



Draft Drought Plan 2027



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ABBREVIATIONS

Abbreviation	Definition
AR25	Annual Review 2025
AMP	Asset Management Period
CCW	Consumer Council for Water
COBRA	Cabinet Office Briefing Rooms
DS	Demand Savings
DO	Deployable Output
DWI	Drinking Water Inspectorate
DD11	Drought Direction 2011
DD25	Drought Direction 2025
DEL	Drought Event Level
DPG	Drought Plan Guideline
DYAA	Dry Year Annual Average
EDO	Emergency Drought Order
EA	Environment Agency
EAR	Environmental Assessment Report
EMP	Environmental Monitoring Plan
GLA	Greater London Authority
GW	Groundwater
HRA	Habitat Regulation Assessment
LoS	Levels of Service
LSE	Likely Significant Effects
LRF	Local Resilience Forums
LTA	Long Term Average
LTCD	Lower Thames Control Diagram
LTOA	LON_0011 Operating Agreement
m AOD	Metres above Ordnance Datum
MB4	More Before Level 4
NDG	National Drought Group
NIM	National Incident Management
NE	Natural England
NAVs	New Appointments and Variations
NEUB	Non-Essential Use Ban
NGO	Non-Governmental Organisations
NHH	Non-Household
OBH	Observation Borehole
PDO	Peak Deployable Output
PCC	Per Capita Consumption
PIM	Platinum Incident Management
PSR	Priority Services Register
PIO	Public Information Office
RO	Reverse Osmosis
RWG	Retailer Wholesaler Group
SEMD	Security and Emergency Measures Directive
STW	Sewage Treatment Works
SSSI	Site of Special Scientific Interest
SWA	Slough, Wycombe and Aylesbury

SMD	Soil Moisture Deficit
SAC	Special Areas of Conservation
SPA	Special Protection Areas
SEA	Strategic Environmental Assessment
SWOX	Swindon and Oxfordshire
TUB	Temporary Use Ban
TWUL	Thames Water Utilities Limited
UKWIR	United Kingdom Water Industry Research
WEFF	Water Efficiency
WIA	Water Industry Act
WLR	West London Reservoirs
WRZ	Water Resource Zone
WRSE	Water Resources in the South East
WRMP	Water Resources Management Plan
WARMS	Water Resources Management System
WTW	Water Treatment Works

Executive summary

Our Drought Plan describes how we will continue to supply wholesome water to our customers during periods of prolonged dry weather and drought whilst protecting the environment. Drought Plans are a requirement under s39B of the Water Industry Act 1991 (WIA), as introduced by the Water Act 2003. This draft Drought Plan fulfils the requirement in the Act and has been developed in accordance with the guidelines provided by the Environment Agency.

Our Drought Plan sets out the tactical measures that we would implement, before, during and after a drought. It covers the following key areas:

- Our monitoring, triggers and decision making for implementing drought measures

We monitor the surface water, groundwater, and other key hydrological variables across our supply area. Much of the hydrological data is dependent on the EA's hydrometric network. This is supplemented with our own data to provide an accurate picture of the status of our water resources as well as an assessment of future risk based on water resource scenario modelling. We use this information to inform our drought risk assessments. We also set out triggers which are used to help determine when to implement our demand and supply side measures during a drought.

- Our drought event management structure

We have set out a drought event management structure to reflect the discipline base that will be required to support a Drought Event, together with the escalation in management and Executive involvement as drought severity increases.

- The demand side measures we would use and when we would implement them

The demand side measures available to be implemented during a drought are designed to reduce customer demand for water. These measures include customer communications, Temporary Use Bans and Non-Essential Use Bans. If the drought becomes severe then an Emergency Drought Order may be required to enable supply network restrictions such as rota cuts. In accordance with our stated Levels of Service, we will not impose water use restrictions unless there are good reasons for doing so.

- The supply side options we would use and when we would implement them

Most of our supply side options are existing licensed schemes that are introduced during a drought to increase the amount of water available for supply. The exceptions to these available options are drought permit options which are only available after the drought reaches a significant level of severity. Our principal supply side options are implementation of drought sourcing strategy, strategic schemes, bulk supplies, drought permits or orders and recommissioning of disused sources. We have also considered actions for extreme droughts and have a limited number of options we could implement in a severe drought such as use of non-potable supplies for certain uses.

- How and when we will communicate with customers and stakeholders

Our communications plan sets out how we will provide timely, accurate, and accessible information before, during, and after a drought. It ensures customers, regulators, retailers, NAVs, and other

stakeholders understand the drought situation, the actions we are taking, and what we would like them to do. The plan supports our wider drought management approach by promoting water efficiency, explaining restrictions, and maintaining customer confidence through the event.

- Environmental assessments

We set out our approach to environmental assessments which provide a robust assessment of the potential environmental effects of implementing a drought permit or order, over and above those conditions that already exist under normal conditions, with the onset of a natural drought. These also set out any monitoring and mitigation measures that may be required alongside Drought Permit options. We endeavour to ensure that all our Environmental Assessment Reports (EARs) are as application ready as possible.

- Testing our plan

The effectiveness of our Drought Plan has been tested using stochastically generated drought sequences representing conditions more severe than those seen in the historical record. The assessments demonstrate that drought triggers for all six WRZs measures are implemented early enough to maximise benefit, provide adequate lead times for escalation and avert Level 4 emergency measures for droughts up to a 1 in 200 event. There is uncertainty associated with assessments of such severe drought conditions and therefore we have tested a range of risk allowances to understand how sensitive our system is to changes in supply or demand measure benefits, this assessment is presented in Appendix E.

For London, the system avoids crossing Level 4 in a 1 in 200 drought, provided drought permits and orders are implemented promptly. However, extended reliance on these measures would result in significant environmental impact, highlighting the need for the further water resource development included in our WRMP. SWOX shows similar results, with timely drought permit implementation critical to maintaining supply at SWOX_0006, particularly under intense events such as 1975–76.

Kennet Valley supply is underpinned by operation of the KEN_0006, while testing of the Kennet Valley, Guildford, SWA and Henley WRZs indicates that surface water and groundwater sources maintain sufficient yield to avoid the risk of Level 4 measures for 1 in 200 and 1 in 500 year droughts under the current climate.

Updates to the Drought Plan

We have retained the same methodologies and assessments as in our 2022 Plan but have made the following updates, considering lessons learnt in the droughts of 2022 and 2025:

- We have reduced the expected time it would take to implement at TUB
- We have included additional flexibility to consider the use of drought permits which have very low impacts on the environment, earlier in a drought
- We have included new Drought Permit measures to take more water from the environment to help further protect our customers water supply
- We have updated our assessment of what impact our drought measures would have on the environment
- We have updated our agreement to take a coordinated approach with the other water companies in the South-East if water use restrictions are needed.

- We have updated our Strategic Environmental Assessment (SEA) and Habitat Regulation Assessment (HRA).

Public Consultation

In line with the Drought Direction 2025 we will complete an 8-week public consultation to gather views on our draft Drought Plan from regulators, other water companies, retailers, stakeholders and our customers. Once this is completed, we will produce a Statement of Response as well as a revised draft Drought Plan for submission to Defra for confirmation that we are able to publish our final Drought Plan.

1. Introduction

We have developed our draft 2027 Drought Plan in accordance with the requirements of the Water Industry Act (WIA) (1991), as amended by the Water Act (2003), and as set out by the Environment Agency's Drought Plan Guideline (DPG) 2025¹. This plan describes how we, as a water undertaker, will continue to supply wholesome water to our customers during periods of prolonged dry weather and drought.

Our Drought Plan covers the following key areas:

- Our monitoring, triggers and decision making for implementing drought measures
- The demand side options we would use and when we would implement them
- The supply side options we would use and when we would implement them
- How and when we will communicate with customers and stakeholders
- Our environmental assessments
- Our ability to maintain supplies in the event of a more severe drought than previously experienced in the historical record
- Our drought event management structure

Our Drought Plan builds upon the 2023 update to our current Drought Plan 2022, which incorporated the learnings from the 2022 drought event. We have included some learnings from the 2025 drought; however, at the time of publishing the draft Plan we are still working through the lessons learned and therefore will include additional learnings for our revised draft Plan.

We have made the following updates to our 2022 Drought Plan:

- We have updated the anticipated lead time to implement Temporary Use Bans (TUBs) from 3 weeks to 1-3 weeks based on our recent experience implementing TUBs in 2022 and 2025.
- We have included additional flexibility within our Plan to allow for negligible environmental drought permit options to be considered at DEL (Drought Event Level) 2.
- We have included an option for the use of TUBs during exceptionally high demands such as those that may occur during a heatwave, as well as considering their use over winter.
- We have included some new drought permit options that were identified during the review of the 2025 drought.
- We have updated our Strategic Environmental Assessment (SEA). The SEA provides a formal review of the environmental impact of the options for drought management included within our plan.
- We have undertaken a Habitats Regulation Assessment (HRA) to ensure that our plan does not adversely affect the integrity of European designated sites.

1.1. Purpose of our Drought Plan

Our Drought Plan sets out how we monitor, assess and respond to drought as it develops in our supply area so that we can maintain supplies to our customers whilst also taking measures to

¹ <https://www.gov.uk/government/publications/water-company-drought-plan-guideline-2025/water-company-drought-plan-guideline-2025>

protect the environment. Each drought event is unique, affecting different geographical areas with varying severity and duration. Our plan has been developed based on our experience during previous drought events and includes sufficient flexibility for us to robustly manage our water resources through future drought events.

It is designed to cover our tactical response during a drought and is updated every five years. Our Water Resource Management Plan (WRMP)² addresses the longer-term planning issues such as future growth, climate change or required environmental improvements.

1.1.1. Regulatory framework

Drought Plans are a requirement under s39B of the WIA 1991, as introduced by the Water Act 2003. This Drought Plan fulfils the requirement to produce a Drought Plan as outlined in the Act. This document has been produced in line with the guidelines provided by the EA (guidance contained in 'Water Company Drought Plan Guideline, 2025, referred to herein as 'Drought Plan Guideline' (DPG)).

1.1.2. Review process

In line with regulatory requirements, our Drought Plan is reviewed every five years, so to allow for consultation and publication an updated Plan is produced every four years and three months. The review considers any changes in our drought management activities, as well as any significant changes in our WRMP.

We review our Drought Plan in each year that drought measures are implemented and produce an annual drought health check in the spring of every year which is shared with the Environment Agency. This includes an update on the status of our drought permit environmental assessment reports, extreme drought measures, training for drought events, communications, resourcing available to support a drought event, and any critical operational issues. We also undertake a review of our Drought Plan following occurrence of a significant drought and complete a review of lessons learnt. We endeavour to complete this review within 6 months following the cessation of the drought.

If either the annual review or lessons learnt following a drought result in a requirement for modification of our Drought Plan, we undertake a revision of our plan in accordance with the procedure set out in the Water Industry Act.

1.1.3. Commercial and national security information

We have identified commercial confidentiality issues associated with our Drought Plan. With respect to National Security, we have followed the guidance outlined in the Security and Emergency Measures Directions (SEMD) Framework, 2022 and further amended in 2024. The Guidance states that sensitive information must not be published, which includes identifying locations of abstractions.

On this basis, we have redacted appendices A, B, E, I, O and P in their entirety. Partial redaction has been applied to the remainder of the Drought Plan, the appendices and the SEA and HRA to remove sensitive information, including:

² <https://www.thameswater.co.uk/about-us/regulation/water-resources>
Main report – March 2027

- Named treatment works, abstraction points, boreholes, pumping stations, reservoirs and critical assets.

1.2. Consultation

Prior to completion of final Drought Plans, water companies are required to publish their draft Drought Plan and send to those persons and organisations prescribed in the Drought Plan Direction 2025.

1.2.1. Pre-consultation

We have completed a pre-consultation exercise and invited key organisations to indicate any requirements they wished to see addressed in the draft Drought Plan. We consulted:

- The Environment Agency
- Natural England
- Ofwat
- Defra
- Other Water Companies (including Affinity Water, SES Water, Essex and Suffolk Water, Southern Water, South East Water and Anglian Water)
- The Consumer Council for Water
- Retailers
- New Appointments and Variations (NAVs)

We have considered the responses received during this pre-consultation in the preparation of our draft Drought Plan. We have consulted with several stakeholders previously, e.g., RWE Generation UK and we have retained the information from these consultations within the Plan.

1.2.2. Consultation

The consultation timetable is shown in Table 1.1 below. The consultation will be undertaken in line with EA guidelines, involving the public and specified consultees. A full list of specified consultees is available in Appendix K. We will produce a Statement of Response to the consultation which will cover all comments received. We will confirm which comments have resulted in an amendment to the draft Drought Plan, and which comments require no change - with the reasons for this set out. We will then update our draft Drought Plan to be the revised draft Drought Plan. Our Drought Plan is available on our website as reference for all customers and stakeholders and a paper copy can be made available on request at Clearwater Court.

Table 1.1 Consultation timetable

Action	Timeframe
Submit draft Drought Plan to Secretary of State	March 2026
Hold a consultation with the public and specified consultees once Secretary of State confirms we should do so	8 weeks
Produce and publish a Statement of Response	Within 22 weeks of consultation start date
Update draft Drought Plan to revised draft and submit to Defra	October 2026
Defra to confirm when we can publish our final Drought Plan	Est. January – February 2027

1.2.3. Water resource Management

For planning and management purposes our supply area is divided into six water resource zones (WRZs) as presented in Figure 1.1 below. A WRZ describes an area within which the abstraction and distribution of water to meet demand is largely self-contained and all customers experience the same risk of supply failure and the same level of service.

London WRZ is the largest of the six zones and covers much of the Greater London area. The water resources for London are largely based on abstraction from the River Thames (circa 80%), which is stored in reservoirs, and the remainder comes from groundwater sources.

The next largest zone is the Swindon and Oxfordshire (SWOX) WRZ. This zone is supplied mainly from groundwater (60%), supported by river abstraction and a reservoir, sited at SWOX_0006 near Oxford.

The other WRZs to the west of London are Kennet Valley (which includes Reading and Newbury); Henley; Slough, Wycombe and Aylesbury (SWA) and Guildford. These latter four zones are largely reliant on groundwater abstraction, although there are surface water abstractions directly from local rivers, notably the River Kennet in Reading and the River Wey near Guildford.



Figure 1.1. Our water resource zones and a description of the main sources of water in each

1.2.4. WRMP and Levels of Service

The water resource management plan (WRMP) is a long-term strategic plan which sets out how we plan to maintain the balance between supply and demand for water and is updated every five years. Our most recent plan (WRMP24) looks ahead to 2075. Whereas the Drought Plan is a short-term tactical plan setting out how we will implement drought measures to maintain supplies and protect the environment during a drought event. Our WRMP and Drought Plan are broadly aligned in that they are based on the same assumptions of supply source DO with the exception that in WRMP24 Baseline DO calculations, savings from demand restrictions associated with our stated Levels of service are not included. These benefits are included as options (i.e. they will be excluded from the Baseline supply-demand balance but will be included within our final supply-demand balance). In contrast, within the modelling of severe droughts for Drought Plan 2027, demand savings are included in the model.

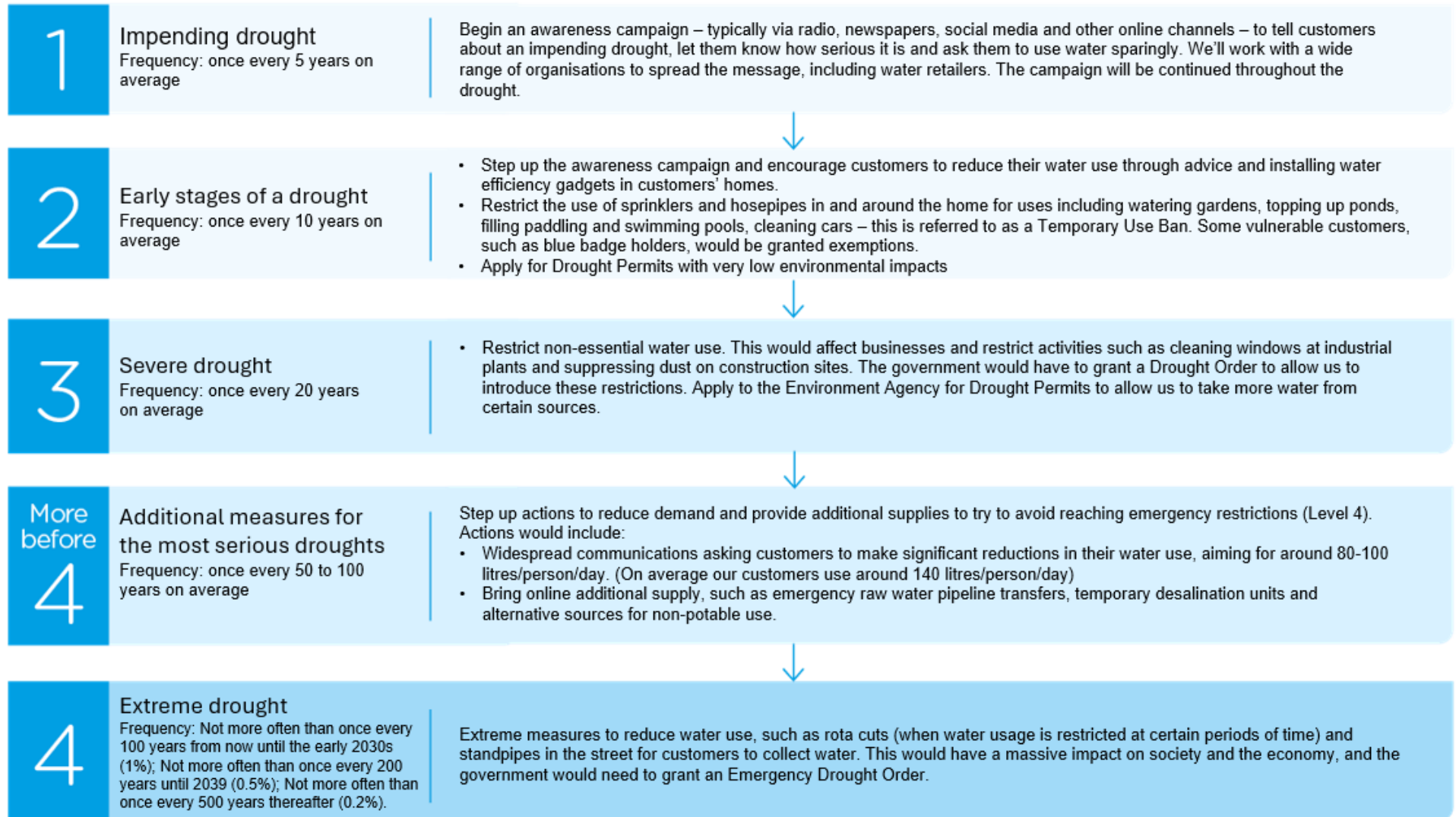
In a single very dry year or a succession of dry years, measures to reduce demand for water such as TUBs and Non-essential Use Bans (NEUBs), and measures to allow increased abstraction, outside that permitted by an abstraction licence, may be required. Drought measures either have a direct effect on customers (e.g., TUBs) or the environment (e.g., drought permits for temporary changes to abstraction licences).

The WRMP defines the frequency with which we would expect our drought measures, as set out in our Drought Plan, to be required. This is known as our Levels of Service. The aim of the WRMP is to ensure that we can meet customer demands for water in a dry year without the need for drought measures at a frequency that exceeds the stated level of service. Our ability to maintain our levels of service is therefore a direct reflection of the combined effectiveness of our WRMP and Drought Plan.

Our levels of service are shown in Figure 1.2.

We have tested our Drought Plan against more severe droughts than have been experienced in the historic record and the outcome of this assessment is set out in Section 8.

Figure 1.2 Our Levels of Service



1.2.5. Regional Drought Planning

We are a member of Water Resources South East (WRSE) alongside five other companies (see map in Figure 1.3). Droughts often develop across regional areas and as such we have continued to work with WRSE to align our implementation of demand restrictions and associated exemptions for TUBs and NEUBs. Aligning implementation of measures across water companies means that we can provide customers with more consistent messaging and service. This alignment remains based on the TUBs implementation in 2022. More details can be found in Section 4.6.

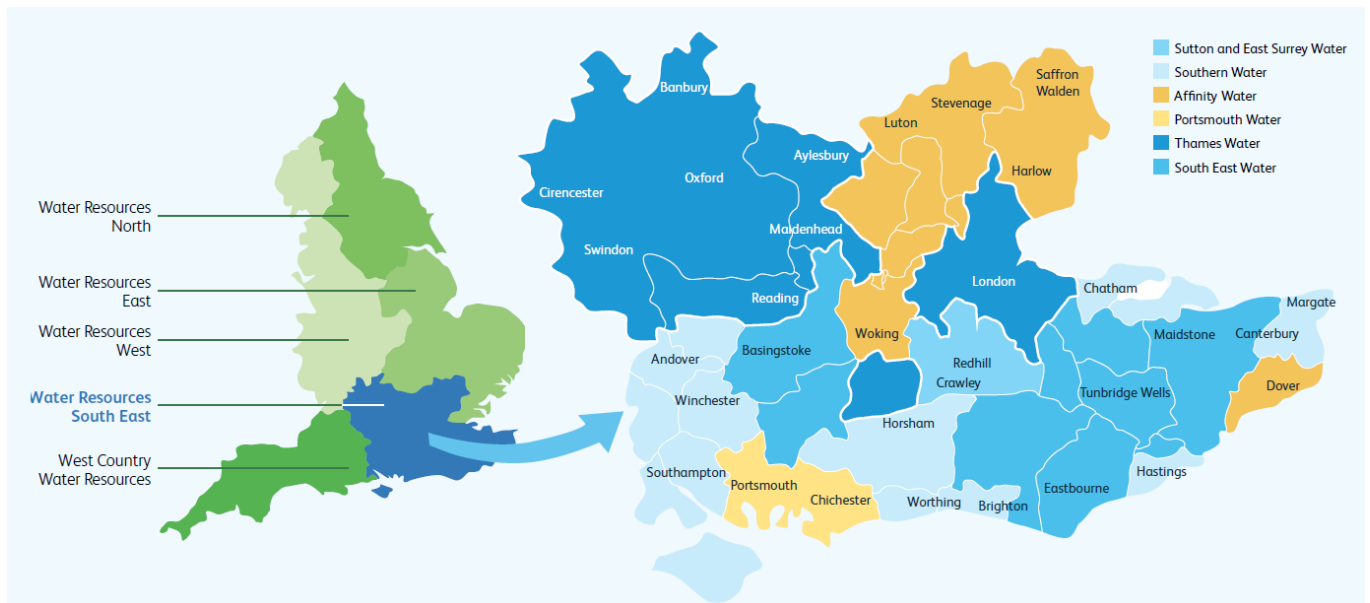


Figure 1.3 Map detailing the area covered by the six companies that make up WRSE

1.3. Understanding vulnerability in our system

1.3.1. Contributions from river flow and groundwater

We monitor groundwater levels, river flows, and reservoir storage across key locations within the Thames catchment to assess water resource availability and identify the onset of drought conditions. This monitoring provides a clear picture of the hydrological status of our surface and groundwater resources relative to historical trends and seasonal expectations.

The majority of our water supply is derived from surface water abstraction, mainly from the River Thames, with the remaining sourced from groundwater. However, during periods of prolonged low rainfall, our supply becomes increasingly dependent on baseflow from groundwater from the major aquifers underlying the catchment.

Winter rainfall is critical in replenishing groundwater and maintaining river baseflows, ensuring a healthy water resources position for the following year. Water availability therefore follows an annual cycle of winter recharge (October–March) and summer use, with winter months facilitating groundwater recharge and reservoir refilling.

Under normal conditions, river flows are sufficient to meet demand through most of the year, with only moderate drawdown of reservoir storage in late summer and early autumn. In contrast, below-

average winter rainfall results in reduced groundwater recharge and baseflows, increasing reliance on reservoir storage and groundwater abstraction during the following dry months.

Our overall water resource availability is determined by the combined status of groundwater, surface water, and reservoir storage. These components are closely interlinked; high river flows during the winter allow for reservoir refilling, while sustained groundwater levels support river baseflows during drier periods.

1.3.2. Historical droughts and drought vulnerability

For the Thames catchment, a water resources drought is caused by a prolonged period of below-average winter rainfall. The four worst droughts for water resources on record (the period from 1900) and those which form the basis of London's deployable output (DO) are: 1920/21, 1933/34, 1943/44 and 1975/76. All four droughts were characterised by a prolonged period of around 12 to 18 months of below average rainfall.

In contrast to London, the upper Thames (SWOX WRZ) is sometimes vulnerable to shorter periods of below average rainfall. This is due to the geological nature of the upper Thames which is largely fed by the baseflow from the limestone aquifer of the Great and Inferior Oolites. Compared to the other major aquifers, notably the Chalk of the Berkshire Downs and Chilterns, these formations do not store as much groundwater and the throughput from recharge to baseflow is relatively rapid, as is the consequent recession under low rainfall conditions.

It is also worth noting that in terms of drought vulnerability, the upper Thames characteristics are more comparable to some other areas of South-East England which are served by relatively small catchments. These catchments tend to be impacted by periods of low flows and droughts more rapidly. This general vulnerability of the South-East region compared to London can be important when it comes to explaining to the public why Thames Water has not introduced water use restrictions, but other neighbouring companies have done so. Conversely, it is also important for explaining why we may need to implement measures in solely our SWOX WRZ, for example, in 2025. In this case there was a short but very intense drought, such that there was significant risk in the Upper Thames whilst the risk for the Lower Thames was relatively less significant. This is because the Lower Thames is sustained by baseflow from the extensive Chalk aquifer feeding the River Thames upstream of the intakes to the London reservoir complex.

We recognise that the droughts that have occurred in the period of record for London, as described above, do not represent the potential level of severity that could be experienced over a much longer period. This has been recognised by the Environment Agency and consequently water companies are required to test their Drought Plans against more severe droughts. This assessment is included in Section 8.

2. Identifying and monitoring droughts

2.1. Monitoring our water resources

We monitor the surface water, groundwater, and key hydrological variables across our supply area. Much of the hydrological data is dependent on the EA's hydrometric network. This is supplemented with our own data to provide an accurate picture of the status of our water resources.

We produce a monthly Water Situation Report for our supply area. The frequency of the modelling and analysis that underpins the report increases with increased drought risk. We produce a report each month. This moves to fortnightly when our Drought Event Level is DEL2 or greater. An outline of our Water Situation Report is included in Appendix D.

2.2. Water resources forecasting

In addition to knowing our current water resource position, it is important for us to be able to understand how this is likely to improve or deteriorate, so we can plan and implement our next steps. This is Step 1b in our DEL assessment (Figure 2.1).

We continually monitor our current water resources situation and model future scenarios on a monthly basis, as a minimum. A summary of the key variables is shown in Table 2.1. We model groundwater levels, river flows, and reservoir storage under a range of rainfall scenarios. These scenarios represent different percentages of the long-term average (LTA) rainfall for each month, specifically 40%, 60%, 80%, and 100% of LTA. Our forecasts assume that the average rainfall per month equates to the LTA assigned, however there are daily variations.

Forecast uncertainty increases the further into the future we project. To address this, model outputs are combined with expert judgment and consider multiple influencing factors. Our Drought Event Level assessment accounts for the current conditions, as well as short-term (1 to 3 months) and medium term (1 to 6 months) conditions. Appendix D includes further details on our forecasting approach, and Appendix I details out modelling approach for London.

Table 2.1 High level summary of key variables used in our DEL assessment

Variable	Description
Groundwater levels	Groundwater levels are simulated for nine observation boreholes across our area, six inform the DEL methodology. We use catchmod, which is a computer model used by the EA.
Reservoir storage	Reservoir storage is simulated using our water resources models. A key assumption is the benefit and timing of demand side measures.
River flows	River flows at SWOX_0006 and LON_0027 are simulated using our water resources models

2.3. Drought Event Level assessment

Our Drought Event Level (DEL) assessment and associated methodologies have been developed in accordance with the Drought Direction 2025 and the DPG. We use a methodology based on a comprehensive risk assessment of the catchment water resources situation considering the current status and a range of future scenarios looking up to six months ahead. The Drought Event Levels range from DEL0 to DEL4. DEL0 is business as usual with negligible risk. DEL4 is our highest level of drought risk.

The DEL levels are used to determine what level of governance we introduce and drought measures we implement. The DELs enable us to implement measures at an early stage in the drought when there is a high risk of escalation in severity. Our DEL levels are broadly aligned to our LoS but they are not the same, this is because our DEL assessment is designed to consider the risk of drought occurring before it has developed and it is only possible to determine the return period of a drought event after it has concluded. Therefore, it is possible that some drought measures will be implemented more frequently than would align with the LoS in the long-term but this is necessary to ensure that measures are brought in on a precautionary basis in situations where there is the potential for drought to become severe. In these situations, it is more important to ensure measures are taken early enough to ensure the drought is effectively managed rather than to delay until the level of severity has become fully established.

The key requirements that the DEL assessment must enable are:

- The full sequencing of measures to be taken to avoid or minimise the need for Emergency Drought Orders (EDOs).
- Timely introduction of those measures to maximise demand savings and supply-side benefits and allow for their implementation.
- Proactive communication with customers on their participation.

The broad approach we take to assess our DEL is broken into three steps:

- Step 1 Data collation and modelling.
- Step 2 Overall Risk Indicator assessment
- Step 3 DEL assignment

These are summarised in Figure 2.1. Worked examples for London and SWOX are provided in Appendix F.

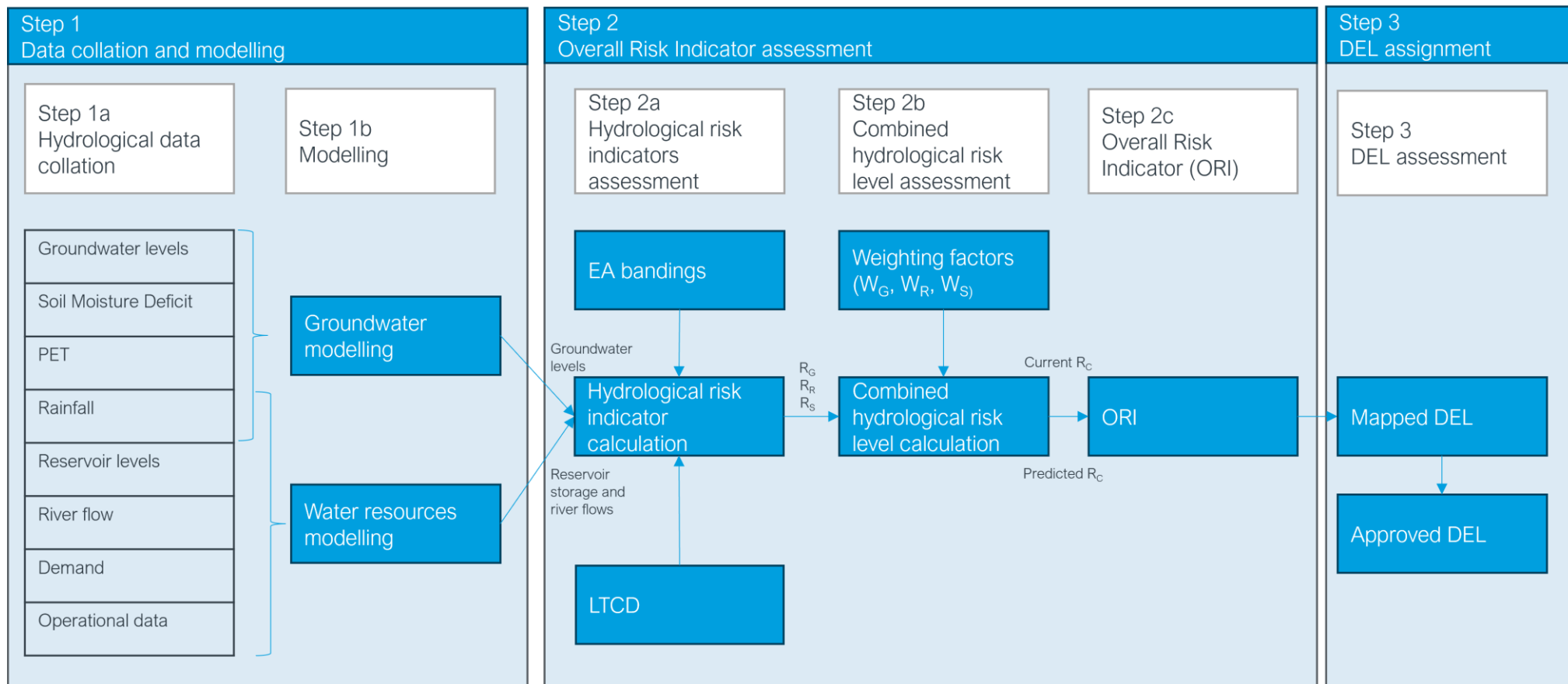


Figure 2.1 High level schematic diagram of the Drought Event Level assessment methodology

2.4. Drought triggers

2.4.1. How we use drought triggers

We need to know when action should be taken due to changing conditions. Drought triggers define a set of conditions which when present, provide us with the guide to determine when we need to implement measures, when to lift measures, and how we will know that we have been successful. Our drought triggers inform the DEL for each WRZ, which in turn informs the drought measures we need to take. The drought triggers are different for each WRZ and are outlined from Section 2.4.2 to Section 2.4.6. The drought measures we can implement are described as either supply side or demand side measures. The potential drought measures associated with each DEL are summarised in Table 2.2. Further detail on our drought measures is provided in Section 6. Depending on the drought being experienced and the predicted severity we may use London triggers to implement drought measures across all WRZs.

Table 2.2 Potential drought measures and associated Drought Event Level

Drought Event Level (DEL)	Potential drought measures
DEL 0	No measures introduced
DEL 1	Media/water efficiency campaign. Monthly Drought Event meeting. LON_0020.
DEL 2	Enhanced media campaign and TUB. Weekly Drought Event meeting. LON_0013.
DEL 3	Enhanced media/water efficiency campaign/ /TUB; application for NEUB / drought permits. Weekly Drought Event meeting. KEN_0006.
DEL 4	Enhanced media/water efficiency campaign/ TUB Introduce Non-Essential Use Ban / drought permits. Preparation for Emergency Drought Order and possible application. Weekly Drought Event meeting.

2.4.2. London WRZ drought triggers

The water resources for London are largely based on abstraction from the River Thames, which is stored in reservoirs. Water pumped from groundwater makes up the majority of the remaining portion of supply. Fundamental to the operation of London's water supply is the control of abstraction from the river Thames, upstream of LON_0027 which is the lowest point on the freshwater Thames. The strategy for the control of abstraction is set out in the LON_0011 Operating Agreement (LTOA), which is a legal agreement³ between Thames Water and the EA. The LTOA including the Lower Thames Control Diagram (LTCD) provides a guide to facilitate management of abstraction for water supply; maintenance of statutory inter-lock river levels for

³ Water Resources Act, Section 20 Water Resources Management Scheme
Main report – March 2027

navigation upstream of LON_0027; maintenance of prescribed environmental flows over LON_0027; and the trigger for water use restrictions through control curves.

A key measure used in the DEL assessment for London is the control curves on the LTCD and these effectively provide the latest point at which the measures should be triggered in a drought, see Appendix E, F, and I for more details.

The LTCD is the operating tool within the LTOA, providing the day-to-day rules for managing the London WRZ. The diagram is divided into a set of four minimum environmental flow zones/constraints and the set of four control curves which are linked to our Levels of Service. An example of the LTCD is shown in Figure 2.2. Level 1 to Level 4 on the LTCD align to our LoS and indicate the latest point at which the drought measures would normally be expected to be implemented considering other relevant criteria such as outages, overall water resources position and time of year. Due to the dominant nature of the London WRZ, it will generally be the case that the water use restrictions introduced in the London WRZ will also be applied to the rest of our supply area. Nonetheless, the Drought Plan recognises that there may be situations in which more local measures may need to be introduced for the other WRZs. Therefore, protocols have also been developed for these zones such that, if necessary, measures can be introduced in any of our WRZs alone if a drought occurs with very localised effects.

From a baseline of no measures in place, we have included an allowance for up to five weeks to implement a media campaign and a TUB in London, while an Emergency Drought Order (EDO) would require roughly 25 weeks (Table 2.3). These estimates can guide the scheduling of measures when combined with scenario-based predictions of when triggers may be crossed under various scenarios.

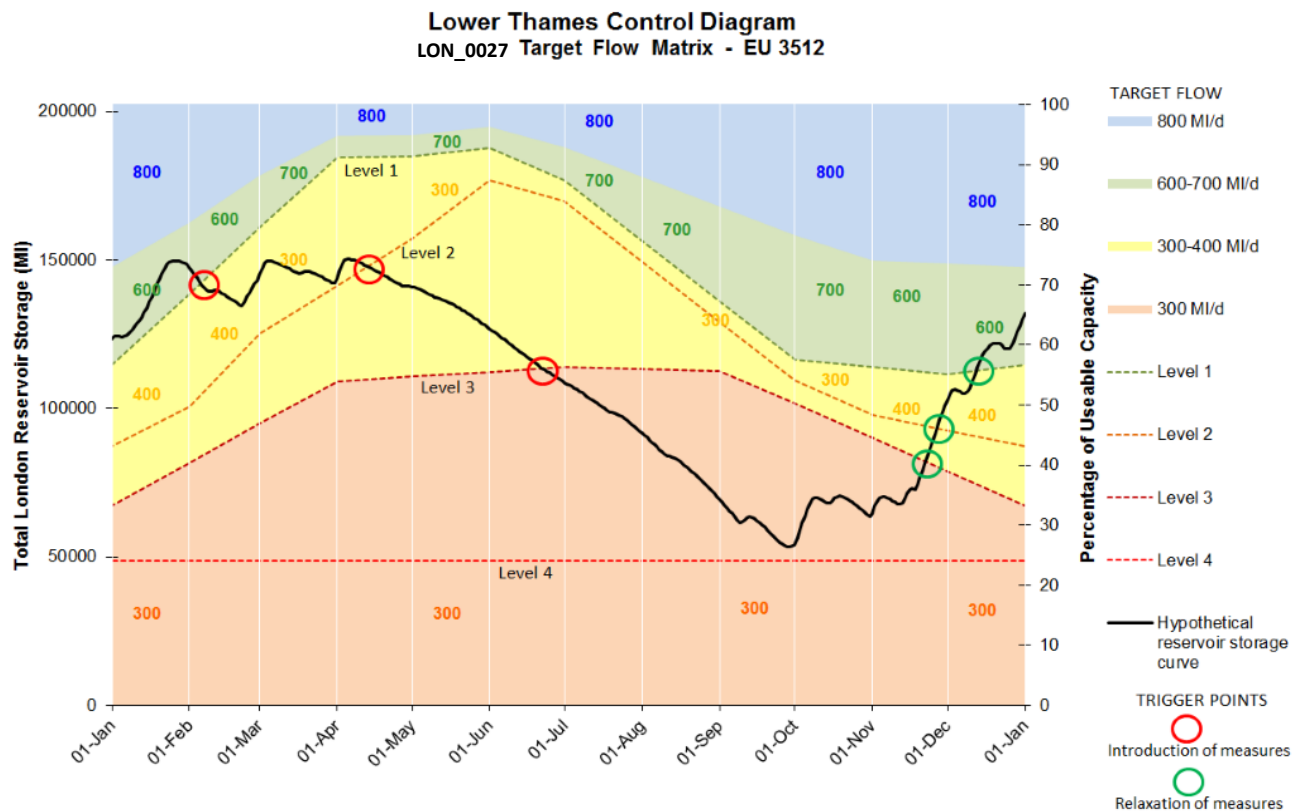


Figure 2.2 Example drought with highlighted trigger points on the Lower Thames Control Diagram

Table 2.3 London WRZ drought measures and indicative timescale

Measure	LTCD level	Implementation time	Maximum cumulative time
Media campaign (must precede a TUB)	1	2 weeks	2 weeks
TUB (must precede a NEUB and a drought permit)	2	Between 1 and 3 weeks	3-5 weeks
NEUB (must precede an EDO)	3	Up to 10 weeks from application to granting of ban, allowing for a public hearing.	13-15 weeks
Drought Permits		Up to 10 weeks from application to granting of permit.	
Emergency Drought Order	4	Up to 10 weeks from application to granting of order, allowing for a public hearing.	23-25 weeks

2.4.3. SWOX WRZ drought triggers

SWOX_0006 Reservoir is the principal, and most drought-sensitive, source in the SWOX WRZ. Under low-flow conditions, the SWOX_0006 licence increasingly restricts abstraction from the River Thames, making River Thames flows at SWOX_0006 a key factor for drought triggers, alongside reservoir storage and groundwater levels. The SWOX drought status is the primary control on drought triggers in the zone. Drought measure triggers for SWOX are:

- TUB implementation timing: Triggered at DEL2.
- NEUB and Drought Permit preparation: Preparation for NEUB and Drought Permit applications is triggered when River Thames flow at SWOX_0006 falls to 200 MI/d (5 day mean) under DEL2. Implemented (considering costs and benefits for a NEUB) when drought severity increases to DEL3. The 200 MI/d trigger represents the point at which maximum licensed abstraction roughly equals system demand. Above this threshold, SWOX_0006 storage is unlikely to decline.

NEUB and Drought Permit predicted implementation: Triggered when River Thames flow at SWOX_0006 falls to 100 MI/d (5 day mean) under DEL3. Drought Permit options should be implemented no later than when flows decline to 100 MI/d, or when SWOX_0006 storage drops to 70%, whichever occurs first. A NEUB could be implemented under DEL3 if flows continue below 100MI/d and storage continues to decline further. The 100 MI/d trigger indicates a material risk of storage falling below 70%.

As drought behaviour varies, alignment with London measures will depend on drought evolution. Flows approximating 200 MI/d may occur naturally during late-summer or autumn recession in normal years (typically September to early October), so DEL3 qualifiers ensure the trigger only applies under drought conditions.

2.4.4. Kennet Valley WRZ

Groundwater is a major supply source in this zone, but the most drought-sensitive source is KEN_0002 abstraction and Water Treatment Works (WTW), which depends on River Kennet flows.

Drought triggers are therefore based on flows at the KEN_0007, the River Kennet at Theale, and the KEN_0006.

- KEN_0002 WTW: Licensed for 72.7 MI/d, with a DO of 60.48 MI/d (assuming 11.76% process losses). To maintain this output, available flow at KEN_0002 must remain at, or above, 72.7 MI/d.
- Holy Brook: A man-made channel drawing from the Kennet/Kennet and Avon Canal system, approximately 4 km upstream of KEN_0002. Historically under low flows, the KEN_0007 at the top of the Holy Brook diverted a disproportionate amount of Kennet flow. A downstream control structure now regulates this, sequentially operating two gates as river flows decline, ensuring adequate flow past the KEN_0002 intake until Kennet flows fall below 150 MI/d.
- KEN_0006: To sustain Theale flows above 150 MI/d in a severe drought, the KEN_0006 must operate at full capacity. Under full operation, the minimum flow that would have occurred in 1976 is ~150 MI/d, the level required to support the 72.7 MI/d abstraction at KEN_0002. KEN_0006 is also triggered when London reservoir storage reaches the Level 2 on the LTCD.

KEN_0007 triggers

The drought trigger levels are set out in Table 2.4 and align to the Arrowhead Agreement. Normally water use restrictions from the initial media campaign through to TUB and NEUB would be triggered from the London DEL methodology, see Section 2.4.2 above. The below bandings were previously based on gauging of the Kennet at Theale, the values have been updated to reflect the replacement gauge, Calcot Gauging Station 2292BTH (SU 66215 70998), in line with the Arrowhead Agreement (Environment Agency, 25).

Table 2.4 Kennet Valley WRZ drought trigger levels

Critical period	Daily mean flow at Calcot (MI/d)	New Flow Split Structure State
Band 1	>210.7	Holy Brook gates fully open
Band 2	≤210.7	<p>DEL 2 -Temporary Use Ban measures to be introduced prior to Gate 1 closure.</p> <p>Holy Brook gate 1 closure - triggered 210.7 MI/d threshold</p> <p>After Gate1 closure submit:</p> <ul style="list-style-type: none"> ▪ NEUB application for Kennet Valley WRZ; ▪ Drought Permit applications in priority order as set out in Appendix C.
Band 3	≤192	<p>Holy Brook gate 2 closure - triggered by 192 MI/d threshold</p> <p>Conditions of Gate 2 closure are that the Temporary Use Ban will be in place and the NEUB application will be in preparation in case it is needed.</p>

Critical period	Daily mean flow at Calcot (MI/d)	New Flow Split Structure State
	Implementation of Drought Permits	NEUB will be potentially implemented alongside the introduction of Drought Permit options.

During severe drought, maintaining adequate flows for abstraction at the KEN_0002 intake may require closing the fish pass at the Labyrinth weir, located just downstream of the River Kennet and Kennet and Avon Canal split. However, the Environment Agency cannot close the fish pass due to Salmon and Freshwater Fisheries Act requirements. Therefore, an alternative action would be to transfer water from the River Kennet below the Labyrinth weir and discharge it into the Kennet & Avon Canal upstream of the KEN_0002 intake. We continue to work with the Environment Agency to determine whether this can be accommodated through a transfer licence which could be put in place in advance or if a Drought Permit solution is required.

KEN_0006

The River Kennet is one of the largest sub-catchments of the River Thames and its base flow can be taken as broadly related to the base flow at LON_0027. During periods of very low flow, the KEN_0006 is triggered when London reservoir storage reaches the Level 2 on the LTCD. This trigger is likely to be reached when naturalised flow at LON_0027 is between 3,000 and 2,000 MI/d. At this time flow in the Kennet is likely to be between 400 and 300 MI/d.

We have undertaken an initial review of whether a London-only trigger is still suitable to support both London and Kennet WRZs. Work to finalise this will continue beyond the publishing of the 2027 Drought Plan.

Initial analysis of stochastic outputs from WRMP24 modelling shows that triggering KEN_0006 using London's triggers would not result in as much benefit to the River Kennet:

- The timing of the trigger is often too late to support the River Kennet.
- There are occasions when London triggers would not trigger the scheme at all but support is needed in the River Kennet.
- The duration for which KEN_0006 is triggered does not support the River Kennet for the full duration for which it is required.

Based on analysis of stochastic flows, and the need to support KEN_0002, a set of triggers based on gauged flow at Calcot (including the operation of the KEN_0007) has been developed for the switching on of KEN_0006 to benefit Kennet Valley WRZ through increased availability of flow at KEN_0002 WTW intake. These are:

- A river flow trigger of 197 MI/d (5 day mean) to allow a lead time of 21-30 days to start discussions with the Environment Agency trigger, and notification of stakeholders
- A river flow trigger of 169 MI/d (5 day mean) or less for KEN_0006 to be switched on

Note: these triggers were initially derived using Theale data, these have been converted to Calcot triggers by taking the modelled historical dataset at Calcot and looking up the probability of the matching flow at Theale in the rankings for the Calcot data.

The date at which these flow rates would have been triggered in 1976 is shown in Figure 2.3. The initial trigger of 149 MI/d was reached on the 9th June, with the scheme being triggered on the 28th June.

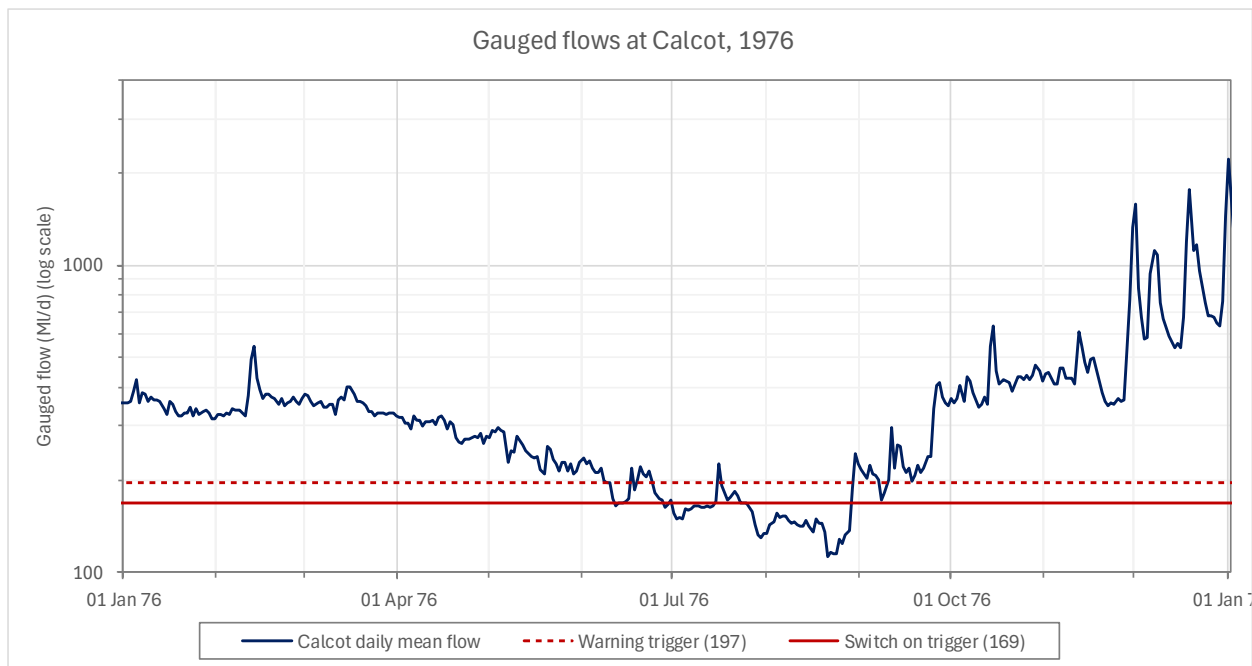


Figure 2.3 River Kennet at Calcot gauged flow with provisional KEN_0006 triggers

Based on flow duration curves derived from gauged historical data (1961 – 2025), these provisional triggers would be used less than 1% of the time. 1976 is the only time on the historical flow record where both triggers were crossed. During the recent drought events of 2022, the warning trigger would have been reached in August for one day only and did not reach the “switch on” trigger. In 2025, flows would not have reached either trigger with lowest flows recorded being approximately 265 MI/d at Calcot.

These triggers are provisional, with further work required to confirm their suitability and further consultation with the Environment Agency is required.

2.4.5. Guildford WRZ drought triggers

Although groundwater is a major contributor in this zone, the critical drought risk relates to the River Wey surface water source. The drought triggers for this zone are therefore triggered by river flows reaching critical low levels, though London’s drought status remains the primary driver for response in this zone. The Guildford WRZ relies on both surface and groundwater abstraction. Its principal source is GUI_0006, where water can be taken from the River Wey or the River Tillingbourne, which joins the Wey at this point. The rest of the WRZ is supplied by groundwater from Chalk and Greensand aquifers. GUI_0006 is the largest source and serves as the key drought indicator. Licensed for 30 MI/d with no flow constraint, GUI_0006’s deployable output depends on both rivers. Historically, it has remained robust during droughts because combined flows in the Wey (gauged at Tilford) and Tillingbourne have consistently exceeded abstraction needs since the 1950s. Triggers, based on historical low flows in Wey at Tilford, are applied to this zone. The triggers are provided in Table 2.5. We have also added an option to have a TUB triggered by high demand and this is covered in section 4.4.3.

Table 2.5 Guildford WRZ drought trigger levels

Measure	Flow rate in River Wey at Tilford
Temporary Use Ban	90 MI/d (on average for 5 days)
NEUB	75 MI/d (on average for 5 days)
Drought permit	75 MI/d (on average for 5 days)

2.4.6. Slough, Wycombe, and Aylesbury WRZ and Henley WRZ drought triggers

The Slough, Wycombe, Aylesbury (SWA) WRZ and the Henley WRZ are entirely supplied by groundwater from the unconfined Chalk aquifer of the Chiltern Hills and the Thames side groundwater sources. Historically, these sources have remained robust during drought, with outputs never falling below DO. However, resilience cannot be assumed under all conditions, so monitoring and a drought methodology are essential. The background to the development of the methodology for the SWA and Henley WRZs is outlined in Appendix G.

The methodology focuses on tracking groundwater levels at key observation boreholes and monitoring source performance against DO. Stonor Park observation borehole (OBH) has been selected as the primary indicator for both zones because its levels broadly reflect Chiltern groundwater behaviour. Groundwater drought management for the SWA and Henley WRZs is based on control curves linked to the Environment Agency’s Stonor Park observation borehole OBH levels for which the EA have calculated bands based on the historical range in levels ranging from Notably low to Notably high. More details can be found in Appendix G.

Enhanced monitoring of groundwater and source performance begins when levels fall Below Normal. Historically, 66% of years crossing this threshold, at Stonor Park OBH, have declined to “Notably Low.”

TUBs are triggered at seasonally variable levels, set at 75% below the top of the “Notably Low band”, particularly if crossed near the May peak and recession continues toward historical minima. This threshold was calibrated against historical drought measures and hydrographs, though timing remains uncertain, and TUBs may be deferred to spring for maximum savings. Company wide TUBs could also be triggered based on the London DEL assessment, depending on the nature of the drought.

Drought permits are considered when levels fall below Exceptionally Low, especially if crossed after the May maximum and recession persists. Implementation of increased abstraction under a drought permit occurs below Exceptionally Low level, the historical minimum (61.5 m AOD), typically reached in late autumn after peak demand. Historical recession rates suggest 8–10 weeks between TUB and permit application, longer than the assumed 3 weeks, highlighting uncertainty in control curve design. This uncertainty necessitates pragmatic decision-making supported by recession forecasts.

London's drought status is the main driver for response on demand measures in these zones, as company-wide measures benefit London by reducing abstraction and marginally increasing LON_0011 flows however drought permit requirements would be based on the need within the SWA WRZ. The Chilterns also contribute significant baseflow to the Thames. Despite historical robustness, uncertainty remains in linking drought measures to specific hydrogeological conditions. Drought triggers will be reviewed following any severe drought requiring zonal triggers. We have also added an option to have a TUB triggered by high demand and this is covered in Section 4.4.3.

2.4.7. Implementation of company-wide measures

Due to the dominant nature of the London WRZ, it will generally be the case that the water use restrictions introduced in the London WRZ will also be applied to the rest of our supply area. Nonetheless, the Drought Plan recognises that there may be situations in which more local measures may need to be introduced for the other WRZs, consequently, protocols have also been developed for these zones such that, if necessary, measures can be introduced in any of our WRZs alone if a drought occurs with very localised effects.

2.5. Confirming our triggers remain appropriate

We have undertaken an initial review of the impact of the drought 2025 and the measures that resulted from our DEL methodology and the triggers we used. In 2025 we implemented a TUB in our SWOX WRZ only, which is the first time we have done so.

We moved to DEL1 across all WRZs in May, then to DEL2 in SWOX on 10th July, with a TUB implemented for SWOX only on 22nd July. These decisions were all informed by our DEL methodology. We acknowledge that it was a relatively precautionary measure, but it aligned well with measures being taken by other water companies, learnings from the 2022 drought event and was supported by the Environment Agency.

We also considered the prevailing weather and the spate of heatwaves that had occurred and could have been repeated. As a result of the impacts on demand and the management of our SWOX system, we maintained storage in SWOX_0006 above 80% throughout the summer and were able to lift the TUB on the 27th November following recovery of groundwater levels in the Cotswolds Oolites.

Our review suggested this course of action was appropriate in that we took early action, supported by the EA and Government, and avoided the need for Drought Permits. As part of the review we have considered whether we could have acted earlier. Whilst this would have been possible, to do so based on the catchment water resource situation that existed at the time would mean that if we used an earlier trigger in future we would be likely to introduce a TUB on a much more frequent basis than is in line with our LoS and which in most cases would not be needed.

An independent review of our DEL levels within SWOX was also completed in 2025. This confirmed that our triggers remain appropriate given the complexities of this system and how quickly reservoir storage can draw down during drought events. Additional assessment was suggested to test and if necessary, make minor revisions to our methodology that we will take into consideration in future updates of our Drought Plan.

We will continue to keep the approach under review as it appears that the impacts of climate change suggest summers such as the one experienced in 2025 could become more frequent in future.

3. Drought Event Management Structure

As described in Section 2, our DEL assessment is normally undertaken monthly with frequency increased to fortnightly at DEL2 and above. The DEL assessment dictates the actions we would take during a drought and informs the seniority of drought event controller responsible, increasing in seniority as a drought worsens, shown in Table 3.1. The DEL assessment method is outlined in more detail in Section 2 and Appendix F. Our drought management structure is shown below in Figure 3.1.

The structure reflects the broad underlying discipline base that will be required to support a Drought Event. Each business lead will have a team supporting them comprising seconded and supporting staff and external consultants where required. The same structure would be applied for all WRZs.

The resource required and the structure reporting to each lead role will be defined by the severity of drought and the resource situation in each water supply zone and will continually be reassessed as the severity of the situation changes during a drought.

Table 3.1 DEL, event controller and potential measures introduced

Drought Event Level (DEL)	Event controller	Potential drought measures
DEL0	No event	No measures introduced
DEL1	Senior manager	Media/water efficiency campaign. Monthly Drought Event meeting.
DEL2	Senior manager / Director	Enhanced media campaign and TUB. Weekly Drought Event meeting.
DEL3	Director	Enhanced media/water efficiency campaign/ Temporary Use Ban; application for NEUB / drought permits. Weekly Drought Event meeting.
DEL4	CEO	Enhanced media/water efficiency campaign/ Temporary Use Ban Introduce NEUB / drought permits. Preparation for EDO and possible application. Weekly Drought Event meeting.

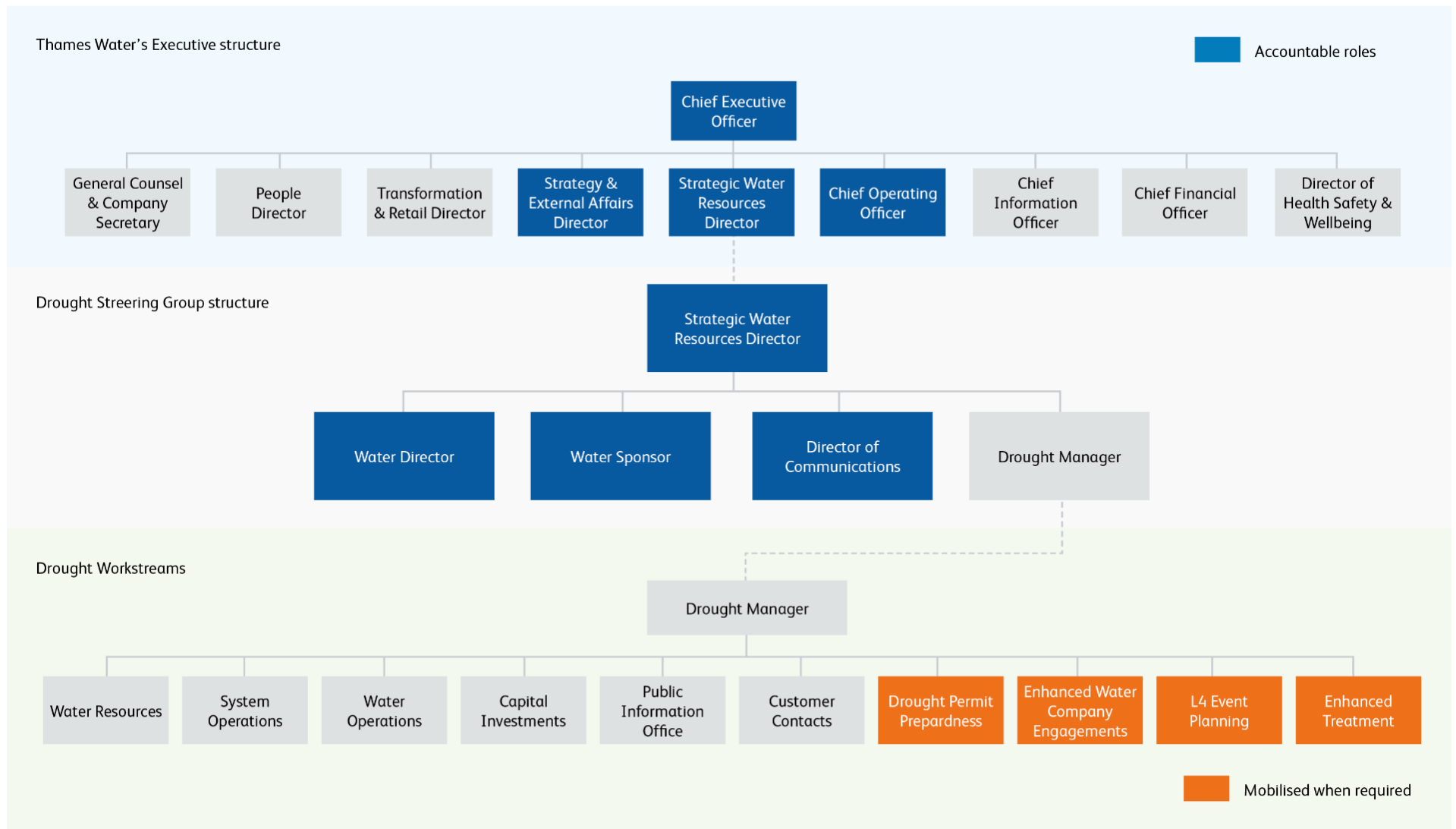


Figure 3.1 Drought Event management structure, including the event controllers and potential drought measures at each Drought Event level.

4. Drought Measures - Demand Reductions

In response to an escalating DEL, we have numerous demand and supply measures available to implement within our Drought Plan. A summary of both demand and supply measures by WRZ can be found in Appendix P. As we move through DEL set out Section 2, we will consider the need for actions to be taken. Actual actions implemented will vary depending on a range of factors, including the severity of the specific drought event, the demand for water at the time, and time of year. Our response will include a combination of the actions available within our plan. As we move through drought event levels, the preceding level actions will remain in place.

The measures we can introduce cover both demand and supply and are introduced concurrently with an escalation from less severe to more severe as the drought severity increases. Demand side measures commence with messages to our customers informing them of the situation and asking for restraint in water use and then measures escalate through a TUB to a Drought Order to ban non-essential use. If the drought becomes severe then an EDO may be required to enable supply network restrictions such as rota cuts.

4.1. Reducing water use during in a drought

The demand side measures available to be implemented during a drought are designed to reduce customer demand for water. During a drought, leakage reduction, principally find and fix, and water efficiency can be enhanced to some extent. However, enhancement of meter installation over and above the on-going programme is not regarded as effective or efficient during the relatively short duration of a drought event. We have no financial penalties associated with implementing demand-side measures in response to a drought, or any other drought related performance commitments.

In accordance with our stated LoS, we will not impose water use restrictions unless there are good reasons for doing so. Therefore, the sequencing of the drought measures is commensurate with increasing risk to security of supply. The full range of demand-side measures is detailed in Table 4.1 along with the respective DEL. If we need to deviate from the triggers and sequencing stated we will discuss this with the relevant regulators and if required, the National Drought Group (NDG).

Table 4.1 Summary of drought measures, DEL

Measure	Description of measure	Drought Event Risk Level	Additional comments
Media /water efficiency campaign	Wide-scale communications activity to encourage voluntary reduction in water usage	1	
Enhanced media /water efficiency campaign	Enhancement of above activity	2	
Leakage reduction	Increased leakage activity / Network pressure management	1-2	
Temporary Use Ban	11 categories of use (largely domestic), banning the use of a hosepipe.	2	Would normally be introduced at same time as the enhanced media/water efficiency campaign. Net effect is to reduce peak demand for water.

Measure	Description of measure	Drought Event Risk Level	Additional comments
Non-Essential Use Bans	Application to Defra to grant 10 categories of non-essential use restrictions affecting commercial businesses.	3	
Emergency Drought Order	Application to Defra to grant an emergency drought order, including rota cuts and standpipes.	4	

4.2. Water Efficiency

4.2.1. Baseline Water Efficiency Activity

We have promoted the wise use of water for over two decades. In recognition of the pressure on water resources, higher expectations of our regulators and the wider stakeholder community, our water efficiency baseline programme has grown significantly in breadth and scale since 2005. Our programmes include rollout of smart water meters on homes and business properties, as well as large-scale water efficiency retrofitting and wastage fix initiatives on both household and non-household customers, industry leading environmental and financial incentive offers for developers and non-household retailers, activities in schools, online calculator tools, promotion of technological developments and online and media-based campaigns aiming to raise awareness of the need to use water wisely. We have developed our understanding of water use and how to most effectively encourage customers to save water and promoted knowledge sharing across the industry. Our demand reduction programmes from AMP8 onwards are designed and steered by the increasing volumes of smart meter data captured daily from household and business properties. This insight on usage is vital to all water efficiency (consumption and leakage reduction) activities. As smart metering coverage increases it will play a greater role in both drought mitigation and event response.

For more information about our long-term plans for the ongoing water efficiency programme, please refer to Thames Water’s Final Water Resources Management Plan 2024.

4.2.2. Activities during Drought

In addition to our ongoing baseline water efficiency campaign activities, increased activity will be carried out in the event of a drought. A drought situation would require a response aiming to achieve an immediate step-change in customer water use behaviour and would be run alongside the activities of the ongoing water efficiency programme.

We will use the experiences of our long-running water efficiency programme to target our drought campaign most effectively. This will include using information about our customer’s habits and opinions related to water use and water saving from the historical and current domestic audit trials and per capita consumption (PCC) data investigation study, as well as previous drought activities. Our water efficiency activities sit alongside our other drought response activities, including our communications strategy referred to in Section 7.

⁴ <https://www.thameswater.co.uk/about-us/regulation/water-resources#current>

Specific water efficiency measures include:

- An increase in the promotion of water efficient behaviours at home and at work. This guidance and advice will draw directly from smart meter data, water resource situation status and include water saving advice for daily routine activities (kitchen, bathroom) and peak discretionary usage (gardens, lawns, sprinklers, paddling pools children's toys, car washing, pressure washing etc). An enhanced response to severe localised resource issues would be the offer of household water efficiency retrofit visits where cistern devices would be installed, internal leaks detected and repaired, and water efficient showerheads/spray taps installed.
- A strong partnership approach – collaboration with other water companies and key stakeholders in the region to ensure the provision of up-to-date information and to encourage sensible water use.
- An increase in contact with major commercial water users including gyms, leisure centres, golf courses providing advice, free water audits and resources for commercial customers to undertake their own in-house water efficiency campaign.
- A proactive and regular engagement with non-household Retailers, providing an update on regional/local water resource positions, timings for potential TUBs or NEUB introductions, specific messaging and water saving requests to be communicated with business customers.

4.3. Leakage reduction

4.3.1. Baseline leakage activities

Leakage reduction remains a fundamental component of our plans to manage the balance between supply and demand. During the last AMP period (2020/21 to 2024/25) we had a target to deliver a reduction in our 3-year-average leakage level of 20.5%, dropping annual average leakage from 628 MI/d (2019/20) to 507 MI/d. In 2024/25 we reported annual average leakage of 569 MI/d, achieving a 3-year-average leakage reduction of 13.2%.

Despite this work we still have high breakout rates of leaks and are therefore dependent on identifying, locating and repairing leaks as quickly as possible. We continue to refine our ability to spot leaks as they occur. We are investing in smaller district meter areas to better identify leaks with greater geographic granularity. We are also improving our data to quantify leakage more accurately at this local level and over the past year have increased our permanent acoustic sensor estate so that it now covers approximately 50% of our distribution network. We are also using satellite surveys and drones to identify points of interest, with different approaches for urban and rural areas. We are investing significantly in customer smart meters and will be installing circa one million between 2025 and 2030. All of this means our ability to identify leaks as they occur is improving. With the increase in sensors on the pipe network we are investing in more intelligent systems to improve the use of this data so that we can effectively and efficiently find and fix leaks. We are also investing in systems that are used in the field, first to direct the technicians to the best location, and then to better capture information to pass on to the repair gangs in a more accurate, efficient and speedy manner.

We continue to support our customers with repairs to leaks on their own pipework, offering free leakage detection and, in most cases, free repair. The information available from our smart meters is improving our understanding of plumbing losses inside homes and on commercial premises. We are using smart meter data to target our "smart home visits" and "smart business visits" and provide advice and assistance to our customers to help them use less water and to reduce leaks.

We have invested in monitoring of our strategic mains network, with flow, pressure and acoustic sensors to monitor these key assets in close to real time to identify problems and fix them before major failure.

4.3.2. Leakage activities during drought

Leakage activities are an essential part of our drought response to manage the demand for water. We must be able to demonstrate that we are doing an effective job of reducing losses from our network before we can ask our customers to reduce their water use and/or consider applying for a drought permit. Experience has shown that customers expect and appreciate the speedy repair of visible leaks during drought events when they are being asked to use water wisely.

Our experience in the drought in 2025 revealed that significant drought accompanied by very high temperatures results in high levels of soil moisture deficit (SMD). This leads to cracking soils which exert stress on our pipe network resulting in elevated leakage in the areas worst affected. This increase in leakage attributable to drought effects leads to higher demand thereby exacerbating the stress on the supply demand balance and so we make an allowance for this through use of higher demand scenarios in our drought scenario planning.

During drought we need to be able to respond rapidly to address any additional leakage breakouts due to dry soils and to be able to move activity to drought affected areas. All the activities that are part of our long-term leakage reduction programme would continue as before with every effort made to speed up their delivery. We are looking at how we can improve our ability to rapidly respond to high leakage events (such as during freeze thaw and during drought) as we need to be able to ramp up our find and fix capability. To enable this, we are building capacity in our supply chain to increase the level of repair resource available to us. This resource will support with ongoing network maintenance activities but can be pivoted to find and fix activities to respond to high leakage breakout events.

Our response would also include discussions with highways authorities and councils to allow us to prioritise our street works.

4.4. Temporary Use Ban restrictions

As part of our LoS, as set out in Figure 1.2, a TUB could be imposed at Level 2. This important intervention is aimed at reducing peak demand for water, which in turn, will gradually reduce the total amount of water used.

We are not financially penalised by Ofwat for the implementation of a TUB and have no associated performance commitments.

A TUB includes 11 categories of use, which are specified within section 76(2) of the WIA 1991 (as amended by section 36 of the FWMA 2010); the categories of water use that are prohibited are:

- watering a 'garden' using a hosepipe;
- cleaning a private motor-vehicle using a hosepipe;
- watering plants on domestic or other non-commercial premises using a hosepipe;
- cleaning a private leisure boat using a hosepipe;
- filling or maintaining a domestic swimming or paddling pool
- drawing water, using a hosepipe, for domestic recreational use;

- filling or maintaining a domestic pond using a hosepipe;
- filling or maintaining an ornamental fountain;
- cleaning walls, or windows, of domestic premises using a hosepipe;
- cleaning paths or patios using a hosepipe;
- cleaning other artificial outdoor surfaces using a hosepipe.

It is important to note that the definition of a garden within the TUB legislation includes:

- a park;
- gardens open to the public;
- a lawn;
- a grass verge;
- an area of grass used for sport or recreation;
- an allotment garden, as defined in section 22(1) of the Allotments Act 1922(a);
- any area of an allotment used for non-commercial purposes;
- any other green space.

However, the definition of a “garden” does not include the following:

- agricultural land, as defined in section 109(1) of the Agriculture Act 1947(b);
- other land used in the course of a business for the purposes of growing, for sale or commercial use, any crops, fruit, vegetables or other plants;
- land used for the purposes of a National Plant Collection;
- a temporary garden or flower display;
- plants (including plant organs, seeds, crops and trees) which are in an outdoor pot or in the ground, under cover.

Statutory health or safety exemptions apply to some of the categories of water use, see Appendix L.

4.4.1. Phasing

The TUB legislation includes allowance for phased implementation of the possible prohibitions.

We would not propose any phasing of the eleven categories of use if we faced a potentially severe drought situation. A single implementation phase would help to maximise water savings as well as send out a strong simple message that the drought situation is worsening. However, we may adopt a flexible approach through implementing measures in one or more phases if the specific drought risk warranted it. We may also not prohibit all the categories of use in a drought event.

4.4.2. TUBs in Winter

A TUB would be triggered at DEL2, as shown in Figure 1.2. The benefits of implementing TUBs over the winter period (October – March) are significantly lower than those expected over the summer months and should be considered in light of the real benefit to water resources. During the winter, there is a decline in non-essential use given cooler temperatures and there's less need to use a hosepipe in the garden outside the growing season. We consider that putting in place a winter TUB could therefore have a negative impact on customer engagement given customers are not typically using their hosepipes. We may see an increase in customers disengaging with communications, including unsubscribing from emails, therefore reducing the potential impact of communications in the summer when hosepipe restrictions and associated communications are more meaningful. Depending on the drought scenario we will consider whether it is in the best interests of customers and the environment to implement a TUB over the winter period.

4.4.3. TUBs during high demand events

TUBs are principally a measure for managing demand during periods of water resources drought. However, in some circumstances it may be necessary for us to implement measures to reduce demand during periods where there is not a drought induced shortfall of resources, for example where demand is exceptionally high due to periods of very hot weather which is becoming increasingly common. This was exemplified by the summer of 2025 was the hottest on record and included four heatwaves which led to very high demand for periods during the summer. These high demand periods give rise to potential challenges in abstracting, treating and distributing water at high enough rates to maintain supplies.

We currently manage these high demand periods by sending targeted requests to our customers to ask them to use less water and this is effective for short periods. However, a TUB may be a useful and justified measure to use for prolonged heatwaves to help manage high demand by restricting outside use. Whilst we did implement a TUB in our SWOX WRZ in 2025, it was invoked in response to drought triggers which were crossed after the main heatwave episodes in June. Bringing in a TUB earlier to address high demand may have been beneficial

We are in the process of defining how and when we would trigger a 'high demand' TUB in a specific WRZ. For a 'high demand' triggered TUB to be effective, it will be important that it can be implemented quickly. We will therefore prepare draft TUB applications for the WRZ where this may be triggered (most likely being SWA, SWOX and Guildford) so that these could be progressed within a 7 day time period.

4.4.4. Exemptions

There are a number of activities for which we have included an exemption. This means that certain activities are permitted despite the imposition of a TUB and there is no need to make a representation to obtain permission to carry out this activity. The TUB exemptions are listed in Appendix L.

In a severe drought we may remove any exemptions that are allowed when a TUB is first imposed. And similarly, as a severe drought recedes, we may reinstate exemptions associated with a TUB before we entirely lift the TUB.

Communications before, during and after a TUB are absolutely critical to keeping customers informed and to maximising the success of the TUB. This is covered in more detail in Section 7.

4.5. Non-Essential Use Ban

Drought Direction 2011 non-essential use ban (DD11 NEUB) restrictions replace the previous ordinary drought order for banning non-essential use. Due to the serious conditions of drought severity under which we would consider a NEUB, it is very likely all ten measures would be applied for simultaneously. Consideration at the time of implementation will be made on whether to implement restrictions across the whole region or for specific WRZs only, depending on the water resources situation at the time.

The DD11 sets out the categories of use that can be prohibited in a NEUB. The relevant categories are as follows:

- 1) Watering outdoor plants on commercial premises;

- 2) Filling or maintaining a non-domestic swimming or paddling pool;
- 3) Filling or maintaining a pond;
- 4) Operating a mechanical vehicle-washer;
- 5) Cleaning any vehicle, boat, aircraft or railway rolling stock;
- 6) Cleaning non-domestic premises;
- 7) Cleaning a window of a non-domestic building;
- 8) Cleaning industrial plant;
- 9) Suppressing dust; and
- 10) Operating a cistern in any building that is unoccupied and closed.

4.5.1. Implementation policy

The prohibitions included in a NEUB are significant and as such we would not consider making an application to introduce them unless the water situation was becoming very serious. Prior to making an application to the Secretary of State (Defra) to make a NEUB, we would discuss the need for such a measure with Defra as well as the Environment Agency to ensure that they were fully appraised of the situation and aware of the reasons why such a measure is necessary. We have included an allowance for up to a 12-week period to allow for the submission of an application through to the granting, or otherwise, of the NEUB.

Within the application process, the principal document submitted to Defra is the 'statement of reasons'. In the statement of reasons, we would set out the case for seeking to implement NEUB restrictions. The report would explain in detail why and how the exceptional shortage of rainfall is likely to lead to a serious deficiency in water supply and set out all of the necessary drought measures that we would be carrying out to avoid the need for an Emergency Drought Order.

In Sections 73, 76 and Schedule 8 of WRA91 contain minimum notice requirements for making NEUB applications and for notifying of the grant of a NEUB. An application for a NEUB must be published in one or more local newspapers circulating in the area affected by the NEUB and in the London Gazette, as well as being served on persons prescribed in WRA91. Objections to the application may be made to the Secretary of State within 7 days from the date of service or publication. Once granted, we must give at least 72 hours' notice of the imposition of the NEUB by publishing the NEUB in one or more local newspapers circulating in the area affected by it, and by serving notice of the NEUB on persons who will be affected by it. We would also use communications methods set out in section 8. We would liaise with the NHH retail sector regarding the potential imposition of such restrictions. More information on communications with NAVs and retailers can be found in Section 6.4. Before we would consider applying for and implementing a NEUB, the DEL would need to have been escalated to Level 3. However, we would need to be clear that such an action would significantly help to avoid Level 4 emergency water use restrictions.

4.5.2. Savings from demand side measures

The savings we assume from implementing our demand-side measures are based on previous experience of implementing demand side restrictions. However, it is important to recognise that there is a level of uncertainty associated with these assumed savings, particularly as they were assessed prior to the introduction of smart metering, and this needs to be taken into account in our planning.

During 2025, Thames Water, South East Water, Southern Water and Yorkshire water implemented a TUB. An UKWIR project was set up to understand the demand benefits that the TUBs delivered, and under what conditions. The project is due to report end of April 2026 and therefore the results are not available at the time of submission of our draft Drought Plan but should be available for inclusion in our Final Plan. We will be working with the WRSE companies to review the findings and determine how to incorporate them into planning assumptions for Drought Plans and WRMPs within the south east. We will use this information to update our assumptions once the work has concluded.

We are aware from our own analysis of our smart meter data that the demand savings achieved from our 2025 TUB in SWOX are lower than we have previously assumed and that this is a risk for our Plan. To account for this risk, we have included an indicative range of potential savings ranging from the lower levels achieved in 2025, to the higher level of savings underpinned by the same methodology as employed since the Drought Plan 2010. This range reflects the high level of uncertainty inherent in the levels of savings that could be achieved from the imposition of a TUB.

We recognise that the acceptance of the need for restrictions, and therefore the appetite for maximising efforts to reduce water use, may not be the same across different parts of the country and that therefore the ability to reduce water consumption through these reductions will not be aligned across all water companies.

The savings are given below for London and Thames Valley WRZs and represent the maximum savings that can be expected during the peak month of July when pressure on water resources is likely to be greatest.

Level of service London WRZ- Peak month saving as a percentage of total demand

- Level 1: Providing a range of 0.5% to 2.2% maximum reduction in demand;
- Level 2: Additional range of 1.2% to 10.9% (cumulative 1.7%-13.1%) maximum reduction in demand;
- Level 3: Additional range of 1% to 1.4% (cumulative 2.7%-14.5%) maximum reduction in demand;
- Level 4: Additional 18% (cumulative 20.7%-32.5%) maximum reduction in Demand.

Level of service Thames Valley WRZs- Peak month saving as a percentage of total demand

- Level 1: Providing a range of 0.9% to 3.8% maximum reduction in demand;
- Level 2: Additional range of 2.5% to 14.1% (cumulative 3.4%-17.9%) maximum reduction in Unrestricted Demand;
- Level 3: Additional range of 1% to 1.2% (cumulative 4.4%-19.1%) maximum reduction in demand;
- Level 4: Additional 18% (cumulative 22.4-37.1%) maximum reduction in Demand.

The detailed breakdown of the assumed demand-side savings, including monthly profiles, and how the previous imposition of demand side measures has been used to estimate as well as the range and the maximum level of demand savings that could be achieved is detailed in Appendix L.

4.6. Alignment with neighbouring companies and WRSE

During a drought in the south east of England, we would be interacting closely with neighbouring and other water companies and, depending on severity, more widely. This would commence as soon as initial signs of drought risk are identified through our regular communications. We would participate in joint engagement through the WRSE Dry Weather Steering Group and through the National Drought Group (NDG). This engagement enables the development of alignment on key drought management activities such as communications, alignment of measures such as restrictions and other issues such as water sharing.

Alignment between companies is particularly important in relation to imposition of TUBs and consistency in the TUB measures such as the exemptions. Whilst we will seek to align the imposition of TUBs where it makes sense to do so, each water company will continue to have its own triggers which are specifically developed and tailored to its own specific water supply infrastructure and water resources position. Therefore, it is not possible to develop a common set of triggers which will cover all companies in the south-east. In some droughts where the drought severity may be similar for a number of companies, it may be more straightforward to align the imposition of measures for example in 2012 the drought risk was clear across the south-east emerging from the winter of 2011/12.

However, in 2025 for example the drought risk was not consistent across the south-east and the west of the area was more affected in terms of regional groundwater impact than in parts of the east and so the need for measures could not be easily aligned.

We have worked closely with WRSE to align the exemptions that we would use when imposing a TUB and as far as possible with the UKWIR Code of Practice developed to guide the imposition of TUBs. It should however be recognised that each company's customer base is different and so it might not be in the best interests of customers for exemptions to be the same in all cases.

A 'Statement of Intent' which all component companies in WRSE have agreed to is included in Appendix Q. This Statement of Intent sets out our joint approach to how WRSE will support member water companies with drought planning, coordinating drought measures, and support joint working with other stakeholders during prolonged dry weather and drought events. WRSE has a long-established Dry Weather Working Group that brings consistency to the way in which water companies in the region prepare for droughts and coordinate drought measures in the interests of customers and the environment. The ambition of WRSE and the Dry Weather Working Group continues to be aligning approaches to drought measures; progressing with a joint drought communication plan and triggers. WRSE will continue to provide a coordinating role to support companies during dry weather and drought events.

5. Drought Measures - Supply options

5.1. Overview

This section details our supply-side measures, a summary of both supply and demand measures by WRZ can be found in Appendix P. Most of our supply side options are existing licensed schemes that are introduced during a drought to increase the amount of water available for supply. The exception to these are Drought Permit options, which are detailed in Appendix C.

Supply-side measures can be categorised into:

2. Implementation of drought sourcing strategy
3. Strategic schemes
4. Bulk supplies
5. Drought Permits or Orders
6. Recommissioning of disused sources

The benefits from each drought option, including strategic supply schemes and drought permit options are set out in detail in Appendix B.

5.2. Drought sourcing strategy

Our assessments of water availability during a drought assumes that all existing sources are operating at their expected capacity. Our strategy is to optimise the use of existing sources such that those that are most drought resilient are used in preference to those sources which are more vulnerable. In general, this means that in the conjunctive use WRZs of London and SWOX, full use of groundwater sources should be made, where practicable, to conserve reservoir storage.

In the context of water availability, an allowance for outage due to factors such as mechanical failure and pollution events is used for planning purposes. It is also prudent to plan for a level of outage to occur during drought periods. The outage allowances within this plan are aligned with our AR25 reported values. There is however uncertainty associated with what outages may occur during a drought event, therefore we have tested a range of risk allowances to understand the impact this might have during a drought event. More details of this assessment can be found in Appendix E.

We also work very closely with the Environment Agency to optimise abstraction from our surface water sources on the river Thames. Abstraction from the River Thames takes place under a cumulative abstraction and the associated LTOA, which, limit the total annual volume that we can abstract and when water can be taken. The LTOA determines the minimum environmental flow that needs to be maintained over LON_0027, known as the LON_0027 Target Flow (TTF). The TTF is designed to preserve freshwater flows into the tidally influenced section of the River Thames.

Abstraction is further constrained by the need to maintain a minimum water level in the river to avoid adverse impacts on navigation. The West London Reservoirs (WLRs) are part of the raw water storage system serving customers in London. It consists of two separated systems, both filled from intakes along the LON_0011 between SWA_0002 and LON_0027. The WLRs can be divided into two discrete systems which sit north and south of the river Thames. The northern WLRs have a larger overall storage volume and are supplied by different intakes than those serving the southern reservoirs. Each subsystem also delivers water to a different configuration of water treatment works (WTWs), reflecting their separate operational roles within the wider supply network, although there

is one WTW forming an overlap between the two. A schematic diagram of the WLRs is provided in Figure 5.1.

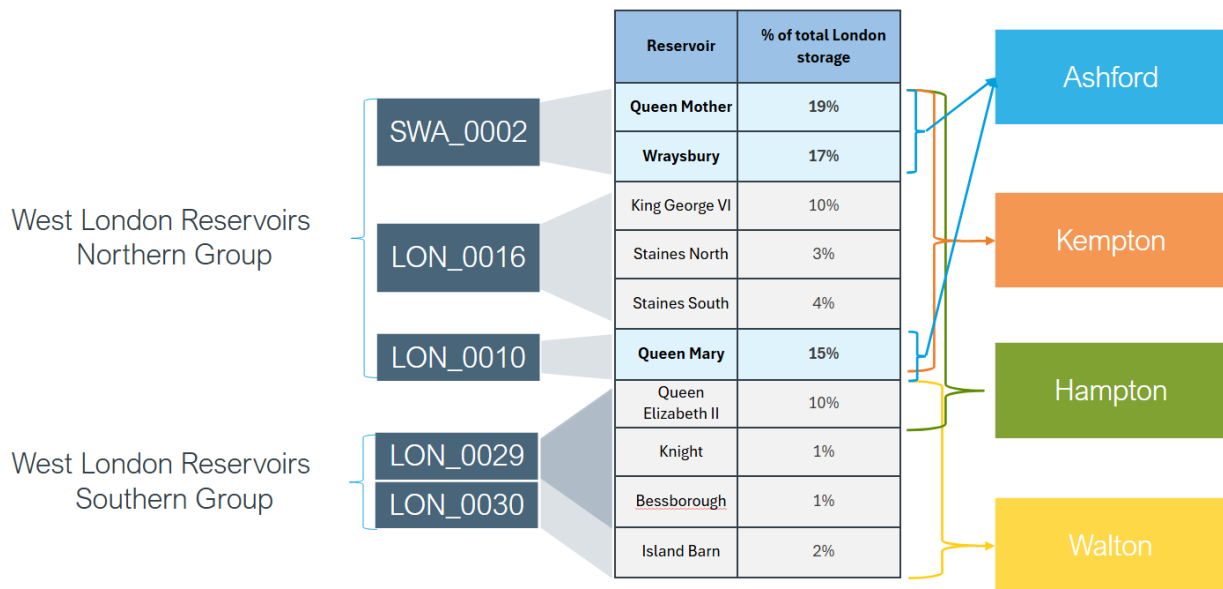


Figure 5.1 Schematic diagram of the West London Reservoirs groups and WTWs supplied

The northern and southern systems are not currently operationally connected, so raw water stored in one part of the system cannot be transferred to the other in the event of a shortfall. During the 2022 and 2025 drought events we faced operational constraints which impacted the resilience and flexibility of the raw water system in west London, including:

- pump limitations which constrain abstraction during low flow periods at the raw water intakes between SWA_0002 and LON_0010;
- limited abstraction capacity at the most downstream intake near LON_0029;
- limited network connectivity to move raw water freely between our storage reservoirs; and
- limited capability to significantly alter (lower) the outputs of the West London WTWs.

These operational constraints led to drawdown of storage within the northern WLRs despite flow over LON_0027 exceeding the TTF. To address the drought pressure on the northern WLRs, a LON_0011 to West London Reservoirs Strategic Resource Option is at an early phase of development. The proposal is to develop enhanced abstraction capacity and establish a new raw water transfer to link the southern and northern WLRs, with five shortlisted options. An optioneering study also identified an additional solution to help address the operational constraints experienced during drought that do not form part of the strategic resource option:

- New variable speed pumps at the raw water pumping stations (RWPS) supplying the northern WLRs.

5.3. Operation of London Reservoirs during a Drought Event

Under normal, non-drought conditions, our operational strategy is to draw reservoirs down together, allowing blended sourcing to the WTWs. This reduces water quality and hydraulic risks at the WTWs. River flows reduce during droughts, meaning that abstraction rates can be constrained. At the same time storage can decline rapidly. During the 2022 drought event it was identified that drawing several reservoirs down together increases the risk that individual WTWs will become hydraulically constrained.

A more resilient approach in drought is therefore to source from one reservoir at a time, typically within operational groups. The strategy is to draw one reservoir to its minimum operational level, by minimising abstraction into it, while keeping the next reservoir as full as possible with the available inflow. Once the first reservoir reaches its minimum operational level, sourcing switches to the next. This approach, whilst benefitting the management of the hydraulics within our reservoir chain and water quality, does result in single sourcing to treatment works.

A similar approach is used at SWOX_0006 reservoir, which has two stages. While both stages are drawn down equally in normal operation, below a certain level one stage is drawn preferentially before switching to the other.

5.4. Water Quality considerations and Risk Management during Drought

The management of water abstraction and storage to ensure water quality remains acceptable for public water supply is critical at all times, but it can present an increased challenge both during a drought and during recovery. During a severe drought event there is uncertainty around the hydraulic constraints and water quality of the reservoirs once they are drawn down to a low level. Further work is planned to understand the risk to water quality when reservoirs are drawn down and to develop solutions to address this risk. A range of risks have been accounted for within the risk allowance assessment presented in Appendix E.

During recovery from drought, 2022 and 2025 presented a challenge for reservoir storage recovery. Poor water quality is a key concern during periods of recovery from drought, when raw water quality can be poor due to soils becoming saturated, leading to mobilisation of contaminants, following prolonged periods of dry weather.

Abstraction management is practised for all of our reservoirs. A key element of this strategy, and an approach that is often adopted at the end of autumn when flows are recovering, is to cease abstraction when river water quality is poor, and has elevated levels of pollutants, such that the water would not be fit for public water supply. The principal sources of pollution include but are not restricted to:

- Cryptosporidium
- Nitrate
- Pesticides
- Turbidity
- Algae

We undertake water quality monitoring of the raw water quality prior to abstraction to ensure we have information on when water quality may not be acceptable for abstraction. During periods of elevated poor water quality, we cease abstraction until the pulse of poorer water quality has passed and we are able to re-start abstraction. This is an essential element of managing raw water quality because the contaminant load is significantly elevated in the aftermath of a drought, when the challenge posed by very low flows has passed.

For example, at SWOX_0006 water quality challenges will typically occur when the soils have wetted, such that soil moisture deficit (SMD) is returned to zero, and groundwater has recovered in the Oolitic Limestone. At this stage the volume of water available for abstraction can be guaranteed to be available and therefore there is minimal risk associated with letting poor water quality pass by our intakes.

The pattern is similar for the London intakes, but subject to the severity of the drought we have additional flexibility, due to the number of reservoirs at our disposal, to abstract some poorer quality water if operational constraints allow to support recovery of reservoir storage. This includes identifying specific reservoirs for abstraction of water that may be of poor water quality, filling the reservoir and then leaving it to 'dwell' for a period of 30 to 40 days. This enables the water quality to improve, as the pollutants settle out, and the reservoir can then be brought back into supply.

Another significant water quality challenge that we face is the presence of algae both in the raw river water we abstract and also in our reservoirs where algae can grow in large numbers depending on the conditions. The challenge posed by algae is largely one of water treatment rather than the algae posing a risk to drinking water quality. Therefore, we use our abstraction management approach to try and minimise the risk of algal blooms in our reservoirs. This will typically involve ceasing abstraction to avoid intake of water that includes contaminants that are likely to result in increased risk of algal growth e.g. high turbidity which may include nutrients such as nitrate and phosphate at elevated levels. We are also able to manage the risk of algae in our reservoirs and their impact on our Water Treatment Works by managing the use of different reservoirs at different times in London. In some cases we are also able to use different draw-off levels from the reservoir to avoid the blinding effects some algae can have on our Water Treatment Works.

Over time we have seen changes in the algal blooms contributing to the detriment of the water quality in our storage reservoirs under certain conditions (e.g., in the spring under sunny conditions). At this time, across our total storage reservoir asset base, we are unable to be certain of the effect this would cause under drought conditions, and any resulting changes in resilience that would arise. We will continue to improve our understanding of the resilience of our water system.

5.5. Strategic schemes

5.5.1. Overview of strategic schemes

Strategic schemes are sources of water that are permitted for use but are not used as part of our day-to-day baseline supply. They often have separate operating agreements agreed with the Environment Agency detailing under what conditions the schemes can be used. The strategic schemes included within our Drought Plan provide a significant additional volume of water, mostly for our London WRZ and are detailed in Table 5.1.

Strategic schemes can also be deployed during periods of high demand or to help with periods of outage. The LON_0020 Operating Agreement allows for the use of the scheme to meet high demands or other emergencies. The LON_0013 Operating Agreement has a similar condition.

Table 5.1 Triggers and benefit provided by Strategic Schemes

Water Resource Zone	Scheme	Benefit MI/d	Trigger
London	LON_0013*	220 to 106.5	LON_0013 Operating Agreement: LON_0027 target flow reduces down to 600/400MI/d curve (Level 1 curve on LTCD)
London	LON_0020*	25** - 75	LON_0020 Operating Agreement: Drought Event Level (DEL) is at least DEL1, Naturalised LON_0027 flow remains at or below 3000 MI/d for 10 or more days and the drawing down of reservoir storage to the 800/700/600 MI/d curve on the LTCD or earlier if the drought severity warrants it.
London/Kennet	KEN_0006 *	126 to 67	Level 2 curve on LTCD
London	Small scale groundwater schemes LON_0005, LON_0017 and LON_0015 LON_0002		LON_0005 and LON_0017: Internal operating rule: as LON_0020 LON_0002: Internal operating rule: as per LON_0013

*The operation of LON_0013, LON_0020 and KEN_0006 is subject to separate operating agreements with the EA.

** LON_0020 minimum benefit aligned to AR25 DO. It is anticipated that this will be reduced in AR26

5.5.2. LON_0013

LON_0013 is a strategic resource scheme that enables beneficial use of the confined Chalk aquifer in North London by a technique known as artificial recharge. In this case, treated water is recharged into the aquifer via purpose-built boreholes. The aquifer is kept as full as possible in 'normal' operational periods, when water resources are plentiful in preparation for drought conditions.

From switch-on to the full operation of LON_0013 takes between 7-30 days. It is likely that we would phase switch on depending on the potential severity of the drought and taking into consideration the operation of those LON_0013 boreholes whose initial abstraction output would be less sustainable during extended droughts. If LON_0007 is not available this reduces the potential benefit of LON_0013 by up to 40 MI/d.

LON_0013 is operated in accordance with the LON_0013 Operating Agreement between Thames Water and the EA.

5.5.3. LON_0020

LON_0020 is a desalination plant that uses brackish water abstracted from the Thames Tideway and treats the water to potable standard. The source has an abstraction licence that allows abstraction up to 200 MI/d peak and 200 MI/d average. The maximum volume that could be put into supply from LON_0020 is planned to be 100MI/d.

The use of the LON_0020 is governed by an Operating Agreement as part of a Water Resource Management Agreement under Section 20 of the Water Resources Act 1991. The Operating Agreement outlines that before the plant is used, a drought event has to first be declared and thereafter the actual trigger for switch-on is the recession of the lower Thames down to 3000 MI/d, as measured upstream of LON_0027 and corrected for a non-abstraction [naturalised] regime. Level 1 on the LTCD is the 'last' point at which the scheme is triggered, unless there is good reason not to.

We have an agreement with the EA that LON_0020 will be in supply no later than 50 days after the drought trigger is breached.

In 2019 Defra requested that we review the triggers used for LON_0020 to ensure that they were appropriate for maximising the beneficial output from the plant. We undertook this review at the time and confirmed that we consider that the trigger continues to be appropriate. Its operational use at the current trigger point maximises its deployable output contribution by switching it on sufficiently early to support London reservoir storage as it begins to decline in any year which could develop into a significant drought.

In 2017/18 we completed a review of the works operability and identified that the works needed a substantial upgrade. A programme of work was implemented, commencing in AMP7 (and continuing through to AMP8 and AMP9), to undertake significant remedial upgrade works to the plant. During 2022 we reviewed and revised the deployable output of the plant from 100MI/d. Meetings were held with the EA, Defra and Ofwat to review this decision to reduce the deployable output to 50 MI/d in our water resources modelling. This has also been taken into account in our WRMP24, with further funding included in our PR24 business plan to improve the capability and resilience of the plant to provide a deployable output of 75 MI/d by 2030.

The current state of the Reverse Osmosis (RO) membranes is the main factor dictating the current process performance. The level of fouling and/or oxidative damage present means that Thames Gateway is currently out of supply. The blocker to replacing these is the lack of Regulation 31 approved membranes and/or suitable cleaning agents to remove the foulants available to purchase. This is a wider problem impacting the entire water industry. The lack of Regulation 31 approved membranes is a wider problem impacting other water companies and industries needing to use RO membranes. Thames Water is part of a multi-stakeholder working group looking to address the multiple issues that are contributing to this, and current best estimates is for a solution between 18 months to 2 years. This current position with the RO membranes has initiated a review of the project delivery programme to identify if there are opportunities to increase the plant outage period to allow for accelerated delivery.

There are two ongoing projects at LON_0020, one of which is in the delivery phase with works started in November 2025 to replace several chemical dosing skids. The deterioration of the existing RO membranes is so severe that until new membranes are available it will not be possible to restart the site. The current plan is to deliver the second phase of chemical dosing skid

replacements and this is planned for November 2026, although we are looking at the timing of a second phase of works whilst the RO membrane solution is being worked on. A second project is also underway that is with the engineering team to define, which is focussing on solutions to a number of risks impacting on the plant performance and reliability which can be broadly summarised below:

- Investigation into root cause of RO membrane fouling and solutions to prevent or manage this fouling
- Solutions to reduce the health and safety risk relating to the water-cooled MCC's
- Investigation into the de-silting of the intake buffer tank and solutions to remove the silt
- Investigation into the long-term condition of the Service Water Tank and solutions to improve its resilience
- Investigation into the re-hardening process and performance and high flows

Operation of the plant is entirely dependent on the below list of factors (not exhaustive):

- Securing Reg 31 certification on the Reverse Osmosis (RO) membranes. The sole laboratory used by the DWI for Reg 31 testing is moving premises. Discussions with DWI, the lab and the membrane supplier are ongoing
- Asset resilience through regular maintenance activities
- Trained and available staff to operate the plant

We will continue to work on the plant to rectify internal factors impacting the plant's operation and will communicate to our regulators those external factors outside of our control, to resolve them as quickly as possible.

5.5.4. KEN_0006

The KEN_0006 is a strategic drought scheme under which untreated groundwater is discharged into the Kennet and Pang, tributaries of the River Thames, to increase the flow to the London reservoir abstraction points, as well as our water treatment works at KEN_0002 in the Kennet Valley WRZ.

The KEN_0006 is owned and operated by the EA in accordance with the KEN_0006 Agreement (1989) between Thames Water and the EA. We may request the EA to switch on and operate the scheme once reservoir storage has drawn down to the Level 2 control curve on the LTCD. An important pre-requisite to use of the scheme is the timely introduction of Level 2 demand management measures of Thames Water's LoS (enhanced media campaign and TUB). Under the existing DEL assessment, a TUB would most likely be in place in a severe drought before this trigger was reached. The Operating Agreement includes a clause (Section 5 – KEN_0006 Operating Strategy) to ensure that abstraction does not take place in two consecutive years from specified wellfields within the scheme unless specific recovery conditions are satisfied or further use is agreed by both Thames Water and the EA. This requirement was put in place following the Appropriate Assessment, undertaken as a requirement of the European Habitats Regulations Assessment for the Kennet and Lambourn SSSI. This has been taken into account in the assessment of the scheme's Deployable Output.

A benefit of some 126 MI/d reducing to 67 MI/d in a prolonged drought is provided by the scheme. This benefit is provided to the river system downstream of the KEN_0006 wellfields, principally the River Kennet and is then passed into the River Thames. The scheme is assumed to be able to provide a substantial resource for London (~ 90 MI/d) and provides a contribution not the resilience to the Kennet Valley WRZ, particularly supporting flows in the River Kennet and, as a result, the output from KEN_0002 WTW.

The implementation time for full operation is between 2 to 21 days. The scheme Operating Agreement states that The Environment Agency shall ensure that the scheme is delivering its maximum output within 48 hours of a request from Thames Water to operate the scheme in a drought.

LON_0005 and its abstraction licence allows abstraction up to 20.6 MI/d peak and 18 MI/d on average. This source provides a water resource benefit of up to 7.39 MI/d and this contributes to the provision of 19.9 MI/d when operated in conjunction with LON_0017 and LON_0015. The implementation time for this supply-side measure from a low base load level to 12 MI/d is 7-14 days, with a longer time to reach the maximum output, up to 28 days or more.

Groundwater quality monitoring between the LON_0005 wellfield and the tidal river Thames started in 2002, including a three-year period of dewatering operations from the Channel Tunnel Rail Link at rates significantly greater than the LON_0005 licence. The monitoring showed no evidence that groundwater abstraction was inducing renewed brackish water into the Chalk aquifer. We will continue to review the groundwater quality monitoring data to ensure any potential future saline intrusion would be quickly identified.

5.5.5. LON_0005

LON_0005 and its abstraction licence allows abstraction up to 20.6 MI/d peak and 18 MI/d on average. This source provides a water resource benefit of up to 7.39 MI/d and this contributes to the provision of 19.9 MI/d when operated in conjunction with LON_0017 and LON_0015. The implementation time for this supply-side measure from a low base load level to 12 MI/d is 7-14 days, with a longer time to reach the maximum output, up to 28 days or more.

Groundwater quality monitoring between the LON_0005 wellfield and the tidal river Thames started in 2002, including a three-year period of dewatering operations from the Channel Tunnel Rail Link at rates significantly greater than the LON_0005 licence. The monitoring showed no evidence that groundwater abstraction was inducing renewed brackish water into the Chalk aquifer. We will continue to review the groundwater quality monitoring data to ensure any potential future saline intrusion would be quickly identified.

5.5.6. LON_0017

LON_0017 is a groundwater abstraction source and is licenced for 8 MI/d peak and average. This source is only operated during drought periods in conjunction with the LON_0015 licence. The implementation time for this supply-side measure is a minimum of 7 to 14 days but may take longer depending on water quality testing.

5.5.7. LON_0015

LON_0015 is a groundwater source and is licensed for 4.5 MI/d peak and average. This source is operated in conjunction with LON_0017. The implementation time is a minimum of 7 to 14 days but may take longer depending on water quality testing.

5.5.8. LON_0002

LON_0002 is a similar scheme to LON_0013, but on a smaller scale. The scheme is licensed for up to 18 MI/d from four boreholes. The normal operating strategy for LON_0002 is to support meeting peak demands in non-drought periods, but it is also a source that would be used in the event of

drought, providing a benefit of 15.1 MI/d reducing to 10.6 MI/d in a prolonged drought. The implementation time for this supply-side measure is 7 to 14 days.

5.5.9. Supplementary Options to Manage Drought

We have several other options and activities that could be implemented in a drought to provide improved resilience of existing supplies during pressure arising during a drought.

LON_0010 Pumps – in non-drought conditions we operate pumps with a large capacity at our LON_0010 abstraction site. During drought we have an option to install a temporary lower capacity pump that can be used for additional flexibility and to maximise abstraction within the constraint of maintaining river levels. This pump can be installed when flows recede in the River Thames and there is pressure to maintain abstraction, but continuous abstraction cannot be undertaken with the larger pumps. This option would typically be considered at DEL1 but a flexible approach is needed to determine its deployment. The installation of the temporary pump requires an outage of a number of days at LON_0010. We will be installing a permanent lower capacity pump at LON_0010 during AMP8, but the final date of installation and commissioning has not been confirmed yet.

Abstraction infrastructure management – we have experienced challenges with outage in the past associated with the eel screens on our Thames and Lee intakes. To minimise any future outage impact as much as possible we have a service Level agreement with a screen repair contractor, and we seek to maintain levels as constant as possible to minimise risk of screen failure. This is a summer business as usual (BAU) measure.

We also manage our LON_0012 intake and supply channel with a proactive programme of weed cutting in the summer to minimise capacity reduction due to weed growth. This is a summer BAU measure.

5.6. Bulk supplies

5.6.1. Overview of bulk supplies

Bulk supplies are transfers of either raw or treated water between neighbouring water companies. We have no imports into our supply system, but we do have exports to some of our neighbouring companies. A summary of our bulk supply agreements is detailed in Table 5.2. More information is also available in Appendix C.

Our policy is to honour our existing bulk supply agreements, and we will endeavour to assist other water companies in the situation where our supplies are not at serious risk, but neighbouring companies may be at risk. During times of severe drought, we have the availability to suspend agreements under Drought Order applications, although we would continue to have an open dialogue with neighbouring water companies, to see what options are available to us in the interests of our water resources position, and ultimately our customers.

Details of our bulk supplies are provided from Section 5.6.2 to 5.6.4. We will also continue to discuss bulk supply possibilities with other neighbouring water companies.

Table 5.2 London WRZ- Current Bulk Supply Agreements

	WRZ	Name	Volume MI/d		Additional information
			Average	Peak	
Essex and Suffolk Water	London (Lee Valley)	Essex and Suffolk transfer (Lower Hall, LON_0023/King George V)	91	118.2	91 MI/d average and 118.2 MI/d peak raw water transfer from Lee Valley to the Chingford area. Agreement includes a condition to reduce to this bulk supply provision to 71 MI/d on average through the year arising from a profile of no less than 60 MI/d for Jan-Mar each year and 75 MI/d during the remainder of the year. There is agreement to reduce the export by 25% where Thames Water has implemented a TUB and Essex and Suffolk Water have not.
Affinity Water	London	Iver	2	2	2 MI/d raw water to Sunnymeads WTW.
Affinity Water	London	Fortis Green	12.2	up to 27	12.2 MI/d treated water via Fortis Green, with a current peak capability of 16MI/d and up to a maximum of 27MI/d under the agreement. Separate offtake of 0.2 MI/d at Hampstead Lane (listed below).
Affinity Water	London	Cockfosters	10	10	The agreement is for the export of 10 MI/d of treated water. This level of supply will continue until non-essential use bans (NEUBs) are put in place, at which point the export would be reviewed or potentially suspended. This agreement also includes a requirement on Affinity to implement restrictions in line with Thames, else we can stop supply.
Affinity Water	London	Perivale	5	5	Under this agreement, 5 MI/d of treated water will be exported to Affinity Water's network. This level of supply will continue until non-essential use bans (NEUBs) are put in place, at which point the export would be reviewed or potentially suspended. This agreement also includes a requirement on Affinity to implement restrictions in line with Thames, else we can stop supply.
Affinity Water	London	Fortis Green	0.2	0.2	0.2 MI/d at Hampstead Lane.
SES Water	London	Merton	13.6	13.6	Agreement exists to supply up to 13.6 MI/d. SES Water required 6 MI/d in 2021 and 0 MI/d since July 2021. This export would be reduced to 0 MI/d during drought.

5.6.2. Essex and Suffolk Water

Our largest export is to Essex & Suffolk Water (E&SW) from North London, averaging 90.92 MI/d with a peak of 118.2 MI/d, based on a perpetual bulk supply agreement. The average over each 3 month period should be 90.92 MI/d. A temporary agreement in place from 2014 to 2035 allows reductions during drought, or supply issues, to 60 MI/d from January to March, and 75 MI/d for the rest of the year. This results in an annual average of 71 MI/d. The original agreement also permits drought related reductions. If Thames Water has a TUB in its London WRZ place and E&SW does not, exports may fall by 25% to 68.19 MI/d average and 88.65 MI/d peak. If both companies implement TUBs, reductions follow fair apportionment.

Dialogue between the two companies begins as soon as we anticipate imposing a TUB in our London WRZ. We will notify E&SW of the potential ban, update them on timing, and confirm that the bulk supply will be reduced by 25% from the date the TUB begins if E&SW has not introduced its own TUB. We will also inform E&SW when the TUB is likely to be lifted so the reduction can end. If Thames Water imposes a TUB first, E&SW keeps Thames Water updated on whether it expects to introduce its own TUB.

In an extreme or “unusual” drought where both companies impose TUBs and full supply cannot be maintained, the agreement allows for fair apportionment of available water. Although not formally defined, both companies accept that apportionment must be pragmatic and based on each company’s relative shortfall, assessed through aligned water resources modelling. Key modelling assumptions include the same time periods, rainfall/flow scenarios, and use of emergency storage only after Level 4 triggers. The resulting bulk supply split ensures both companies face similar timing and risk of reaching Level 3 and Level 4 triggers.

Both companies have also agreed to provide mutual aid during drought or operational outages. This allows Thames Water to reduce the export by up to 20 MI/d when necessary or increase it up to 118 MI/d when E&SW requires additional support and we can supply it without affecting our own customers.

5.6.3. SES Water

The bulk supply agreement between Thames Water and SES Water provides for a supply of up to 13.6 MI/d. We have agreed to maintain the supply during drought, if required by SES water, as long as there is no risk to supply to our customers. The provision of the bulk supply would be likely to be unavailable if we had implemented a NEUB. SES Water has not required the full 13.6 MI/d in recent years. This bulk supply is considered to be an option severe drought to mitigate the risk of Level 4 measures being required.

5.6.4. Affinity Water

We currently have four bulk supply agreements with Affinity Water. These are summarised below.

Fortis Green - This bulk supply is for a maximum of 27.27 MI/d under the agreement although Affinity Water has an average requirement of 12.2 MI/d. This supply would be maintained during a drought unless continued supply was prevented by unusual drought. Therefore, the supply would be maintained if we have implemented a NEUB but would be potentially suspended if we were approaching Level 4 (i.e., we had applied for Level 4 emergency drought order restrictions).

Iver Water Treatment Works - This bulk supply agreement is for 10 MI/d to be used during emergency but with a sweetening flow of 2 MI/d as standard. The sweetening flow would be maintained during a drought unless subject to failure due to drought. Therefore, the supply would be maintained if we implement a NEUB but would potentially be suspended if we were approaching Level 4 (i.e., we had applied for Level 4 emergency drought order restrictions).

Perivale - A new bulk supply (export) agreement with Affinity Water known as the “Perivale bulk supply agreement” was signed on 12th March 2024. The agreement is for the export of 10 MI/d of treated water on a “reasonable endeavours” basis. This level of supply will continue until non-essential use bans (NUEBs) are put in place, at which point the export would be reviewed or potentially suspended. This agreement also includes a requirement on Affinity to implement restrictions in line with Thames, else we can stop supply.

Cockfosters - Another new bulk supply agreement, referred to as the “Cockfosters bulk supply agreement”, was signed with Affinity Water on 29 August 2024. Under this agreement, 5 MI/d of treated water will be exported to Affinity Water’s network on a “reasonable endeavours” basis. This level of supply will continue until non-essential use bans (NUEBs) are put in place, at which point the export would be reviewed or potentially suspended. The agreement is part of ongoing efforts to support regional supply resilience, especially during periods of high demand or dry weather.

5.7. Reductions in supply for firefighting

We are required to set out in our Drought Plan information on how we will mitigate any reductions in supply to enable firefighting. We have undertaken comprehensive liaison with the Fire Brigades to make plans for water supply to be available in the case of demand for firefighting needs. We have process for provision of water for firefighting set out below and our business-as-usual approach includes contingency plan that would enable cover to be provided during drought or other emergencies.

We have a process for interactions with Fire Brigades and information them of ‘no water’ events. The procedure includes:

- We will notify the relevant fire brigade of an outage which could impact the water supply with areas experiencing no water via a phone call within 60 minutes of impact.
- This notification should follow the below guidelines:
- No Water – Urban > 500 properties for 1 hour
- No Water – Rural > 100 properties for 1 hour

In this context an ‘urban’ area is classified as a town, city or built-up area, and a ‘rural’ area is classified as a village or hamlet, or an area with a single water supply feed which would mean that the fire brigade would deploy an additional unit or units which has been filled prior to arrival on scene.

We are continually working with Local/Borough/London Resilience Forums and share our drought communications with them, and any risk would be discussed prior to the impact of no water. The Fire Brigades are part of the resilience forums and are aware of the risks. In instances whereby large areas are affected with a loss of water, emergency planning processes are in place to speak to the local authorities and councils and work with them.

We have a Fire Brigade Liaison role in-post, and they work with the Fire Brigades on issues and process to ensure continuous improvements. For example, as part of this we would review our Memorandum of Understanding (MOU) with the Fire Brigades.

5.8. Drought permits and orders

5.8.1. Overview of drought permits and orders

Drought permits enable additional abstraction at sites that either have no current abstraction licence or at sites where it is possible to increase outputs beyond current abstraction licence limits. Drought permit options represent an important supply-side resource relevant to all WRZs. Full details and a summary of environmental impacts are given in Appendices B and C. In line with DPG we have two triggers for drought permits, the first being DEL2 for permits with minor environmental impacts. Drought Permits with moderate or major environmental impacts would generally be implemented at Level 3 of our LoS. Full Environmental Assessment Reports (EARs) have been prepared for all our drought permit options. A programme of baseline monitoring has been undertaken to inform the completion of the environmental assessment reports. More information on our environmental assessments can be found in Section 9.

The drought permits within our plan are prioritised based on the magnitude of environmental impact, water resources benefit and ease of implementation. The high priority options are those that are likely to be implemented ahead of the lower priority options, principally on the grounds of lesser environmental impact and water resource need. However, in an actual drought, other factors will also be considered in determining which drought permits should be applied for, such as ease of implementation and water resources contribution to areas of need. Therefore, the actual order of implementation of drought permit options in a drought may vary from this categorisation.

The EA is responsible for granting a drought permit and, in so doing, it must be satisfied that the benefits to supply outweigh the potential environmental impacts. The Secretary of State is responsible for granting drought orders and, in so doing, must be satisfied that the benefits outweigh the potential environmental, economic and other impacts.

5.8.2. Drought permit and order application process

There is no single criterion for specifying the lead time for preparing and submitting drought permit or order applications. The lead time required will depend upon the environmental sensitivity of the option being considered along with the preparatory monitoring needed to satisfy EA requirements. As a working rule our plan assumes a 3-month preparation period prior to the need for implementation of drought permits.

In preparation for and during a drought we will work closely with the EA in the process of drought permit applications which would, where possible, include pre-application discussions at least 2 weeks before the submission of any applications. We note that if this pre-application period is reduced it will mean that it is likely additional time during the determination will be required by the EA.

After a drought permit application has been submitted to the EA, they will determine it within either 12 calendar days of the final date of publication, or if a hearing is required, within 7 calendar days of

receipt of the hearing report, as per the DPG⁵. Not included in those time periods is the requirement to submit a pre-application at least two weeks before the formal submission date.

In most circumstances, and in accordance with the DPG, we would expect to apply for drought permits with a TUB already in place. The exception to this is winter Drought Permits where a TUB may not be an effective measure, in line with the EA DPG.

A list of potential venues for drought permit hearings and local newspapers in which each permit could be advertised has been included in Appendix C. This is a provisional list and would require confirmation review and update before application.

5.8.3. Changes to our drought permit options

Following the drought events in 2022 and 2025 we completed a review of all our drought permit options. This has resulted in moving three options to More before Level 4, meaning their potential implementation is moved to later in the event level (details included in Appendix C, section C7).

Additionally, we have included four new drought permit options, which are listed in Table 5.3 below, to increase our resilience to future droughts. The GUI_0004/GUI_0002/GUI_0003 option increases the peak abstraction capacity up to a peak of 31.7 MI/d in total across the three licences, increasing yield of up to 11 MI/d. The LON_0018 option involves the installation of additional treatment which would allow up to an additional 4 MI/d and would maintain the peak licence for the duration of the drought permit. The LON_0001 option involves the removal of the flow constraint, allowing abstraction to continue at 36 MI/d. The LON_0009 option comprises of a new abstraction into LON_0023 (previously licensed under our LON_0031 lower Lee licence).

EARs for these permit options are currently being developed and will be available to accompany our revised Draft Plan following consultation on the draft Plan. They will not be included in the March 2026 draft submission as they have only recently been identified as requiring an EAR. A full list of Drought Permit options can be found in Appendix C.

Table 5.3 New Drought Permit Options

Permit option	Water Resource Zone	Yield (MI/d)
GUI_0004/GUI_0002/GUI_0003	Guildford	Up to 11
LON_0018	London	Up to 4
LON_0001 (removal of flow constraint)	London	Up to 4
LON_0009	London	Up to 6

A further four permit options are likely to be included in our Drought Plan, once the AMP8 sustainability reductions have concluded (after 2030). These options are listed in Table 5.4 below.

⁵ [02 Drought permits and drought orders supplementary guidance FINAL.pdf](#)

Table 5.4 New Drought Permit Options (after 2030)

Permit option	Water Resource Zone
GUI_0005	Guildford
SWA_0004	SWA
KEN_0009	Kennet Valley
LON_0014	London

5.8.4. Negligible environmental impact drought permits

We have several Drought Permit options that have minor environmental impacts. In line with DPG we have included allowance for triggering these options at DEL2. This would depend on the specific water resource situation during a drought event, the DEL, time of year and the water resource benefits of implementing the option. These options would also be considered to offset the need for alternative drought permit options at DEL3 or to avoid reaching DEL4 or aid recovery following a drought.

Details of negligible impact drought permit options can be found in Appendix C.

5.8.5. Minor, Moderate and Major environmental impact Drought Permits

Drought permits with higher environmental impacts would generally be implemented at DEL 3. This is in line with DPG. The implementation for these options at DEL3 would depend on the specific water resource situation during a drought event, time of year and potential benefits of implementing the options. These options would also be considered to offset the need/requirement for alternative drought permit options at DEL3 or to avoid reaching DEL4 or aid recovery following a drought.

5.8.6. Drought Permit Yields

We have assessed the yield of our drought permits using the following methodology:

An assessment of yield provided by the groundwater drought permit options has been made using the standard UKWIR 'curve shifting' approach, as adopted by Thames Water for hindcasting groundwater SDO in our WRMP19. This relies on the anticipated change in groundwater levels at a catchment indicator borehole during the analysed drought, which is then translated into an impact on yield through curve shifting. Constraints on the groundwater source were varied to be representative of operation under the drought permit, for example suspension of a flow constraint. To assess drought permit yield under severe droughts, analysis of expected OBH groundwater levels was carried out using the stochastic weather sequences that support the WRSE regional plan and WRMP24. Droughts of severity of approximately 1 in 200 years and 1 in 500 years were identified within the stochastic record, and ten of each return period were selected to determine the impact of more severe droughts on groundwater source yields.

In assessing the effectiveness of surface water drought permits, we have represented the likely operation of drought permits within our water resources models. Since our water resources models contain hydrological models (and/or have flow as an input) we do not need to pre-determine drought permit yield and can instead rely on the combination of availability and abstraction limits/rules to provide constraints within our modelling. We are able to model the benefit that surface water drought permits bring either in terms of reduced time under different demand restrictions in given possible future drought events, or in terms of 'DO benefit'.

5.8.7. Exceptional shortage of rainfall

To obtain a drought permit or drought order it is a legal requirement to establish that there is an exceptional shortage of rainfall such that a serious deficiency of supplies of water in any area exists or is threatened. Our drought management methodology (Appendix F) sets out how reservoir storage, groundwater levels and river flows are all used to determine the onset of drought and how droughts are managed in each water resource zone. This information together with rainfall data will be used to demonstrate an exceptional shortage of rainfall and a serious deficiency of supplies. As stated in the Environment Agency guidance, (Hydrological guidance for the assessment of an Exceptional Shortage of Rain (EsoR) v2.2, 2025) every drought is different, therefore it is not possible to define the area/time period of data that will be used to justify an exceptional shortage of rainfall in advance. Full details of this methodology can be found in Appendix C.

5.8.8. Compensation

Where a Drought Order has been implemented, no compensation is payable except in the limited circumstances set out in Schedule 9 of the Water Resources Act 1991 and Condition Q of Thames Water's Instrument of Appointment.

Where any Drought Order authorises the use and occupation of land, the owners and occupiers of the land and any person interested in it, or injuriously affected by entry onto it, or its use or occupation, may claim for any loss or damage caused as a result of that entry as a result of that occupation or use.

Any claim for compensation must be made within the time limits set out in Schedule 9 by serving notice on Thames Water setting out the grounds of the claim and the amount claimed. Compensation disputes may be referred to the Upper Tribunal.

Additional compensation may be available in respect of an ordinary Drought Order (but not an Emergency Drought Order) by those affected by its particular provisions. For example, if the order prohibits or limits the taking of water from a specific source, the persons to whom that restriction applied may claim for loss or damage sustained as a result.

No compensation is payable for prohibitions on the use of water. However, where an order provides for supplies to be interrupted or cut off then daily payments must be made (£10 for domestic customers subject to a maximum equal to the previous years' charges and £50 for business customers, subject to a maximum of £500). The Appointee is not required to pay or credit (as the case may be) any amount under this condition if it can demonstrate that it took all reasonable steps to avoid the circumstances which gave rise to the making of the drought order as set out in Condition Q of Thames Water's Instrument of Appointment.

We will look to support any abstractors who may be adversely affected by supply side drought measures by working with them to look at ways of improving their water efficiency and facilitating finding of alternative sources of raw water.

An assessment of any potential derogation resulting from our drought permit options has been undertaken to determine the impact on downstream abstraction licence holders. This is required to understand the potential for the permit options to result in claims for compensation, this can be found in Appendix C.

6. Severe Drought measures

Our Drought Plan provides a framework for drought management to address droughts experienced in the historical record. We have also tested our plan against the impact of more severe droughts than those that have occurred in the historical record. We have done this principally by adopting a stochastic approach to assess the potential for more extreme drought occurring over an extended period of record and attempting to characterise the likelihood of such a drought through estimation of its return period. The protocols for each of the six WRZs have been tested for flexibility and robustness using stochastic analysis. In all cases, the protocols triggered the appropriate demand and supply measures sufficiently early to maximise their benefit and provide adequate lead times for subsequent more stringent measures, thereby averting Level 4 emergency measures. The early implementation of demand-side measures is a key feature of the methodology enabling the measures to be implemented in time to reduce the risk of Level 4.

In line with DPG, we have considered actions for extreme droughts, beyond Level 3, to ensure we would not cross into Level 4 emergency drought measures.

6.1. Customer Research into the Acceptability of Severe Drought Restrictions

Research was conducted on behalf of the six water companies that operate across the south east of England. These companies are Affinity Water, Portsmouth Water, Thames Water, SES Water, South East Water and Southern Water. Further, this research was supported by WRSE which represents a formal alliance of these companies.

The over-arching aim of this research was to understand and explore the views of customers from all six companies regarding their priorities and preference for both supply and demand side actions that could be taken in severe drought (Level 3b) conditions.

Underpinning this aim, there were three specific research objectives:

1. To understand the impact of severe drought (level 3b) on customers
2. To develop a framework for communication to customers across DELs
3. To ascertain actions taken beyond existing drought plans that would be acceptable to customers

This programme of research will allow for future drought communications to be tailored to customer priorities. Details of the findings can be found in Appendix L

6.2. Demand side measures

The demand-side measures that might be considered to further avert Level 4 emergency restrictions are:

- Further reduction of bulk supplies to other companies where possible
- Further reductions in water pressure
- Restricting supplies to large commercial users
- Enhanced leakage reduction
- Heightened, widespread communications campaign to request customers to use less water

6.2.1. Reductions in water pressure

The option of significant reductions in water pressure would potentially be implemented at DEL3 when there is a risk of reaching Level 4. This would need to be implemented without posing a

material risk to water quality and human health and so may be restricted to certain sections of the water network.

6.2.2. Restricting supplies to large commercial users

The potential reduction in supplies to large commercial users would be explored working closely with retailers.

6.2.3. Communications campaign to request customers to use less water

A campaign to request customers to make significant reductions down to very low levels of household use would be implemented if there was serious threat of reaching Level 4. This has been developed jointly with the WRSE water companies, taking into account international experience from, for example, Cape Town, and would involve a campaign that would outline ways that customers could reduce their demand to approximately 80 l/p/day and a further, more stringent set of reductions to reduce demand to 50 l/p/d. The campaign would provide indicative daily volumes for certain uses, e.g., showers, dishwashing, toilet flushes, food preparation, drinking, cooking, house cleaning, laundry, pets, teeth and hands.

6.2.4. Removal of exemptions

As drought severity increases, we would consider removal of any TUB/NEUB exemptions that are in place. We would remove the discretionary exemptions but retain the statutory health and safety-based exemptions. We would normally expect to remove the TUB exemptions at the point where a NEUB is imposed. We would remove NEUB exemptions if we are at risk of Level 4 and preparing Level 4 measures including preparation of an application for an EDO.

Further details of the measures that could be used to avoid Level 4 emergency drought order restrictions are included in Appendix L.

6.3. Supply side measures

The supply-side measures that might be considered to further avert Level 4 emergency restrictions are:

- Reduction in bulk supplies
- Alternative sources for non-potable use
- Restoration of sites that are out of service
- Drought Permits/Orders
- Road Tankering
- Back-pumping over Weirs or other structures:
- LON_0011 weirs (LON_0024, LON_0026 LON_0025 and LON_0027)
- Over pumping at KEN_0002 from the River Kennet to the Kennet and Avon canal
- Weirs downstream of SWOX_0006 and potentially pumping into the Seacourt and other sensitive watercourses

We have also considered some additional options but have not included them as potential supply side measures because they could not be feasibly deployed in the timescales of a drought.

We have undertaken assessments of these options and developed high-level delivery plans in the event of a severe drought in which these options were required to be implemented. The feasibility of a range of options were assessed including high-level lead times and costs where applicable and detail the practical considerations for delivery. This should allow Thames Water to initiate the

options at an appropriate time, however it must be noted that the options, and their respective delivery requirements, are subject to change as they become more developed, and uncertainty is reduced.

6.3.1. Further reduction of Bulk Supplies

The potential for reduction in provision of bulk supplies, beyond what is already agreed with neighbouring companies, would be explored under severe drought conditions and if a Drought Order application was made. This option would be considered with caution and under severe water resources situations, with proactive communication and involvement from affected companies. This is to create/allow for a mechanism in which exports can be reduced without threatening the collaborative relationship or risking litigation between TWUL and neighbouring companies.

In a severe drought it is important to retain the flexibility of allowing further discussions with other water companies. This would allow us to take account of the specific drought conditions and to use any operational flexibility that may be available at the time to help maintain customer supplies. Existing bulk supply arrangements are covered in Section 5.6. This states that in most cases we would not be able to maintain bulk supplies in the event of a severe drought; but in the case of our bulk supply to Essex and Suffolk we have reviewed our position and agreed the current optimum position in Section 5.6.2.

In the case of Affinity Water in a very severe drought if we were potentially approaching Level 4 (i.e., we had applied for Level 4 emergency drought order restrictions) we would expect to have suspended our bulk supplies to as outlined in Table 5.2 in the case of each of the bulk supplies at Fortis Green and Iver, and Perivale and Cockfosters or they would be suspended at this stage.

Given the uncertainties associated with this option we have not included it within our modelling.

6.3.2. Utilisation of alternative sources of supply for non-potable use

Potential non-potable options would be explored. This would include the use of dewatering discharges as a replacement for non-potable use which could include, quarry or excavation dewatering discharges. The non-potable water could potentially be used to provide irrigation water for high value recreational use (e.g., golf course watering) where restrictions on use would have significant economic impact. This option would be used, if feasible, to potentially mitigate the restrictions under a NEUB, where restricting the use of potable water for watering by businesses would have significant economic impact.

We would also explore the setting up of non-potable water refill points for businesses on a community scale, e.g., for councils for parks watering; this could potentially be provided through the re-use of treated STW effluent.

Many of the options that might be available for use in a drought are likely to be temporary in nature and so it is not possible to specify what they are in advance, but options would be investigated if a drought occurred. The lead time for implementation of this option is dependent on the source of water. Water made available from dewatering operations could be made available in approximately 18-24 weeks. Water made available from reuse of final effluent from a STW would take longer to bring online and would be dependent on the restrictions in use of recycled effluent for purposes such a parks irrigation. Further work is required to confirm the potential for use of STW effluent and the associated restrictions related to water quality risk.

The trigger for initiating work on this option is Level 1 on the LTCD, depending on the potential severity of the drought with the risk indicator showing a potentially very severe drought with risk of DEL3/4 when analysed in the preceding winter. Water made available from reuse of final effluent from a STW would take longer to bring online and would be dependent on the restrictions in use of recycled effluent for purposes such as parks irrigation. Further work is required to confirm the potential for use of STW effluent and the associated restrictions related to water quality risk. The trigger for working on this option would be Level 1 on the LTCD depending on the potential severity of the drought with the risk indicator showing a potentially very severe drought with risk of DEL3/4 when analysed in the preceding winter. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.3. Re-commissioning of out of service WTW Sites

The More Before Four options include the re-commissioning of sites that are out of service at the time of a drought event. The sites included within this will change through time and therefore a full list is not specified in detail. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.4. Back-pumping over LON_0011 Weirs

We have included a drought permit option for the LON_0011 which may include an allowance for the back-pumping of water over LON_0024, LON_0026, LON_0025 and LON_0027 during a severe drought. Back pumping is the process of pumping water over a weir to increase the water levels in the reach upstream of the existing intakes. The proposed back pumping schemes focus on areas where river abstraction is inhibited by low flow and water level during drought conditions.

This back pumping option will require simultaneous back-pumping at the weirs to ensure they are working in tandem to effectively pump water from each reach of river to above LON_0024 to be abstracted at LON_0010, LON_0016 and/or SWA_0002 depending on how far upstream pumping is extended beyond LON_0024.

The minimum lead time for implementation of this option is approximately 16 weeks. This is because we would need to apply for drought permits, and source and install temporary pumps to facilitate the works. The trigger for working on this option would be Level 1 on the LTCD depending on the potential severity of the drought with the risk indicator showing a potentially very severe drought with risk of DEL3/4 when analysed in the preceding winter or early spring.

6.3.5. Back pumping over weirs downstream of SWOX_0006

The back-pumping project at SWOX_0006 has been extensively discussed with the Environment Agency as an option to provide greater abstraction potential at SWOX_0006 during very low levels in the river Thames. The project involves the back pumping of river water over SWOX_0008 and possibly also SWOX_0014 and SWOX_0013, to enable sufficient flow for abstraction at the existing SWOX_0006 water intake whilst maintaining flows down the Seacourt Stream and other sensitive distributaries. The feasibility of this option is being reviewed by Thames Water using river hydraulic modelling and the findings will be included in the revised draft Drought Plan. Prior to the outcome of the modelling to assess the feasibility of the modelling we have included an allowance for pumping into the key sensitive distributaries where this would be needed in the event that a Drought Permit was implemented.

6.3.6. Back-pumping from the River Kennet into the Kennet & Avon canal

To maintain the necessary level of abstraction at KEN_0002 intake and to maintain flow through the fish pass at KEN_0008 during drought conditions, the over-pumping of water from the River Kennet into the Kennet & Avon canal could be required.

The project involves similar back pumping technology as at SWOX_0006 and the LON_0011 Weirs, but on a smaller scale. The project involves the minor construction of a pumping facility within the existing site boundary and pipework to the river Kennet. The lead time is approximately 16-24 weeks for construction of the infrastructure. This option would be implemented either through a transfer licence or a drought permit would be required to enable this to take place.

6.3.7. SWOX_0003 Drought Permit

The SWOX_0003 option would give up to an additional 5 MI/d benefit but would likely require additional treatment capacity. This would extend the likely time required to bring this option online. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.8. SWOX_0012 Drought Permit

SWOX_0012 are located near to a decommissioned WTW, used in emergencies only, that have the potential to provide water resource benefit in a very severe drought. The boreholes have no existing infrastructure nor pumps and therefore significant investment would be required to bring the option online. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.9. KEN_0001

KEN_0001 would require substantial re-commissioning. We have retained the EAR for KEN_0001 prepared for previous drought plan updates, and this would be used if we needed to use this option in a severe drought. The source would also require nitrate treatment and therefore significant investment would be required to bring the option online. Long lead times would be required to achieve this. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.10. SWOX_0004

In a very severe drought, we would consider the recommissioning of SWOX_0004. This option could only be pursued if the current high nitrate levels can be addressed through temporary treatment. Any use of the SWOX_0004 source, in a very severe drought would mean we would need a Drought Permit and so we have retained the EAR previously prepared for SWOX_0004. This option would also require the temporary installation of nitrate treatment equipment and therefore significant investment would be required to bring the option online and the time to implement the option would be significant. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.11. LON_0008

In a very severe drought we would consider increasing abstraction from our boreholes at LON_0008 (by 6.64MI/d). This would require the use of a Drought Permit and would also require additional treatment capacity to be installed on site.

6.3.12. LON_0009

LON_0009 was previously licensed under the LON_0031 surface water licence. This was re-issued in 2026 and the abstraction point removed. In a severe drought we would consider reinstating this source to give a potential benefit of up to 6 Ml/d, requiring the use of a Drought Permit. Given the uncertainties associated with this option we have not included it within our modelling.

6.3.13. LON_0004

The LON_0004 scheme is not currently feasible because of the high levels of nitrate in the water that would be made available. We do not have a treatment or a blending option available to enable this water to be used for public supply during a drought.

The reuse of LON_0004 effluent was considered/tested during the 1976 drought. This scheme would effectively implement the option for reuse of LON_0004 effluent but on a temporary basis for extreme drought events. This option would involve the transfer of a proportion of the LON_0004 effluent to a point further up the River Lee system, for discharge upstream of our Lee intakes, allowing for increased abstraction into the Lee Valley reservoirs. The lead time for implementation of this option is at least 18-24 weeks assuming the permanent infrastructure has been delivered. The trigger for working on this option would be Level 1 on the LTCD depending on the potential severity of the drought with the risk indicator showing a potentially very severe drought with risk of DEL3/4 when analysed in the preceding winter or early spring.

LON_0004 re-use was explored and partially developed with assistance from Mott MacDonald in 2022/2023; however, there are many barriers and limiting factors, namely a prohibitive risk of breaching nitrate levels for drinking water supply. However, work continues to find options to deliver this solution in the future due to the potential significant benefits that would be gained from the added supply capacity. Therefore, LON_0004 is considered a More before Level 4 option for the future but is not considered feasible in the short-term (over the duration of this Drought Plan) and has not been included within our modelling.

6.4. Emergency plan

Our Drought Plan is required to set out plans for measures to address drought risk to a severity up to level 4 but is not required to set out plans for dealing with a Level 4 emergency. We would consider initiating preparation for Level 4 actions once Level 3 has been reached. This would be dependent on the water resources position at the time and the seriousness of the drought event.

In practice there is a limited number of measures for use in a Level 4 drought emergency, and these would be enabled through the implementation of an EDO. The principal type of measures to reduce demand for water will be to significantly reduce pressures and to implement rota cuts. The use of measures such as tankering and standpipes would be limited to hotspots with specific pressures. Thames Water has undertaken preliminary work to identify the most efficient way to minimise demand in a severe situation through optimisation and minimisation of pressures in specific areas.

7. Communications plan

7.1. Purpose of our communications plan

Our communications plan sets out how we will provide timely, accurate, and accessible information before, during, and after a drought. It ensures customers, regulators, retailers, NAVs, and other stakeholders understand the drought situation, the actions we are taking, and what we need them to do. The plan supports our wider drought management approach by promoting water efficiency, explaining restrictions, and maintaining customer confidence throughout the event.

7.2. Objectives

The aim of our drought communications plan is to keep people informed and encourage responsible water use, helping to delay or reduce the need for further restrictions. Communications also ensure transparency with regulators, facilitate regional coordination, and provide clarity on our operational decisions. As drought severity escalates, our messaging becomes more targeted and frequent, supporting demand reduction and enabling consistency across the water sector.

The objectives of our drought communication plan are:

- To keep the public, stakeholders, and regulators fully aware of how the drought is developing, the potential for drought measures to be required and the impacts of planned measures with clear consideration for regionalised and local communications depending on the nature of a drought or supply/demand event
- To provide customer education simply and clearly on how to prepare for, adapt to and mitigate water use restrictions, such as water saving tips/advice
- To promote and enhance ongoing water-efficiency messages through a multi-channel approach, thereby optimising the reach to our customers

To achieve these objectives, and as all droughts are different, the communication plan will be adapted to suit the challenges for a given drought year. This plan will:

- Define the nature, timing and targeting of our external and internal communications.
- Identify key stakeholder groups with individual communication needs according to the impact of drought measures thereby allowing regionalised local communications, which is more agile.
- Maintain that Thames Water engages all relevant stakeholders early and proactively (including Local Resilience Forums as appropriate).
- Describe all external communications activities and how they will be integrated with the overall Drought Plan.
- Set out how communications would be undertaken before, during and after the imposition of a TUB and other demand management measures.
- Take into account learning from activities that were effective during previous droughts and hot-dry weather events including, 2022 and 2025.
- Take into account learning from water efficiency customer research and customer engagement trials to inform communication and engagement methods.

7.3. Incorporating learning points from previous droughts and customer research

7.3.1. Learning from recent droughts (2025, 2022 and 2011/12)

Research carried out by WRSE in February 2026 showed that TV adverts were the most popular way to share information with customers about how they can reduce water use during severe droughts, with 68% of participants selecting this option. Similar research carried out in September 2022 showed that TV and radio are the main sources through which people learn about drought, and that the EA, scientists and water companies are the most trusted messengers⁶. Two-thirds of customers who received water-saving advice said it helped them reduce use, and images, such as weather maps or dried reservoirs, were especially effective in prompting action. Customers preferred clear information over simple slogans and were more supportive of non-coercive measures than restrictions.

Earlier research from 2011 on TUBs and NEUBs also remains relevant and continues to inform how we design drought messaging and exemption communications (see Appendix L for further detail).

7.3.2. Joint communications with WRSE

WRSE and other regional groups provide the framework for coordinated drought planning across company boundaries, ensuring that water companies share information on hydrological conditions, risks, and potential impacts at a regional scale. They help develop a common regional understanding of drought severity, support alignment of triggers and actions where appropriate, and identify cross-boundary issues that individual companies may not see in isolation.

During a drought, regional groups act as a coordination and communication hub, helping companies maintain consistent messaging (wherever possible), understand regional pressures, and escalate issues collectively to the Environment Agency or Defra. They do not replace company-level decision-making but strengthen it by ensuring that actions are regionally coherent and based on shared evidence.

Further detail of how WRSE plan to support water companies in the south east region, including Thames Water, during prolonged dry weather and dry events is summarised in the Statement of Intent provided in Appendix Q.

7.4. Who we communicate with during a drought event

To ensure our communications are effective, we tailor messages to the full range of audiences affected by drought. This includes domestic customers, vulnerable customers on the Priority Services Register (PSR), business users, retailers, NAVs, environmental groups, local authorities, resilience forums, emergency services, and colleagues across the business. Keeping stakeholders such as the Environment Agency, Defra, Ofwat, the DWI, MPs, the GLA, Natural England, WRSE, the Consumer Council for Water (CCW), and national incident structures well informed enables early alignment, coordinated messaging, and consistent advice to customers. A list of customer and stakeholder groups is provided in Table 7.1.

⁶ Centre for Climate Change and Social Transformations, and the University of Bath (2022) *'Drought and related restrictions as a 'movement of change' to trigger water-saving behaviours'*;

During normal conditions we provide seasonal updates, and as drought risk increases, the frequency and specificity of our communications can also increase, supported by newsletters, briefings, and technical or director-level meetings where needed.

Table 7.1 Summary of customer and stakeholder groups

Audience Type	Groups Included
Customers	<ul style="list-style-type: none"> • Domestic customers • Domestic customers in vulnerable circumstances (Priority Services Register (PSR)) • Business customers (e.g., golf courses or swimming pools) • Retailers • NAVs • Government • Media • Local authorities • Local resilience forums and emergency services (including fire services, hospitals and prisons. • Groups particularly affected by restrictions, (e.g., allotment owners, turf growers) • Environmental NGOs • Colleagues – frontline, site and office based
Stakeholders	<ul style="list-style-type: none"> • The Environment Agency (EA) • DEFRA (and COBRA in severe drought) • Ofwat • The Drinking Water Inspectorate (DWI) • Members of Parliament and Local Authority Leaders • The Greater London Authority (GLA) • Local Resilience Forums (LRFs) • Natural England (NE) • The National Drought Group (NDG) • Water Resources in the South-East (WRSE) • Retailers • New Appointments and Variations (NAVs) • The Consumer Council for Water (CCW) • National Incident Management (NIM) and Platinum Incident Management (PIM) • Support Services (such as emergency services and local authorities, although much of this liaison will be conducted via the LRFs)

7.5. How we communicate throughout a drought event

7.5.1. How we communicate during a TUB

Our TUB implementation plans are set out in Section 4.4 and Appendix L. Effective communication is essential, and lessons from the 2022 and 2025 droughts have helped us refine our approach to communications, summarised in Table 7.2. We used experience from 2022 in our decision making and implementation of the TUB in 2025. This resulted in us moving quickly to implement a TUB in 2025 in SWOX, which was based on our DEL assessment and recognition that early implementation of a TUB is beneficial in managing risk of drought escalation later in the summer. We were able to implement the TUB more quickly as a result of the recent experience, which meant key staff were familiar with the implementation process. The readiness of the Customer Centre to deal with the increased level of queries that are received as a result of TUB imposition was key to this.

Table 7.2 Summary of communications occurring during each phase of a TUB

Phase of a TUB	Actions
TUB implementation	<ul style="list-style-type: none"> • Multi-channel radio, email, SMS, social and print communications. • Clear hosepipe restriction messaging, including exemptions for vulnerable customers. • Tailored stakeholder updates to support aligned messaging.
Active TUB period	<ul style="list-style-type: none"> • Frequent updates across social media, email, newsletters and radio. • Visual content (e.g., reservoir graphics) to explain the situation. • Educational messages on leakage, water saving and operations. • Regular stakeholder newsletters with storage and rainfall updates.
End of TUB communications	<ul style="list-style-type: none"> • Coordinated multi channel announcement of TUB lifting. • Notifications to customers and stakeholders explaining recovery and next steps.
Learnings and forward look	<ul style="list-style-type: none"> • Consistent messaging reduces demand even during heatwaves. • Avoid over-use of direct email to prevent fatigue. • Stakeholder newsletters remain useful year-round. • Weekly water-resources updates support accurate comms. • A dedicated drought/weather communications resource is planned.

7.5.2. How we communicate with customers and stakeholders

During drought we must keep customers and stakeholders updated on water availability, what actions they can take, and what we are doing. Our Drought Plan is available on our website as reference for all customers and stakeholders and a paper copy can be made available on request at Clearwater Court. As all droughts are different, communications need to be agile, responsive to changing conditions, and tailored to affected regions.

Figure 7.1 summarises our communications as we go through our DEL levels. This starts with DEL0, which is our year-round “always-on” water efficiency campaign. As drought risk increases, messaging becomes stronger, more frequent, and uses a wider range of channels. At DEL1, we activate a media/water efficiency campaign using TV/radio adverts, media coverage, social media,

and direct customer communications (email, SMS, leaflets). Stakeholder newsletters also begin at DEL1. At DEL2, the campaign intensifies with more frequent messaging and additional channels such as interviews.

Higher DELs also trigger drought measures (e.g., TUBs and strategic scheme deployment), each requiring timely and clear communication. Early, consistent messaging can support demand reduction and customer understanding. Communications focus on four areas:

- Evidence on the water resources situation and potential future restrictions
- Proactive and practical guidance on reducing water use
- Information on Thames Water’s contribution to reducing the impacts of the drought
- Environmental consequences of not reducing demand

The language and format (e.g., visuals, alternative terms like “water availability”) are chosen to support understanding. This approach has been strengthened by lessons learned in 2022 and 2025, where visual content performed strongly.

All drought communications are delivered through the Public Information Office (PIO) Tower. The PIO lead works within the Drought Incident Structure, coordinating media teams and aligning our messaging with WRSE companies and the National Drought Communications Group.

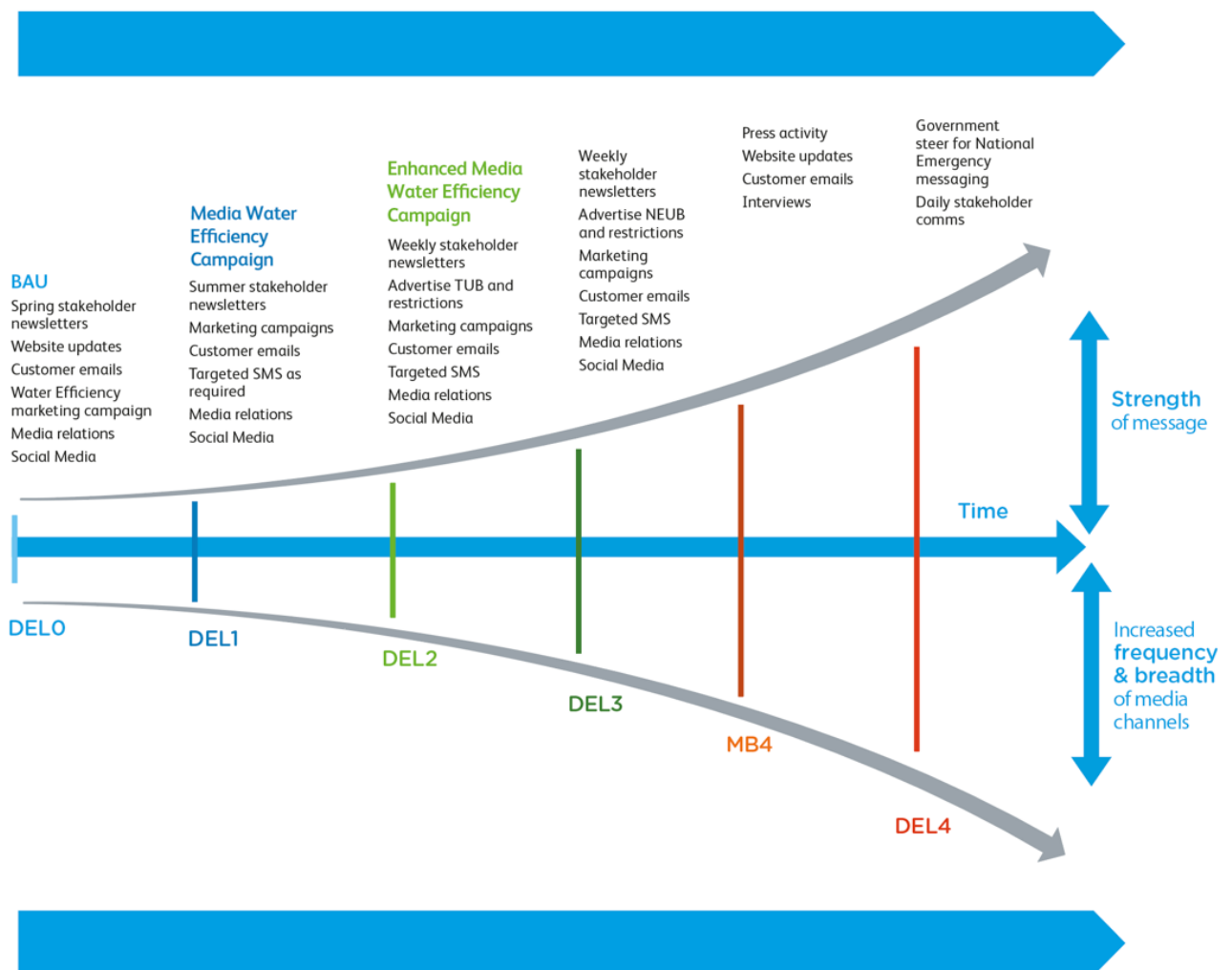


Figure 7.1 Summary of our communications as we progress through Drought Event Levels

7.5.3. How we communicate with the Environment Agency

Our principal stakeholder during drought is the Environment Agency. Therefore, we have a comprehensive plan for communication with the EA in the lead up to drought with escalation as drought severity increases. During BAU (DEL0) we communicate our water resources situation to the EA on a monthly basis. This focuses on the current water resources situation and the outlook based on rainfall, groundwater levels, soil moisture deficit, reservoir levels and river flows. We use this information to set our Drought Event Level, which we also inform the EA on each month. During the onset of a dry weather event we increase the frequency of updates to the EA, moving to fortnightly as we move into DEL1 and DEL2. At DEL2 we escalate the communications with the EA such that a director-level call would also be carried out monthly between TW and the EA. If we were to move into DEL3, these updates would become weekly. As well as communicating the water resources position, we update on drought measures (including, for example, drought permit applications) and on our ongoing customer communications and on progress on other measures, for example leakage and water efficiency campaigns.

In 2025 we implemented regular 'Drought Preparedness' meetings with senior staff in the EA and Thames Water. These meetings were well received and will form the basis of future drought engagement. We established targeted meetings on key topics such as river management and abstraction. We set up a Drought Permits working group with local EA staff, the National Permitting Service (NPS), Natural England, and our consultants to efficiently coordinate the development of our Drought Permit applications.

7.5.4. How we communicate with New Appointments and Variations (NAVs) and Retailers

Licensed retailers buy water and wastewater services from us and provide billing, meter reading and customer service to non-household customers, while Thames Water continues to manage all operational aspects. NAVs provide water and/or wastewater services in areas previously served by Thames Water.

We keep these stakeholders informed of our water resource position year-round through regular updates, increasing the frequency as drought risk grows. During the 2025 drought this included fortnightly updates, quarterly webinars, stakeholder newsletters, Water Situation Reports, RWG drought calls, advance copies of household messaging, and updates via MOSL.

Feedback from the 2025 drought showed that NAVs and retailers were broadly satisfied with our communications, though they would welcome more advance notice. We will ensure consistent wholesaler messaging, align NHH and HH communications where appropriate, coordinate with any household campaigns, and follow emerging RWG Good Practice to support clear and effective retailer communications.

Our communications between NAVs and retailers are aligned, however it is important to note that there are different legal considerations for NAVs and retailers during drought. NAVs are required to produce their own statutory drought plans and WRMPs, whereas retailers are not and instead provide information to the wholesalers and carry out agreed actions.

7.5.5. How we communicate with customers in vulnerable circumstances

Under the Equality Act 2010, we must make reasonable adjustments for customers with disabilities, and our PSR provides tailored communications and additional support where needed. Customers are prioritised by PSR tier during supply interruptions or restrictions, with Tiers 1 and 2 receiving the highest priority and Tier 3 supported where possible. Communications are provided in customers'

preferred formats, such as braille, large print or coloured backgrounds, and exemptions during a TUB are communicated directly. If alternative water is required during severe restrictions (e.g., DEL4), prioritisation will follow PSR tiers to ensure support reaches those who need it most.

7.6. Effectiveness of communications

We assess the effectiveness of our drought communications by gathering feedback from customers and stakeholders through our website, customer centres, and social media channels. We carry out surveys during drought events to understand how well messages are received and use these insights to improve future communications. We also monitor media coverage, analysing reach and sentiment, and review performance of paid advertising, social media and website traffic. This includes tracking use of online tools such as our water-use calculator. Finally, we track changes in overall demand to understand how communications influence water-saving behaviour.

Following previous drought events such as 2022, communication benefits and TUB impacts have typically been analysed after the summer or once the TUB was removed. However more recently, the increasing penetration of smart water meters is enabling a faster and more accurate view of consumption volumes and changes. In 2025, we were able to monitor changes in household customer demand patterns daily. This immediate and frequent insight helps us to develop more accurate and bespoke communication messaging to our customer base that can be implemented and deliver benefits during the drought event. It also allowed models and data analysis approaches to be built into dashboards, providing early insight to decision makers and reporting back to regulators.

Due to the accessibility and analysis of smart meter data, we were able to identify that maximum daily temperature and household type, specifically those with outdoor garden space, are the most significant variables influencing peak demand changes. We have been able to quantify the differences and changes in demand that were experienced across WRZs inside and outside the TUB restrictions. This insight will help us develop effective communication plans and content for future summer and drought events. This insight has also been shared with policy makers, regulators and other water companies.

8. Testing our Drought Plan

8.1. Purpose of testing

The Environment Agency requires water companies to test their Drought Plan against events within the historical record and, as a minimum, to the level included within our WRMP baseline. For this Drought Plan this equates to droughts of approximately 1 in 100 year return period. We have also considered a drought that equates to approximately a 1 in 200 year drought which is beyond the historical record to see how the system performs. An assessment for a 1 in 500 year drought is shown in Appendix E.

During severe droughts such as these there is inherent uncertainty within the modelling results and related to how our system would perform. This was demonstrated during the recent 2022 and 2025 droughts. As we cannot test how our system would perform in severe drought conditions beyond that seen in the historical record with full confidence, we have therefore accounted for this uncertainty in a risk allowance. We have assessed a range of risk allowances to understand how sensitive our plan is to changes in supply or demand measures, or if measures are not as effective as modelled. These assessments are detailed in Appendix E. We tested:

- Whether drought triggers prompt the right actions at the right time.
- Whether the timing of demand-side (TUBs, NEUBs, MB4) and supply-side (permits, strategic schemes) measures were optimal to mitigate the impacts of severe droughts.
- Whether severe droughts could push the system into Level 4 emergency measures such as rota cuts.

This section evaluates how well our drought triggers perform under drought conditions more severe than any on record. This assessment uses stochastic droughts, historical analogues, and WRZ-specific testing to confirm that the plan provides sufficient lead time for interventions, maintains supplies, and avoids Level 4 emergency restrictions. Testing uses the WRMP24 stochastic dataset, representing 19,200 years of synthetic hydrology to create libraries of extreme drought sequences. The results of this analysis are summarised in this Section, with further detail provided in Appendix E.

8.2. Modelling approach

Our approach applies current day demand conditions, detailed water resources modelling was completed for London and SWOX, with time series analysis used for other WRZs. All analysis incorporates drought measures based on DEL levels, with assumptions aligned to how measures could be used operationally.

Key modelling inputs include deployable output, groundwater behaviour, strategic schemes (e.g., LON_0013, LON_0020), and drought permit rules.

8.3. London WRZ

For the 1 in 200 year drought tested, the modelling results show that TUBs, NEUBs, and drought permits would be triggered for several months. In this scenario we would not cross Level 4. A sample plot is provided in Figure 8.1, with a description of the drought permit strategies tested summarised in Table 8.1.

The analysis supports the drought triggers used in London. Preparing drought permit applications at Level 2 and implementing at Level 3 allows sufficient lead time before permits are required (around three weeks after crossing the Level 3 curve). Storage scenarios show no difference between preparing at Level 1 versus Level 2, demonstrating adequacy of the Level 2 trigger.

Based on our learning from recent droughts in 2022 and 2025 there is uncertainty associated with both the modelling results and how our system would operate under these conditions. This includes uncertainty associated with the effectiveness of demand saving measures and uncertainty regarding the treatability of the water within our reservoirs when levels are drawn down to low levels. The sensitivity testing highlights that reductions in supply capability, whether from asset performance, hydrological variability, or operational constraints, increases risk impact on system performance. Under higher risk allowances, Drought Permits become essential, and in the most extreme cases even these measures cannot fully prevent crossing Level 4. This reinforces the importance of timely action, robust contingency planning, and maintaining flexibility across both supply and demand side measures. To further understand the potential impacts of these risks we have tested a range of risk allowances and the results are shown in Appendix E.

Table 8.1 Description of drought permit strategies tested

Scenario name	Description
No Drought Permits	Demand savings on. No drought permits are used in this scenario.
Drought Permits (No Delay)	Demand savings on. Drought permits are implemented immediately when storage crosses the corresponding reservoir control curves (see section 6.8). No preparation or implementation delays are included. "More Before Level 4" measures are not triggered.
Drought Permits + More Before 4 (No Delay)	Demand savings on. Drought permits are implemented immediately when storage crosses the corresponding reservoir control curves. "More Before Level 4" measures are included in this scenario. No preparation or implementation delays are included.
Drought Permits + More Before 4 (Delay)	Demand savings on. Drought permits and "More Before Level 4" measures are implemented when the reservoir storage crosses the corresponding reservoir control curves. There is an 8 week preparation delay from crossing the time at which the Level 1 curve is crossed, and a further 3 week implementation delay once the Level 3 curve is crossed.

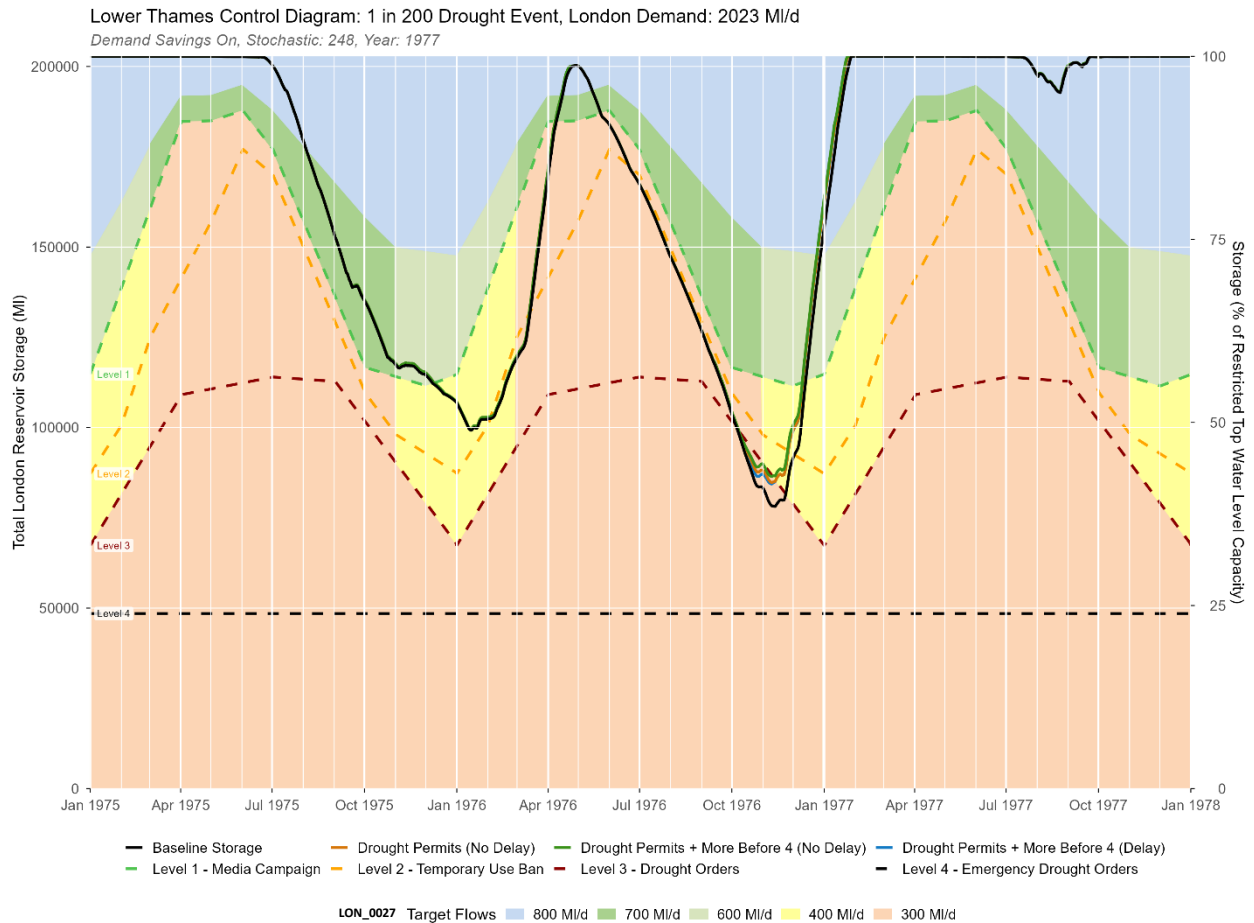


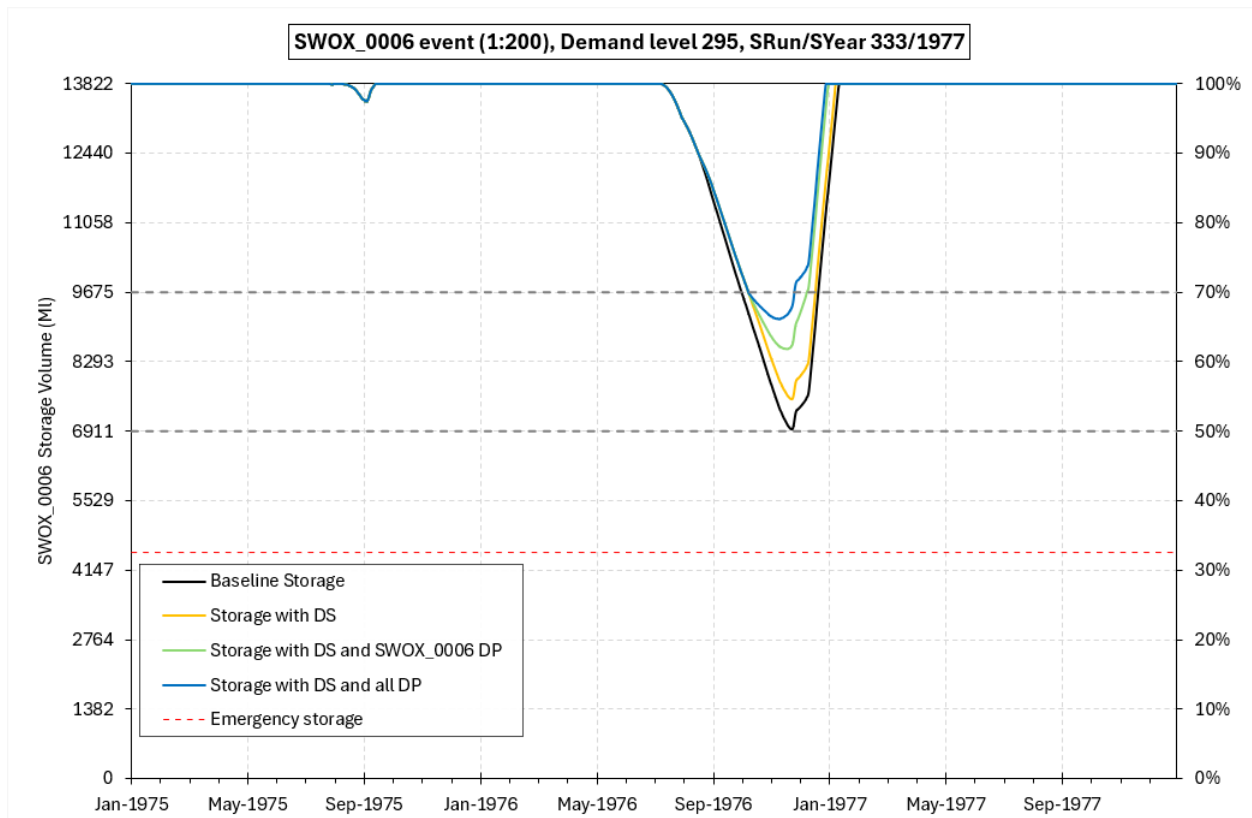
Figure 8.1 Impact of a 1 in 200 year Extreme Drought on London Reservoir Storage under Different Drought Permit Strategies

This example illustrates only one way a drought might evolve, so the timings presented are indicative rather than definitive.

8.4. SWOX WRZ results

For the 1 in 200 drought tested, the SWOX system avoids crossing Level 4 using the DEL methodology. Due to the flashy nature of the catchment, prompt implementation of demand side and supply side measures is required to reduce the reliance on prolonged drought permits, and their associated environmental impacts. The results of a 1 in 200 drought on SWOX_0006 reservoir storage are shown in Figure 8.2. As for London during severe drought assessments there is inherent uncertainty, we have therefore tested a range of risk allowances in Appendix E, this includes scenarios to test the reduced effectiveness of demand saving measures.

The sensitivity testing highlights that reductions in supply capability, whether from asset performance, hydrological variability, or operational constraints would increase reliance on drought permits or orders. Such extended use could cause environmental harm, underscoring the need for additional resource development to protect the environment during very severe droughts.



This example illustrates only one way a drought might evolve, so the timings presented are indicative rather than definitive.

Figure 8.2 Impact of a 1 in 200 year Extreme Drought on SWOX_0006 Reservoir in SWOX WRZ

8.5. Kennet Valley WRZ results

Flows at Theale during the 1976 drought are lower than even 1 in 200 and 1 in 500 year stochastic events. This was found to be due to overprediction of extreme low flows (>Q99) in the hydrological models, which is not an uncommon limitation. In 1976 the KEN_0007 flow controls in combination with the KEN_0006 operation supported KEN_0002 WTW’s licensed 72.7 MI/d abstraction.

Drought permits may be required immediately after Gate 2 closure on the KEN_0007, meaning that prompt submission of applications 10 weeks earlier is required. While severe catchment-wide droughts (e.g. 1976) would trigger restrictions based on London storage, more localised extreme droughts could require Kennet-specific actions; although unlikely, recent analysis shows such scenarios are plausible.

8.6. Guildford WRZ results

GUI_0006 has been tested against a 1 in 500 year scenario. TUBs would not have been required until late July in 1976, compared to early April if using the London triggers alone. Groundwater level analysis indicates that no sources in Guildford WRZ are materially vulnerable to increased drought severity. The extreme 1976 test scenario demonstrates that the Guildford triggers, operating alongside the London triggers, provide sufficient timing to implement restrictions early, with the GUI_0006 source remaining robust due to sustained Wey and Tillingbourne flows and the ability to forecast the recession in these flows early in a drought.

8.7. Slough, Wycombe, and Aylesbury WRZ and Henley WRZ results

These zones rely heavily on Chiltern Chalk groundwater. The drought triggers for the SWA and Henley WRZs were tested against the 1976 drought and an extended 1976 scenario, selected because Chiltern Chalk groundwater levels reached record lows.

In the extended 1976 scenario, drought permits would be triggered in late July by Stonor Park groundwater levels. Drought permits would be implemented by December. In the historical 1976 scenario levels did not fall low enough to require drought permits. Stochastic testing shows small peak deployable output (PDO) reductions of up to 1.3 Ml/d in the 1 in 500 event. The extended 1976 scenario could be managed with demand reductions and drought permits.

8.8. Conclusions

The effectiveness of our Drought Plan has been tested using stochastically generated drought sequences representing conditions more severe than those seen in the historical record. The assessment demonstrates that using our DEL methodology and drought triggers for all six WRZs ensure measures are implemented early enough to maximise benefit, provide adequate lead times for escalation, and avert Level 4 emergency measures.

For London, stochastic testing shows the system avoids crossing Level 4 in a 1 in 200 drought, provided drought permits and orders are implemented promptly. However, extended reliance on these measures would result in significant environmental impact, highlighting the need for the further water resource development included in our WRMP. SWOX shows similar results, with timely drought permit implementation critical to maintaining supply at SWOX_0006, particularly under intense events such as 1975–76. There is uncertainty associated with assessments of such severe drought conditions and therefore a range of risk allowances have been assessed in Appendix E.

Kennet Valley supply is underpinned by operation of the KEN_0006, while testing of the Kennet Valley, Guildford, SWA and Henley WRZs indicates that surface water and groundwater sources maintain sufficient yield to avoid the risk of level 4 measures for 1 in 200 droughts under the current climate.

9. Environmental Assessment of Drought Permit Options

We have 31 drought permit options in our Drought Plan. In accordance with the Environment Agency's 2025 DPG, specifically the 'Environmental Assessment for Water Company Drought Plans', environmental assessments are required to support these options.

The Environmental Assessments Reports provide an assessment of the potential environmental effects of implementing a drought permit or order, over and above those conditions that already exist under "normal", conditions, with the onset of a natural drought. We endeavour to ensure that all of our EARs are as application ready as possible. However, in practice it is not possible to always maintain EARs as application ready, because updates will be required to include recent baseline information available and to set out the details related to the drought that the application is required for. Therefore, a certain amount of work will always be required on "application-ready" EARs before they can be used in practice. We have agreed a programme to update our EAR with the Environment Agency, based on prioritisation.

Following a review of the 2025 drought event we have identified four new drought permit options, as per table 10 in Section 5.8.3, to increase our resilience to future droughts. These new drought permit options do not yet have EARs but will be produced between the development of the draft and final Drought Plan. The programme is detailed in Appendix C. The updated EARs have been prepared in accordance with Government regulations and good practice guidance, including the EA Drought Plan Guideline updated in 2025. We have liaised with the EA to ensure they are satisfied with the approach adopted for the drought permit assessment methodology and outcomes of the EARs reports.

Since our last Drought Plan update we have updated our environmental assessments to include assessments of both summer drought permits (for example starting in April) and winter drought permits (for example starting in September). As discussed in Section 5.8.3 (new permit options), following the drought events in 2022 and 2025 we completed a review of all our permit options, which resulted in moving four drought permit options to More before Level 4.

9.1. Environmental overview

The approach taken to this assessment and the methodologies used have been developed and agreed in consultation with the Environment Agency and Natural England. The assessments identify the scale of likely impact from the Drought Permit options, over and above the baseline of natural drought conditions, these are categorised as negligible, minor, moderate or major. Alongside the environmental assessments, environmental monitoring plans (EMP) and mitigation measures have been developed for each supply-side option included in the Drought Plan where the assessment has shown them to have moderate or major impacts.

The environmental assessment is comprised of the following components:

- Assessment of likely changes to flow, river habitats and water quality due to drought permit implementation
- Identification of key environmental receptors (e.g., river habitats, water quality, ecology, landscape, navigation) sensitive to changes, and the likely impact on these receptors
- Identification of measures that may be required to avoid, reduce or mitigate impacts on sensitive receptors
- Recommendations for baseline, in-drought and post-drought order monitoring requirements

9.2. How we assess environmental impacts

The environmental assessment is used to demonstrate an understanding of the impact on the environment of implementing the drought permit options. The approach taken to completing the environmental assessment is illustrated in Figure 9.1.

In line with the DPG, we have produced an EMP where required for our drought options. This EMP includes details of the monitoring required, including:

- Baseline monitoring – to help understand the nature of the environment under ‘normal’ circumstances, along with establishing the sensitivity of the environment to changes in flow and any especially sensitive features of interest. This allows comparison between the environment under ‘normal’ conditions against observed environmental datasets during and after a drought. Onset and in-drought monitoring – to help assess the immediate environmental impacts of drought action during a drought along with informing choices and implementation of mitigation measures
- Post-drought (recovery) monitoring – to help assess any longer-term environmental impacts of, or recovery from, the implementation of drought measures

9.3. Mitigation

Within the EMP we have also set out a mitigation plan following the assessments of potential impacts associated with the drought permit option. These assessments confirm the receptors requiring consideration of mitigation, as well as appropriate monitoring triggering mitigation.

The mitigation plan identifies:

- Pre-drought mitigation actions: actions implemented before or whilst the drought is developing to reduce the likely environmental impact of the permit
- In-drought mitigation actions: actions implemented during a drought to minimise the environmental impact of the permit
- Post-drought mitigation actions: actions implemented following a drought to reduce any environmental impacts of the permit

Both the monitoring and mitigation recommendations have been developed through agreement with the Environment Agency. Both the proposed monitoring and mitigation is set out in Appendix C of each drought permit EAR.

9.4. Habitat Regulations Assessment Screening

Impacts of permits on environmental receptors are assessed and where a significant effect on a Habitats site (Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar site) is likely, either alone or in-combination with other plans or projects, an HRA has been undertaken. This is to determine whether the drought option would adversely affect the integrity of the Habitats sites, whilst taking into account available mitigation measures. Where sites have been identified as potentially impacted, these have been included for full assessment.

The HRA assessment follows the staged approach, commencing with the Stage 1 screening which screens for Likely Significant Effects (LSE). Where a significant effect is likely, a Stage 2 Appropriate Assessment is undertaken of the drought option to determine whether this would adversely affect the integrity of the designated sites, either alone or in-combination with other plans and projects, taking into account available mitigation measures. HRA screening assessments are reviewed each time the EAR is updated or required for a drought permit application.

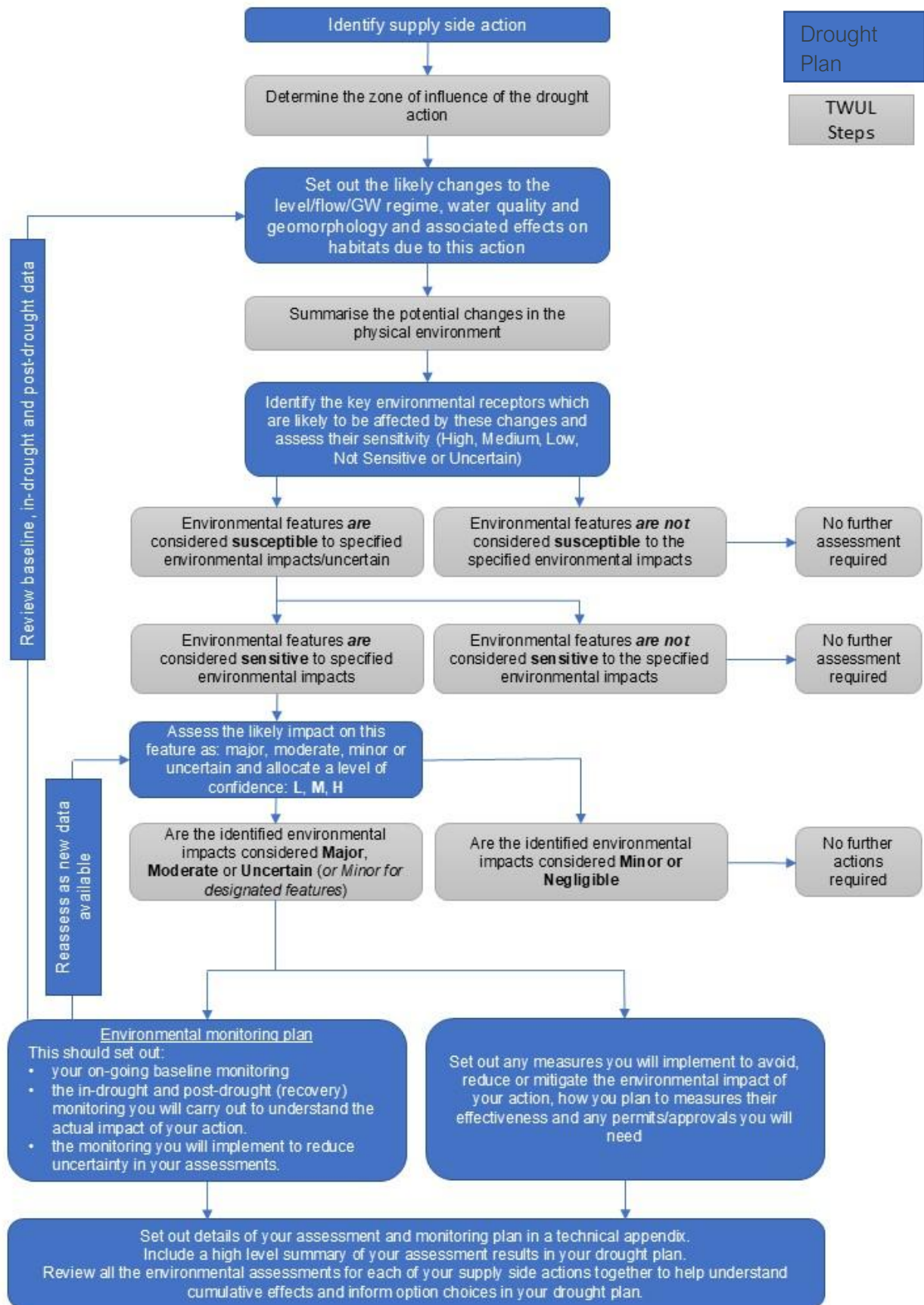


Figure 9.1 Environmental assessment methodology, taken from the Drought Plan Guideline (DPG) Main report – March 2027

9.5. Strategic Environmental Assessment

An SEA has been undertaken to provide a formal review of the environmental impact of the options for drought management included within this plan. This ensures that all the drought management options have been assessed for environmental impact in a comprehensive and consistent manner and that the results of the assessment are reported systematically. The SEA identified that demand-side actions such as TUBs generally have low environmental risks, whereas supply-side options are more likely to affect sensitive habitats and watercourses. This assessment of impacts provides information on the relative environmental performance of alternatives and can be used to support the timing, prioritisation and implementation of drought options within the Drought Plan.

The initial stage of the SEA is the scoping phase, during which we actively consulted with statutory consultees including Natural England and the Environment Agency. Consultation responses fed into the development of the draft SEA report for submission with the draft Drought Plan. Additionally, comments raised during the public consultation of the draft Drought Plan are taken into consideration when preparing the final SEA. The SEA is also informed by the HRA Screening Report, the EARs of the permit options, and the EMPs.

Findings of the SEA can be found within the SEA Environmental Report.

10. Triggers for lifting drought measures

The triggers for lifting drought measures are essentially the equivalent of the triggers for escalation but in reverse. In the same way that the protocols provide an assessment of the escalation of risk to security of supply, so do they provide an assessment of the diminution of risk to security of supply.

The information provided enables us to appraise customers and stakeholders of the reduced risk and relaxation of restrictions.

Therefore, for London and SWOX WRZs we will use the drought risk methodology to review the DEL and we will lift measures when the risk has diminished sufficiently. We will also use the DEL measures to guide the lifting of drought measures in the other WRZs, with the position in London used to guide the other WRZs that are largely groundwater based.

In response to de-escalating DEL, we will lift the demand and supply measures available to implement within our Drought Plan. As we move through the triggers as drought diminishes, we will consider the need for actions to be lifted. Actual lifting of actions will vary depending on a range of factors, including the specific drought situation, current water demand and time of year.

Regular discussions will be held with the EA to ensure a common position is formed on the improving water situation, assessed for each WRZ by using the full range of hydrological data. Before declaring an end to a drought event and the consequent lifting of all drought management measures, we will seek confirmation that these actions are consistent with the EA's position on the water resources situation.

Our priority in determining the timing of lifting measures will be to ensure the protection of customer supply and the environment. Therefore, where we have had to implement drought permits, we will avoid their use where the improving water resources risk allows us to, but we may retain the DPs in case they are needed if drought risk escalates again. Similarly, we will lift TUBs only when the drought risk has diminished sufficiently where the risk of needing to reimpose a TUB no longer remains, typically through a return to DEL1 or DEL0. When lifting TUBs, we will also take into account the time of year as the savings from a TUB are substantially reduced in winter so as to be of marginal benefit. It may also be beneficial to lift a TUB in winter when the risk is that it could be needed in the following spring and summer, as the lifting of the TUB can allow the message to customers that there is a drought and they should use water wisely can be reinforced if the TUB is reimposed in spring or summer. Throughout this process we would continue to consultation with the Environment Agency on our approach.

10.1. Reviewing drought plan performance during a drought

In practice, there is insufficient time to focus on review of Drought Plan performance within a drought because of the pressures to manage the immediate drought situation which means this action is best taken after return to business as usual.

10.2. Lessons identified following droughts

Each drought is different and provides an opportunity for reviewing and improving the Drought Plan, therefore we carry out a review after a significant event. This review establishes the proper closedown of an event and captures the learning gained from it. Such a review will be undertaken

as soon as practicable once the event has closed down, and once all the learning and facts can be fully assimilated. A meeting or series of meetings would be held with the full event team, assessing the factors that worked well, and those that could be improved to prevent or better manage a similar event in the future. The meetings would be minuted and actions assigned and followed up.

Operations Management Procedures are reviewed on an annual basis and updated in the light of new information, knowledge and experience.

The post-drought review should assess the effectiveness and efficiency of:

- Drought Management Methodology
- Drought Management Event procedures
- Communications with:
 - Customers
 - EA
 - Other stakeholders
 - Water companies and Water UK
 - Demand-side measures, including review of actual savings and update of predicted savings
 - TUB – notification and representation process
 - NEUB application process
 - Supply-side measures, including operational aspects and water resource benefit
 - Drought permit application and implementation process, environmental impacts and impacts on other abstractors

We would endeavour to produce our post-drought report 6 months after the cessation of the drought, for example 6 months from the point that the TUB is lifted. We will also endeavour to produce a post-drought review of drought permits/orders 1 year after the drought permits have been lifted. The post drought permit order review would be repeated for 3 years or until agreed with the EA.

On the basis of results from the post-drought review, carry out the following actions:

- Prepare draft and final Lessons Learnt Report.
- Review and, if necessary, update existing Drought Plan. If there is a material change, we will follow the guidelines and reconsult as required.
- Ensure changes are approved by subject matter experts and the legal team, prior to issue.
- If necessary, update existing WRMP.

We last implemented our Drought Plan in 2025. We are in the process of completing our post drought review. Lessons learned from the previous drought in 2022 have been included within the Drought Plan.

Glossary of Key Terms and Abbreviations

Abstraction Licence – The authorisation granted by the EA to allow the removal of water from a source.

Aquifer – A geological formation, group of formations, or part of a formation, that can store and transmit water in significant volumes.

Artificial Recharge – General term used to describe the addition of surface water to a groundwater reservoir by human activity, such as injecting treated river water down boreholes into a confined aquifer.

Demand Management – The implementation of policies or measures which serve to manage control or influence the consumption or waste of water

Deployable Output – the output of a commissioned source or group of sources or of a bulk supply for a given level of service as constrained by:

- Environment
- Abstraction licence, if applicable
- Pumping plant and/or well/aquifer properties
- Raw water mains and/or aquifers
- Transfer and/or output main
- Treatment
- Water quality

Drought Order – An authorisation granted by the Secretary of State under drought conditions which imposes restrictions on the use of water and /or allows for abstraction/impoundment outside the schedule of existing licences on a temporary basis.

Drought Permit – An authorisation granted by the EA under drought conditions which allows for abstraction/impoundment outside the schedule of existing licences on a temporary basis.

Groundwater – Water in the zone of an aquifer where the voids in a rock or soil are filled with water at a pressure greater than atmospheric pressure.

LTC – Lower Thames Control Diagram – A guideline, contained within the LTOA (see below) in the form of a diagram setting out how much water must be allowed to flow over LON_0027 and at what time demand management measures should be implemented in relation to the storage in the Thames Reservoirs.

LTOA – LON_0011 Operating Agreement – An Operating Agreement between the EA and Thames Water under Section 20 of the Water Resources Act which sets out controls over the abstraction of water from the LON_0011 under the existing abstraction licence.

Methodology – used herein to describe the tools and techniques for evaluating risk to security of supply from hydrologic data, primarily based on groundwater levels across the Thames catchment, river flows, primarily lower and upper Thames and reservoir storage (combined reservoir levels in London and SWOX_0006).

Protocol – term generally used herein to describe the framework that converts the results from the hydrologic assessment methodologies into a decision-making procedure for making decisions on appropriate drought management measures to be considered and/or implemented.

SAC – Special Area of Conservation – Designated under the European Habitats Directive (1991)

Stochastics – stochastic means having a random variable. A stochastic model is a tool for estimating probability distributions or potential outcomes by allowing for random variation in one or more inputs over time. The random variation is based on fluctuations observed in the historic data for a selected period using standard time series techniques. Distributions of potential outcomes are derived from a large number of simulations which reflect the random variation in the inputs.

Supply/demand balance – The difference between water available for use and demand at any given point in time.

Trigger – The term used to describe a decision mechanism for providing definitive guidance on the introduction of drought management measures.

WARMS (Water Resources Management System) – WARMS is a modelling system made up of a series of mathematical simulation models and is used to simulate future reservoir storage levels within the LTCD through ‘what if’ behavioural analysis of the Thames Water system. It is also used to calculate the deployable output for London and SWOX through operation in a time series mode using historic hydrometric records.

WRZ – Water Resources Zone - The largest possible zone in which all resources, including external transfers, can be shared and hence the zone in which all customers experience the same risk of supply failure from a resource shortfall.

Yield – A term generally used to describe the quantity of water pumped from a borehole usually expressed as a continuous rate of flow e.g., megalitres per day (Ml/d).