Yorkshire Water Drought Order Application

River Ouse Supporting Information

Document Version Control

Version	Issue Date	Document	Authorised by
1.0	13/06/2025	Pre-application document for EA review	Jason Ball
2.0	30/06/2025	Updated pre-app document post EA comments	Jason Ball
3.0	18/07/2025	Final version for Submission	Jason Ball

1. Executive summary for drought order application

An application is being made for a drought order to temporarily increase river abstractions from the River Ouse, allowing Yorkshire Water to reduce the volume we put into supply from reservoirs. This helps conserve reservoir supplies until we receive sufficient rainfall for levels to return to normal. This drought order application is necessary due to an exceptional shortage of rain threatening a serious deficiency of supplies of water in the area supplied by Yorkshire Water. The site is included as a drought option in the Yorkshire Water Drought Plan 2022 available to view on the Yorkshire Water website (https://www.yorkshirewater.com/about-us/our-vision-and-plans/resources/drought-plan/).

Yorkshire Water can abstract water from the River Ouse at Moor Monkton which is approximately 9km northwest of York. The water abstracted here can be used at four water treatment works within the Yorkshire region. Two of these treatment works are within the York area whilst the other two are within the Leeds area.

As a result of the low rainfall our reservoirs are below average for the time of year and there is a risk to security of supply if we do not take action to conserve reservoir stocks as much as possible. We are applying for drought permits/orders to conserve supplies in reservoirs in case the dry weather continues. These drought permits/orders, if granted, will alter abstraction from some of our river sources and reduce the amount of water we release from reservoirs to rivers allowing us to maintain these compensation flows for longer, thereby aiding the recovery of these reservoirs.

2. Proposal Description

Yorkshire Water can abstract water from the River Ouse at Moor Monkton under the terms of abstraction licence agreements held with the Environment Agency. We have two abstraction licences for this site, a base licence held directly with the Environment Agency (licence 2/27/24/158), and a time limited licence held with the Environment Agency by the Canal and Rivers Trust (CRT) for Yorkshire Water (licence NE/027/0024/065). In an agreement between Yorkshire Water and CRT, CRT have transferred the benefit of the abstraction licence to Yorkshire Water in full. Copies of the licence agreements and a letter of consent from CRT to apply for a drought order are provided as part of this application. This drought order application is relevant to the abstraction from the River Ouse at Moor Monkton when flows are below 1,000 Ml/d, relating to licence NE/027/0024/065.

2.1 Location Map

Moor Monkton is in the Harrogate district of North Yorkshire. The licence agreements held with the Environment Agency allow abstraction from the River Ouse at Moor Monkton, approximately 1.5 km downstream of the confluence with the River Nidd. The Moor Monkton intakes (grid reference SE 52 57) are southwest of the village of Beningbrough and approximately 9km to the northwest of the City of York.

A location map of the abstraction point is provided in Figure 1. Water abstracted from Moor Monkton is mostly treated at Eccup No. 2 WTW and Headingley WTW with a small amount treated at Huby WTW. Water can also be transferred to Elvington WTW if required.

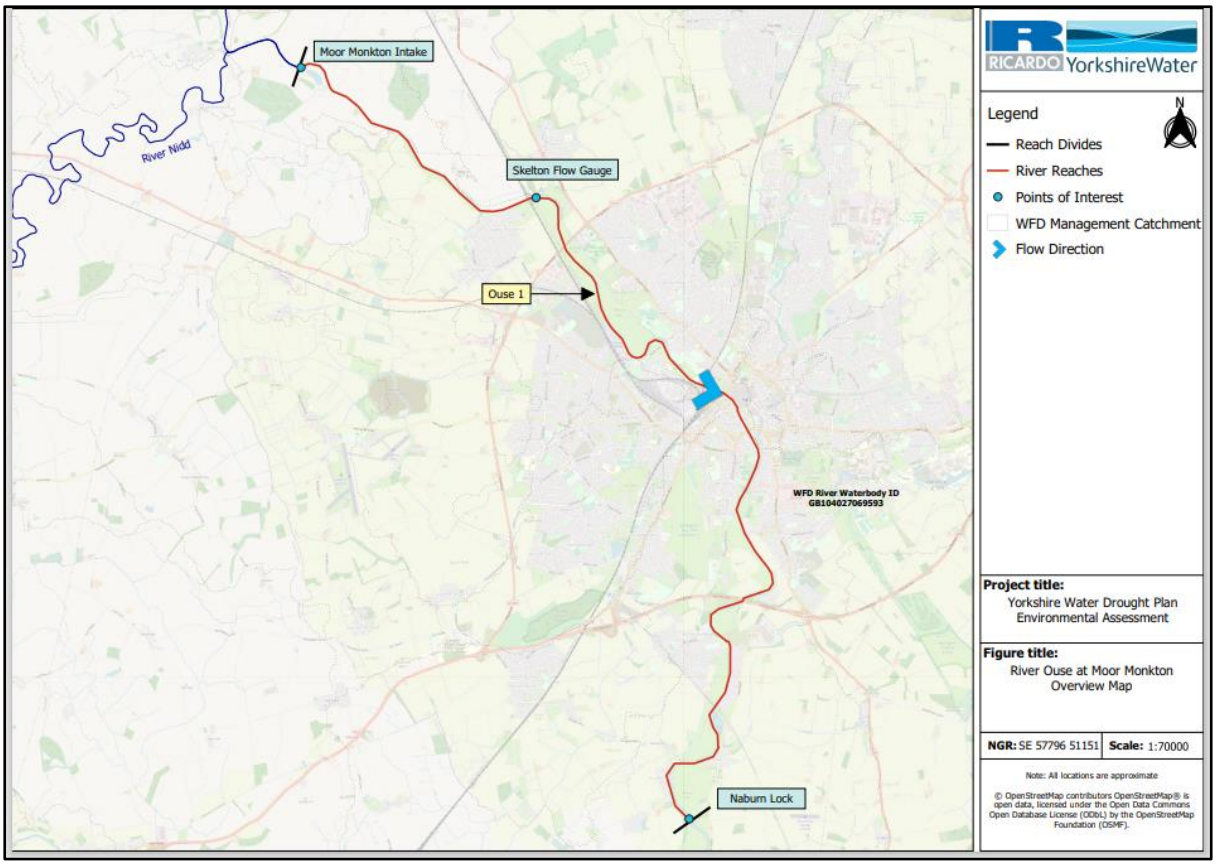


Figure 1: Map of the River Ouse, Moor Monkton abstraction location

2.2 Current and Proposed Abstraction Licence Conditions

We are authorised to abstract water from the River Ouse at Moor Monkton under the terms of licence serial number NE/027/0024/065, an agreement we hold with the Canal and Rivers Trust, and under the terms of licence 02/027/0024/158, an agreement we hold with the Environment Agency. Under the terms of the licences the volume we are ordered to take is dependent on the flow in the River Ouse as measured at Skelton gauging station (grid reference SE 56 55). The abstraction is limited to: 300 Ml/d when flow at Skelton gauging station is more than 1000 Ml/d; 150 Ml/d when flow at Skelton gauging station is between 650 and 1000 Ml/d; 72 Ml/d when flow at Skelton gauging station is between 400 and 650 Ml/d; and 10 Ml/d when flow at Skelton gauging station is less than 400 Ml/d.
In addition to the above, the aggregate quantity of water authorised for abstraction from Moor Monkton under licence number NE/027/0024/065 and licence number 02/027/0024/158 is limited to 12.5 megalitres per hour; 300 megalitres per day (Ml/d); and 73,000 megalitres per year (Ml/year). Abstraction must be taken at an instantaneous rate not exceeding 3,473 litres per second.
Yorkshire Water is currently operating within the terms and conditions of both licence agreements to abstract from the River Ouse at Moor Monkton.

We operate a second intake on the River Ouse at Acomb Landing. The terms of use for this abstraction are specified in a separate licence agreement held with the Environment Agency (licence serial number 02/27/024/078) and will not be affected by this drought order.

The water abstracted at Moor Monkton intake is treated at Huby WTW, Eccup No 2 WTW, Headingley WTW and Elvington WTW. Elvington WTW can also treat water abstracted at Elvington from the River Derwent. Elvington WTW supports supplies in York and supplies the grid. The grid can directly support supplies in Leeds, Sheffield, Wakefield, Kirklees and Calderdale, and, by supporting these areas and

allowing sources in these areas to be transferred, can thereby support stocks in Harrogate, Bradford and other areas of Yorkshire.

The drought order application for the River Ouse is to increase the daily abstraction limit at Moor Monkton in all but the highest flow band by 60 Ml/d under licence NE/027/0024/065

The current daily maximum abstraction licence (NE/027/0024/065) permissions at Moor Monkton on the River Ouse for each flow band and proposed changes for the duration of the drought order are shown in Table 1, (changes underline in the table below).

Allowed Abstraction at Moor Monkton			
	Current	Proposed	Changes
Greater than 1000 Ml/d	300	300	No change
650-1000 Ml/d	150	210	Increase allowed by 60Ml/d
400-650 Ml/d	72	132	Increase allowed by 60Ml/d
Less than 400 Ml/d	10	70	Increase allowed by 60Ml/d

Table 1: Current Licence and Drought Order proposals

The drought order application is to temporarily amend the licences to allow an additional 60 Ml/d to be abstracted at Moor Monkton in the flow bands below 1,000 Ml/d. If granted the order will be in place for six months.

If we receive sufficient refill for our regional reservoirs stocks to recover to a level we refer to as 'the normal control line' and no individual reservoir group is below a level we refer to as our 'early warning trigger line,' we will revert to the conditions defined in the licence agreement.

The abstraction rates (daily maxima and combined annual maxima) specified in the licences are unchanged. This means that the total annual maximum from the River Ouse is unchanged, but that more will be able to be taken when the river is low.

During 2025 our reservoirs stocks are low following below average rainfall since the start of the year, coupled also with periods of high summer demand. This drought order will provide more river water for supply to customers and helps conserve reservoir stocks in case the dry weather continues.

2.3 Proposed Start & Expiry Date for Order

The drought order will be implemented as soon as it is determined and expected to be in place for 6 months.

3. Draft Order

See appended Draft Order (Appendix 3)

4. Drought Order Justification

4.1 Why the Order is necessary

This drought order application is necessary due to an exceptional shortage of rain threatening a serious deficiency of supplies of water in the area supplied by Yorkshire Water. Evidence to demonstrate the exceptional shortage of rain in the Ouse catchment and the Yorkshire region is provided below.

We are applying for a drought order on the River Ouse to conserve reservoir stocks if the dry weather continues. The order will allow us to increase our use of river supplies during low flows. This will reduce the volume of water we are required to put into supply from reservoirs so that we conserve the supply for use later in the year.

The proposed increase in allowed abstraction in the 3 lower flows at Moor Monkton would allow us to maximise the abstraction at low flows, reducing the rate of fall of reservoir stocks by abstracting more from rivers. Protecting reservoir stocks in this way allows us to prolong the amount of time reservoirs are available for both public water supply and compensation releases to the environment.

We have considered all options and this drought order application has been identified as being the best option for the current situation. Very high demands and extremely dry weather have led to an increase in abstractions from all sources to meet peak demands and from river sources to support reservoir stocks. If we were able to continue the use of the river abstractions at a higher rate when river flows are low, this would aid recovery of reservoir stocks and put us in a better position with respect to reservoir stocks.

This drought order provides an additional 60Ml/d at flows below 1,000Ml/d which can be treated at Eccup No 2 WTW, Headingley WTW and/or Elvington WTW to provide more water to our grid. This additional treated water can be pumped into the Northwest, Southwest and South supply areas to reduce reservoir abstraction, conserving reservoir stocks in these areas in case the dry weather continues. The additional abstraction will also maintain supply to Huby WTW. Increasing the abstraction also allows additional raw water transfer from the North into the Northwest and from the Northwest into the Southwest. This transfer is used to balance levels between these groups, and additional transfer will also conserve reservoir stocks in these areas. Therefore, the additional 60Ml/d has multiple uses and the exact balance between raw water transfer and increased production will be determined by the area group reservoir levels and risk.

4.2 Supply Areas & Respective populations impacted

The drought order, if granted, will alter how we operate our River Ouse at Moor Monkton abstraction which supplies water to our Grid SWZ. As this abstraction is part of our conjunctive use grid system and can be used to support (directly or indirectly) all of our five areas, the population affected by the water shortage is that of our Grid SWZ (5,414,690 for 2024/25 as estimated population from our final WRMP 2024).

4.3 Daily Water Demand and how it is met from the available source

Our reservoir control lines represent the value of reservoir storage that is required to guarantee a continuous rate of supply (equivalent to yield) such that the reservoir storage never falls below a critical storage line given the minimum historical inflows.

We calculate two sets of control lines:

- Drought Control Line (DCL) - the DCL is designed such that stocks will never fall below marginal storage when the reservoirs supply 85% of their calculated yield.
- Normal Control Line (NCL) - the NCL is designed such that stocks will never fall below the DCL when the reservoirs supply their calculated yield.

Once we have calculated the NCL and DCL, we linearly interpolate between the 100% full level and the NCL, the NCL and DCL, and the DCL and emergency storage level, to obtain the ten control lines (CLs) used in our modelling and reservoir stocks monitoring. The NCL is control line (CL) 3, the DCL is CL7, and we use CL4 as the Environment Agency trigger line. This is the trigger for Yorkshire Water and the Environment Agency to initiate communications around a potential emerging dry weather situation.

The control lines are updated on a regular basis and were last updated in 2022 based on minimum inflows from 1900 to 2020. We have remodelled our historic inflows using GR6J rainfall runoff models and extended our historic record back to 1900.

Control lines have been revised since our most recent drought plan, but the triggers in our drought plan related to control lines are still applicable to the updated control lines. We will carry out a further review of our control lines after the current drought period has ended, and when inflows are updated to include this current period.

When our reservoir levels drop below NCL, our operating strategy is to reduce reservoir abstraction to yield and increase river abstraction while still meeting daily demand. The increased river abstraction is a combination of abstraction for treatment and distribution and pumping river water to reservoir storage. In line with this strategy, we increased use of river abstraction when we dropped below NCL in March. Average reservoir abstraction in Q1 (Jan-Mar) was 685Ml/d, this reduced to an average of 584Ml/d in Q2 (Apr-Jun). River abstraction has increased from a Q1 average of 437Ml/d to an average of 523Ml/d in Q2. When river levels have increased in Q2 we have been able to maximise abstraction, reducing reservoir use as close to minimum as possible. For example, higher river levels in the first 2 weeks of June allowed us to increase river abstraction to an average of 587Ml/d reducing reservoir abstraction to an average of 487Ml/d. We will continue to maximise river abstraction within licence constraints.

4.4 Forecasted effects of continued dry weather on customer supplies

Our current modelling is based on a 1995/1996 inflow scenario which is our worst case 12-month historical period with approximately 60% long-term average (LTA) rainfall over a 12-month period. The model outcome indicates that with current WTW availability and a similar reservoir inflow to 1995/1996, we would require a temporary use ban (TUB) and will require further drought permits/orders (on rivers and in other areas), however, customer supplies will not be impacted. Our latest WRPR forecast (at the time of preparing this application) indicates that the forecast date for TUB and drought order / drought permit implementation across the Yorkshire Water region will be 14/07/25 and 25/08/25 respectively.

5. Case for an exceptional shortage of rain (ESoR)

Full details of events and climatic conditions that have led to the need for the drought order is described in this section.

5.1 Introduction

In this document, we demonstrate an exceptional shortage of rainfall by analysis of monthly rainfall following the Environment Agency guidance document ('Hydrological guidance for the assessment of an Exceptional Shortage of Rain (ESoR)', 2025). We demonstrate that ESoR has primarily led to a serious risk of deficiency of supplies in the River Ouse catchment. The geographical extent and the period of analysis have been agreed with the local Environment Agency Hydrology Yorkshire team.

- The following rainfall analysis has been conducted to support our assessment:
- Plots of 2025 rainfall in relation to long term average (LTA) and previous droughts
- Standardised Precipitation Index (SPI)
- Rainfall ranking compared to records starting in 1871
- Calculation of Cunnane plotting position

We also present additional evidence for the following non-rainfall variables:

- River flows
- MORECS Soil Moisture Deficit

In each subsection, we start by showing the requirements as set out by the Environment Agency (Appendix A – ESoR checklist for water companies March 2025 v2.1) in grey boxes. Following such text boxes, we present our approach and analysis in response to those.

5.2 Rainfall Data

- You must use areal rainfall data for the catchment area of interest.
- In most circumstances, you should use the Environment Agency's HadUK/DRT dataset Data for hydrological areas is provided to water companies monthly. If the Hydrological Areas are not appropriate, then rainfall data can be extracted for a bespoke catchment area from the HadUK/DRT dataset by Environment Agency hydrologists. You must fully explain which dataset has been used and why. Recent data from third party websites may underestimate complete monthly rainfall totals.

The rainfall data used in this assessment was provided by the Environment Agency Hydrology Yorkshire team. The data included is the HadUK v1.2.0.0 monthly totals covering January 1871 to December 2023 (inclusive) and the Environment Agency Daily Rainfall Tool (DRT) monthly totals covering January 2024 to June 2025 (inclusive). The use of the HadUK/EA DRT rainfall data allows analysis of long time series dating back to 1871. The rainfall data covers the River Ouse catchment at the Skelton gauge. The geographical extent will be provided and described in greater detail in section 5.4.

- If you have calculated areal rainfall yourself (you are strongly advised to avoid this):
- You will need to demonstrate that your data is of better quality and/or more hydrologically relevant than the HadUK/DRT dataset.

- Set out the limitations of the dataset.
- Your areal rainfall should be calculated in accordance with British Standard BS7843-4:201296. The rain gauges used must be quality controlled, have minimal missing data and be operated in accordance with British Standard.

We can confirm that we have not calculated the areal rainfall data ourselves and have used the data provided by the Environment Agency as explained above.

5.3 Period of Analysis

- Determine the start and end point of the period of analysis before starting the assessment. This is the period of the rainfall deficit which is used to support the ESoR case. You should agree the period of analysis with the relevant Environment Agency hydrologist, the Area Drought Coordinator and water company lead.
- The application should be submitted as soon as possible once the need for a Drought Order has been identified a or as soon as possible. [as written]
- Start of the period of analysis:
- Provide clear evidence (e.g. charts/graphs) of the point at which rainfall is lower than normal.
- Justify how the variables used here are reflective of the water supply situation in the catchment area of interest.
- End of the period of analysis
- Provide clear evidence (e.g. charts/graphs/reference to Drought Plan) that the rainfall deficit has triggered the need for a drought order.
- Use the latest rainfall data at the point of the application.

The period over which the analysis has been conducted was agreed with the Environment Agency Hydrology Yorkshire team. This drought can be characterised as relatively short but of high intensity compared to previous recorded droughts. The onset of the exceptional shortage of rainfall was agreed to be February 2025. Although January 2025 has also seen lower than average rainfall in the Ouse catchment (see Figure 3**Error! Reference source not found.**), to be consistent with the assessment in our other regions, February 2025 will be the start of the period of analysis for all of our regions. The latest rainfall data up until the point of application has been used in this assessment representing a 5-month period from February to June 2025.

5.4 Geographical Extent of Analysis

- Provide justification for the catchment area used in the analysis, this may be one or several of the Environment Agency's hydrological areas, a bespoke catchment or water resources zone.
- Provide evidence of how the rainfall deficit is relevant to the catchment area of the public supply source or the wider integrated water resource zone/subunit of this zone.
- It is recommended that catchments should contain one or more Met Office registered rain gauge located within them.

The geographic extent of the analysis was agreed with the Environment Agency Hydrology Yorkshire team as shown in Figure 2. We have used the river Ouse catchment at the Skelton gauging station; this is because Skelton is the monitoring location used to regulate the Order this application relates to. A wider catchment of the whole River Ouse would therefore be less relevant to this application. The geographic extent covers several tributaries to the River Ouse including, but not limited to, the rivers Nidd, Ure and Swale. These rivers ultimately drain into the Ouse and are captured by the Skelton gauging station. The rainfall has been consistently low across this whole catchment and therefore there was no need to investigate individual areas separately. Yorkshire Water uses a grid system to balance supplies across the network, therefore the shortage of rainfall in this area is relatively uniformly felt across the Yorkshire Water supply zone.

Figure 2: Geographic extent of the exceptional shortage of rainfall analysis

5.5 Technical Rainfall Analysis Methods

- Refer to the Environment Agency's supplementary guidance on drought Orders and drought orders, available on request from Water-company-plan@environment-agency.gov.uk

- Use the same rainfall dataset (usually HadUK/DRT) for each analysis method (asset out in the sections above) and the same historic period of record (from 1871)

- 1961 to 1990 should currently be used as the period of record for Long Term Averages (LTA) assessment (this is planned to be updated to 1991 to 2020, and this document will be updated to reflect that)
- Use your assessment period of analysis for each method as your main evidence. If you use any shorter periods as supporting evidence (for example, the winter refill period), you must justify how these are relevant to the water resource situation
- Detail any limitations and uncertainties associated with the methodology, and the possible impacts on the results

Rainfall comparison with the LTA and historical droughts

Figure 3 shows the rainfall during December 2024 to June 2025 in comparison to the monthly long-term averages (LTA). The LTA was calculated using the new 1991-2020 standard period which was confirmed by the Environment Agency Hydrology Yorkshire team to be taken for the calculation of LTA. The rainfall has been significantly below average across the period of analysis and was less than half of the LTA in March and April. Although it can be seen that January 2025 has also seen below average rainfall, it is not part of the period of analysis adopted by Yorkshire Water for two reasons: (1) Yorkshire Water uses a grid system to balance supplies across the network, therefore the shortage of rainfall in the entire area is relatively uniformly felt across the Yorkshire Water supply zone; and (2) In order to be consistent in the assessment of ESoR with other regions (where January 2025 did not have below average rainfall), February 2025 will be the start of the period of analysis.

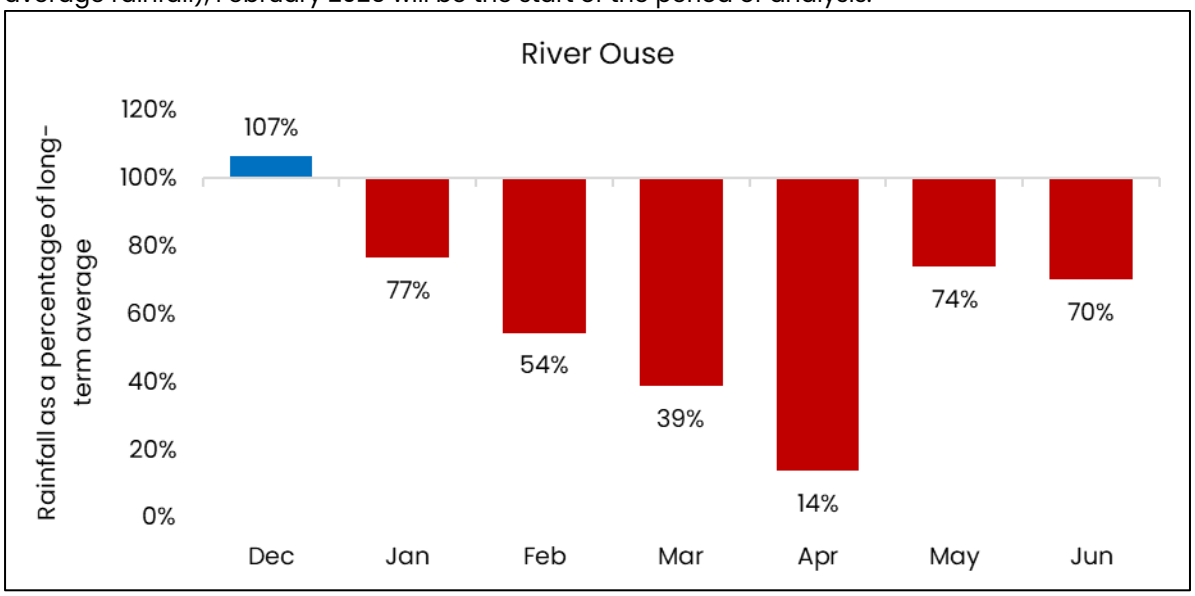


Figure 3: Rainfall compared to long-term average

Figure 4 Shows the cumulative rainfall starting from the end of January for the analysis period, in comparison with the LTA and the two most significant recent droughts (2022 and 1995). Rainfall from 2020 is also included for comparison purposes as the year was characterised by very low rainfall in the springtime. The rainfall for this period is notably lower than the historic droughts and the LTA.

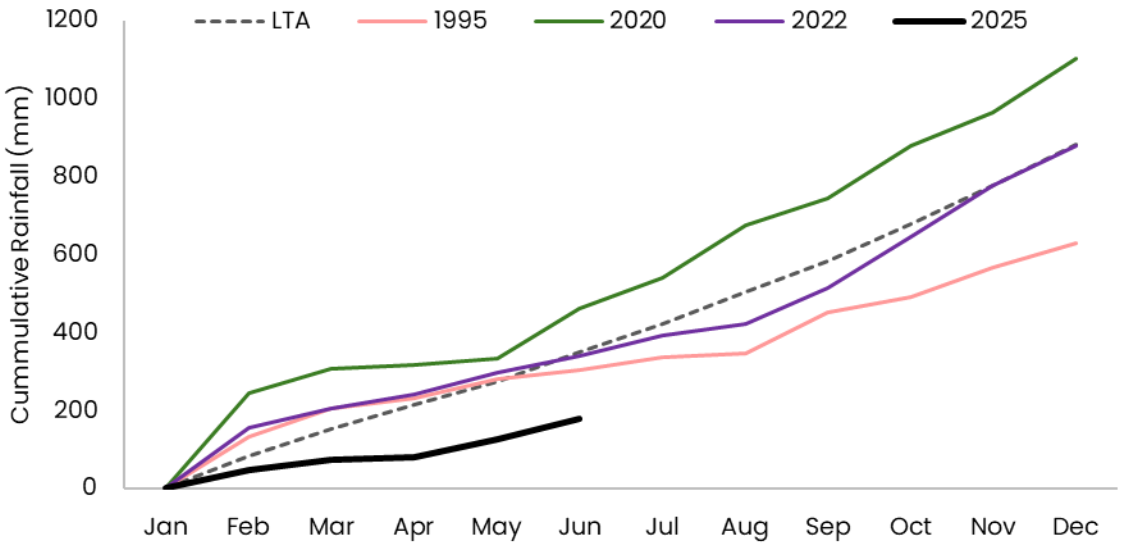


Figure 4: Cumulative rainfall compared to historic droughts and long-term average

Standardised Precipitation Index (SPI)

The Standardised Precipitation Index (SPI) values can be interpreted as the number of standard deviations by which the observed anomaly deviates from the long-term mean. The SPI can be calculated for differing periods using monthly input data. We have calculated the SPI for all the monthly rainfall data listed in Figure 5 for a 1-month, 3-month and 5-month duration (i.e., 1-, 3-, and 5-months window respectively leading to the month shown in the first column). The 5-months leading up to June 2025 is considered extremely dry for the River Ouse catchment according to the index categorisation. The 3-months prior to April and May are also considered extremely dry and have the lowest SPI values.

SPI of 2025 rainfall for the River Ouse Catchment

2025	SPI - 1month	SPI - 3month	SPI - 5month
February	-0.562	-0.248	-0.783
March	-1.500	-1.485	-1.228
April	-2.429	-2.696	-1.425
May	-0.491	-2.560	-2.421
June	-0.132	-1.767	-2.391

SPI Category:						
Extremely Wet (≥ 2.0)	Severely Wet (1.5 → 2.0)	Moderately Wet (1.0 → 1.5)	Near Normal (1.0 → -1.0)	Moderately Dry (-1.0 → -1.5)	Severely Dry (-1.5 → -2.0)	Extremely Dry (≤ -2.0)

Figure 5: Standardised precipitation indices for the Ouse catchment

Rainfall Ranking

The ranking of the rainfall periods compared to the historic dataset is shown in Figure 6. Different periods preceding the period of analysis are presented up to twelve-month durations. For example, the accumulated rainfall for the 11 months leading up to February 2025 was the 75th driest on record. The Cunnane probability ranking has been calculated for each duration and the rankings are shaded accordingly. Rainfall durations of four to nine months preceding June 2025 are all classified as exceptionally low rainfall according to the Cunnane probability ranking. The 5-month period from February to June is the 3rd driest on record and the 4-months February to May is the 2nd.

Rank of 2025 rainfall in period since 1871													
River Ouse		Duration (months)											
2025		1	2	3	4	5	6	7	8	9	10	11	12
End Month	Feb	39	35	61	36	29	66	42	43	35	52	75	85
	Mar	13	12	10	33	19	16	45	26	27	25	37	54
	April	3	2	3	2	7	6	8	28	13	16	13	27
	May	49	8	1	2	2	7	4	6	24	11	10	11
	June	72	44	9	3	3	3	7	4	6	18	11	14

Cunnane Probability Ranking:						
Exceptionally high (> 0.95)	Notably high (0.87 → 0.95)	Above normal (0.721 → 0.869)	Normal (0.28 → 0.72)	Below normal (0.131 → 0.279)	Notably low (0.05 → 0.13)	Exceptionally low (< 0.05)

Figure 6: Rainfall ranking compared to historic dataset dating back to 1871

5.6 Supporting Information

The following section summarises non-rainfall analysis as supporting evidence.

Soil Moisture Deficit (MORECS)

We have used the Met Office Rainfall and Evaporation Calculation System (MORECS) to estimate Soil Moisture Deficit (SMD). Data from the MORECS database is much less granular than rainfall data being aggregated to 40 x 40km grids. This limits our ability to present data specifically for the geographic extent of the River Ouse catchment. As advised by the Environment Agency Hydrology Yorkshire team, we present data for grid squares 85, 86, and 93 which covers the largest extent of the river Ouse catchment. Figure 7 highlights the current trend in 2025 versus historical years dating back to 1993 as well as key droughts in this time. The SMD is currently above the 90th percentile and significantly greater than the 2022 and 1995 drought years.

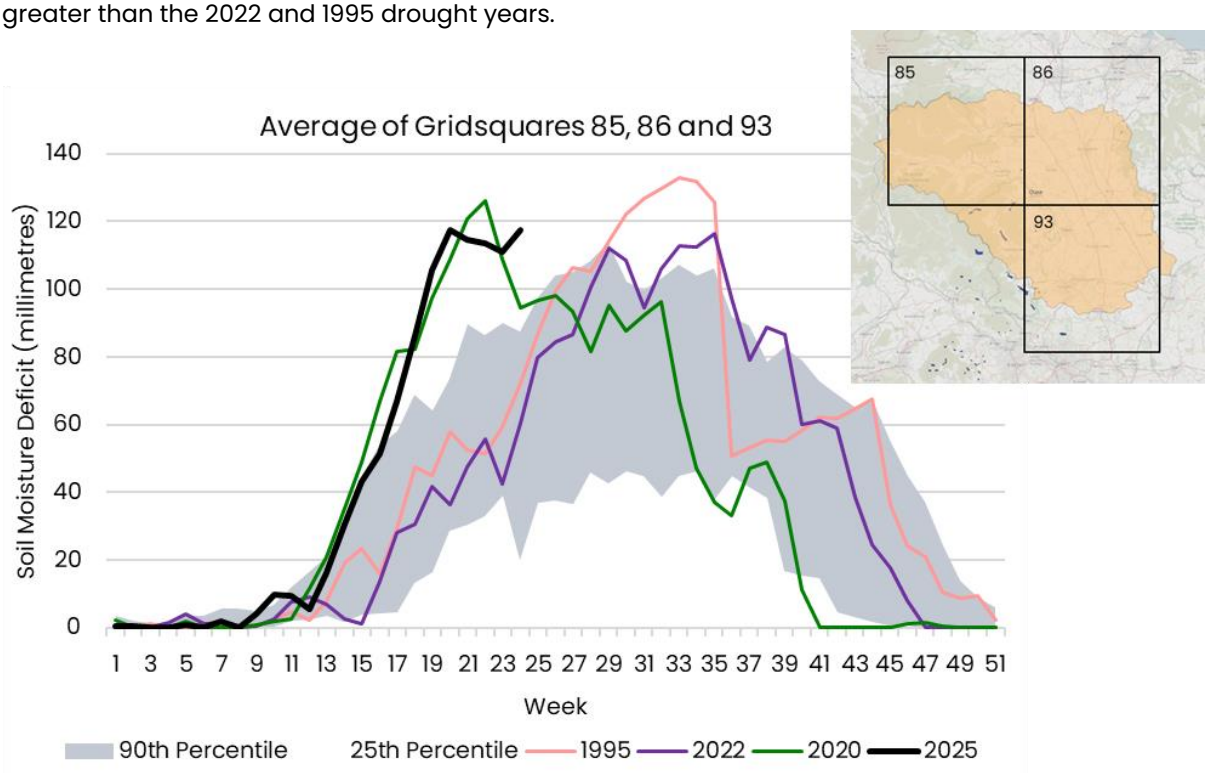


Figure 7: Soil moisture deficit in the Ouse catchment area

River Flows

Figure 8 shows the River Ouse flow rate at the Skelton gauge across 2025 and the driest years since 1989, including the key historical drought years of 1995 and 2022. The most remarkable feature of this plot is that the flow was consistently low between the start of March and end of May 2025. Flows in the Ouse are highly sensitive to rainfall events, typically rising and falling rapidly. Due to the prolonged exceptional shortage of rain, the river flows in early 2025 were consistently low. The flows rose briefly following rainfall in late May and late June but have not experienced a consistent period above the 1000 Ml/d threshold.

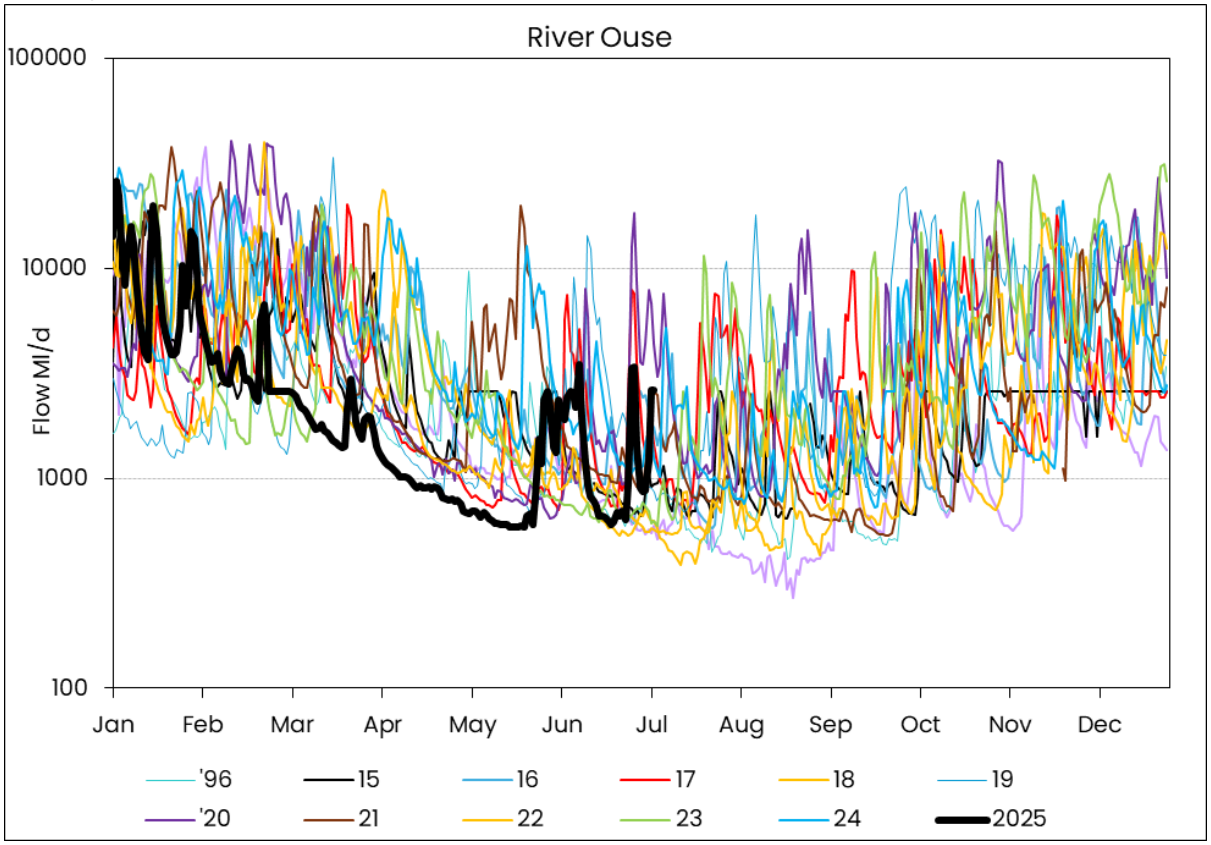


Figure 8: Flow in the River Ouse compared to previous years

5.7 Summary and Conclusions

The spring of 2025 has been exceptionally dry. Across the River Ouse catchment, the 5-month period preceding June 2025 was the third driest on record. The SPI and ranking analyses indicate conditions were extremely or exceptionally dry across several durations within the analysis period.

The low rainfall so far in 2025 has been accompanied by periods of hot weather, and this combination of hot dry weather has resulted in high SMD values throughout the region. As a result, when there has been intermittent rainfall, it has not resulted in significant runoff to rivers. The River Ouse has had exceptionally low flows for a prolonged period (despite a short-lived increase in late-May and late-June), and this has resulted in record low reservoir levels for this time of year.

The dry weather means we must be ready to take action to avoid water shortages later in the year. If the exceptionally low rainfall continues (or even if there is below LTA rainfall during the summer), our forecasting models predict extremely low reservoir levels and the need for further drought measures according to our drought plan.

6. Evidence Supporting Drought Plan has been followed

Our Drought Plan details a number of actions that we would follow when triggers are met. These can be found in Table 2.3 "Drought plan triggers and associated actions" of our Plan (https://www.yorkshirewater.com/media/ny5nq2vk/yorkshire-water_drought-plan-2022_final_public-april-2022.pdf). The triggers and actions are detailed in the subsections below.

6.1 Triggers

6.1a Trigger: Reservoirs crossed our normal control line

We meet customer demand through use of our licensed water resources, which include reservoir, river, and groundwater supplies. On average regional reservoir stocks fall below normal control line (NCL) for 12 weeks a year, this normally occurs between mid-April and June. When we are below NCL we balance raw water resources by reducing reservoir abstraction and increasing river abstraction, which helps to conserve reservoir stocks.

In 2025 regional reservoir stocks crossed the normal control line on 25th March 2025. As part of our proactive approach to dealing with dry weather we instigated our Bronze Company response early (on the 3rd April) to the developing dry weather situation.

In reaction to this our Water Resources Plan (WRAP) produced on 1st April increased grid production (river supplied water treatment works) to support our reservoir supplied water treatment works (WTWs) with treated water. We actively assess each area weekly and decide which area requires what volume of grid support to balance supply/resources.

We also maximised our river abstractions (where the river level allowed) on the Wharfe, Ouse and Ure to support the reservoir groups with raw water, this then allows us to balance the decline in groups through our strategic raw water network.

This strategy has significantly changed our water resources proportions. Average reservoir abstraction in Q1 (Jan-Mar) was 685Ml/d, this reduced to an average of 584Ml/d in Q2 (Apr-Jun). River abstraction has increased from a Q1 average of 437Ml/d to an average of 523Ml/d in Q2. When river levels have increased in Q2 we have been able to maximise abstraction, reducing reservoir use as close to minimum as possible. For example, higher river levels in the first 2 weeks of June allowed us to increase river abstraction to an average of 587Ml/d reducing reservoir abstraction to an average of 487Ml/d. We will continue to maximise river abstraction within licence constraints.

We have also increased leakage focus by escalating a leakage hub, to enable us to minimise leakage and as a result reduce demand, with the team focus ensuring we prioritise any work to repair leaks within district metered areas (DMA) and on trunk mains within the area as quickly as possible.

We have an 'always on' approach to water saving messaging, meaning we proactively push out messaging whatever the weather. Over winter, we've created 14.8m opportunities to see and hear our

water saving messaging. All year, free water saving packs are available for customers to order through the Yorkshire Water website. In line with our Drought Plan, when we crossed our normal control line, we activated our dry weather communications plan to ensure we were communicating to customers the importance of saving water during dry weather.

6.1b Trigger: Reservoirs crossed Environment Agency Early Warning trigger line

Regional reservoir stocks reached the Environment Agency early warning trigger on 22nd April 2025 and we initiated weekly discussions with the Environment Agency at this time as per our Drought Plan. Taking a continued proactive approach to the situation we also instigated our Silver (escalating from Bronze) incident meetings in line with our Company Incident Management Plan on 22nd April. At this stage, our region was not considered to be in drought but this trigger ensures we start implementing actions early to lessen the impacts if the situation worsens.

Following our regional reservoir stocks crossing the Environment Agency control line our operating strategy continued to be maximising river abstraction and minimising reservoir abstraction as outlined in sub-section 6.1a.

The prolonged dry weather coupled with multiple heatwaves has resulted in demand spikes with two peaks in April, one peak in May and two peaks in June, and another at the start of July. These demand peaks combined with persist dry weather has resulted in higher average demand in April, May and June.

As outlined in sub-section 6.1a, river abstractions on the River Derwent, River Hull, River Wharfe, River Ouse and River Ure have been maximised, within licence constraints. River levels in April, May and June have been lower than average limiting abstraction on River Wharfe at Arthington, River Ouse at Moor Monkton and River Ure at Kilgram Bridge.

The lower river flows and the higher demand has required higher reservoir abstractions to meet supply.

We have continued the leakage focus including proactive targeted leakage detection on upstream trunk mains to ensure we are on top of any leakage on our trunk main system. DMA focus groups in place identify any areas above our minimum leakage levels, which then allows a targeted approach to locating leaks in specific areas, again with the aim to minimise leakage, demand and therefore abstraction from reservoir group.

Following our Drought Plan, we also enhanced our water conservation activities. We pushed our water saving messages via a range of media and started communications with key stakeholders such as political stakeholders, inset appointees, retailers and new appointments and variations (NAVs).

As this stage we liaised with the Environment Agency over the onset of drought walkovers and preliminary drought permit and drought order preparation (including in-river works Orders where required). It was agreed that a series of walkovers would be carried out to validate and cross reference data collected in 2022.

As part of our Drought Plan, we also sent out letters and emails to our key downstream abstractors and stakeholders to notify them of our dry weather escalation plans and invited them to contact us should they have any concerns, or wished to report any signs of environmental stress.

6.1c Trigger: Reservoir stock predicted to be 10 weeks from crossing the drought control line

The next trigger for implementing drought actions is when regional stocks are predicted to be 10 weeks from the drought control line. According to our Drought Plan we would escalate to Silver at this stage, but being proactive, we instead escalated to Gold on 12th May. During dry periods we model reservoir stocks against forecasts of a repeat of previous droughts in our region. Modelling was commenced at the start of April; The latest assessment predicted a risk of reservoir stocks reaching the 10 weeks from crossing drought control line (4 weeks before implementing TUBs) on 16th June across Yorkshire Water's area if we had a repeat of the 1995/96 rainfall. Rainfall in April and May has been less than in the same period in 1995. As the dry weather has persisted more extreme theoretical rainfall-based scenarios, i.e., 40% of the LTA rainfall in June and 60% LTA rainfall thereafter, have been used which showed close resemblance to the 1995/96 pattern. Our latest WRPR forecast using this extreme scenario indicated we have crossed the 10-week trigger on 16th June similar to 1995/96 scenario.

Throughout all this time, we have continued liaising with the Environment Agency on a weekly basis to discuss triggers reached and actions that we have been carrying out. Alongside this, we continued the preparation of environmental assessment reports and drought permit and order applications and also approached Natural England to ensure they were aware of the situation although there are no designated sites under the Conservation of Habitats and Species regulations 2017 as amended or Wildlife and Countryside Act which could be impacted by this drought action.

Operationally we took the decision to start implementing some of the actions triggered by stocks being 10 weeks from crossing the drought control line earlier than the trigger date, rather than wait until we reached this trigger. These actions have been outlined in previous sections but are also summarised below:

- From start of April maximising river abstractions for treatment and distribution and pumping to reservoir storage.
- Weekly review to identify reservoir groups with a higher rate of fall than regional average to target treated water or raw water support.
- Use of raw water pumping stations to balance stocks between North & Northwest Reservoir groups initially with options to transfer water from Northwest to Southwest groups as needed.
- Specific actions to protect groups which have experienced low levels in previous droughts e.g. Worth Valley, Leighton groups.

In addition to operational changes made we also preparing for TUBs with the following actions:

- This included recreating communication assets such as adverts and notices as well as identifying where they would be best placed to notify customers so they were ready in advance of the announcement that we would be implementing TUBs.
- Reviewing all our in house standard operating procedures for contacts relating to TUBs as well as refreshing all upskill material
- Producing FAQs to support with the management of customer interactions, with clear information given around the environmental impacts and the need for this action.
- Forecast modelling to understand potential increase in customer contacts, so that we're able to effectively resource to support any surge in demand across all our contact centre.
- Setting up of a dedicated TUBs line to direct customers to the right support. As well as increasing our social media opening hours, after reviewing historic data, to better support customers.

- 'Call to All' across the business to pledge support for customer support activity; taking contacts, supporting at water saving events or during operational incidents across the summer, with appropriate upskills in place to support colleagues
- As part of our Drought Plan, we also enacted a plan for enhanced leakage detection through multiple methods in risk areas, that is, increase find and fix, lift and shift logger deployment for generating points of interest. We also directed focus on 'unaccounted for water' in areas with maintained high demand, but in which reported leakage had reduced beyond the levels of which demand had reduced. We switched to targeted detection of unmetered areas, that is, upstream mains with limited metering, and in areas where meters had failed.

We uplifted our water saving campaign and increased our spend on advertising. Our messages changed from green to amber week commencing 5th May and we introduced our TV advert on 17th May which features red messaging. We held weekly broadcast media interviews to keep customers up to date on our water resources position and explained how they could help play their part in reducing water usage. We ramped up the social media posts across our channels (Instagram, Facebook, X and Linked In) to increase the reach of our campaign. We supplemented bills and letters with water saving leaflets, sent text messages to hotspot areas of customers, and sent an email to our customers who have an online account with us. Alongside all this, we provided fortnightly updates to stakeholders including MPs, local authorities, eNGOs, retailers and NAVs.

Alongside our communications plan for managing the ongoing dry weather, we started preparations for implementing TUBs.

We have also initiated the preparation of demand side drought orders to restrict non-essential use (NEUB). This has involved reviewing the latest Code of Practice on Water Use restrictions and the UKWIR project on Assessing the Costs and Benefits of NEUBs, alongside identifying exceptions and FAQs. We have also been working with other water companies to understand best practice, how best to undertake a cost-benefit analysis and how to develop our communications approach.

6.1d Trigger: Reservoir stock predicted to be 8 weeks from crossing the drought control line

The 8-week trigger was initially predicted to be crossed on 7th July, as mentioned above (Section 6.1a) this was revised to 30th June, after ongoing dry weather. The extreme theoretical scenarios modelled have shown the 8-week trigger will be breached on 30th June similarly across Yorkshire Water's area.

All the actions outlined when previous triggers have been crossed continue as part of the drought response. In addition, Yorkshire Water moves to impose a TUB on all customers on 11th July 2025. This was widely publicised through the advertising, mainstream media, social media and explained on the Yorkshire Water website. We also provided a dedicated phoneline for customers to get in touch with us if they had any queries. At this stage we would normally escalate to Gold but this had already been action in May 2025.

Yorkshire Water commenced pre-application discussions with the EA, and proactively submitted documentation early for Environment Agency review to ensure delays would be mitigated should Order applications need to be formally submitted.

6.2 Operational Practice Changes

Our operating strategy is to reduce reservoir use to as close to yield as possible by supporting areas and individual groups with treated water (grid import) and raw water transfers, wherever possible.

The River Ouse abstraction at Moor Monkton supplies water to our Grid SWZ, so although it primarily feeds the North area group, our conjunctive use grid system allows us to support (directly or indirectly) all of our five areas, North, North-West, South-West, South and East.

Specific actions we have taken to support Reservoirs across Yorkshire are as follows:

- Increased river water abstraction on the River Ouse at Moor Monkton, River Wharfe at Lobwood and Arthington, River Ure at Kilgram Bridge.

- Increased output across key river supplied Grid Water Treatment Works, with this increase being used to reduce reservoir abstraction.

- Use of raw water transfers to balance reservoir stocks between areas. Decisions on which transfers to use and when is based on a detailed weekly review of reservoir levels and rate of decline in conjunction with scenario modelling.

Average reservoir abstraction in Q1 (Jan-Mar) was 685Ml/d, this reduced to an average of 584Ml/d in Q2 (Apr-Jun). River abstraction has increased from a Q1 average of 437Ml/d to an average of 523Ml/d in Q2. When river levels have increased in Q2 we have been able to maximise abstraction, reducing reservoir use as close to minimum as possible. For example, higher river levels in the first 2 weeks of June allowed us to increase river abstraction to an average of 587Ml/d reducing reservoir abstraction to an average of 487Ml/d. We will continue to maximise river abstraction within licence constraints. These actions combined have facilitated a reduction of reservoir abstraction from an average of 685Ml/d in Jan-Mar (Q1) to an average of 620Ml/d in May and a low of 504Ml/d in the last week of May when rainfall increased river levels.

Our Drought Plan includes long term options that we will consider if the drought continues into 2026. These options will provide additional resources for public supply and will only be implemented if there is a risk that our current available resources will not be able to meet demand if the drought continues.

The decision to implement long term options will be dependent on the severity of the situation and scenario modelling to assess the potential risk. The trigger in our drought plan is to review the need for long term options if we are six weeks away from our regional drought control line in the second year of a drought. We are currently reviewing the scope of the long-term options and the timescales for delivery. If we were approaching the trigger for implementing long term options, this information will help determine which long-term options we should implement if required.

In line with our drought planning process, once the situation recovers, we will carry out a full review of our drought triggers and actions and their impacts. We will produce a “lessons learnt report” within six months of the situation returning to normal. This will include a review of operations and any opportunities to operate differently to improve our resilience to future droughts.

6.3 Conserving Supplies

Since crossing the NCL in March 2025 we have Increased our leakage activity within in DMAs and on trunk mains. Leakage has been reduced and we will continue with the increased leakage focus across the region with the aim to drive leakage as low as possible, reducing demand and as a result abstraction from the reservoirs.

Actions carried out in sections 6.1 to 6.3 have collectively reduced abstraction from Regional Reservoirs conserving customer supplies where possible.

7. Customer Engagement

Our Communications Team activated our dry weather communications plan in early April to explain to our customers about why it is important to save water during dry weather. As part of our dry weather plan, we have a RAG approach to messaging which allows us to be flexible with our campaign and target the messaging so it lands with our customers. We started our 'green' adverts in early April across radio, paid social media, digital and out of home. Alongside the advertising campaign, we communicated with our stakeholders, colleagues, retailers and NAVs to encourage them to share our water saving messaging as well as raising awareness of the developing drought situation, provided an update on water resources and promoted customer side leak reduction advice. This was in addition to media and organic social media activity to support our key messages.

As the dry weather escalated, our messaging switched to 'amber' on 5th May. This was enhanced with a significant uplift in advertising spend. We have fortnightly updates for stakeholders, retailers, NAVs, Local Resilience Forums (LRFs) and river health partners. We also have undertaken a number of broadcast interviews with media, as well as utilising as many touchpoints as possible to remind customers about the importance of saving water, including our website homepage, the hold message on our customer helpline, customer letters and text messages to customers in hotspot areas. We have customer events taking place between May and August to talk to customers face to face about the importance of saving water. Our 'red' messaging was live from 17th May with our TV advert being shown. We are sharing our reservoir levels with customers on a weekly basis on social media so they can see the impact the continued dry weather is having. We will continue to raise awareness of our key messages to help customers understand why they need to use water carefully at this time of the year and provide them with behavioural nudges to make changes.

The weather (temperature and rainfall) has a particularly strong relationship with customer demand making it hard to prove any changes in demand is directly linked to communication campaigns.

Based on a few sources of information, there are some estimates available for assumed demand reduction from communications activity including London Economics' White Paper 2018 and UKWIR's 'Review of 2022 Drought Demand Management Measures – Main Report'. The London Economic White Paper states a range of measured effects of 'messaging' between 1 and 4.8% in the short term. The UKWIR review of the demand drought measures in 2022 concluded that quantitative effect of communication campaigns is difficult to determine analytically because the nature of campaigns is more subtle than TUBs (which have a clear on – off nature) and the campaigns are delivered in a continuous manner from 'background activity' to more 'explicit calls for restraint via a diverse range of media'. The UKWIR study concluded that extensive modelling undertaken did show a reduction in consumption of an average of 0.58%. However, it was noted that 'however the standard deviation of these savings is 1.14%, indicating that this result is small and highly uncertain'.

When we announced TUBs, we utilised all our communication channels to let customers know about the upcoming restrictions. These included all our advertising channels, substantive information on our website detailing the restrictions, legal notices, social media, traditional media including over 10 broadcast interviews taking place, an email to customers, updating our marketing channels, stakeholder updates and briefings, as well a detailed webinar with NAVs.

8. Implementation of a TUB

In our drought plan, a TUB needs to be in place before a drought permit or order application is made between the 1 April and 1 October. A TUB also needs to be in place long enough to show if they have had a measurable impact on our demand. Throughout spring, we have continually modelled and monitored our water resources situation, including estimates of the projected dates that a TUB and drought order triggers could be crossed.

The potential threat to water supplies is a direct result of the weather conditions throughout February to June 2025. The threat will occur if the conditions continue to be dry, or if we experience a prolonged period of high demand. We have acted in line with our drought plan triggers, preparing for a TUB in the spring when our forecasting model suggested they would be required, and implementing a TUB, in line with our drought plan and model forecasts.

In order to better reflect the dry condition, we are experiencing this year and to be prepared for more adverse condition than 1995 and 2022, we have been exploring and evaluating additional 'extreme scenarios' in our weekly WRPR forecasts. One such extreme scenario assumes 40% LTA in June then 60% LTA thereafter. Our recent assessments showed that under this extreme scenario as well as the 1995 scenario, Yorkshire Water would impose a TUB on all customers on 11 July 2025.

We are using several ways of tracking the impact of the TUB on demand reduction, we have an unmeasured household sample known as the Domestic Consumption Monitor (DCM) and measured household consumption from our newly deployed Advanced Metering Infrastructure (AMI) smart meters that provide more real-time data that can be used to track the impact.

Both data sets can be used to determine the saving from implementing a TUB for both unmeasured and measured households and will enable us to identify if the impact varies dependent on how the customer is billed.

The customers on the DCM sample, circa 1000 unmeasured customers, still pay a ratable value bill but have had a meter installed so we can obtain consumption data which is then scaled to represent total unmeasured household consumption in Yorkshire used in our per capita consumption (PCC) calculations.

The graph below shows a comparison of the total daily average consumption from the customers on the DCM sample in 2022 when we also introduced a TUB. The graph also shows details of the pre and post average consumption for this sample demonstrating the impact of the TUB on demand reduction.

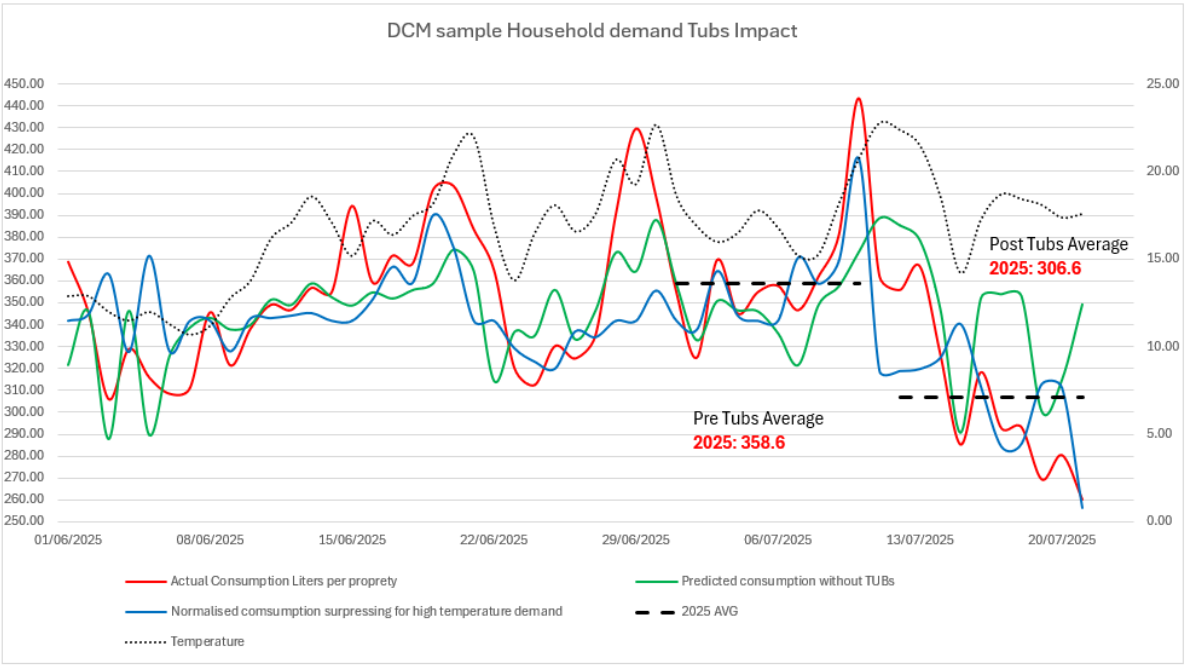


Figure 9: Profile of unmeasured household consumption from the domestic consumption monitor in 2022 and 2025 to see the impact of the temporary use restriction

You can see from the graph that unmeasured household daily consumption from the DCM sample shows that the pre-TUBs average PHC consumption was 358.6 l/day per property and since implementation of the TUB, average PHC consumption has dropped by 51.9 l/day per property to 306.6 l/day per property.

In addition to the DCM sample, we commence our AMI installation on Yorkshire Water customers in 2024 and all new developments and DMO customers received an AMI meter. The AMI sample includes circa 120,000 customers where we have deployed smart meters across Yorkshire to date which transmit daily data and enables us to notify customers of continuous flows to help reduce leakage and provides granular consumption data that can be used to understand when and how much water our customers use each day.

The graph below shows the comparison of the total daily average consumption, the predicted consumption based on the temperature and rainfall and the normalised consumption that is actual consumption adjusted to remove the weather effect and weekends. These trends have been calculated from the AMI metered customers. There are also details of the pre and post average consumption for this sample which can be used to understand the impact of the TUB on demand reduction.

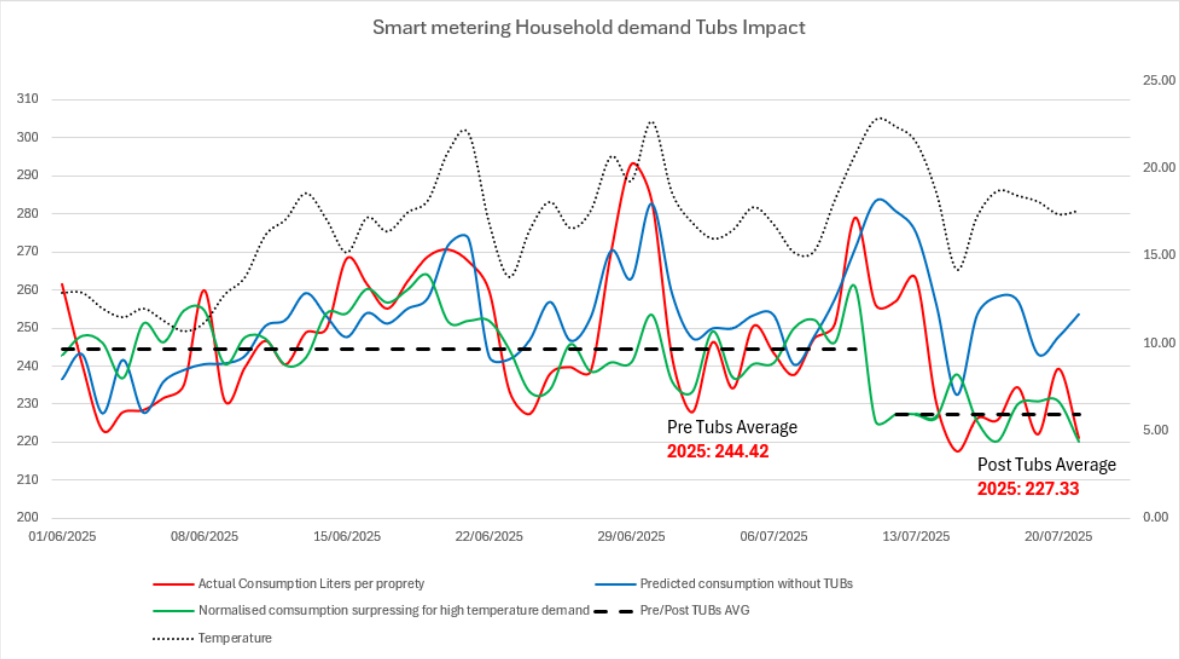


Figure 10: Profile of measured household consumption from the AMI in June and July 2025 to see the impact of the temporary use restriction

You can see from the graph above that metered household consumption from the AMI data shows that the pre-TUBs average PHC consumption was 246.82 l/d per property and since implementation of the TUB average PHC consumption has dropped by 17.92 l/d per property to 227.33 l/d per property.

In addition to these two methods, we have also reviewed regional daily demand both as a daily average and across the diurnal demand profile. Both these methods to can be used to determine the saving from implementing a TUB, helping us assess the impact at a regional level.

The chart below shows the diurnal demand profile for a sample of 25% of Yorkshire Water's supply aggregated to create a regional demand total on 11th July (1st day TUB was in force) compared to 20th June. The weather conditions on both days were very similar with very high temperatures, no rainfall and both were Fridays when the demand profile is slightly different to other weekdays.

The chart clearly shows the reduction in use during the day with a significant reduction in evening demand. This reduction equates to 78Ml/d or a 5.5% reduction in total demand. The reduction when leakage and commercial demand is removed from total demand shows an approximately 10% reduction in domestic demand.

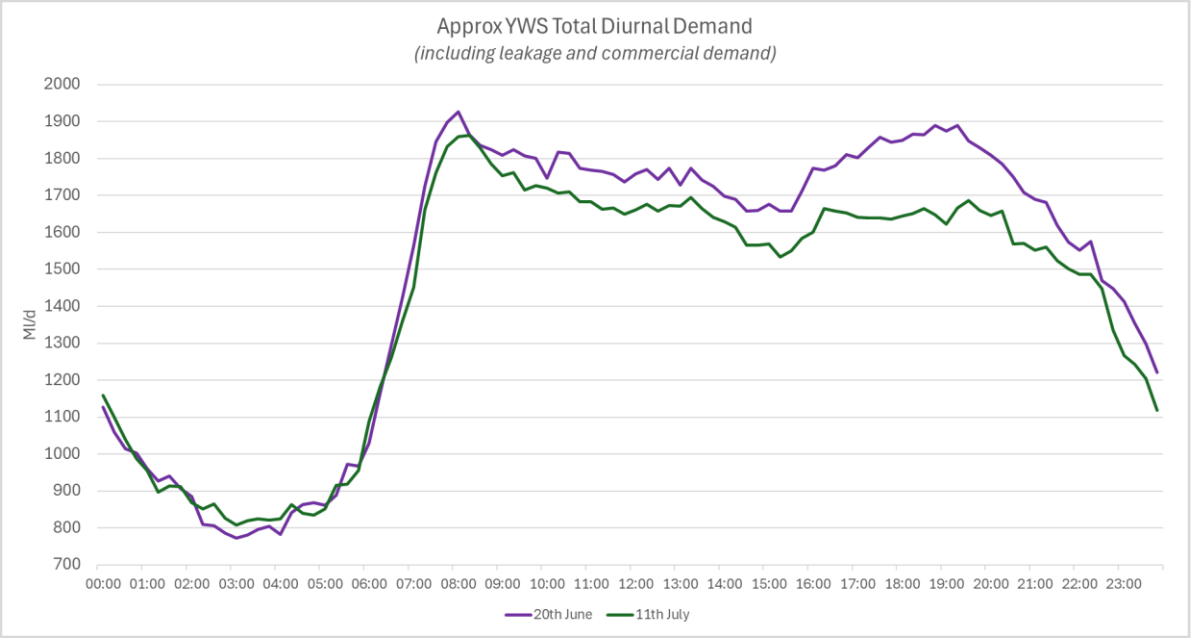


Figure 11: Profile of YWS approximate total diurnal demand pre and post implementation of the temporary use restriction

The chart below shows the daily demand before and after the implementation of the TUB. It compares the actual daily demand with the predicted demand based on weather conditions using June 2025 demands as the benchmark. This chart shows a 5% reduction in demand in dry weather when temperatures were 25C or above. This reduction when leakage and commercial demand is accounted for is approximately 9%. The impact of the TUB reduced when the temperatures were lower was reduced to approximately 3% of total demand or 5% when leakage and commercial use

was accounted for. Interestingly a reduction was still seen on Tuesday 15th July when there was between 10-25mm of rainfall across the region.

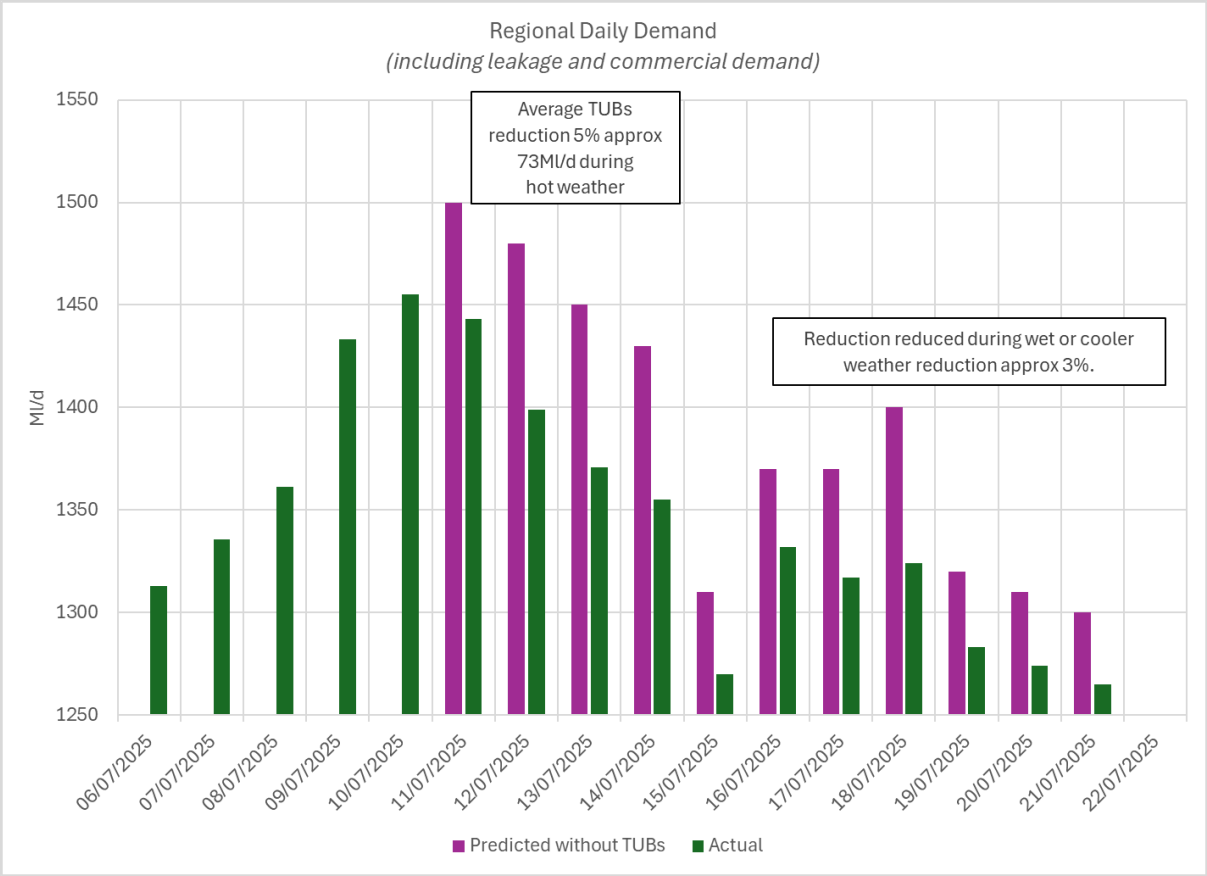


Figure 12: Regional daily demand including leakage and commercial demand actual verses predicted without TUBs

We can see from the evidence above that the introduction of the TUB, decreased temperatures and rainfall has resulted in a regional demand reduction in Yorkshire. There was an immediate and sustained reduction in demand following the intervention. Both the bottom-up (using available data for DCM and AMI samples) and top-down (regional DI) calculations align, showing a total impact of 70.1 Ml/d and 78 Ml/d respectively, which equates to approximately a 10% reduction in household demand. This suggests that the observed impact is largely driven by changes in household customer behaviour and the impact of the TUB on water consumption is more significant for unmetered customers compared to metered ones.

9. Enhanced Leakage Control

9.1 Leakage Reduction Figures

Since crossing the NCL we have increased leakage resources regionally this includes an accelerated planned increase in leakage inspector headcount of 100 (full time equivalent staff) FTE and an increase in overtime via evening and weekend working for customer reported leaks, proactive leakage and repair gangs.

As the grid supports the region a regional leakage view is presented in the graph below. This graph shows the daily leakage position which we use to monitor operational performance responding to reactive breakout and assessing trends against the target and the annual rolling average which is the regulatory measure against which performance is measured. Leakage increased at the start of the calendar year as a result of a period of sub-zero temperatures and snow. Recovery was slower than planned but the annual target was met. Daily leakage has reduced by 25 Ml/d since the start of the financial year and leakage continues on a downward trend. The very high soil moisture deficit has resulted in more reactive breakout; we have responded to this quickly and leakage has not increased. The challenge for the rest of the summer is a further 10-15Ml/d reduction in challenging environmental conditions.

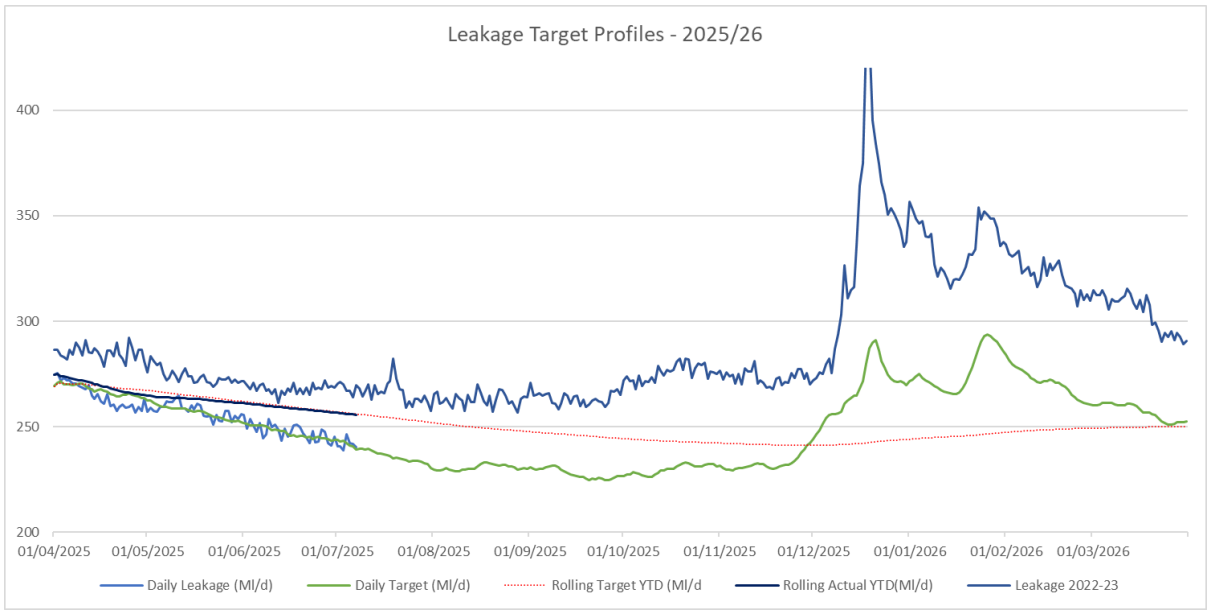


Figure 13: Leakage target profiles: Regionally leakage is 240 Ml/d this is on target and 29.32 ML/d below levels in 2022-23 when we last experienced dry weather conditions

9.2 Increase in Leakage Resources

Overall leakage resources across Yorkshire have increased by 100 full time equivalent (FTE) staff since April this year. The majority of these resources are part of teams which are regionally based, these include customer side leakage, nightwork teams, upstream teams and a team which lift and shift acoustic loggers. Since crossing the NCL we have been able to shift these resources from being spread evenly across the region based on levels of leakage to being focused on the areas where water resources are more stretched. We have started evening and weekend working to increase the volume of leak detection in the area. Additional activities over and above 'business as usual' (BAU) as summarised below.

Team	Total house Overtime (up to End June)
Upstream & Raw Water	207.2
DMA Leakage	1735.8
Customer Leakage Team	188.4
Logging	59

Total	**2190.4**

Upstream and Unaccounted for Water Investigations

- Targeted Upstream (trunk main) proactive leakage detection surveys in all impacted trunk mains systems. These areas have been prioritised whereas during previous years they would have only been surveyed as part of an annual cyclical survey.

- Proactive and targeted leakage detection surveys carried out by the Upstream Leakage Team in the small number of unmetered or non-reporting DMAs.

- Service reservoirs, pumping stations and water treatment work sites have been proactively inspected for leakage. This includes overflows and assets within the site grounds such as valves, meters and hydrants.

- Raw water investigations are being carried out across the region. This survey work involves physically walking the length of the raw water mains to check for visible losses as well as physical asset checks on all available fittings. Similarly to upstream (trunk main) leakage, this is an area that would have been surveyed as part of an annual cyclical survey, but given the current position, it has now been prioritised.

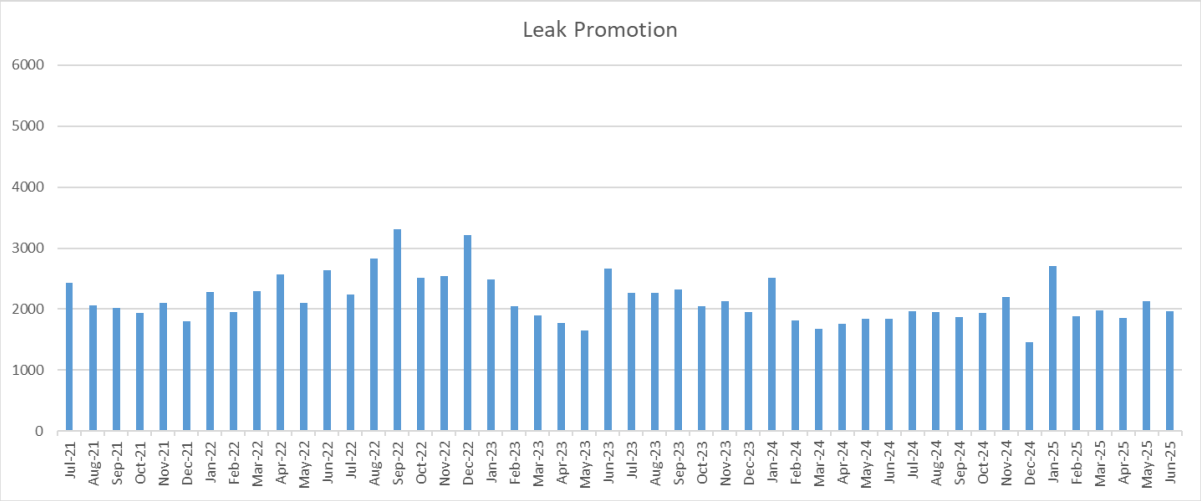
WSS	Type	Number completed	Status	Total length of all systems searched - km	Jobs promoted	Non infrastructure assets investigated
Grid - Barnsley	Trunk	1	Complete	52.4	8	2
Grid - Rotherham	Trunk	5	Ongoing	35.61	4	1
Grid - Doncaster	Trunk	1	Ongoing	12.49	2	2
Grid - Sheffield	Trunk	2	Ongoing	32.85	6	1
Grid - Sheffield	Trunk	1	Ongoing	5.6	1	0

We have completed additional lift and shifting logging in areas fed from the Grid.

Activity	Areas	Number Of DMA's	Loggers Deployed
Lift & Shift	Grid - Sheffield	13	1105
Lift & Shift	Grid - Barnsley	10	450
Lift & Shift	Grid - Doncaster	5	236
Lift & Shift	Grid - Leeds	11	610
Lift & Shift	Grid - Wakefield	9	510
Total		48	2911

9.3 Find & Fix Rate

Promotion of leaks through to our R&M Service Partner M Group for repair is higher this year. The graph below shows regional monthly promotion. Promotion in May has been higher than the same month over the previous years. Hundreds of extra leaks have been promoted compared to the same time last year.



9.4 Underground Supply Pipe Leakages (USPL) & Fix Rates

Specialist customer side leakage technicians are working additional hours at weekends and mid-week to attend high priority / volume leaks on customer owned pipes. So far since April we have worked an additional 188.4 hours across the Region locating leaks on customers private pipes.

An additional 15,000 customer meters have been read across the region to proactively generate more proven continuous flow (leaks) which are being and prioritised for a fix via our Service Partner.

We have identified and visited 80 commercial users across the region with significant water consumption, e.g., farms, industrial, schools, HMPs, hospitals with 'unusual' consumption profiles to confirm leaks and manage expectations to fix at the earliest opportunity. We are also visiting all our concessionary supplied properties.

We are proactively assisting commercial users via the retailer Business Stream with higher than usual bills and continuous flow but not 24-hour users. We have attended 30 and will continue to offer proactive support that is not been provided by the retailer to reduce leak life and demand.

A recent recruitment drive has increased our team of specialist customer-side leakage technicians by an additional 13 FTE across the region.

9.5 Public Awareness Campaigns on Leakage Reporting

We know customers rightly challenge our leakage performance particularly during dry weather so we made sure talking about Yorkshire Water's action was a clear part of our communications plan. We issued press releases and social media posts explaining the £16m investment Yorkshire Water is making into reducing leakage over the next year, including recruitment of additional leakage inspectors, alongside a call to action for customers to report any leaks they find to us as quickly as possible**.**

9.6 Leakage Performance Improvement Plans

We are continuing with the enhanced leakage reduction region wide for Yorkshire. The additional focus areas have already been detailed in the various sections above, and include but not limited to:

- Operational leakage detection overtime – evenings and weekends
- Increase intensity of find and fix activity – promote and repair more
- 'Lift and Shift' logger deployment to generate point of Interest for leakage investigation
- Additional meter reads to identify leaks on customer props ahead of current meter read cycle
- Focus on abnormal demand at large non-household (NHH) customers
- Escalating optimisation schemes at DMA level, that is, meter replacement, DMA sizing etc
- Leak detection on raw water mains and investigation into any leaks at Yorkshire Water assets
- Pressure management solutions to reduce background leakage
- Resolving 'demand' - both consumption and leakage on concessionary supplies
- Plan to drive leakage to 230 Ml/d regionally - by far the lowest levels we have ever achieved

10. Outage Management

10.1 Outage Data

As described in Section 6 we meet customer demand through use of our licensed water resources, which include reservoir, river, and groundwater supplies. When the level drops below Normal Control Line (NCL) in individual reservoirs or reservoir groups we reduce abstraction by either importing raw water or treated water to meet supply, where possible.

The treated water import for all areas is from our grid network which originates at Elvington WTW and Loftsome Bridge WTW, both of which abstract water from the River Derwent. The grid water is imported

into the areas as required through a series of trunk mains and pumping stations. An outage at any of the assets needed to import water into an area will have an impact on that area's reservoir stocks.

Since the start of the dry weather, there was an outage of 29.4Ml/d at Loftsome Bridge WTW. This outage reduced the volume of treated water we can import to Northwest, Southwest and South groups.

Outage data for Loftsome Bridge WTW is a mixture of both planned and unplanned outages and linked to the performance of rapid gravity filters and granular activated carbon units on site. Issues identified with the floor and coating of the filters has impacted performance and as a direct result, several units have been removed from service to facilitate required lengthy renewal works to be carried out on those units.

10.2 Sources Impacted by Outage

The sources impacted by the outage are reservoir supplied water treatment works in the following areas: which are as follows:

- Northwest (NW) Group
- Southwest (SW) Group
- South Group

The outage of 29.4Ml/d was split between these groups with 13Ml/d impacting NW area, 7.4Ml/d impacting SW area and 9Ml/d impacting South area. These reductions have resulted in NW stocks being 2.5% lower, SW stocks being 1.5% lower and South stocks being 2.4% lower at the end of June.

10.3 Outage Impact

As stated in sections 10.1 and 10.2 the impact of this outage is that we have been unable to support the North-West, South-West and South groups. This total impact is 29.4Ml/d spread across these groups as detailed in section 10.2. The raw and treated water options to support each area with the additional abstraction from the River Ouse are outlined in Section 4.1.

To resolve this outage, work on filter refurbishment on the Loftsome Bridge WTW site has been accelerated. We have increased the number of teams working on the issues and the working hours accordingly. We had reviewed alternative options to increase the flow from Loftsome Bridge WTW but unfortunately due to lead times and / or issues with compliance with Regulation 31, we were unable to source temporary units. The acceleration of the refurbishment works has meant we have been able to resolve the outage and increase Loftsome Bridge WTW output to pre-outage capacity.

10.4 Resource Impact

The sources impacted by the outage are reservoir supplied water treatment works in the following areas: which are as follows:

- North West Group
- South West Group
- South Group

Due to the reduced grid support available we have had higher than planned reservoir abstraction (section 4.1).

11. Copy of the notices and advertisements required under paragraph 1 of Schedule 8 to the WRA 1991

As required under paragraph 1 of Schedule 8 to the WRA 1991, written notice of the River Ouse Drought Order applications will be sent to third parties with an interest in the sites. These include;

- Local authorities responsible for areas affected by the Order;
- Selby District Council.
- York City Council
- East Riding Council
- Other abstractors operating in the areas affected by the Order.
- Local rivers trusts and wildlife groups.
- Local angling clubs in the areas affected by the Orders if granted.
- Local wildlife sites
- Canal and River Trust

The notice provides information on where the full application can be inspected free of charge for a period of seven days from the date the notice is served. A copy of the notice is provided in Appendix 2.

The notice will be advertised on Friday 25th July 2025 in the York Press and Yorkshire Post which are circulated in the area potentially affected if the Order is granted, and in the London Gazette, in accordance with Environment Agency guidance. If the application is successful, we will provide notice the Order has been granted in the same newspapers.

A Yorkshire Water webpage has been created (www.yorkshirewater.com/drought-permits/)to provide information on drought permit and drought order applications, including copies of all supporting documents. Further permit or order application notices will be added on the dates we apply. The webpage includes information to explain why we are making the applications and a list of frequently asked questions.

12. Public Inspection Arrangements

Documents relating to the River Ouse at Moor Monkton drought order application will be made available, free of charge, for inspection by any interested parties from the date it is advertised.
The documents include a copy of the drought order application and supporting information including an environmental report and will be made available at the following locations and on the Yorkshire Water website:

- Yorkshire Water, Western House, Halifax Road, Bradford, BD6 2SZ.
- Nether Poppleton Post Office, 10-12 Allerton Dr, Nether Poppleton, York YO26 6HN
- Environment Agency, Lateral, 8 City Walk, Leeds, LS11 9AT.

The supporting documents are available at the Yorkshire Water Head Office in Bradford. The Environment Agency guidelines state drought permits/orders must be advertised at the water company's head office and the office most local to the relevant area. We have water treatment works nearby the drought order application site however, they are not suitable for public access, and we are therefore only able to provide the information at our head office in Bradford, which can be accessed by the public.

Documents will be available from Friday 25th July 2025 for a period of 7 days.

13. Environmental Report

During the preparation of our Drought Plan 2022, a 'shelf copy' Environmental Assessment Report (EAR) was produced for each supply side drought option or group of options. The EAR provides an independent and robust assessment of the potential environmental effects of the implementation of our drought options.

The environmental assessment was conducted in accordance with Government regulations and using the Environment Agency's 2020 Drought Plan Guideline (DPG)[1] and the Environment Agency's July 2020 'Environmental Assessment for Water Company Drought Plans- supplementary guidance', and comprised the following components:

- an assessment of the likely changes in hydrology (flow/level regime) due to implementing the proposed drought options;
- identification of the key environmental features that are sensitive to these changes and an assessment of the likely impacts on these features;
- identification of mitigation that may be required to prevent or reduce impacts on sensitive features; and
- recommendations for baseline, in-drought and post-drought order monitoring requirements.

The environmental assessment focuses on the potential changes to water availability (levels and flows) and any consequent implications for geomorphology, water quality, ecology and other relevant environmental receptors, for example, landscape, navigation, recreation and heritage. Cumulative impacts with other drought options are also considered.

The assessments undertaken confirm the features requiring consideration of monitoring and mitigation; which are provided in full in the Environmental Monitoring Plan (EMP). Throughout the environmental assessment process, Yorkshire Water have proactively engaged key stakeholders, including the Environment Agency and Natural England.

During the prolonged dry weather, dialogue was initiated with the Environment Agency and consultants were instructed to prepare 'application-ready' EARs and undertake the onset of drought walkovers. The application ready EAR, and EMP, are provided alongside this drought Order application, and have been updated in line with new DPG2025.

14. Other Options Considered

Alongside the leakage and outage management activities we have mentioned in sections 9 and 10 above, we are accelerating capital schemes and maintenance activity to minimise outage across the grid zone to maximise water availability, protect reservoir stocks and reduce demand.

If this order is granted, we will be able to manage our system in a more resilient way, balancing stocks between areas across Yorkshire. If the order is not granted (or the decision to grant them occurs too late for us to manage supplies as if it were granted), we will have to operate according to the current licence conditions, and this may result in substantial overdrawing of reservoirs. This will significantly increase the risk of entering winter with the reservoir stocks below the drought control line throughout the region. In respect of specific hotspots (the Holme Valley), there is also heightened risk in that public water supply could be impacted due to the higher rate of decline of stocks in this area. Additional mitigation measures are being developed to reduce the risk of this situation materialising, though these measures alone, without this and other drought permits and drought orders, will not mitigate this risk to the public water supply, if the drought conditions persist in line with the 'updated extreme scenario'. This scenario assumes 40% LTA rainfall in June and 60% LTA rainfall thereafter which better reflects the current conditions.

15. Consultees

15.1 Environment Agency

We initiated the formal dry-weather governance meetings with our local Environment Agency in April following reservoirs stocks crossing the Environment Agency early warning trigger line. We have continued to consult and engage weekly with the Environment Agency on the drought situation as it has escalated. We will continue to meet regularly until the situation recovers.

15.2 Natural England

Natural England were consulted throughout the process of writing our Drought Plan 2022. If there is potential for a proposed Drought Order to impact on a designated area, we are required to consult Natural England prior to submitting the application. The Environmental Assessment Report (EAR) of this drought option confirmed there would be a negligible impact on five SSSIs (Naburn Marsh SSSI, Clifton Ings and Rawcliffe Meadows SSSI, Church Ings SSSI, Acaster South Ings SSSI and Fulford Ings SSSI). Further details of the assessment carried out can be found in the accompanying EAR.

15.3 Local Rivers Trust & Wildlife Trusts

The Environmental Assessment Report (EAR) of this drought option confirmed there could be a minor impact on the River Ouse LWS and the Gollie Ponds LWS. All other LWS were assessed to be negligibly impacted. Further details of the assessment carried out can be found in the accompanying EAR.

15.4 Navigation Authority Consent

We informed the Canal and Rivers Trust in June 2025 of our drought order preparations. A copy of their consent to apply for a drought order is appended to this application.

15.5 Internal Drainage Board

We have notified the relevant Internal Drainage Boards of our intention to submit drought Order applications. We have been giving fortnightly updates to the IDB contacts since W/C 28th April about our water resources position.

15.6 Retailers

An email was issued to all active in area retailers on 24th April and 2nd May raising awareness of developing drought and providing advice on water efficiency and customer side leak reduction. The Retailer-Wholesaler Group (RWG) hosted a drought webinar for retailer contract managers on 28th May outlining the current situation nationally, with updates from all wholesalers. Further web events will be hosted monthly, with a fortnightly update email to retailers advising of any additional communications in the meantime.

A webinar was hosted on Friday 4th July providing advance notice of Yorkshire Water's intention to impose a TUB. Those who have returned a completed assurance statement have received a slide pack with all information relating to the TUB and timeframes along with detailed FAQs. Those who didn't attend the webinar have been contacted separately by phone or email with the same information.

15.7 NAVs

We have notified all active in-area NAVs on 24th April, and thereafter fortnightly, raising awareness of current water resource status developing drought and providing advice on water efficiency and customer side leak reduction. A meeting was held on 19th May with all NAVs and three other water companies (United Utilities, Southern Water and Severn Trent) to raise awareness of the drought situation and to drive closer co-ordination and collaboration of drought communications across water company areas. A further preparation webinar was held with NAVS on 30th May, co-hosted by Yorkshire Water and United Utilities.

A webinar was hosted on Thursday 3rd July providing full updates to NAVs including our intention to impose a TUB. All NAVs have returned a completed assurance statement post webinar have received the slide pack, HH FAQ document, a TUB information leaflet which can be dual branded, a copy of the legal notice we are publishing along with the list of publications and a formal legal notice send to the Company Secretary for each respective NAV.

16. Objections

No objections have been raised to date.

17. Appendices

Appendix 1: Copies of existing abstraction licences, statutory instruments or Local Acts governing the abstraction, or discharge of compensation water relating to the Order

Appendix 2: Copies of the notices and advertisements required under paragraph 1 of Schedule 8 to the WRA 1991.

Copies of both served and published notices should be sent as quickly as possible to the Environment Agency

Appendix 3: Draft Drought Order