



# Final Drought Plan

June 2018

# Executive summary

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This drought plan outlines our approach in managing water supplies to make sure there's always enough water available for nearly seven million customers and 200,000 businesses across the North West, even during drought conditions.

This plan has been produced by United Utilities Water Limited following a material change, and replaces our Final Drought Plan 2014.

The material change results from an updated environmental assessment report for our Crummock drought permit option in West Cumbria which showed a reduction to the amount of water available for abstraction from this reservoir. We believe that this change, along with the development of a new source of water (the South Egremont boreholes, to support Ennerdale in West Cumbria) results in a material change to our current published drought plan.

This plan provides a summary of the actions that we will consider carrying out during drought conditions to protect essential water supplies to our customers and minimise environmental impact. The reliable supply of water is essential to our customers in their everyday lives.

Droughts do not follow any particular pattern and can occur at any time of year, showing different characteristics. Our plan therefore sets out a range of options available in the event of drought, and the processes and timescales required for their implementation. Our plan includes lessons learnt during the 1995/96 drought as well as more recent droughts in 2003 and 2010. The plan can be used for any drought condition, including those more severe than any previously recorded.

More than 90% of the water supplied by us to homes and businesses across the North West comes from rivers and reservoirs, with the rest from groundwater.

Our region is split into four water resource zones:

- Integrated Resource Zone – an integrated network serving South Cumbria, Lancashire, Greater Manchester, Merseyside and most of Cheshire, representing over 90% of total water supplied by us and the vast majority of our customers
- West Cumbria Resource Zone – serving the areas of Workington, Whitehaven, Wigton and Solway
- Carlisle Resource Zone – serving the Carlisle area
- North Eden Resource Zone – serving the rural, northern part of the Eden district of Cumbria.

The West Cumbria Resource Zone is the most sensitive to drought due to its short critical period of 2 to 3 months, that's the time taken for reservoirs to go from full to empty in the worst drought. Therefore decisions have to be taken quickly in this zone during a drought but equally, following rainfall, reservoirs can refill in a matter of days. West Cumbria also contains a number of environmentally sensitive sites which are designated under legislation and we are legally required to protect these.

In drought there is a fine balance between public water supply and environmental protection and we believe that this plan achieves this balance.

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In order to provide a secure water supply to our customers, we use operating policies and control rules as well as carrying out frequent monitoring in conjunction with the Environment Agency. This data means that we can recognise drought conditions, identifying the need for, and timing of, any drought management measures. Many of our drought management actions are an integral part of our normal operational activities to get water to customers' taps.

Management of water supplies during drought conditions and actions taken would reflect the severity, geographical extent of the drought and its speed of development. We would begin by taking actions that are under our own control and then only use specific legal powers and/or exceptional measures in serious drought conditions.

This plan presents four drought triggers for each resource zone, based on reservoir level or the proportion of annual abstraction licence that has been used. The triggers are decision points, to consider what measures are needed to address the current situation.

The plan includes a range of drought management actions ([Figure 1](#)), which are linked to the drought triggers, including:

- Operational actions
- Communication actions
- Demand side actions (water efficiency campaigns, voluntary water use restrictions, Temporary Use Ban, drought order to ban non-essential use)
- Leakage control actions
- Supply side actions (non-commissioned sources; tankering)
- Drought permit/order actions.

Actions will only be taken if they are right for the particular drought situation. Drought actions may be applied either company wide, by resource zone or to target a specific geographic area depending on the nature of the drought event at that time.

Our plan is based on the current guidance and legislation including Defra's Drought Plan Guidance (Defra, December 2015) and the Water Industry Act 1991.

A separate Strategic Environmental Assessment and Habitats Regulations Assessment of the options included in this plan have been done. Options shown to have the potential to significantly affect designated sites (Special Areas of Conservation, Special Protection Areas and sites designated under the Ramsar Convention), are subject to a detailed Appropriate Assessment. A drought option that has an adverse effect on the integrity of a protected site can only be included in the plan subject to having no alternative solutions, and where the Secretary of State is satisfied that there are imperative reasons of overriding public interest for its inclusion and the adoption of suitable compensatory measures. This is the case for the Ennerdale Water drought order option included in this plan.

Applications for drought permits or orders would be made following the start of voluntary water use restrictions. Our minimum level of service for water supply is for the implementation of Temporary Use Bans and drought permits or orders not more than once in every 20 years on average, with drought orders to restrict non-essential water use not more than once in every 35 years on average.

This drought plan does not include the use of rota cuts where water supplies are turned off for a period of time every day or standpipes to ration essential supplies (implemented through emergency drought

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orders). This is consistent with the level of service in our Water Resources Management Plan (United Utilities, 2015) and is a balance between customer and environmental impacts. The level of service is reviewed as part of the Water Resources Management Plan process rather than this drought plan.

Our assessment of water supply security indicates that with a repeat of the worst drought on record our reservoirs will not empty but will reach very low levels. Before this happens, we would have to take action to conserve water supplies in case the drought is more severe than any previously recorded. Therefore, water use restrictions and drought permits or orders need to be introduced before reaching the very lowest reservoir levels to protect water supplies.

This document has been reviewed to assess the sensitivity of information from a national security perspective and it was not thought necessary to exclude any information. No commercially sensitive information has been excluded from this plan.

Drought plans are updated every five years (or earlier in the event of a material change), and we would expect this plan to be in place until 2021. Annual updates on the drought plan are provided as part of our annual Water Resources Review - these are available on our website ([corporate.unitedutilities.com/waterresourcesplan](http://corporate.unitedutilities.com/waterresourcesplan)).

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Figure 1: Summary of drought triggers and associated actions

Status	Summary of normal activity	
<b>Normal operation</b> Above all drought triggers	On-going water efficiency programme to save 3 Ml/d each year	
	Leakage control to maintain leakage at the sustainable economic level	
	Optimise supply system to balance cost and manage risk of possible drought	
	Regular liaison with Environment Agency on water resources issues	
Status	Summary of additional actions (if appropriate in specific drought)	Estimated time to implement
<b>Increased drought risk</b> Below Trigger 1 for at least one source Likelihood of approx. 1 in 3 in any year Approx. 14 days to next trigger	Establish United Utilities' drought management structure	3 days
	Issue drought action plan to Environment Agency and discuss	1 week
	Enhanced water efficiency communications	1 week
	Fully optimise supply system to manage risk of possible drought	On-going
<b>Possible drought</b> Below Trigger 2 for at least one source Likelihood of approx. 1 in 5 in any year Approx. 7-14 days to next trigger	Further enhancements to water efficiency communications – link to dry weather. Press/radio adverts	1 week
	Establish regular stakeholder updates	3 days
	Enhance leakage control activities	1 week
	Start process of bringing supply side options into use	1-6 months
<b>Drought alert</b> Below Trigger 3 for at least one source Likelihood of approx. 1 in 12 year in any year Approx. 28 days to next trigger	Introduce voluntary water use restrictions with extensive communications	3 days
	Commence representation period for introduction of Temporary Use Ban	3 days to start; 3-4 weeks to complete
	Carry on process of bringing supply side options into use	1-5 months
	Apply for drought permits/orders	1 week
<b>Drought</b> Below Trigger 4 for at least one source Likelihood of approx. 1 in 20 in any year	Introduce Temporary Use Ban with extensive communications campaign	Soon after crossing the trigger
	Carry on process of bringing supply side options into use	3-6 months
	Implement powers granted under drought permits / orders	At time of crossing trigger or soon after
	Apply for and introduce drought order to restrict non-essential use	Dependent on level of customer demand for water

\* Note that the drought triggers and actions at Ennerdale Water in the West Cumbria Resource Zone differ from those set out above. Voluntary water use restrictions will occur earlier at the 'possible drought' status (Trigger 2) to ensure demand restrictions are in place before applying for a drought order (Trigger 3) at this sensitive site and a period of 7 days exists between Triggers 2 and 3 to allow for this. A Temporary Use Ban will be implemented on reaching 'drought' status (Trigger 4) ahead of the need to implement a drought order at Ennerdale. In addition, tankering of treated water from the Integrated Resource Zone will commence at Trigger 3