

Ready to protect

Our Drought Plan 2022 customer and stakeholder summary




Introduction



We live and work in the driest part of the UK, it's fast-growing and the climate is changing. Our typical British weather is changing and we must be ready to face whatever nature has in store. Love Every Drop runs through everything we do and stand for.

We always look to reduce demand before increasing supply. Beyond the day-to-day business of supplying clean, safe water to our six million customers we need to be sure our actions don't cause or risk harm to the environment. So we have invested to protect our water supply and the environment. But that is not enough. We have decided to go further. Our new company purpose puts environmental value at its heart:

 **To bring environmental and social prosperity to the region through our commitment to 'Love Every Drop'**



We want our unwavering approach to being water wise to have a positive impact on the places and spaces where we live and work and visit as well as the communities we serve. We work closely in partnership with others to nurture and maintain the rivers and reservoirs for all to enjoy.

We are always thinking and planning ahead for future challenges such as floods and of course drought, however rare they might be.

As part of our legal duties we've updated our Drought Plan. This is a summary and explains what we will do to manage a drought and what our customers and stakeholders can do to help save water. Together we can protect the environment and our region.

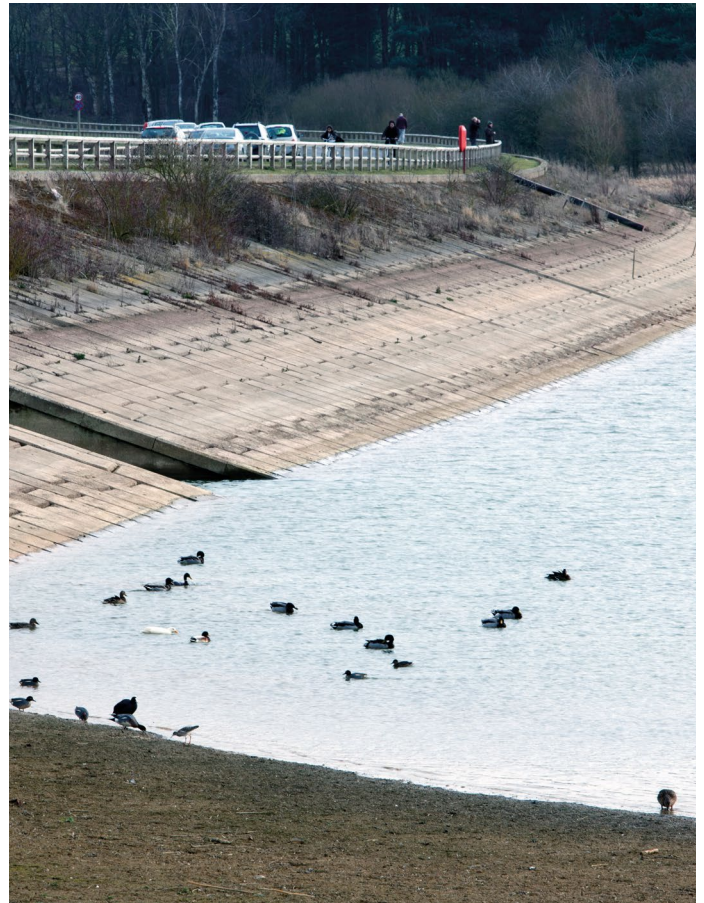


What is a drought?

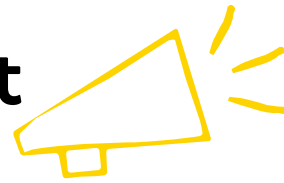


Drought is a confusing word and is often used to mean a heatwave that lasts a few days. We are directly responsible for a type of drought that would affect taps flowing and drains draining. One long hot summer when demand for water goes up does not equal drought conditions because our supply system is designed to cope with dry weather. What matters is seeing a pattern of dry winters because it is having enough rainfall in the winter that keeps our water levels in reservoirs and rivers topped up and fills up our underground water sources. There are other kinds of drought that are also triggered by low rainfall such as environmental or agricultural drought. An agricultural drought affects crop growth. After a few weeks of dry and sunny weather in the crucial growing season the soil can be unusually dry.

Any drought can last for a short time or a long time, can affect one area in our region or more, can extend to neighbouring regions, can be mild or severe. We have to know what we would do in any of those situations.



All you need to know about our Drought Plan 2022



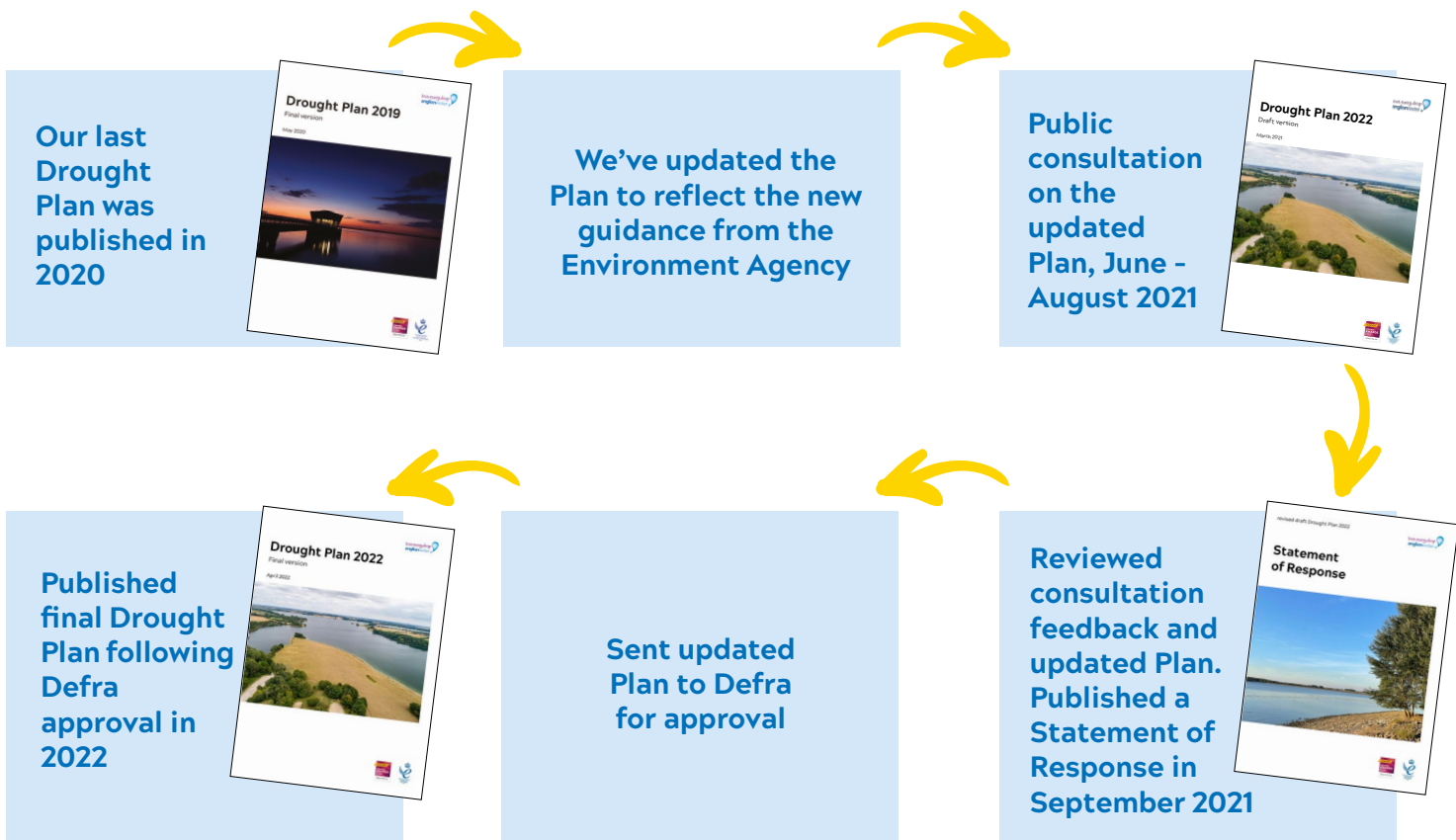
What is a Drought Plan and why it is needed?

By law we have to prepare and maintain a Drought Plan that shows our regulators (Defra and the Environment Agency) how we would protect water supplies to our customers during prolonged periods of low rainfall when our water resources are reduced - and what we will do to minimise any potential environmental impacts that could happen. This is our sixth Plan since the year 2000, and it builds on our knowledge and expertise of managing droughts to date as well as advances in our water resources planning. Since we published our last Plan in 2019, the official guidance has changed. So, we have updated

this Plan to spend more time explaining what we would do on a day-to-day basis as an organisation before, during and after a drought. Our Plan is a 'how-to' manual that we will refer to on an ongoing basis.

We don't create these Plans in isolation, we care about what our customers and other stakeholders think and feel about how we propose to handle a drought. The non-technical summary of our Drought Plan is set out in the following pages. The full formal Plan and technical appendices can be found [here](#).

Drought Plan consultation process





What's in the Drought Plan?

Droughts can vary in terms of how long they last, how widespread and how severe they are. Our Plan has to cover all the potential issues which we know could affect our region. It has to be flexible to deal with a range of scenarios that could happen.

In our Plan details can be found on:

- How we decide when a public water supply drought has officially started
- What we'll do to manage demand for water once a drought has started
- What temporary measures we may have to take to provide additional water supplies
- What we'll do so our customers and other water users know what's going on during a drought
- How we'll work to manage the environmental impacts of any action we take during a drought

How will a drought affect me?

If a drought is declared in a particular area our customers can rely on us to provide the essential water that everyone needs. We'll be very clear in our communication about what customers can do to help. We'll share information about our range of water saving products such as the shower timer, our smart meter installation and leakage detection services.

Sometimes a drought can be serious enough that we need to restrict certain kinds of water use. For example, using a hosepipe to clean the car or water a garden takes 225 litres of mains water in just 15 minutes. Commonly known as "hosepipe bans" Temporary Use Bans (TUBs) are part of the special powers granted to water companies to help reduce demand during drought. TUBs mostly affect domestic customers but there are other powers that are aimed at business and other users.

Of course we always explore all other options before issuing such TUBs and only do it when it is absolutely necessary to safeguard supplies.

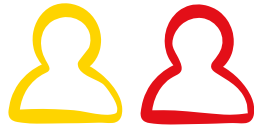
But we'll be in touch well in advance of any restrictions explaining exactly what they mean and what our customers can or can't do. As well as allowing time for consultation and representations to be made. At that time we will share tips, for example, use a bucket and sponge to clean the car or fill a watering can for the plants. We will also be clear when the restrictions are going to be lifted.

Where can I get a copy of the Drought Plan 2022?

The full Plan and other useful water saving tips can be found on our website at [anglianwater.co.uk](https://www.anglianwater.co.uk)



Who we are



We are the largest water and wastewater company in England and Wales by geographic area, supplying more than six million domestic and retail customers so everyone can get on with their daily lives. We provide water services to factories and fire stations, homes and hospitals, business and building sites and schools and sports centres. Our region stretches from the Humber in the North to Colchester and from Milton Keynes to the east coast. It includes three of the fastest growing cities in the UK. We also supply water to Hartlepool in Teesside.

More people are coming to live and work in our region so we all need to think about how to make our water resources go further.

Known as the 'breadbasket of the UK' this region produces half of the UK's sugar beet, a third of its potatoes and a quarter of its wheat and barley as well as peas, beans and spinach and a variety of fruit. Agriculture fuels our regional economy and is essential for national food security. So, we have to do all we can to support farmers and help them thrive. Crop irrigation is relatively high in our region. We work with farmers to help conserve water where possible and reduce the risk of polluting the rivers with by-products of farming.

The region is also home to many environmentally important sites and we work in close partnership with the Environment Agency and other stakeholders such as The Wildlife Trusts to look after and protect the natural beauty of our area. Two and a half million people a year visit one of our seven stunning water parks. They come to kayak, cycle around, fish or just take a stroll and get back in touch with nature.

Managing our water resources properly needs close cooperation with users and a common understanding of the challenges facing our region. We are active members of a number of groups. In 2012, we took a leading role in the National Drought Group which was set up by the Secretary of State for Environment to create a single cross-sector team to coordinate drought management activities. We are also active in regional water resources planning groups including WRE (Water Resources East) and WRSE (Water Resources South East). Meetings are held all year round and increase in frequency if there are signs of potential water shortages across the south east. By sharing information about available water resources, weather forecasts and any advance communication needed with customers the aim is to reduce confusion so all customers understand the pressure on water supplies and the environment during water shortages. They can understand what action the water companies are taking, how to use water wisely and what restrictions may need to be brought in. A drought does not affect a local area, let alone a



region uniformly, due to a complex range of factors so this group is vital to help build a clear picture and align action when necessary.

One of the factors that can affect the risk of drought is the source of water in a region. At Anglian our supply is a mix of groundwater and surface water sources. Half our supply comes from surface water which includes eight raw water storage reservoirs and water we pump from seven rivers. The rest is from 200 groundwater sources. These are boreholes in the ground. The geology of the ground and how well the rock lets water through affects how they respond in a drought.

Managing our precious resource

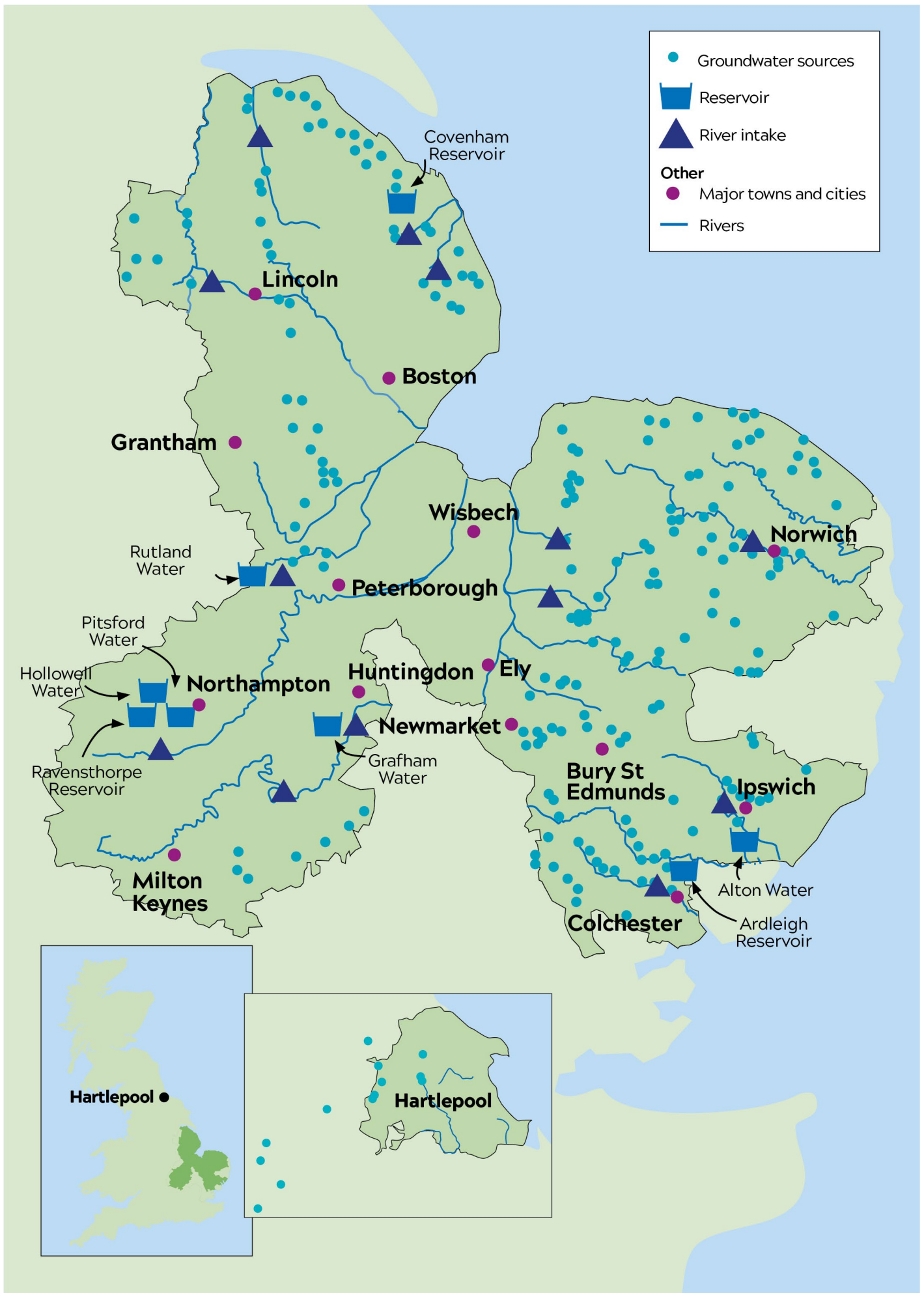
We all know that sometimes it's a good idea to take an umbrella or a raincoat if we're heading out.



But did you know the east of England is the driest region in the UK, with around two-thirds of the average rainfall for England and Wales?

That means water is even more precious here than elsewhere across the country - and we all need to do our bit to help save it.

Map of Anglian Water's water sources



Times are changing



Our region faces unique challenges and our water resources are under pressure. It is the driest region of the UK with two thirds of the national average rainfall and is already classed as seriously water-stressed by the Environment Agency. It has high water loss through evaporation. This makes it vulnerable to the impact of climate change with predictions of lower summer rainfall and hotter temperatures leading to even greater evaporation. This means that the water below ground cannot be topped up as easily. Rather than gentle 'English rain' there are likely to be intense tropical downpours. Rather than refreshing the fields, such violent rain may wash nitrates and pesticides from the soil and risk contaminating the rivers.

It is also one of the fastest growing regions of the country with a predicted 20% increase in the population by 2045, as it is an attractive place for those looking to move for jobs, more green space and family living.

During the Covid-19 pandemic and the enforced working and learning from home we adapted quickly to the different needs for water. The traditional patterns of a surge in demand after work and school changed. Before the pandemic this was a typical pattern. During the pandemic you can see how much water use changed.

Daily usage per person



We need to be ready for a future of hybrid working and blended learning and adapt our service to our customers who use their water in a new pattern.

We're proud of our track record in water management. We've worked very hard to manage demand and help all our customers be waterwise and 'Love Every Drop'. Our customers already use one of the lowest daily amounts of water of any region at 136 litres (pre-Covid-19 figure) and more than 85% of

our customers have meters installed so they can see how much water they are using. We have the lowest leakage in the industry but can always do more. Our opportunities to increase our water supply are limited and with the unique combined challenges we face, together we must continue to 'Love Every Drop' and plan for the future so we can protect supplies and the environment.

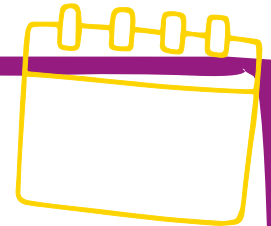
How we plan for a drought



We look at past droughts and see how we could maintain water supplies if those same conditions happened again. We also plan to the worst possible and least likely drought that could occur to test our supply system. There have been a number of droughts in the past 60 years that have affected the Anglian region. The 1975-76 drought lives on in people's memories and there have been four major droughts since then which we have concentrated our planning around. These were 1988-92, 1995-97, 2005-06 and 2011-12.

Many will remember the drought of 2011-12 which affected a lot of the UK. Fortunately, the drought ended with the second wettest year on record, but what if the rain hadn't come? Things could have turned out very differently. So, we have carried out complex analysis to see how our supply system responds to different kinds of drought.

What happened in the 2011-12 drought?



2011

- On the 10 July 2011 the Secretary of State announced that the Environment Agency's Anglian region had moved to drought status, as a result of nearly 6 months of exceptionally low rainfall and the Soil Moisture Deficit being at its highest recorded level.
- This exceptionally low rainfall in 2010 and 2011 had a significant impact on flows in the River Nene, and affected our ability to refill Pitsford Water and Rutland Water.
- As a precautionary measure, we applied successfully for two drought permits on the River Nene to maximise the water available for abstraction. Both drought permits were issued in December 2011 and expired in April 2012.

2012

- By March 2012 it was being reported as the driest 18 months ever recorded.
- The low reservoir storage situation in March 2012 was compounded by low river flows across the Anglian region impeding refill opportunities. In addition, the drought area was starting to extend into our groundwater system.
- On 5 April 2012 we imposed Temporary Use Bans (TUBs) on our customers for the first time in 20 years, alongside six other water companies in the south and east of England.

- At that time, we were growing increasingly concerned about the potential impact of a third-dry winter, and that we would not be able to maintain supplies to customers in our Ruthamford Water Resource Zones without imposing severe restrictions.
- We responded to this risk by:
 - Reducing our leakage to record low levels (189 MI/d, 10% below our target of 211 MI/d)
 - Launching Drop 20, our biggest ever water-saving campaign, where we asked every customer to reduce their daily use by 20 litres
 - Identifying and delivering a £47 million programme of capital investment to increase our resilience and protect customers' supplies, and
 - Leading the industry-wide response through the National Drought Group.
- Thankfully, the drought was brought to a rapid conclusion by six months of record-high rainfall between April and September 2012.
- We lifted the restrictions on 14 June 2012, just 10 weeks after they had started.

Beyond the 2011-12 drought we have also used the lessons learned from managing the 2018-19 dry weather period to inform our latest Plan. This period was classed as an environmental drought rather than a water resources drought which means that although we had spells of prolonged dry weather and higher demand it did not have a significant impact on our resources. Improved collaboration and communications are among some of the lessons that we are carrying forward. We worked well with many stakeholders including the National Farmers Union, RSPB and Natural England for example, on the Lower Nene working group. We also shared forecasting and weekly calls with Affinity Water, one of our water company neighbours. We produced an updated dry weather website and social media rainfall charts and videos of our underground water sources to help educate all our customers.

How droughts affect our water resources

Our experience of previous droughts has shown us that our varied water resources respond differently to each kind of drought. What matters is the intensity and length of a rainfall shortage.

Take Ardleigh Reservoir for example. The storage level can quickly drop if there is a shortage of rainfall but the levels quickly pick up once river flows resume. The greater amount of water stored in Rutland Water means the storage is used up more slowly and it can cope with longer periods of low river flows. But once the level has dropped it takes longer for it to build back up.



The rivers vary across the region. Some like the Welland and the Trent are more sensitive to high or low rainfall. This means flows can decline fast but they can also recover quickly. The River Wensum on the other hand is partly fed by underground sources so it can cope with changes in rainfall and maintain its flows for longer, but once the flow has declined it takes longer to recover.

Our groundwater responds more slowly to rainfall patterns because there is a time lag between rain falling on the ground and percolating through to the underground water source. This generally means groundwater sources are more resilient to shorter dry spells.

Why can't we plan to avoid all drought restrictions?

Investing in ways to protect our water resources from all kinds of drought is very expensive so we need to review each potential project carefully. We are also mindful of our pledge to protect the environment, alongside our goal to be a sustainable business. So, we have to balance the risk of bringing in occasional drought restrictions against the high cost of building more and more infrastructure.



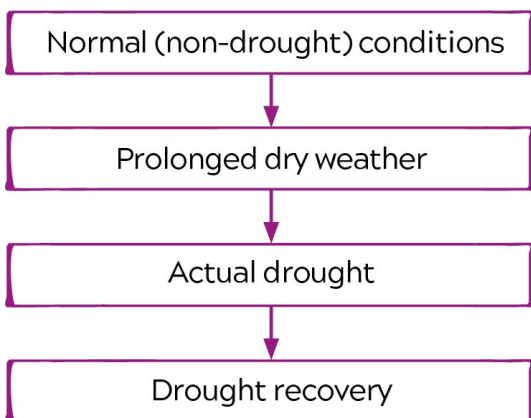


How to manage drought



As droughts vary in location, intensity, duration and severity, our Plan has to be flexible to respond to all events. Our Drought Plan is realistic and has been developed to suit our region and its unique characteristics and our supply system.

We have identified four clear stages of drought:



These stages all require different responses so we have developed different triggers to help us work out when we cross into each of these stages and

when and what actions need to be taken. Dry weather and actual drought are further sub-divided so the response is tailored more precisely.

We are on drought watch all the time. During normal conditions we monitor the weather patterns and our resources all year round so we can establish a benchmark and see what rainfall we need to ensure secure supplies. We use a series of early warning signs to indicate that a drought might be developing. Our 'drought watchers' pore over real-time data from different sources to build a rounded picture of what is normal and any deviations from the norm. Signs we watch out for are whether a reservoir refills as expected in winter and how a river flows in spring and summer. Prolonged dry weather with low rainfall during winter and spring are early signs of potential drought conditions. If the dry weather continues, leading to potential impact on our public water supply then more actions will be triggered. These actions are phased in and build on each other. We are mindful of the time of year, the lead times needed, the impact on our customers and the potential effect on the environment in implementing this phased approach.

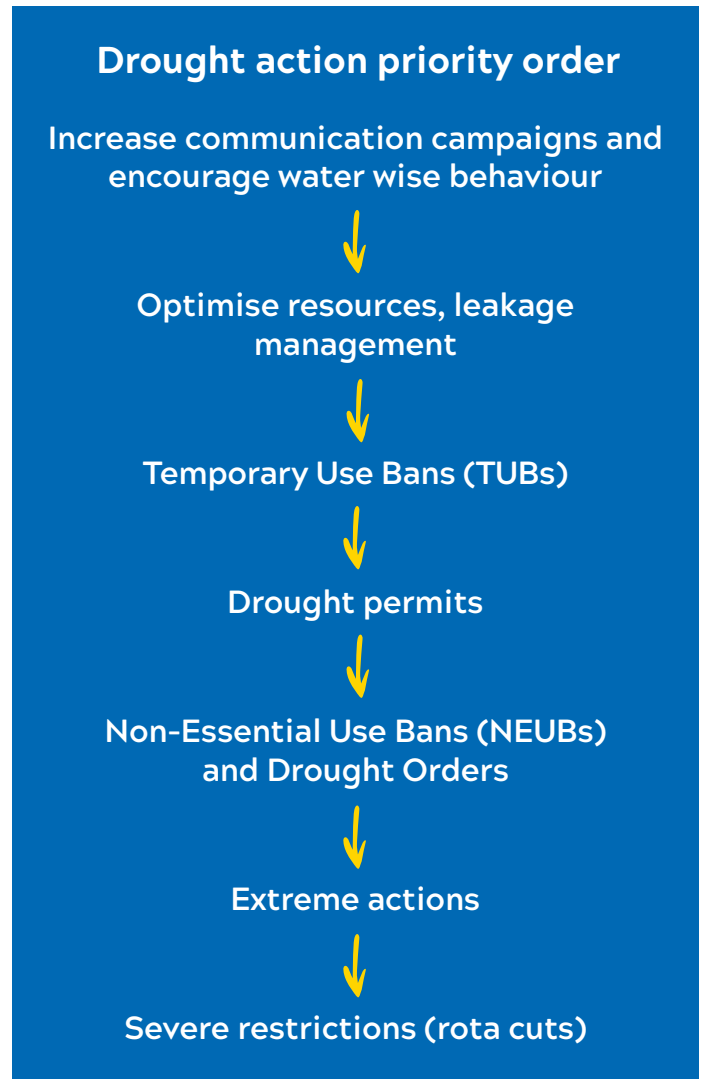
Drought actions

We work closely with the Environment Agency and take seriously our commitment not to risk or cause harm to the environment through our actions. So, there may be times when it is necessary for us to act earlier ahead of our own data if there is wider pressure on water resources across the country.

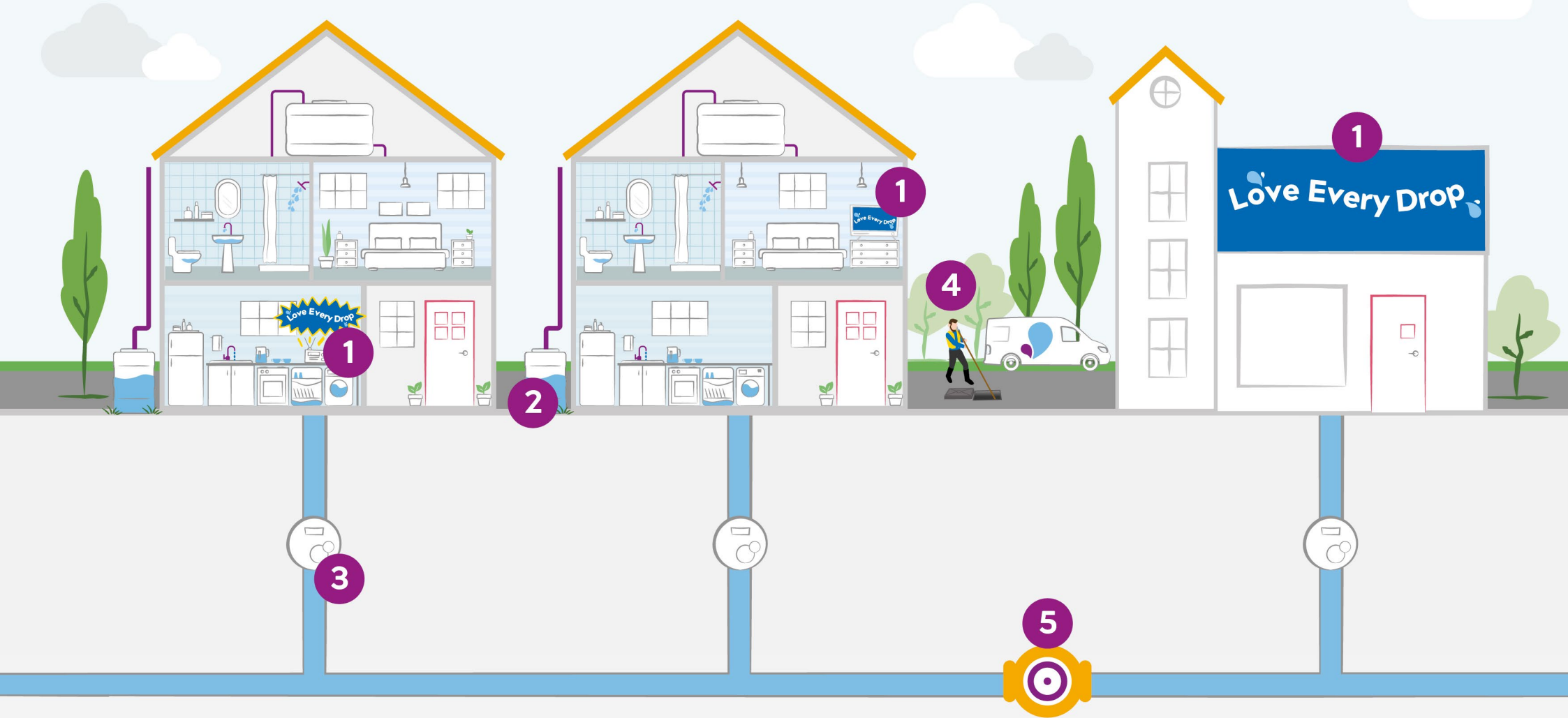
Whether in extreme times such as drought or in how we plan our day-to-day and future water supplies, our approach remains the same; we always try to manage the demand for water before we look at ways of making more water available. Once the indicators suggest we are heading into a prolonged dry and potential drought period, our Drought Management Team will review the situation and make decisions that are timely and proportionate to the circumstances. Our aim is always to minimise disruption to our customers, the environment and other water users as best we can.

Reducing demand

During our business-as-usual times we have a year-round focus on saving water - 'Love Every Drop' - sums up our approach. We have three interlinked programmes that bring our approach to life. One, our water saving drive for the home and garden, two, our smart metering programme and three, our leakage reduction programme. These programmes are all supported by a communications strategy and show that we are committed to doing our bit to reduce demand. Working with our supportive customers we predict that by 2045 our combined efforts will help achieve a daily water consumption of 120 litres per person - that's a drop of 17 litres per person as measured in 2017-2018.



An example of some of the options we can implement year-round, with help from our customers, that form part of our three interlinked programmes to reduce demand



- 1 Water saving campaigns
- 2 Water butts installed
- 3 Smart meters installed

- 4 Leakage technician pro-actively searching for leaks
- 5 Pressure optimisation

Our water saving tips we offer year-round are below, just a few little steps around the home could make a big difference.

In the bathroom

Be a better brusher:

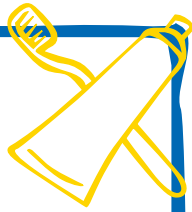
Turning the tap off between rinses when brushing teeth can save 60 litres per day per household.

Hush the flush:

A water displacement device in the toilet cistern saves 1 to 2 litres every flush.

Shower power:

A typical shower can use up to 15 litres per minute - so shower for 60 seconds less each day to make a massive difference - be clean and green.



In the garden

Keep it covered:

Covering soil with pebbles, gravel or chipped bark keeps moisture in and weeds out.

Grab a butt:

Collecting rain water from the roof and downpipe in water butts to use in the garden will keep the beds blooming all summer.

Let the grass grow:

Lawns don't need watering. Set the mower on a higher setting to keep the moisture in.



Outside the garden

Back to basics:

Using a hosepipe to water the garden or wash the car uses a whopping 225 litres of water in 15 minutes - so why not use a watering can, or a bucket and sponge instead?



In the kitchen

Drop the drip:

Fit a washer to that leaky tap and save up to 3 litres a day.

Save and spin:

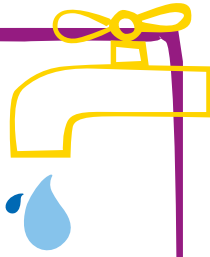
Wash 1 full load in the washing machine instead of 2 half loads, and save 10 litres of precious water.

Bowled over:

A running tap uses 15 litres every minute - so try washing fruit and vegetables in a bowl of fresh water before giving them a final rinse.

Feeling dishy:

Dishwashers use around 15 litres of water every wash, try putting it on once a day when it's full. This way less water may be used compared to washing up by hand 2 or 3 times a day.



Save Water. Save Money. Switch to a meter!



Ever thought about switching to a water meter?

It means only paying for the water used - and not a drop more.

So saving litres in daily water use could knock pounds off the bill, and help to keep energy bills low too.

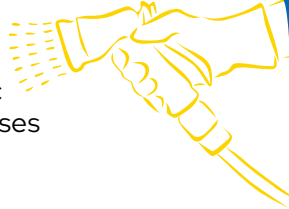
We think it's a 'win, win' situation - or should that be 'save, save'?

To find out more please visit our website at: anglianwater.co.uk/services/water-meters

Temporary Use Bans (TUBs)

If it becomes clear that being waterwise is not going to be enough then we may need to impose limits on how water is used at home. Known as hosepipe bans these are formally called Temporary Use Bans (TUBs). If a TUB is brought in, our customers would not be allowed to do the following activities using a hosepipe, sprinkler or pressure washer:

- Water a garden
- Water plants on domestic or non-commercial premises
- Clean a car
- Clean a boat
- Fill or maintain a swimming pool or paddling pool
- Draw water using a hosepipe for recreational use at home
- Fill or maintain a pond at home
- Fill or maintain an ornamental fountain
- Clean walls or windows of domestic premises
- Clean paths or patios
- Clean other artificial surfaces



Non-Essential Use Bans (NEUBs)

If the drought continues to worsen we can apply to the Secretary of State for Environment to grant a Drought Order. This is when we can use our special powers to restrict commercial uses of water. These Non-Essential Use Bans (NEUBs) are similar to TUBs in the way they limit activities but are brought in after TUBs so that people's livelihoods are protected for as long as possible. Full use has to be made of TUBs before we can apply for any Drought Order. We would work closely with businesses and trade bodies to encourage them to use water wisely and try and prevent restrictions being imposed that would limit their operations.

While these bans are in force the activities can still be done using a watering can or bucket that can be filled by hand, or greywater can be used (bathwater or wash water) or water from a rain butt.

None of these restrictions affect agricultural, commercial or horticultural use, which we appreciate can seem confusing at times. Commercial water use restrictions are handled differently through NEUBs (Non-Essential Use Bans).

It's a weighty responsibility to apply for a Drought Order. We have to demonstrate that there is serious risk or actual risk to public water supplies.

The Drought Order prevents the following:

- Watering outdoor plants at commercial premises
- Filling or maintaining a non-domestic paddling or swimming pool
- Filling or maintaining a pond
- Operating a mechanical vehicle-washer
- Cleaning any vehicle boat, aircraft or railway rolling stock
- Cleaning non-domestic premises
- Cleaning a window of non-domestic building
- Cleaning industrial plant (machinery)
- Suppressing dust and;
- Operating cisterns



Restriction exceptions and representations

Alongside our neighbouring water companies, we are able to grant exceptions to the TUBs and NEUBs for customers and businesses in certain circumstances. The aim is to minimise the impact on vulnerable customers and the economy. We work closely with groups such as WRE and WRSE to ensure that our exceptions are aligned so the message is clear and consistent. There are two types of exception - statutory and discretionary. Under the discretionary category this is sub-divided into universal and other concessions. The universal grouping means that all these exceptions are agreed by all water companies who have signed up to the Drought Management Code of Conduct. We offer a discretionary exception to all customers on our Water Sure tariff who have a medical condition. We'll be in touch well in advance of any restrictions explaining exactly what they mean and what can or can't be done. As well as allowing time for consultation and representations to be made. A full list of exceptions can be found in our full documents [here](#).

Drought permits and environmental protection

At the same time as focusing on household use of water we would also be looking at whether the situation is grave enough for us to apply for permits to take more water out of the rivers or groundwater sources. They take time to be processed so we have to apply in good time. These will only be granted after we have shown that we have done as much as we can to conserve supplies and reduce demand for water, and any loss of supply is due to an exceptional shortage of rain.

An important part of the drought planning process is to ensure that the environmental impacts of any of the drought actions that we propose are minimised. We have carried out comprehensive environmental assessments to make sure any potential permit will not have a detrimental impact on the environment and have created a detailed monitoring plan.

Extreme actions and severe restrictions

We will go to great lengths to avoid bringing in severe restrictions such as rota cuts to the water supply. So, we are considering a full range of actions set against the Environment Agency guidelines which state that they must be feasible, temporary, practical and not lead to taking out more water from the environment permanently. We have further work to do to test against carbon targets, cost and environmental impact. But a sample of the actions can be found in the full Plan.

Only under the most extreme conditions and after we have tried all possible actions would we apply to the Environment Secretary for an Emergency Drought Order to impose cuts to the water supply at certain times of the day. We do not believe this to be an acceptable way to run our business and serve our customers and are investing in our water supply system so that this would only be the case under a very extreme drought, beyond the droughts we have planned for.





Drought communications



Drought can be a worrying and confusing time. Our job is to provide clear trustworthy information in good time so everyone knows what is going on and what we may need our customers to do to help us maintain enough water to go round. Our year-in-year-out drive to Love Every Drop means that using water wisely is not a surprising new message. It's the story we tell everyday. It's embedded in all of our communication. We have a solid baseline to build on when the time arises. Every litre saved matters and small changes can make a big difference. We will make sure everyone has the information needed to save water in the house and garden or in the office.

Our communication flow would follow the progression of a drought event. Communication underpins all of our actions. The success of our drought management depends on our customers and all other water users listening to, understanding and acting on the information received. We will be helping every step of the way giving timely, easy to follow information and advice. We know from past experience of managing through drought that our communications campaigns with our customers and other stakeholders led to a 10% drop in demand for water. We can adapt our messages from normal conditions to when we cross over the threshold to the next stage of drought. We will make good use of all channels including social media and will make sure messages are relevant and as local as possible. We know from other initiatives that our customers appreciate information that is hyper-local so we will produce agile and targeted communications that are relevant to each individual area.

The graphics to the right and below show how we change the messaging to suit the development of the drought.

Consider every drop / Save every drop

Normal

Have buckets of fun in the garden. Reuse every drop.

We all want to beat the heat this summer. So cool down in the garden, but use water twice. Our water is precious. If we reuse it, recycle it and respect it, our splash of summer lasts longer.

Let's make every drop of summer go further.

To find out more visit anglianwater.co.uk/savewater



Appreciate every drop / Treasure every drop

Prolonged dry

Don't get hung up on your brown lawn.

Treasure every drop.



Protect every drop / Preserve every drop

Actual drought



There is a water shortage, protect every drop.



We've never seen a higher demand for water in Colchester. So, please rethink the use of hosepipes for washing cars, filling paddling pools or watering the garden while our teams work hard to cope with the extra pressure. Our water is precious. If we only use what we really need there will be enough for everyone.

Let's make every drop of summer go further.

To find out more visit Anglianwater.co.uk/savewater



When does a drought end?



We determine the end of a drought to be when our water resources have returned to a classification of normal. Normal conditions must be present and monitored for a sustained length of time. We look at all our drought indicators - rainfall, dryness, river flows - to make sure they have all returned to normal levels. It can be the case that drought conditions pause and then resume so it is vital that we look at rainfall patterns to make sure that it is not a blip and that there is no risk of a return to drought.

At that point we would lift any restrictions on our customers. Once we're back to business as usual we would carry out a review of our actions to see what lessons we can learn to help our future planning.



Cover photo - Fly fishing at Anglian Water's Grafham Water reservoir, an 806-hectare biological Site of Special Scientific Interest, southwest of Huntingdon in Cambridgeshire. It was designated an SSSI in 1986.