



South Staffs Water

South Staffs Water draft drought plan – non-technical summary



September 2021

Contents

1. Introduction	3
2. How we monitor for drought	5
3. Actions we take during a drought	7
4. The process for introducing a temporary use ban	9
5. Monitoring the environmental impact of a drought	10
6. Keeping you informed	11
7. The end of the drought	13

1. Introduction

Welcome to this summary of our draft drought plan. It sets out our plans to manage our water supplies in the event of a lengthy period of dry weather and a lack of rainfall. It tells you what we will do before, during and after a drought to ensure we can provide you with a secure water supply while minimising any impact on the environment. It also sets out how we will keep you informed of the measures we will put in place to protect your water supplies.

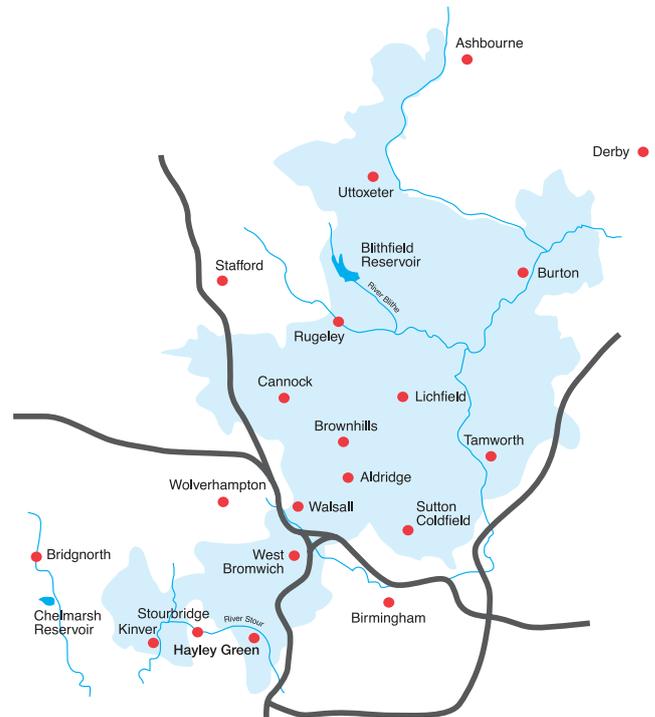
Alongside our drought plan, we also publish a separate water resources management plan. This sets out how we will manage your water supplies in normal conditions over 25 years, and is reviewed every five years. Our water resources management plan demonstrates how we will invest to meet future growth, allow for climate change, become more resilient to drought events and provide further protection for the environment. Our latest water resources management plan is available on our website at www.south-staffs-water.co.uk.

About South Staffs Water

South Staffs Water provides clean drinking water to more than 1.3 million people and nearly 34,000 businesses every day.

Our supply area extends from Ashbourne in the north to Halesowen in the south, and from Burton-upon-Trent in the east to Kinver in the west.

Our water comes from combination of surface water sources (such as rivers and reservoirs) and groundwater (underground) sources. We use an integrated network of pipes, pumping stations and storage reservoirs to make sure the water gets to where it needs to be.



Who we consult with

In developing our drought plan, we consult with a wide range of stakeholders, including Defra, the Environment Agency, Ofwat and CCW (the consumer watchdog), to make sure our plans are in line with best practice across the water sector.



What is drought?

We define a drought as any lengthy period of dry weather, with very low levels of rainfall. This can result in lower than expected reservoir levels. When this happens, we need to consider how best to manage our water supplies and meet the demand for water. In general, our water supplies are resilient. This means we have enough water to meet demand under most circumstances.

We categorise droughts as short, medium or long-term duration. This helps us to identify the measures we need to put in place to protect our water supplies.

Short duration

Also called 'single season droughts', short duration droughts are periods of six to nine months in which there is less than 70% of normal rainfall. They usually include a hot, dry summer after which our groundwater sources are not adequately refilled during the winter months.

Medium duration

A medium duration drought comprises two successive dry winters and an intervening dry summer. We may need to consider applying to the Environment Agency for a drought permit to help us manage our water resources more effectively.

Long-term duration

A long-term drought usually comprises at least two successive dry winters and two intervening dry summers. We would consider this a critical drought situation, leading to the introduction of water use restrictions. We would also work closely with our customers, our regulators and other key stakeholders to help manage the situation.

Our region has experienced drought-like conditions – most recently in 2018. This and extended periods of hot, dry weather such as that experienced in spring and summer 2020 increase the risk of drought and the need for us to take action. But we have not introduced a temporary use ban – what our customers usually call a 'hosepipe ban' – since the drought of 1976, which seriously affected water levels in the River Severn.

When we surveyed our customers for our current water resources management plan in 2017, most of our household customers said they were happy with the current levels of service they get from us about the frequency of any drought actions we may need to take.

These service levels mean we would expect there to be only a 2.5% chance each year of having to introduce a temporary use ban. In other words, we would expect to introduce a temporary use ban once every 40 years. Similarly, our non-household customers have told us they are happy with our commitment to only have a temporary ban on non-essential activities (such as washing windows) once every 80 years.

2. How we monitor for drought

We use a wide range of data sources to monitor for drought. This includes:

- hydrological data, which is data about water systems within an area or region;
- data from the Met Office about changes in prevailing weather conditions; and
- data on groundwater levels, water recharge and storage.

Our reservoir levels are the main indicator of drought conditions. They help to guide the actions we take to maintain your water supplies. But we also look at river flow and rainfall patterns. This tells us how quickly and how likely a drought is to develop. So, if water levels fall in our Blithfield Reservoir, we can support it by putting in additional water from further down the River Blithe, which is linked to flows in the River Trent.

And while our groundwater sources are not significantly affected by drought, the River Severn (from where we take some of our water) is susceptible to drought as river flows can fall quickly. The Environment Agency is responsible for monitoring the River Severn, which can be supported by additional flows from other sources such as Clywedog Reservoir and Lake Vrynwy in Wales, and from groundwater sources in Shropshire.

Our drought triggers

We have followed the Environment Agency's guidance when developing the triggers that indicate the severity of a drought. We keep this information up to date on our website at www.south-staffs-water.co.uk.

Our drought triggers reflect a range of environmental and weather conditions. They have evolved over time, to reflect changes in our water resources position. They also reflect different levels of severity, and the action we would have to take in the event of a particular drought trigger level being reached. Examples of drought triggers include managing demand when reservoir levels are below average, considering restrictions on demand when drought conditions are apparent and restrictions on non-essential use in extended drought conditions.





	Trigger level	Actions to reduce demand	Actions to boost supply
	Above level 1	Business as usual	Business as usual
	Level 1: short-term emerging drought conditions due to lack of rainfall	Increase communications internally and with external stakeholders Carry out more monitoring	Make sure all water sources are fully operational Review planned outages – e.g. routine maintenance
		Find and fix more leaks	Conserve Blithfield Reservoir supplies Consider using Nethertown/ Brindley Bank water sources Review bulk supply with Severn Trent Water
	Level 2: drought conditions lasting more than 12-24 months and increasing in severity	Increase communications with appeals for restraint around water use Prepare to implement temporary use ban	Identify opportunities to transfer water from other water companies
		Implement temporary use ban	Apply for drought permits/orders with minor environmental impact
	Level 3: severe and longer-term drought conditions (worse on record). Many restrictions on water use in place	Apply for and implement a non-essential use ban (drought order)	Apply for drought permits/orders with moderate environmental impact
		Take all possible actions to avoid emergency drought orders	Take all possible actions to avoid major environmental impacts – e.g. try to operate Blithfield Reservoir at low level and use emergency/drought sources
Emergency plan invoked	Level 4	Operate Blithfield Reservoir within emergency storage levels Impose emergency drought order – e.g. rota cuts, standpipes	

In developing our drought plan, we have used a number of different scenarios to explore how we would manage your water supplies. This includes:

- the droughts we have had in the past;
- the droughts we have assumed and allowed for in our water resources planning; and
- more serious droughts than either of these.

But we will always remain flexible, so that our operational managers can develop their plans based on the specific situation in which they find themselves.

3. Actions we take during a drought

When we find ourselves in a drought situation, we work hard to balance your needs with those of the environment. There are a number of actions we can take to manage the water we have available. While we want to avoid restrictions on your water use as much as possible, these are sometimes necessary. We would only ever introduce the most severe restrictions in unprecedented drought conditions, and only in agreement with the UK Government.

Managing our water supplies

We are fortunate in that, in most circumstances, we generally have enough water to meet demand. But we know it is a precious resource and encourage everyone to play their part and use water wisely. So we monitor our water resources carefully and have a number of actions available to help us do this. These actions include:

- making sure our existing water sources are fully operational;
- conserving the water in Blithfield Reservoir, transferring more water and operating it at a lower level than we would normally, if necessary;
- finding and fixing more leaks;
- making more use of our enhanced water treatment sites;
- reviewing the potential for bulk water transfers with our neighbour, Severn Trent Water;
- carrying out minor works at our groundwater sites so they continue to operate effectively; and
- making use of drought orders or drought permits, if necessary. These allow us to provide more water in times when it would normally be restricted. They also allow us to use additional measures to protect other water users and the environment.

These are operational decisions and should not affect you. But we are likely to take these actions at the same time as we are asking you to reduce your own water use.

Managing the demand for water

Quite often, the actions we take to manage our water supplies should minimise the impact of drought conditions. We will also ask you to help us – for example, by using less water in your homes, gardens and outdoor spaces or by reporting any leaks you see in your local area so that we can fix them quickly.

But if a dry spell goes on for a long time, we will consider introducing tougher restrictions to help us manage the demand for water. This could include introducing a temporary use ban (sometimes called a hosepipe ban). We will make any decision to introduce restrictions in consultation with the Environment Agency and with Severn Trent Water. This is so we can be sure our messages are communicated in a consistent way across the region.

What activities are covered by a temporary use ban?



If we have to introduce a temporary use ban, activities such as the following may not be allowed.

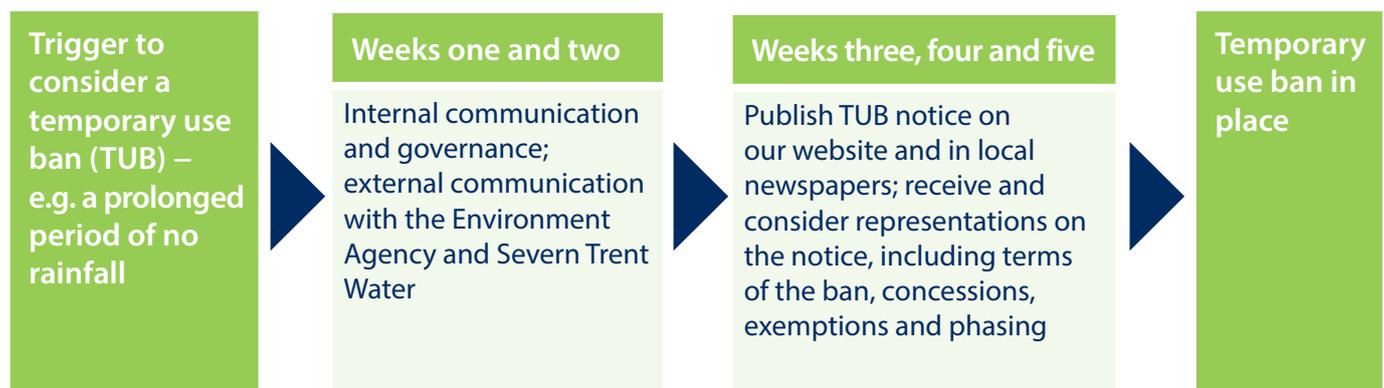
- Using a hosepipe to water a garden, water plants or to wash a car.
- Using a hosepipe for recreational use, or to fill a garden pond.
- Using a hosepipe to clean paths, patios or other artificial outdoor surfaces.
- Using a hosepipe to clean the walls or windows of household premises.
- Using a hosepipe to clean private leisure boats or caravans.
- Filling or maintaining a swimming pool or paddling pool.
- Filling or maintaining an ornamental fountain.

A hosepipe can use up to 500 litres of water an hour. This is the same as a typical household uses in a day. That is why the water savings made under a temporary use ban are significant when supplies are under pressure.

We can place similar restrictions on business or commercial premises by applying to the Secretary of State for Environment, Food and Rural Affairs for a non-essential use ban or drought order. We would only consider doing this in very severe circumstances as taking this action can impact jobs and the economy. We have never needed to take this step, but might have to one day.

4. The process for introducing a temporary use ban

We follow a strict process and timetable when we want to introduce a temporary use ban. This is because we know it can have a far-reaching effect on you. The aim is to make sure we communicate every stage of the process clearly so that you understand what is happening.



Once we have applied for a temporary use ban, we can also start the consultation process around imposing a non-essential use ban or drought order.

As the notices announcing a temporary use ban or non-essential use ban are formal and legal requirements, we must publish them on our website and in local newspapers in full and in a certain format. But we will also use other channels to communicate with you, such as Facebook or Twitter. Our aim is to make sure you understand what restrictions we are putting in place and why we are taking this action.

Concessions and exemptions that may apply

A temporary use ban will affect different people in different ways. So we have the power to make exemptions if necessary – for example, if you have a Blue Badge (a standard exemption) or you need to maintain a pond that contains fish.

We may also consider making exemptions:

- for customers with a medical condition or a disability, and who may need to use extra water. We encourage these customers to sign up for our Priority Services Register (www.south-staffs-water.co.uk/household/extra-help/priority-services-register), so that we can make sure they get the support they need from us;
- for anyone who can demonstrate that they are re-using water – for example, if they use rainwater harvesting or grey water recycling systems; and
- where we feel it is in the best interests of a local community.

When we issue a notice that we intend to introduce restrictions, we will announce any universal exemptions that apply.

5. Monitoring the environmental impact of a drought

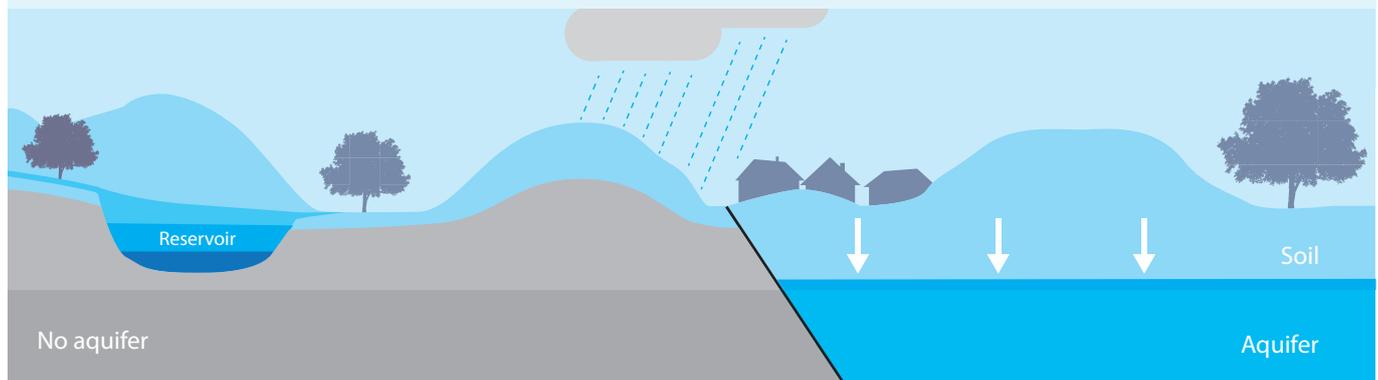
Although our priority is to make sure you always get a safe and reliable supply of clean drinking water, we also have to minimise the impact of our activities on the environment. So we carry out environmental risk assessments into the potential impact of our drought options. The level of detail in our risk assessments depends on the likelihood of the course of action being assessed and the level of damage that would be caused to the environment.

We are legally required to monitor the effect of a drought and the measures taken under our drought plan. We also have to monitor the impact of the actions we take and how well we recover following a period of drought. We communicate regularly with the Environment Agency and Natural England as part of our monitoring process.

We will only consider increasing the volume of water we take from the environment in a drought that is the most severe ever recorded. While we aim to maintain supplies in a drought, we will also do everything we can to minimise the impact of our actions on the environment.

How we monitor the environment in a drought

- We regularly monitor rainfall levels against historic records. We also collect data each week on the levels of moisture in the soil and rainfall data from the Met Office.
- We record how much water we take from the environment and put into our supply network.
- We collect data each day on our operations at Blithfield Reservoir and continuously measure water levels at Chelmarsh Reservoir.
- We monitor long-term groundwater trends each month.
- We review data on river flows from the Environment Agency each day. This helps us to manage the volume of water we take from the River Blithe and River Trent.
- We review data from the Environment Agency on the Clywedog Reservoir and Lake Vyrnwy.
- We review data from the Environment Agency on water flows and ecology as required.
- We carry out additional monitoring at key operational sites as required.



If we implement a drought order, we are required to carry out a second level of monitoring. This focuses on those areas of our operations that present the highest risk to the environment in the event of a drought.

6. Keeping you informed

We understand how important it is to keep you informed before, during and after a drought. We will use all the communications channels available to us, including social media, TV and radio, and newspapers. We will also use our website to share timely and accurate information about the current situation and on any actions we may ask you to take.

How frequently we communicate with you will depend on the urgency of the situation. But in general we will aim to:

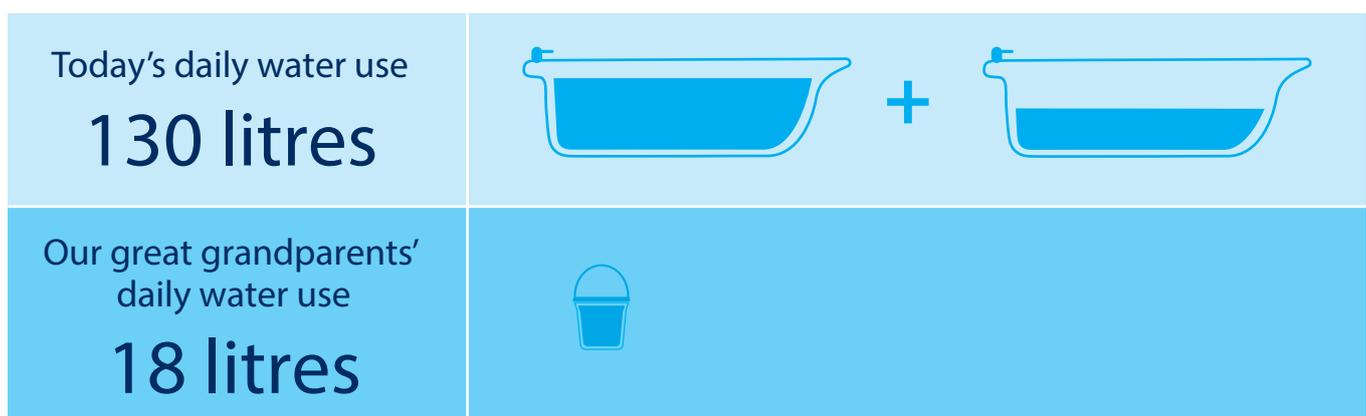
- make you aware of the developing situation;
- make you aware of the measures we are planning to put in place and how they will affect you; and
- raise awareness of the need to reduce water demand and to use water wisely.

If a drought is widespread and covers a large area of the country, we will co-ordinate our communications with the Environment Agency or Water UK, which is the body that represents water companies. In all drought situations we will work closely with other water companies to make sure our messages are communicated consistently, as well as with consumer organisations such as CCW to make sure we give you the right messages.

We will constantly monitor the drought situation and the effectiveness of our communications. This includes monitoring things like the number of hits on the relevant web pages, requests for water efficiency services and devices, and activity on our social media platforms. This will enable us to change the type or frequency of our

What can you do to help?

Saving water benefits everyone. Every day, we each use around 130 litres of water – or enough to fill one and a half baths. In comparison, our great grandparents probably only used around 18 litres of water each a day.



Even if there is not a drought, we regularly run water efficiency campaigns to help raise awareness about ways to use water wisely. There are a number of simple changes you can make to help you become more water efficient.



The average hosepipe can use as much as 500 litres of water an hour. This is enough for one person to have six baths or ten showers. You should avoid using hosepipes or sprinklers, if possible. But if you have to use a hosepipe, make sure it is fitted with a trigger nozzle that will stop the flow of water when you release it.



Never water plants in your gardens or outside spaces in the heat of the day. Most of the water will evaporate and you risk scorching your plants. Instead, you should water in the early morning or the early evening. You might also want to consider using a simple water irrigation system that delivers water directly to your plants.



Use a bucket to wash your car and a watering can to rinse it off. If you have a pond or a pool, make sure they are watertight as topping them up can use a lot of water. If possible, keep them covered to prevent water from evaporating.



Switch to a water meter. This will help you save water as you will only pay for the amount you use. It will also help you to save money – customers with a meter could save about £100 a year.



Never cut back on how much water you drink. Tap water in the UK is among the best in the world – so enjoy it. But chill your water in a container in the fridge as waiting for the tap to run cold can waste more than ten litres a day.

7. The end of a drought

We will work closely with the Environment Agency to decide when we can declare a drought is over. We understand the impact temporary use bans can have on you and are committed to lifting any restrictions as soon as we are able to.

We would expect a drought to have ended when all our key indicators have returned to long-term average levels. This means the risk of impacts from the drought are no greater than they are during a normal year, and where normal conditions have returned for a period of time.

The key indicators we use include:

- storage levels in Blithfield Reservoir and Clywedog Reservoir;
- the volume of water flowing into Blithfield Reservoir, which we monitor each month;
- soil moisture levels and the rainfall amount, compared with the long-term average; and
- total rainfall and groundwater levels, determined from our own observations and historic records.

Once a drought has ended, we will review the actions we have taken and build any learning into our processes to help us in future droughts.

