

UNITED UTILITIES WATER PLC

Final Drought Plan 2014

Executive Summary

This drought plan has been produced by United Utilities Water PLC (UU). It updates our Final Drought Plan 2013 to include revised drought triggers and drought options for Ennerdale Water in West Cumbria. There are no other substantive changes to the previous Final Drought Plan 2013.

The plan provides a comprehensive statement of the actions that we will consider implementing during drought conditions to safeguard essential water supplies to our customers and minimise environmental impact. The security and integrity of water supplies is of the utmost importance to our customers.

Droughts do not follow any particular pattern and can occur at any time of year, exhibiting differing characteristics. Consequently, our plan sets out a range of options available in the event of drought, and the processes and timescales required for their implementation. The plan is applicable to any drought condition, including those more severe than any previously recorded.

Our plan includes lessons learnt during the 1995/96 drought as well as more recent droughts in 2003 and 2010, and takes account of the Environment Agency's Water Company Drought Plan Guideline 2011 (EA, 2011). Under Section 39B(7) of the Water Industry Act 1991, there is a statutory duty for water companies to agree publicly available drought plans following consultation. Drought plans are updated every 3½ years (or earlier in the event of a material change) and this plan updates our previous Final Drought Plan 2013. This plan incorporates views raised during a period of public consultation between 13 January 2014 and 17 February 2014 to which 22 responses were received.

UU supplies water to some 6.9 million people and 0.2 million non-household customers in Cumbria, Lancashire, Greater Manchester, Merseyside, most of Cheshire and a small part of Derbyshire. More than 90% of the water supplied by UU comes from rivers and reservoirs, with the remainder from groundwater. This contrasts with the rest of England, where an average of only 60% is supplied from rivers and reservoirs. UU's 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 UU
- 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 (2-3 months) critical period (the time taken for water sources to go from full to empty in the worst drought). Therefore decisions have to be taken quickly in this zone during a drought event but equally, following rainfall, the sources can refill in a matter of days. West Cumbria also contains a number of environmentally sensitive sites which are designated under national and EU legislation and UU is legally required to protect such sites. In drought there is a fine balance between public water supply and environmental protection.

Our water sources are managed in accordance with operating policies and control rules to provide a secure water supply to our customers. UU carries out frequent hydrological and hydrogeological monitoring in conjunction with the EA. Assessments of this data provide the basis for recognising drought conditions at an early stage and identifying the need for, and timing of, any drought management measures. Many of our drought management actions are an integral part of our normal water source operational activities. Only in serious drought conditions will the use of specific legal powers and/or other exceptional measures be required. Management of water supplies during drought conditions represents a progression of actions that reflect the severity,

geographical extent and speed of development of the drought. We will firstly take actions that are under our own control before implementing actions requiring special legal powers.

This plan presents four drought triggers for each resource zone, based on reservoir level or the proportion of annual abstraction licence that has been utilised. The triggers are decision points, to consider the measures required to address the prevailing situation. The plan includes a range of drought management actions (see Figure 1), which are linked to the drought triggers, including:

- Operational actions
- Communication actions
- Demand side actions (water efficiency campaigns, voluntary water use restrictions, statutory water use restrictions, non-essential use ban)
- Leakage control actions
- Supply side actions (contingency and non-commissioned sources; tankering)
- Drought permit/order actions

Particular actions will only be pursued if they are relevant to the prevailing 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 prevailing at that time.

A separate Strategic Environmental Assessment (SEA) and Habitats Regulations Assessment (HRA) of the options included in this plan have been undertaken. Any options identified as having the potential to significantly affect European designated sites (Special Areas of Conservation (SAC), Special Protection Areas (SPA) and sites designated under the Ramsar Convention), have been subjected to a detailed Appropriate Assessment. A drought option that has an adverse effect on the integrity of a European site can only be included in the plan subject to there being 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.

New legislation (Flood and Water Management Act 2010, amending the Water Industry Act 1991, and the Drought Direction 2011) has revised the ability for water companies to impose water use restrictions on customers. This drought plan takes this new legislation into account. It includes provision for voluntary water use restrictions on customers, followed by a consultation period, prior to the implementation of statutory water use restrictions, as provided for by the amendments to the Water Industry Act 1991.

For all resource zones (except Carlisle where, following infrastructure improvements and licence changes in 2003, the need for drought permits/orders is unlikely) applications for drought permits/orders would be made following the commencement of voluntary water use restrictions.

Our minimum level of service for water supply is for the implementation of statutory water use restrictions and drought permits/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. No rota cuts or standpipes to ration essential supplies are planned (implemented through Emergency Drought Orders). This is consistent with the level of service in our Water Resources Management Plan (UU, 2009) 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, even taking into account the forecast impacts of climate change, our reservoirs will not empty but will reach very low levels. Before reaching these very low levels, it is necessary to take action to conserve water supplies in case the drought is more severe than any previously recorded. Consequently, water use restrictions and drought permits/orders need to be implemented before reaching the very lowest reservoir levels to safeguard water supplies.

Figure 1: Summary of drought triggers and associated actions

Status	Summary of Normal Activity	
Normal Operation 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 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
Increased Drought Risk Below Trigger 1 for at least one source Approx 1 in 3 year frequency Approx 14 days to next trigger	Establish United Utilities' drought management structure	3 days
	Agree drought action plan with Environment Agency	1 week
	Enhanced water efficiency communications	1 week
	Fully optimise supply system to manage risk of possible drought	On-going
Possible Drought Below Trigger 2 for at least one source Approx 1 in 5 year frequency Approx 14 days to next trigger	Further enhancements to water efficiency communications – link to dry weather. Press adverts and roadshows	1 week
	Establish regular stakeholder updates	3 days
	Enhance leakage control activities	1 week
	Start process of bringing contingency sources into use	1-3 months
Drought Alert Below Trigger 3 for at least one source Approx 1 in 12 year frequency or less Approx 21-35 days to next trigger	Introduce voluntary water use restrictions with extensive communications campaign	3 days
	Commence consultation for introduction of statutory water use restrictions	3 days to start; 3-4 weeks to complete
	Start process of bringing non-commissioned sources into use	3-6 months
	Apply for drought permits / orders	1 week
Drought Below Trigger 4 for at least one source 1 in 20 year frequency or less	Introduce statutory water use restrictions with extensive communications campaign	Soon after crossing the trigger
	Start process of bringing further non-commissioned sources into use	9-12 months
	Implement powers granted under drought permits / orders	At time of crossing trigger or soon after
	Apply for and introduce non-essential use ban	Dependent on level of demand

* Note that the drought triggers and actions at Ennerdale Water in the West Cumbria Resource Zone differ from those set out in Figure 1 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. Statutory water use restrictions 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