUP

FOR YOU. FOR LIFE.

Wessex Water's Drought Plan 2022 non-technical summary

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Introduction

Safe and reliable water and wastewater services are essential for our day-to-day lives and wellbeing. There is a need to plan for the long-term, to adapt to a changing climate and reverse the degradation of the natural world, to protect the planet and the life it sustains.

To meet these challenges we have developed an ambitious long-term plan to deliver great customer services and enhance the environment for nature and people. To read more about our strategic direction, please visit: www.wessexwater.co.uk/corporate/strategy-and-reports/our-strategic-direction

Within the context of our long-term ambition, we produce a drought plan about what we will do today to manage a drought situation. The Drought Plan sets out what will happen before, during, and after a drought to help maintain a secure supply of water to customers, and protect the environment.



Our ambition stretches beyond water, to performing a wider role in society as a company that: is trusted to take care of the natural world we all depend on; sets the benchmark on environmental performance; and plays our part in rising to pan-sector challenges of unprecedented scale and urgency - the climate and nature emergencies, the need for carbon neutrality, rising public expectations of the environment, higher living costs and long term resilience.

What is a Drought Plan?

Each water company is required by law to develop and maintain a Drought Plan.

The plan shows how we will provide a secure supply of water and protect the environment during dry weather and drought.

Our last plan was published in 2018. Since then, our regulators, the Environment Agency and Defra, have published new guidance for water companies and requested that we prepare a new plan.

We developed a draft plan following the new guidance and consulted on this draft with stakeholders and regulators in 2021.

We have addressed comments received on the draft plan and have now been given permission to publish our finalised Drought Plan by Defra in summer 2022.

The plan a technical document containing details of the assessments, calculations and research that are the building blocks of the plan and this summary document which provides an overview of all the essential elements. The technical report can be found here: www.wessexwater.co.uk/environment/water-resources/drought-plan

The Drought Plan focusses on the actions that can be taken in the short-term to deal with drought, if one were to occur in the coming few years. It acts as an operational manual to refer to on an ongoing basis leading into, during and after a drought has ended.

Alongside this Drought Plan, we also develop and maintain a Water Resources Management Plan. This considers how we will manage droughts that may occur between now and several decades into the future, accounting for the influence of climate change, population growth, and changing regulatory standards to protect the environment.

The Water Resources Management Plan identifies long term investments that may be required, such as new sources of water, or further demand reduction measures like leakage and supporting customers to help them reduce their usage. Further information on this plan can be found here: [Water resource management plan | Wessex Water](#)



The drought plan focusses on the actions that can be taken in the short-term to deal with drought

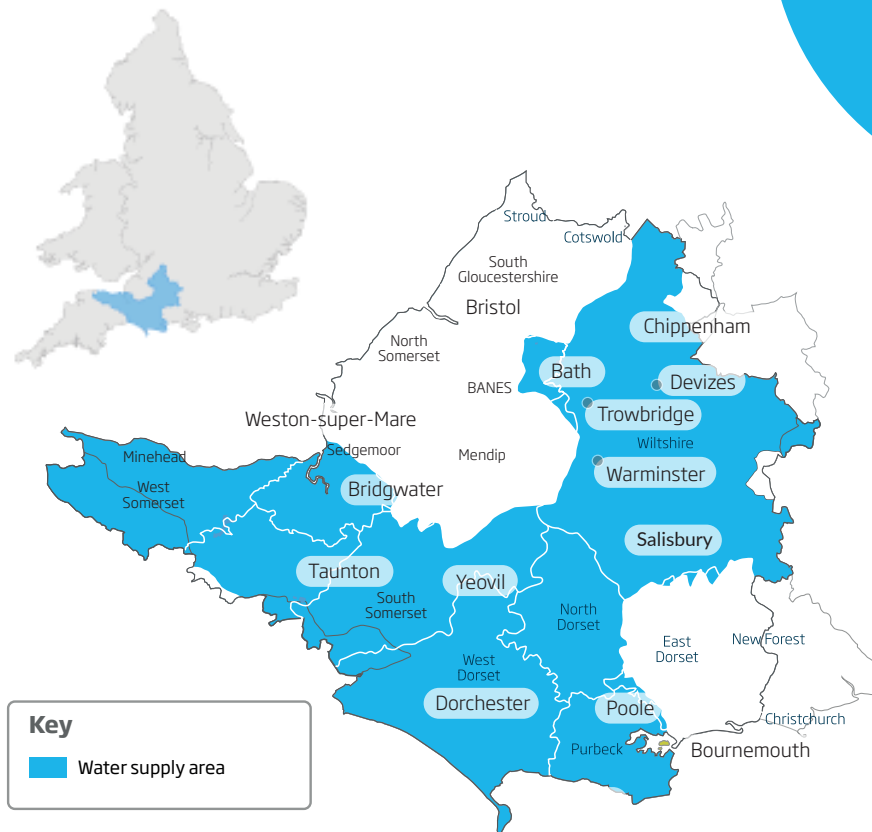
Your water supply

Wessex Water supplies 1.3million customers in the south-west of England from a mixture of groundwater aquifers (underground water-bearing rocks) and surface water reservoirs, where water from rivers can be stored for future use.

An average of 340 million litres of water is delivered each day taken from around 80 sources.

In our area we take water from two limestone aquifers known as the Chalk and the Great Oolite. The Chalk aquifer covers a wide area in the middle and south of our supply area which includes the towns of Dorchester, Poole and Salisbury. The Great Oolite aquifer covers the north of our supply area including areas such as Bath and Chippenham. The surface reservoirs are in the west of the supply system and supply the areas near Yeovil, Taunton, Bridgwater and Exmoor.

In 2018 Wessex Water completed a £230 million investment to develop a more integrated supply grid, which improved the pipe connections between sources and customers. This investment enabled us to reduce abstraction from the most environmentally sensitive sources and improve supply resilience for our customers.



An average of 340 million litres of water is delivered each day taken from around 80 sources.



What is a drought?

A drought in the context of water resources management occurs when an extended period of low rainfall leads to a shortage of available water to supply customers.

There are a number of different definitions of drought. For example, a meteorological drought is where there is a shortage of rainfall compared to average, or an agricultural drought where there is a shortage of rainfall which leads to insufficient crop growth. In the environment, a drought is when a shortage of rainfall leads to reduced river flows and water levels which may impact ecology and wildlife.

In terms of water resources, a drought is an extended period of low rainfall that leads to a shortage of water available to supply customers. Rainfall throughout the year, in particular during the winter, helps to keep surface reservoirs and groundwater stores topped up with water. The water is then available to supply to customers, in particular during summer months when rainfall is lower, and demand is higher.

Wessex Water's supply system is resilient to short term dry periods like the hot, dry summer of 2018, as there is enough water stored in the surface and groundwater reservoirs. We would therefore not consider these drought conditions.

The last major drought that significantly affected Wessex Water's supply system occurred from 1975 until 1976. In this drought, abnormally low winter and spring rainfall led to a reduction in water stored in surface and groundwater reservoirs to meet demand in the hot and dry summer of 1976.

A number of consecutive seasons of lower than average rainfall would need to happen before we would typically enter drought conditions.

How we plan for and manage drought

To manage periods of dry weather we have five levels that indicate how dry the weather has been and what actions our technical analysis has determined may be appropriate to manage water resources.

Drought level	Description
Normal operation	Average or wetter than average recent rainfall conditions and normal system operation
Level 1a	A relatively short period of dry weather (a few months)
Level 1b	Below average rainfall for an extended period (many months)
Level 2	Developing drought to drought conditions
Level 3	Severe drought

To work out when we enter each drought level, we considered what would happen if past drought events like 1975/76 occurred today with our current supply system and customer water use. This helped us to identify trigger thresholds in our surface and groundwater reservoirs. If available water falls below different thresholds, we enter a new drought level.

We continuously monitor the weather and the amount of water stored in surface reservoirs and underground aquifers to understand which level we are currently in, even during normal and wet conditions. Each month we also forecast what could happen if an extended period of dry weather starts to develop and what this would mean for available water. These forecasts provide an early warning of potential drought conditions and help us to take early actions against the potential impact of drought.

What actions can be taken during a drought?

Actions can be taken in a drought to increase available supplies or reduce demand. We are required to implement the least environmentally damaging actions first.

Taking earlier actions can help to reduce the need to take more extreme actions later on in a drought.

There are a number of management actions that can be taken as a period of dry weather develops to maintain and improve the water resources situation. These actions are aimed at either increasing available supplies or reducing demand. The actions we take are ordered to have the least environmental impact first and minimise the impact on customers, where possible.

The actions we consider in each level, and the indicative order we would expect to implement them, are shown in the table below. It is important to maintain flexibility when selecting actions during a particular drought to allow for issues such as the impact of the dry weather on the local environment, and the resource position of neighbouring companies. When taking actions we consider the time of year and the practical impact the actions will have on customers and the environment which will vary depending on the particular circumstances of how and where the dry weather is developing.

Actions can be taken in a drought to increase available supplies or reduce demand

Drought levels	Actions to reduce demand	Actions to manage supplies
Normal operation	Ongoing water efficiency and metering campaigns	Seasonal reduction in abstractions, and pumping of water into rivers to help protect the environment
	Ongoing leakage management strategy	Pumping of water into reservoirs to conserve storage
Level 1a	Increased water efficiency campaigns and leakage control	Increased conservation of water resources, and review of planned source outages
Level 1b	Higher intensity water efficiency and leakage campaign	Increased system optimisation, additional source use, and transfers from neighbouring companies
		Drought permit application preparation
Level 2	Temporary use bans for domestic hosepipes (seasonal dependent)	Least environmental impacting drought permit options
Level 3	Non-essential use bans (impacting some business) and all possible actions	Moderate environmental impacting drought permit options
		All potential drought permit options, including emergency drought options




Managing supplies

During normal conditions, we continually manage available water to meet customer demand and help protect the environment. The actions we take to do this include reducing abstractions seasonally when river levels are lower and pumping water into rivers to help support flows. We also pump water into our surface reservoirs to keep them topped up to meet seasonal demand.

As a period of dry weather develops we manage the amount of water we take from different sources to help conserve water in those more impacted by low rainfall. We also review sources that are planned to be taken out of supply for routine maintenance, to see whether we can bring these back online to help meet demand.

During an extended period of dry weather we will discuss management of water resources regionally, to see how best we can share water between neighbouring companies. We may also begin preparations to apply for drought permit options, which allows more water to be taken from the environment. These options can only be applied for and used if we can demonstrate that there has been an exceptional shortage of rainfall. We also must demonstrate that we have done as much as we can to manage the supply system and reduce demand prior to applying for these permits. This includes the implementation of temporary use bans, or hosepipe bans.

When using a drought permit option, we have to continually monitor the impact of the abstraction on the environment, and review this with the Environment Agency and Natural England.



Actions can be taken in a drought to increase available supplies or reduce demand

Managing the demand for water

The water we treat and put into our supply network supports the water demands of households, businesses, agriculture, and essential services like firefighting across our community. A portion of water also leaks from the network of over 12,000 km of pipes that transport the water. We have reduced leakage by over 50% since 1995, and we are currently reducing leakage by a further 15% from 2017/18 levels by 2025.

During a drought we will enhance our activities to manage and reduce demand that might otherwise be rising due to the likely hot and dry conditions.

Network leakage can increase during dry weather as a result of ground shrinkage and cracking but we will seek to manage this through detailed monitoring, increased staff resources and enhanced pressure management of the system.

We promote the efficient use of water and optional metering to our customers all year round regardless of the weather conditions, and offer support to help households reduce their usage via a range of services including:

- **GetWaterFit** our digital engagement tool, which allows people to calculate their usage, learn tips on how to reduce their usage and order free devices such as eco-showerheads, shower timers and cistern devices to reduce flush volumes to instal themselves
- **Home Check visits** during which technicians fit water saving devices for the householder and offer tailored behavioural advice based on their specific appliances and circumstances.
- **Education services** to engage with school children on a range of topics including the water cycle, climate change and the efficient use of water.

Our water efficiency engagement strategy typically follows a seasonal pattern with a shift in focus during the spring and summer months to include awareness of water saving in the garden relating to growing plants and family focussed 'fun in the sun' with paddling pools for example. Campaigns typically include water saving behavioural messages on our social media channels, the inclusion of garden focussed products in our free device pack (e.g. hosepipe trigger guns, bottle top watering nozzles, drought tolerant seeds, water storing granules for pots), water butt promotions and direct customer engagement at summer events.

As a period of drought develops we will enhance the reach of our engagement activities to increase the promotion of water saving behaviours for inside and outside water use to both customers and retailers, including enhanced social media campaigns, and promotion of our GetWaterFit online tool, and provision of free water saving devices.

Campaigns typically include water saving behavioural messages on our social media channels



Ways you can save water

In the garden:

- Sprinklers and hosepipes can use 520 litres in an hour, which is more than an average family of four would use in a day – use a watering can rather than a hosepipe to direct water to plant roots and mulch your soil to retain moisture in pots and borders.
- Cut your grass on a higher setting to give it more resilience to dry weather and let your lawn go brown, it'll soon recover when the rain showers return.
- Reuse water from paddling pools, cooking or when your kitchen tap is running to hot to water plants.

Within your home:

- Fix any leaking toilets and taps. A leaking toilet can be hard to notice but over 200 litres of water a day can be lost dribbling into the pan.
- A ten-minute shower can use 120 litres of water, reduce it down to 4 minutes to save 72 litres each time and reduce your energy bill too.
- A washing machine uses around 50 litres per wash, only put it on when you have a full load and consider reducing the loads you do each week.

For more information and ways you can get involved with water saving at home please visit: [Water saving tips | Wessex Water](#)

If we have an extended period of dry weather we may have to limit the amount of water that can be used at home. These temporary use bans will restrict the use of hosepipes, sprinklers and pressure washers for:

- Watering a garden or plants in and around the home.
- Cleaning a private car, van, or boat.
- Filling or maintaining a domestic swimming pool, paddling pool, pond or ornamental fountain.
- Drawing water, using a hosepipe, for domestic recreational use.
- Cleaning walls, windows, paths, patios or other artificial outdoor surfaces using a hosepipe.

A temporary use ban would not restrict water available for use in the home for cleaning, personal washing and other internal use, or restrict outdoor watering using a tap and watering can. However, we would likely be recommending restraint in the use of water for these purposes e.g. taking shorter showers, reusing water from bathing to water patio pots for example.

A temporary use ban has to be implemented before we can apply to the Environment Agency for drought permits to take more water than we are currently licenced to from the environment.

If drought conditions continue to worsen, we may have to implement non-essential use bans, where we apply to the government to limit the amount of water that is used for commercial purposes, including:

- Watering outdoor plants on commercial premises using a hosepipe.
- Filling or maintaining a non-domestic swimming, paddling pool or pond using a hosepipe.
- Cleaning a non-domestic premises or window using a hosepipe.
- Operating a mechanical vehicle washer.
- Cleaning any vehicle, boat, aircraft or railway rolling stock using a hosepipe.
- Cleaning industrial plant using a hosepipe.
- Suppressing dust using a hosepipe.
- Operating a cistern in any building that is unoccupied and closed.

Prior to implementing temporary use bans and non-essential use bans we would advertise and consult on our actions to ensure customers are well informed of the situation.



Extreme drought actions

Only under the most extreme circumstances, and once all other actions have been taken, would we consider applying to the government for an emergency drought order. This would allow us to implement stand pipes, where water would be available to collect from a specific location, and rota cuts where water would only be available from customers' taps at certain times of the day.

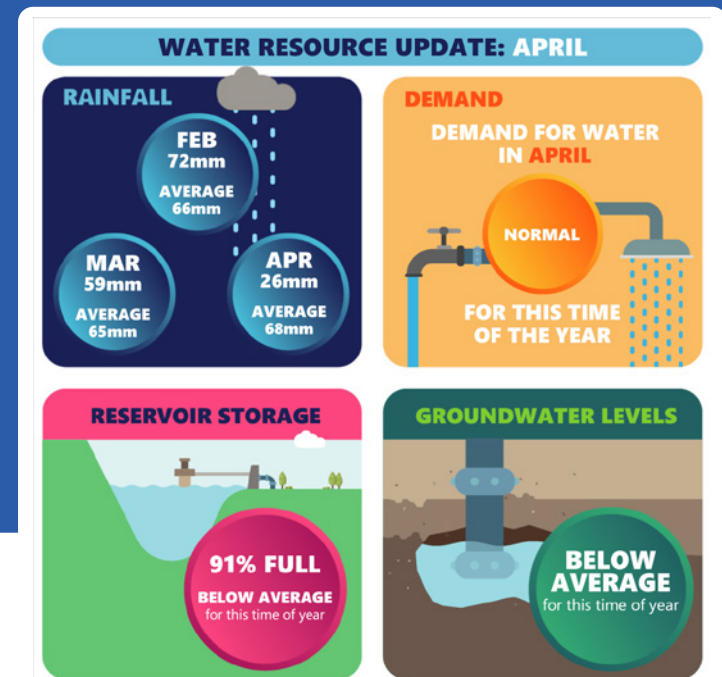
Once implemented this could mean the closure of schools and workplaces like during the Covid-19 pandemic, and cause significant societal disruption, as water is conserved to meet basic needs and the needs of the most vulnerable in society.

The work we do every day to monitor and manage water resources and demands helps us to take timely actions to ensure we are as resilient as possible to extended periods of dry weather. We encourage our customers to use water wisely to play their part in ensuring there is enough water for people, business and the environment at all times and particularly during periods of low rainfall.

How to stay up to date and get involved

You can monitor our current water resources and drought situation here: www.wessexwater.co.uk/environment/water-resources

Follow us on social media to stay up to date with our campaigns and other activities across our region... and for more information delivered straight to your inbox sign up to our community newsletter here: www.wessexwater.co.uk/community/sign-up





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