

PORTSMOUTH WATER LIMITED

Draft Drought Plan 2027

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NON-TECHNICAL SUMMARY

We supply around 175 million litres of water a day to over 740,000 customers across Hampshire and West Sussex. Our entire supply comes from chalk groundwater sources. This includes approximately 60% from boreholes and wells, 30% from groundwater springs and around 10% from the River Itchen, making us particularly dependent on winter rainfall and aquifer recharge.

Our region includes nationally and internationally protected habitats, meaning environmental protection is central to our approach.

The Plan follows the regulatory requirements of the Water Industry Act 1991, the Drought Plan (England) Direction 2025 and the Environment Agency's Drought Plan Guideline 2025 and is fully aligned with our latest Water Resources Management Plan (WRMP24).

Some operationally sensitive and national-security related information has been removed from the public version of this plan to protect critical water supply infrastructure. This does not affect how drought decisions are made or how customers and the environment are protected.

Figure 1: Company area of supply



How to respond to this consultation:

This draft Drought Plan is published for public consultation. We welcome your thoughts and comments. Feedback will be reviewed and used to finalise the Plan before submission to regulators. As well as downloading this draft Drought Plan from our website, a paper copy is also available to view by appointment at our main office. Please send all consultation responses to the Secretary of State by emailing Defra at water.resources@defra.gov.uk.

What this Drought Plan means for our customers

This draft Drought Plan explains how Portsmouth Water will continue to provide reliable drinking water to our customers while protecting the environment during periods of dry weather and drought. It outlines what we monitor, how we make decisions, and the actions we may take to manage water supplies fairly and responsibly.

Most drought actions involve asking customers to use water more efficiently. Restrictions such as hosepipe bans would only be introduced if groundwater levels fall to very low levels after prolonged dry weather. These restrictions would apply across the whole supply area and would be clearly communicated in advance, including details of what is affected, any exemptions, and how customers can make representations.

More severe measures, such as restrictions on certain business water uses or supply side actions, are extremely unlikely. These options are only planned for use in very rare circumstances after prolonged and severe drought and are included in the Plan so that we are prepared for all eventualities.

Throughout any period of dry weather or drought, we would:

- communicate clearly and regularly with customers about the situation
- explain what actions are being taken and why
- provide practical advice on how customers can help save water
- ensure support is available for vulnerable customers, including those on our Priority Services Register who may require additional support.

Once conditions improve and groundwater levels recover, any drought measures would be lifted gradually. Customers would be informed when restrictions end, thanked for their efforts, and kept updated as the area returns to normal conditions.

Why we need a Drought Plan

A drought is not caused by a few days or weeks of hot weather. It develops over several seasons when rainfall is consistently below normal and groundwater levels do not recover over winter. The Drought Plan sets out how we prepare for these situations, how we work with other organisations, and the steps we follow to ensure water continues to be available for essential use.

Drought planning matters even more now than it did in the past because more extreme weather, like hotter, drier summers and periods of low rainfall are becoming more frequent challenges as our climate changes.

Drought risk depends not just on how much rain falls, but when it falls. Winter rainfall is critical for aquifer recharge, and summer rainfall rarely contributes to groundwater recovery.



What has been updated for this draft Drought Plan

This draft Drought Plan includes several important updates since the last plan was published in 2022. These changes reflect new regulations, new research, pre-consultation engagement, alignment to Water Resources Management Plan (WRMP24) lessons from recent dry summers in 2022 and 2025, and stronger regional working across the South East (through WRSE).

As well as being prepared in line with revised regulatory guidelines, a Defra Direction and a set of government expectations, this draft Drought Plan includes the following updates and improvements:

- We have updated our Drought Plan so that it reflects our Water Resources Management Plan (WRMP24) and the regional resilience plan. The modelling for WRMP24 provided improved estimates of how much water each action will save, stronger evidence for the sequence of actions, and a better understanding of what would happen in very severe droughts.
- Through collaborative regional working with WRSE, we have commissioned regional research into patterns of demand and customer views of drought. We have also worked together to explore extreme drought options and developed a 'Statement of Intent', setting out how we would work together at regional level during drought.
- We re-examined our groundwater trigger curves using updated WRSE stochastic modelling and confirmed that they continue to perform reliably and align with our Levels of Service. The triggers remain unchanged from the 2022 Plan, supported by additional groundwater monitoring at existing Environment Agency monitoring sites to provide wider contextual information.
- Additional rainfall analysis (including Soil Moisture Deficit and Standardised Precipitation Index data) has strengthened our understanding of how rainfall patterns influence groundwater recharge and drought progression.
- We have had discussions with Southern Water about how we would share water during a drought, especially around the River Itchen. We have jointly prepared a 'Common Understanding' document in December 2025, which superseded the SWS bulk supply assumptions in WRMP24. Through revised bulk supply profiles, updated Itchen drought trigger coordination and joint modelling this reflects the latest operational reality and strengthens drought preparedness.
- The environmental context of this Drought Plan has been updated to reflect new Natural England designations, including River Meon compensatory habitat, and has been informed by a fully refreshed Habitat Risk Assessment (HRA) & Strategic Environmental Assessment (SEA).
- The Environmental Assessment Report for our Source S drought permit has been completely refreshed using updated groundwater modelling, alongside a mock drought permit application to ensure we remain fully "application ready". This work also aligns with ongoing WINEP investigations into Arundel Park Site of Special Scientific Interest (SSSI).
- Informed by new research to understand how customers feel about drought, restrictions and communications, this Plan includes a more modern communications approach using email, social media, and targeted updates. Messages are clearer, simpler and more practical.

- There has been a comprehensive refresh of our Drought Actions. New feasible and more effective Extreme Drought Options (otherwise known as 'More Before 4') have been introduced to the Plan. These groundwater optimisation options were identified through updated pump/asset reviews, engineering assessments of the water levels in each borehole and environmental screening. This means Portsmouth Water can potentially get more water safely and temporarily—minimising harm to the environment—before hitting Level 4 emergency measures. The options review has also resulted in the removal of the impractical options of sea tankering and temporary desalination from the Drought Plan although these options have been moved for consideration in the Company's Emergency Plan.

How we monitor drought conditions

We continuously measure:

- Groundwater levels at Well 'X', which is our formal drought trigger point. We will also monitor additional existing Environment Agency observation boreholes to understand how the wider aquifer is responding
- Rainfall levels at our long-established rain gauge in Havant.

These two indicators help us understand how much water is stored in the chalk aquifer and how likely a drought is to develop.

We also use regional datasets and long-term modelling developed through Water Resources South East (WRSE), who bring together six water companies to plan for drought consistently across the region.



Levels of Service

Our “Levels of Service” reflect a balance between keeping bills affordable and reducing the likelihood of restrictions. They are:

- Temporary Use Bans (e.g., hosepipe bans): no more than once every 20 years
- Non-Essential Use Bans (for businesses): no more than once every 80 years
- Emergency Drought Orders (e.g., standpipes): no more than once every 200 years, moving to once every 500 years from 2039–40.

These guide when we may need to ask customers to change how they use water.

What triggers drought actions

We use a set of “drought trigger levels” based on groundwater conditions. As groundwater levels fall and drought risk increases, we move through the stages shown here in Table 1.

At each stage, we introduce actions that help reduce demand or increase supply, always starting with the lowest-impact and widely acceptable measures.

Table 1: Drought Actions to be implemented at each drought risk level

	Additional demand-side management actions	Additional supply-side management actions
Normal Trigger level 0	Routine demand management actions ¹	Routine supply-side management actions
Prolonged dry weather Trigger level 1	Enhanced leakage and pressure Control. Enhanced communications Regional drought Communications and engagement.	
Drought Trigger level 2	Imposition of Temporary Use Bans (TUBs) restrictions for domestic customers Application for Non-essential Use Bans (NEUBs) restrictions.	
Severe Drought Trigger level 3a	Imposition of Non-essential Use Bans (NEUBs) restrictions.	Source S drought permit application. Prepare to implement more before 4 options.
Severe Drought Trigger level 3b	Implement More Before 4 demand management actions in the communications strategy e.g., National campaigns and ‘Day Zero’ messaging.	Implementation of Source S drought permit Implement Extreme Drought Options such as upgrading pump capacity at Sources T, Q, F, H and R, or lowering pump depth at Source D.
Extreme Drought - Emergency Plan Trigger level 4	Emergency plan for drought	Emergency plan for drought e.g.,: • Drought Orders for standpipes and rota cuts • Increased abstraction above licensed amounts

¹These can be found on our website in the WRMP24 and subsequent Annual Reviews portsmouthwater.co.uk/news/publications/water-resources-planning/



Protecting the environment

Our region contains nationally and internationally important habitats, including Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). Protecting these sensitive environments is central to our drought planning.

Before any drought permit or supply-side action is used, we carry out environmental assessments and put in place detailed monitoring to ensure no adverse effects on protected sites.

This Drought Plan has been informed by a Strategic Environmental Assessment (SEA) which in turn was informed by a Habitats Regulations Assessment (HRA). Both the SEA and HRA are included as appendices to this draft Drought Plan.

What actions we might take

Our approach prioritises reducing demand before increasing abstraction from the environment. The order in which measures are selected has been carefully considered to protect the environment and customer supplies:

Demand-side actions include:

- Enhanced leakage reduction
- Pressure management
- Appeals to customers for voluntary reduction in water use
- Temporary Use Bans (Level 2)
- Non-Essential Use Bans via Drought Orders (Level 3a).

Supply-side actions, used only in more severe droughts, include:

- Source S Drought Permit. This has been subject to robust environmental assessment to make sure it does not cause lasting damage through HRA, SEA and Environmental Assessment Reports (EARs).
- Extreme Drought Options at Level 3b, such as pump-level changes to maximise groundwater output. These options aim to avoid Level 4 emergency actions at which point our Emergency Plan would come into effect. Although not required by the guidance, we have included these in our SEA and HRA as part of our environmental due diligence of the Drought Plan.

Working with customers and stakeholders

Communication during drought will follow an agile, phased approach, with increasing intensity as drought levels escalate. Messages will be targeted to customer groups and stakeholders, with a strong emphasis on clarity, practical water-saving guidance, and coordinated messaging across the South East.

Communication is critical during a drought. We will use a wide range of channels, including social media, local press, email, and direct engagement to keep customers informed about:

- The drought situation
- What they can do to save water
- What actions we are taking
- Any restrictions that may come into force

Customer research carried out for this plan has helped us shape clearer, simpler and more targeted messages that match customer preferences.

While some of the research has been bespoke for our customers, we have also worked regionally with Water Resources South East (WRSE) to undertake research to improve drought communications and customer insight. Both research streams have informed improvements to this draft Drought Plan, and most significantly to how we aim to communicate during dry weather and drought.

Our communication strategy aligns with WRSE's regional approach to ensure customers across the South East receive consistent and clear information.

Collaboration

Drought does not respect Company boundaries. Drought affects many organisations, not just water companies. As part of WRSE, we share data, modelling and planning with other companies in the South East so that decisions are joined-up and consistent. We also participate in WRSE dry-weather forums, which increase in frequency during dry periods to support shared situational awareness and coordinated regional messaging.

We also coordinate closely with:

- Southern Water, who we supply with water through existing bulk supply agreements
- Local authorities
- Environmental organisations including Natural England
- Regulators such as the Environment Agency
- New Appointments and Variations (NAVs) and water retailers.

In times of drought, this collaboration becomes more frequent to ensure consistent and clear messages to water users. We are also improving our engagement with NAV companies following lessons learned during 2025, ensuring clearer and earlier communication.

Recovering from a drought

Once conditions improve and we confirm groundwater recovery across multiple observation boreholes, not just our trigger site at Well 'X', we will gradually lift drought measures. We will:

- Thank customers for their efforts
- Communicate clearly that the drought has ended
- Review what worked well and what could be improved
- Share lessons learned with regulators, WRSE and other water companies and apply these lessons to help strengthen future Drought Plans.

Future improvements

This draft Drought Plan will be revised to take account of comments and feedback received during public consultation. We will prepare a Statement of Response and make any necessary changes before publishing the final version of the Plan.

Our Drought Plan is revised every five years. Where our 2022 Drought Plan aligned to WRMP19 and this Drought Plan aligns to WRMP24, our future Drought Plan will align to WRMP29. However, we will also refine our drought planning through periodic health checks, updated modelling and new environmental evidence, ensuring the plan remains robust and reflective of changing conditions.

In addition, the final Drought Plan 2027 will also incorporate:

- **Outputs from regional and national lessons learned from 2025 exercises.** Updated demand savings from the UKWIR TUBs project and findings from the National Drought Group lessons learned workshop.
- **Southern Water collaboration updates** on our joint work on the River Itchen drought triggers review.
- **The completed monitoring and mitigation plan for the Source S drought permit**, developed jointly with the Environment Agency, Natural England and Southern Water to ensure we remain fully “application ready” for any future severe drought requiring the use of the permit.
- **Updates to the SEA and HRA** to include any in-combination findings once neighbouring water company draft Drought Plans are available.

1. INTRODUCTION

1.1 Definition of a drought

A drought is a prolonged period of exceptionally low rainfall that leads to reduced river flows and groundwater recharge. This shortage of water can place pressure on our abstraction sources, the environment, and ultimately the reliability of supplies to customers.

While short dry spells are common, a drought develops when rainfall deficits persist to the point where normal operations are no longer sufficient to balance supply and demand.

1.2 Purpose of a Drought Plan

Our Drought Plan ensures continuity of supply with minimal recourse to Drought Orders or Permits, while protecting the environment. It sets out triggers, actions, and communication processes that we will follow throughout the period of drought and recovery. The Drought Plan is intended as an operational plan which provides a step-by-step process which we can follow as a drought develops in severity.

We are required to update our Drought Plan every five years so that it aligns with our most recent Water Resource Management Plan (WRMP). Our most recently published WRMP was our WRMP24, published in October 2024. This plan therefore supersedes our current Drought Plan 2022, which was developed in accordance with our WRMP19.

The WRMP24 and the Drought Plan make up two of the four company plans which together show how we will deliver on our company vision and priorities for our customers. The other two plans are 'Our Long-Term Vision' and our 'Business Plan 2025-30'.

Our plan has been prepared under the Water Industry Act 1991, in accordance with the Drought Plan Regulations 2005, and the Drought Plan (England) Direction 2025. It follows the EA's Drought Plan Guideline 2025.

1.2.1 Process overview

There are three key areas in the drought planning process, which together provide a clear and structured pathway for developing a robust and consultative Drought Plan.

These are:

- **Pre-consultation:** engaging early with statutory consultees, regulators, neighbouring water companies, local authorities, and other key stakeholders to shape the foundations of the draft Drought Plan.
- **Draft Plan preparation and consultation:** developing the full draft plan and undertaking public consultation, incorporating feedback from stakeholders, customers and regulators during the pre-consultation phase.
- **Final Plan publication and ongoing updates:** publishing the final plan addressing any further feedback following consultation, and undertaking the required annual reviews and drought health checks.

We have already completed the pre-consultation stage of the process, during which we additionally conducted a range of research directly with customers to support the development of this draft Drought Plan, prior to full public consultation.

1.2.1.1 Pre-consultation

We initiated our pre-consultation discussions on 17 December 2024 by emailing a letter to over 60 of our stakeholders which outlined our proposed approach for the Plan and welcomed any feedback. Various individuals from the following organisations were contacted:

- Regulators and Government Departments
- Councils and Authorities
- Wildlife Trusts and Catchment Partnerships
- New Appointments and Variations (NAVs)
- Wholesale Retailers
- Water Resources South East (WRSE) and all member water companies in the southeast of England.

We received five responses to our pre consultation; from the Environment Agency, Natural England, South Downs National Park Authority, South East Water and Winchester City Council who all provided constructive feedback that has helped shape this draft Drought Plan.

Their comments focused on environmental assessment requirements, drought permits and orders, drought triggers and levels of service, and the incorporation of lessons learned from previous droughts. Respondents also highlighted the importance of effective communication, particularly with vulnerable customers, and requested further clarity on how drought may affect designated sites.

There was strong support for continued regional collaboration, including through WRSE's Dry Weather Working Group, alongside suggestions for reviewing triggers, exploring environmental or alternative trigger mechanisms, and improving operational readiness.

Further detail on all responses, and how we have incorporated them into this draft Drought Plan is provided in Appendix A.

1.2.1.2 Customer research to support pre-consultation

In addition to the pre-consultation letter, we undertook proactive customer research to better understand our customers' views on drought and to inform the development of this draft Drought Plan.

We commissioned Blue Marble Research to carry out this work which included focus groups, and interviews with our Customer Advisory Panel. We undertook a survey of our existing 1,000 "Water Talk" panellists to explore awareness, concerns, support for drought measures, and preferred communication methods. The findings have helped shape our drought communications strategy.

Alongside this local work, we also participated in WRSE's regional customer research, which explored customer priorities and expectations during severe drought through workshops, interviews with vulnerable customers, role-play exercises, a large-scale survey, and co-creation sessions with customers and water companies.

Together, this research provides a robust evidence base for our communications approach (detailed in section 5) to support the wider development of the draft Drought Plan.

Further detail on the research carried out, and how we have incorporated the learning from this into this draft Drought Plan is provided in Appendix A.

1.2.1.3 Draft Drought Plan Preparation

This draft Drought Plan includes several important updates since the last plan was published in 2022. These changes reflect new regulations, new research, pre-consultation engagement, alignment to Water Resources Management Plan (WRMP24), lessons learned from recent dry summers in 2022 and 2025 (where available), and stronger regional working across the South East (through WRSE).

This draft plan is prepared in line with the revised regulatory guidelines and the Defra Direction outlining government expectations, and as a result includes the following updates and improvements:

- We have updated our Drought Plan so that it reflects our Water Resources Management Plan (WRMP24) and the regional resilience plan. The modelling for WRMP24 provided improved estimates of how much water each action will save, stronger evidence for the sequence of actions, and a better understanding of what would happen in very severe droughts.
- Through collaborative regional working with WRSE, we have commissioned regional research into patterns of demand and customer views of drought. We have also worked together to explore extreme drought options and developed a 'Statement of Intent' setting out how we would work together at regional level during drought.
- We re-examined our groundwater trigger curves using updated WRSE stochastic modelling and confirmed that they continue to perform reliably and align with our Levels of Service. The triggers remain unchanged from the 2022 Plan, supported by additional groundwater monitoring at existing Environment Agency monitoring sites to provide wider contextual information.
- Additional rainfall analysis (including Soil Moisture Deficit and Standardised Precipitation Index data) has strengthened our understanding of how rainfall patterns influence groundwater recharge and drought progression.
- We have had detailed discussions with Southern Water about how we would share water during a drought, especially around the River Itchen. We have jointly prepared a 'Common Understanding' document in December 2025, which superseded the SWS bulk supply assumptions in WRMP24. Through revised bulk supply profiles, updated Itchen drought trigger coordination and joint modelling this reflects the latest operational reality and strengthens drought preparedness.
- The environmental context of this Drought Plan has been updated to reflect new Natural England designations, including River Meon compensatory habitat, and has been informed by a fully refreshed HRA and SEA.

- The Environmental Assessment Report for our Source S drought permit has been completely refreshed using updated groundwater modelling, alongside a mock drought permit application to ensure we remain fully "application ready". This work also aligns with ongoing WINEP investigations into Arundel Park Site of Special Scientific Interest (SSSI).
- Informed by new research to understand how customers feel about drought, restrictions and communications, this Plan includes a more modern communications approach using email, social media, and targeted updates. Messages are clearer, simpler and more practical.
- There has been a comprehensive refresh of our Drought Actions. New feasible and more effective Extreme Drought Options (otherwise known as 'More Before 4') have been introduced to the Plan. These groundwater optimisation options were identified through updated pump/asset reviews, engineering assessments of the water levels in each borehole and environmental screening. This means we can get more water safely and temporarily—minimising harm to the environment—before hitting Level 4 emergency measures. The options review has also resulted in the removal of the impractical options of sea tankering and desalination from the Drought Plan although these options have been moved for consideration in the Company's Emergency Plan.

This draft Drought Plan has been developed using lessons learned from the 2022 and 2025 droughts. However, much of the lessons learned projects from 2025 are still ongoing. Provisional outcomes have been included where possible, and any final findings and outcomes will be used in our final Drought Plan.

1.2.1.4 Consultation

In line with the statutory process, once advised by the Secretary of State to publish this draft Drought Plan, it is open to a formal public consultation during which stakeholders and the public will be invited to submit representations. As part of this process, we will engage with key stakeholder groups including (but not limited to):

- The Environment Agency and other relevant regulators
- Local authorities within our supply area
- Environmental bodies and non governmental organisations
- Regional water resources planning groups
- Water retailers
- Major abstractors and other directly affected water users
- Consumer and customer representation bodies
- Fire and rescue services and Local Resilience Forums.

Following the consultation, we will prepare a Statement of Response addressing all representations received, and this will be published and appended to the final Drought Plan.

1.2.1.5 Annual Review and Annual Drought Health Check

We will carry out an internal Annual Review of the Drought Plan and submit an Annual Drought Health Check to the Environment Agency, in line with the Drought Plan (England) Direction and the requirements outlined in the EA's Drought Plan Guideline 2025. These processes ensure that the Plan remains current, evidence based and operationally ready throughout each year of the planning cycle.

Annual review

Each year we will complete an internal review of the Drought Plan to assess whether any updates are required. This review will consider:

- Hydrological, hydrogeological and meteorological evidence from the preceding year.
- Performance and appropriateness of groundwater control curves and other drought indicators.
- Emerging environmental evidence from WINEP monitoring, HRA/SEA updates or new designations.
- Lessons learned from any dry weather, drought or recovery period within the year.
- Outputs from WRMP Annual Reviews and relevant WRSE regional datasets.
- Operational readiness of drought management options, including drought permits and extreme drought measures.
- Any required changes to communication, customer engagement or NAV/retailer coordination processes.

Where the Annual Review identifies updates that materially affect the operation or interpretation of the Plan, we will take forward amendments in line with EA guidance.

Annual Drought Health Check

Separately, we will undertake and submit an Annual Drought Health Check to the Environment Agency. This will provide:

- A summary of current drought risk status based on groundwater levels, rainfall and recharge conditions.
- A review of operational readiness to implement drought actions, including application readiness for the Source S drought permit.

- Confirmation of any emerging risks that may require preparatory actions.
- The status of drought communications materials and coordination with WRSE, NAVs, retailers and neighbouring companies.

This health check ensures early identification of developing risks and allows us and the EA to maintain a shared, up-to-date picture of drought preparedness.

Findings from both the Annual Review and Annual Drought Health Check will be used to inform continuous improvement of the Plan and will feed into future statutory revisions.

1.3 The Portsmouth Water supply area

We abstract, treat and supply an annual average of around 175 million litres of water a day to over 740,000 customers in around 320,000 properties. We also provide water to our neighbouring water company, Southern Water Services (SWS) and some customers on new estates are also supplied by New Appointments and Variation companies (NAVs).

Our supply region, shown in Figure 1, contains areas of the South Downs National Park, protected marine harbours and numerous Sites of Special Scientific Interest. The chalk geology across our supply area supports us in providing excellent quality drinking water as well as the important and beautiful habitat we enjoy. 100% of our water comes from chalk-based sources: approximately 60% from boreholes and wells, 30% from groundwater springs, and 10% from the River Itchen.

Figure 1: Company area of supply



1.3.1 Supply system and Drought Management Areas

For the purpose of water resource management planning as per the WRMP24, our supply system operates as a single Water Resource Zone (WRZ) which corresponds to one Drought Management Area. We have no significant raw water storage and consequently we are reliant on the recharge of groundwater over the winter period. During times of drought, our ability to maintain water supply relies upon balancing peak week demands (normally between May and August) and the yield we get from our sources.

1.3.2 Designated sites

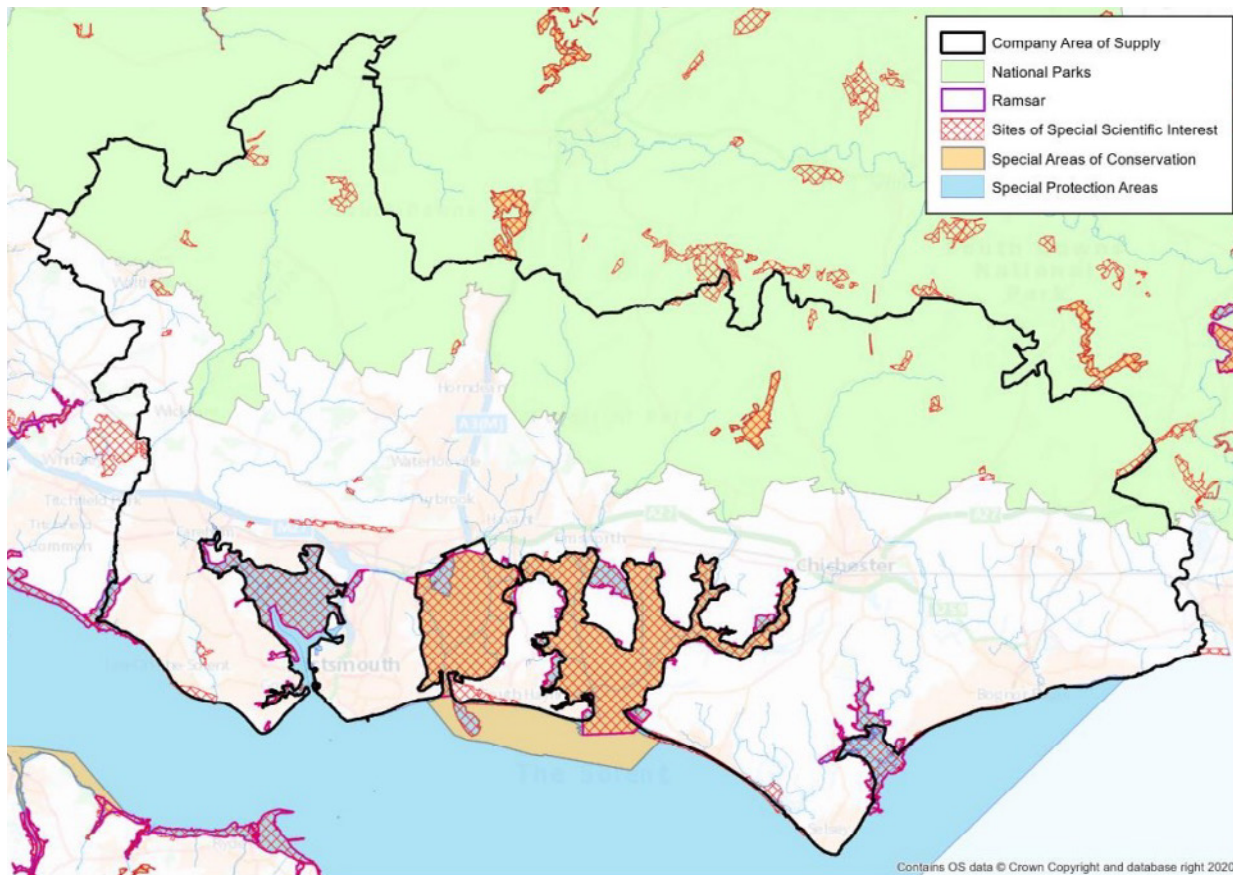
Our supply area includes a large expanse of coastline with numerous important habitats that have been designated under European Habitat Directives. We have therefore considered the impacts that our Drought Plan would have on these sites which include Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPA) and Special Areas of Conservation (SAC), as well as the South Downs National Park.

We have done this by undertaking a Habitats Regulation Assessment (HRA) and a Strategic Environmental Assessment (SEA) on the draft Drought Plan, and additionally an Environmental Assessment Report (EAR) on our drought permit option.

Since the previous Drought Plan was published in April 2022, updates have been made to the designated sites within our area of supply, detailed by Natural England. In accordance with the Conservation of Habitats and Species Regulations 2017, the Secretary of State for Environment, Food and Rural Affairs (Defra) secured the provision of new compensatory measures to help offset the potentially adverse effects on the River Itchen SAC as a result of abstractions in drought situations and these should be given the same protection as designated habitat sites.

Figure 2 shows our company supply area, and all of our designated sites which must be considered in the development of this Drought Plan.

Figure 2: Current Habitats Directive designations



1.3.3 Area of serious water stress

In July 2021, Defra accepted the Environment Agency's recommendation that our supply area should be reclassified as being 'seriously water stressed'. This classification formally acknowledged that without appropriate investment, there is a risk that the service customers receive for their water supplies could be significantly affected.

It has allowed us to consider the option of implementing a universal metering programme across our household customers. This has now formed an essential component of our demand reduction programme in WRMP24.

The classification has enabled a more effective and tailored approach to our Drought Plan communication strategy which is presented in section 5.

1.4 Links to other plans

1.4.1 Water Resources Management Plan 2024

Our WRMP24 sets out how we plan to supply safe, reliable drinking water up to 2075. It has been developed not just for our customers, but also to play our part in delivering a best-value plan for the wider South East, which makes the most of our regions precious water resources, prepares for the future and will improve our natural environment.

Our WRMP24 details what we need to invest in to ensure a supply demand balance over the planning period to increase our resilience up to and including a 1 in 200-year drought event (which increases to a 1 in 500-year event resilience level in 2038-39).

Some of the investment options will become business as usual (BAU) operations, such as our universal metering programme, which started in 2025. Whereas the ‘drought options’ are only implemented for shorter term periods during drought events, such as Temporary Use Bans (TUBs), Non-Essential Use Bans (NEUBS) and the increase of licence at our Drought Permit source.

This Drought Plan incorporates those options but also builds on them by exploring additional options that we could use in an extreme drought, to delay the implementation of our Emergency Plan. More information on this is provided in section 4.

1.4.2 Emergency plan

In extreme circumstances, water companies may need to ask for emergency drought orders in addition to their drought management actions. These actions are part of the Emergency Plan and not the Drought Plan or the WRMP24. However, there may be actions which are triggered prior to the implementation of the Emergency Plan and so are in place at the same time as the Drought Plan.

Figure 3 illustrates the relationship between water company Drought Plans and Emergency Plans.

Figure 3: The indicative relationship between water company Drought Plans and emergency plans

Drought level	WRMP	Drought plan		Emergency plan	
0 Normal (green)					
1 Prolonged dry weather (yellow)	Includes demand and supply drought actions but not extreme drought actions	Trigger actions	Implement		
2 Drought (amber)				Trigger actions	
3 Severe drought (red)					
4 Emergency drought (red)				Implement	

For this reason, the Drought Plan will not provide details of actions Portsmouth Water would take in an extreme drought (level 4) when emergency restrictions might need to be implemented. This information would be in the Company’s emergency plan for drought.

1.4.3 Water Resources South East regional plan

Our draft Drought Plan is closely aligned with the wider regional water resources planning framework as it is fundamentally linked with the Water Resources South East (WRSE) regional plan through our WRMP24. The water companies of the South East recognise the importance of working collaboratively to share knowledge and best practice, to coordinate and align communication with customers and stakeholders, and to promote the efficient use of water resources. To support this, we work closely with other water companies in our region through WRSE.

The WRSE group was established several planning cycles ago, but its role expanded significantly during the development of WRMP24 following the requirement, set out in the Environment Agency's guidance, for an explicit regional plan. This has led to the development of common methodologies, shared datasets and a regional adaptive planning approach across the South East. Working collaboratively with WRSE, a multi-sector regional plan was produced to secure water supplies for the South East out to 2075. This plan is underpinned by new, sophisticated modelling and forecasting approaches that we have reflected within our own WRMP24 to ensure alignment with the wider region. WRSE also commissioned the development of a regional investment model to support long-term decision-making.

Alongside this strategic planning collaboration, operational cooperation continues throughout the year. As an industry, we recognise the value of shared situational awareness and coordinated response during periods of dry weather and drought. We participate in regular WRSE "dry weather" meetings, which focus on the short-term risks of potential water shortages based on current water resource conditions. In these meetings, water companies share information on available resources, weather forecasts, and any customer communications required in response to emerging drought conditions.

These meetings take place year-round, but increase in frequency when the risk of developing water shortages across the South East begins to rise. This proactive, joined-up approach enables effective regional coordination and helps ensure that customers receive consistent, clear messaging about water supply pressures, our response actions, how they can use water wisely, and what restrictions may need to be, or are being, introduced.

Through this combination of strategic planning (via WRMP24 and the WRSE regional plan) and operational collaboration (through WRSE's ongoing dry weather and drought forums), our Drought Plan is firmly embedded within the wider regional context and supports a coherent, cross-company approach to managing drought risk.

Further detail on the role of WRSE in regional drought coordination, including how WRSE supports alignment of triggers, actions, communications and scenario testing across water companies, is provided in the WRSE Statement of Intent (Appendix B). A short summary is provided below.

1.4.3.1 Summary of the WRSE Statement of Intent

WRSE provides 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, 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.



1.5 Links to other companies and neighbours with a private water supply

This section explains how we work with the organisations whose operations link into ours, including Southern Water, NAVs and non-household retailers.

1.5.1 Southern Water

1.5.1.1 Bulk supplies

The bulk supply assumptions published with our WRMP24 have since been superseded by the WRMP Annual Review 2025 Technical Note: Southern Water and Portsmouth Water Common Understanding on Bulk Supplies, dated December 2025, which is included as an Appendix of our updated Annual Review 2025².

Table 2 shows the revised bulk supply assumptions to SWS in the event of a 1 in 200 year drought event compared to the original WRMP24 assumptions. These volumes have been agreed with the Environment Agency and with SWS with the caveat that they are applicable as long as no other assumptions linked with the bulk supplies change from SWS's point of view.



Table 2: Updated bulk supply export amounts for the updated WRMP24 tables (annual average and critical period conditions)

Year	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Superseded Bulk Supply to SWS (WRMP24)	30 MI/d	30 MI/d	30 MI/d	30 MI/d	30 MI/d	30 MI/d
Revised Bulk Supply to SWS (Updated WRMP24 Dec 25)	15 MI/d	20 MI/d	25 MI/d	30 MI/d	30 MI/d	30 MI/d

By 2029-30 the bulk supply amounts to Southern Water in annual average and critical conditions are again consistent with the existing bulk supply agreements and WRSE modelling included in the WRMP24 that was published in 2024.

Figure 4: By 2030 our Drought Plan assumptions return to those included in the WRMP24, with 15MI/d transfers under critical conditions supplying Southern Water in Hampshire and in Sussex.



There are future additional proposed bulk transfers to Southern Water included in our WRMP24. As this Drought Plan is an operational plan that will be finalised in 2027 and superseded by a revised Drought Plan before 2032, only bulk transfers that are planned to be operational before 2032 are being considered here in this revision of our Drought Plan.

The additional bulk transfer of up to 21 MI/d once Havant Thicket Reservoir is constructed and commissioned will be available to Southern Water's Hampshire Southampton East (HSE) WRZ via a new bulk supply from 2032 and so will be accounted for in our Drought Plan 2032.

²portsmouthwater.co.uk/wp-content/uploads/2026/03/PRT-Annual-Review-25-Updated-Dec-2025-final.pdf

1.5.1.2 Bulk supply communications

We have routine operational liaison meetings with Southern Water, where in the rare event of such issues emerging, there is open discussion of any temporary revisions to our commitment.

As drought develops, we will engage closely with Southern Water to ensure that we regularly review our water resources and supply demand balance situations. We will share situation reports with increasing frequency as the drought progresses and will agree joint statements to the press and to customers as required. If we need to seek restraint or restrict water use by our customers to maintain supply to Southern Water, then it is expected that Southern Water would also seek restraint or restrict water use by its customers. It does not necessarily follow that if Southern Water are seeking restraint or restricting water use by its customers, that we will have to do the same. We will examine these scenarios in more detail through the River Itchen drought triggers project and incorporate our learning into our final plan if available.

1.5.1.3 Itchen Drought Order

Approximately 10% of the total water we abstract comes from the River Itchen in Hampshire. This is our only surface water abstraction. This rare and sensitive chalk stream is home to many species. It is this abstraction from the River Itchen that provides much of our bulk supply to Southern Water's Hampshire South East (HSE) zone.

Upstream of our River Itchen abstraction point, Southern Water have abstractions and discharges into the River Itchen. This means that their operations can have significant impacts on the flow available in the River Itchen and therefore the volume we can abstract. The Environment Agency have set abstraction licence conditions for both companies relative to the respective river flow and influences upstream of the respective abstraction points. Consequently, Southern Water's abstractions are constrained when river flow reduces to 198ML/d at the Environment Agency's river flow gauging station at Allbrook and Highbridge, and our abstraction is constrained when river flow falls to 194ML/d at the Environment Agency's Riverside Park gauging station.

Southern Water's Section 20 (s20) agreement with the Environment Agency, recognises that during low flows, it could be environmentally preferable to abstract water at our River Itchen abstraction point rather than at their abstraction points on either the River Itchen or the River Test. This would be achieved through the implementation of a Drought Order to reduce the 'Hands off Flow' (HOF) constraint in our abstraction licence, from 194ML/d to 150ML/d. This will allow us to continue abstracting up to 45.5 ML/d, noting that our abstraction licence places further restrictions on monthly abstraction during June to September each year. In preparing the s20 agreement, it was agreed that if a Drought Order is needed at our Lower Itchen source in order to allow the continuation of our bulk supply to Southern Water, then Southern Water would take responsibility for the application, environmental commitments and costs of that Drought Order.

We continue to liaise with Southern Water about their drought triggers on the Itchen. The joint Southern Water and Portsmouth Water Pywr model includes a variety of different flows forecast under a range of climate change scenarios. These forecast that flows will reduce in the future and we will be more likely to reach HOF constraints on the River Itchen, which impacts the amount of available surface water for abstraction.

The future development of the Havant Thicket Reservoir will mean that Southern Water can reduce the amount of water that they take from the chalk River Itchen.

1.5.2 Newly Appointed Variations

In addition to the 'traditional' bulk supplies to Southern Water, we also provide bulk water supplies to other licensed water undertakers referred to as Newly Appointed Variations (NAVs). Typically, they provide water services to new housing developments having purchased the water from us at the boundary of the site.

Our WRMP24 assumes that NAVs account for a small but growing proportion of baseline demand, represented as Bulk Supplies of 2.09 ML/d for the duration of this Drought Plan. It is therefore important that we maintain regular liaison with them during drought.

Whilst NAVs are participants in the Retailer Wholesaler Group (RWG) mentioned in the section below, we recognise that we need to develop our communications approach with NAVs further and this was highlighted through the national lessons learned exercise from the summer of 2025. We are awaiting the formal outcomes of the lessons learned exercise, but will be able to incorporate the findings into the development of the final Drought Plan.

We have communicated with NAVs while developing this Drought Plan, have regular dialogue with them, and will also communicate with NAVs throughout a drought event to ensure consistent messaging to the end water users - although it is perhaps inevitable that some of our general drought communications will also be seen by customers of NAVs and Retailers.

1.5.3 Non-Household Retailers

We are active participants in the Retailer Wholesale Group (RWG) Drought sub-group³ that is facilitated by the market operator for the non-household water retail market in England (MOSL). This group increases the frequency of its meetings in response to dry weather, and its purpose is to provide:

- a central view to retailers of wholesalers' drought status
- support wholesalers sharing best practice and consistency of approach
- a non-household feed into wider National Drought Group activity
- establishing good practice guides as needs arise.

These meetings provide an opportunity for incumbent wholesalers (like us) to give an update as to where they are with regards to water resources and to discuss best practice across the market when communicating during a drought. Other areas of discussion are forward planning for future drought and drought / dry weather terminology.

³Meeting minutes and slide decks from the RWG drought sub-group are published on the MOSL website, [RWG Drought sub-group - MOSL](#)

1.5.4 Firefighting supply

We have a statutory obligation under the Fire and Rescue Services Act 2004 to ensure that sufficient water remains available for firefighting at all times. Our drought actions do not restrict or compromise supplies to fire hydrants, and routine hydrant maintenance continues throughout drought periods. As drought conditions develop, we will liaise with Hampshire and Isle of Wight and the West Sussex Fire and Rescue Services to provide updates on water resource status and any operational changes. Essential supplies for emergency response remain protected under both this Drought Plan and our Emergency Plan.

1.5.5 Neighbours who have private water supplies

While preparing this Drought Plan, we have thought about how we might receive and consider any additional supply requests from local authorities to help those on private supplies who are unable to switch to mains during a drought.

Water companies in England are not responsible for private water supplies - local authorities are through the Private Water Supplies

Regulations. Despite this, we are aware that both South East Water and United Utilities have supported animal welfare in recent dry hot years by delivering large containers of water to help farmers with livestock.

During a drought, as per our Communications Plan (Appendix H), we will liaise with the local authorities in our area as well as the National Farmers Union (NFU) and the Country Land and Business Association (CLA). We will also participate in the National Drought Group alongside farming organisations.

If we receive any ad hoc additional supply requests through any of these routes, we will talk to the individual involved to find out more about their situation and to explore ways we can help, prioritising public health and animal welfare concerns. We will talk about the location of the request, the purpose and the water quality standard required. It may be that for animal welfare purposes like washing out barns or stalls, non-potable water may be sufficient.



2. DROUGHT INDICATORS, TRIGGERS AND SCENARIOS

This section sets out how we monitor drought conditions and how our groundwater triggers guide decisions as drought develops. It explains the indicators we use, how the triggers relate to Levels of Service, and how they align with the Environment Agency's drought classifications.

Appendix C provides the technical underpinning for these triggers, including the assessment of groundwater, rainfall, soil moisture and demand data, and the detailed review of Well 'X' and other monitoring sites.

2.1 Background

2.1.1 Levels of service

The whole Portsmouth Water supply area is treated as one "drought management area" or "water resource zone". A water resource zone is defined as 'the largest possible area in which all resources, including external transfers, can be shared and hence the area in which all customers experience the same risk of supply failure from a resource shortfall.' In the context of drought, this means that restrictions would need to apply to the whole of the supply area at any one time due to the same level of supply risk.

Drought trigger levels and drought classification levels align to the Levels of Service (LoS) which represent the frequency at which demand restrictions could be implemented.

The LoS that we plan to is based on a careful balance between affordability (of implementing and developing new sources) and the risk of restrictions to our customers' water supplies. Less investment and lower water bills for customers would fund a lower level of service, and conversely, greater investment and higher customer bills could reduce the risk of restrictions to customers but could be less affordable for customers.

The LoS as defined in our 2022 Drought Plan and in this 2027 Drought Plan are as follows:

- Implementation of Temporary Use Bans no more than once in every 20 years (or a 5% annual chance)
- Implementation of Non Essential Use Bans no more than once every 80 years (or a 1.25% annual chance)
- Implementation of our Drought Permit no more than once every 125 years (or a 0.8% annual chance)
- Implementation of our Level 4 Emergency Drought Plan no more than once every 200 years (or a 0.5% annual chance, changing to 1-in-500 years or a 0.2% annual chance from 2038-39).

If there are any changes to our LoS in future WRMP's then the implications on the Drought Plan would be recognised in the subsequent development of the following Drought Plan.

2.1.2 Drought Vulnerability Assessment

The water resources planning guidance requires water companies to use the drought vulnerability framework, or an equivalent approach, to assess the resilience of their current supply system to a range of droughts of differing severity and duration. The drought vulnerability framework is intended to be used as a screening step to help understand what droughts a water company is vulnerable to.

The guidance says the results should be used to:

- highlight any specific types of droughts your system is vulnerable to
- consider how you can improve your resilience to droughts through your plan.

For WRMP24 we adopted the same approach to carrying out a drought vulnerability assessment as we did for WRMP19, but with updated data. The level of resilience across our supply area was found to be similar in both WRMP19 and WRMP24, which provides confidence in the findings of the assessments. Our Drought Vulnerability Assessment is available as Appendix 1F to our WRMP24 which is available on request. The Drought Vulnerability Assessment modelling demonstrates that for a conservative Deployable Output run (simultaneous groundwater and surface water drought) there could be vulnerability to a 6-month drought event with 70-80% rainfall deficit on the October profile and 60-80% rainfall deficit on the winter profile. Otherwise, our resource zone (with the drought plan in place) is resilient to droughts with a return period greater than the 1 in 200 year condition.

Examples of how our groundwater fluctuates during various types of events, alongside our drought management actions are provided in Appendix I 'Testing our Triggers'.

2.2 Drought indicators

2.2.1 Groundwater monitoring

Groundwater behaviour can vary spatially across the chalk aquifer, and although Well 'X' remains our single formal groundwater drought trigger, supplementary monitoring is required to provide wider catchment context. Well 'X' provides the longest and most stable groundwater record within our supply area and is largely unaffected by local abstraction, making it the most appropriate location for defining formal trigger curves and assessing drought status. This is confirmed in Appendix C.

To complement this, we will undertake additional groundwater level monitoring at existing observation points to capture spatial variation in recharge across the catchment. In particular, one of the Environment Agency's observation boreholes identified through our review will be monitored throughout all stages of drought and recovery. The site is a key comparator in the northern recharge area and provides an established and representative record of upstream groundwater behaviour and requires no new infrastructure. Other comparator sites, may also be reviewed where appropriate to provide further insight into wider catchment response to rainfall.

The purpose of this wider monitoring is to support operational decision making and provide additional confidence when interpreting drought onset, progression and recovery. These data will be used alongside the formal trigger curve at Well 'X', but will not constitute additional drought triggers nor influence drought level status directly. This additional monitoring will strengthen situational awareness, support communication with regulators, and provide greater assurance when confirming aquifer recovery across the chalk system.

2.2.2 Rainfall-Related Monitoring

The analysis provided in Appendix C assessed several rainfall related indicators to understand how rainfall influences groundwater recharge across the Portsmouth Water supply area. This included analysis of long-term rainfall data, Soil Moisture Deficit (SMD) and the Standardised Precipitation Index (SPI), together with comparisons against groundwater levels. The assessment found that SMD shows the closest relationship to groundwater behaviour, as it reflects how much rainfall is available for recharge after accounting for evaporation and soil dryness. Rainfall and SPI were also found to be useful indicators of meteorological drying trends, particularly early in the winter recharge season.

Although these indicators provide valuable insight into developing drought conditions, they are not used as formal drought triggers within this Drought Plan. Instead, they may be used as supporting monitoring tools to provide early context on emerging conditions. For example, rainfall deficits or elevated SMD may help to signal delayed recharge or explain deviations from expected groundwater profiles.

In addition to the findings of Appendix C, historic rainfall analysis undertaken for our previous Drought Plan provides further context. This work shows that total annual rainfall alone is not a reliable indicator of groundwater drought risk. For example, during the 1975-76 drought (when we last introduced demand restrictions), annual rainfall was close to the Long Term Average (95% of LTA in 1975 and 93% in 1976), yet winter rainfall between October and April was significantly below normal. Only 203mm of winter rainfall was recorded in 1975-76, which limited aquifer recharge and contributed to the very low groundwater levels experienced the following summer.

These observations reinforce the importance of understanding when rainfall occurs, not simply the total volume of rain received. Winter rainfall is critical for aquifer recharge, whereas summer rainfall rarely contributes to groundwater recovery.

2.2.2.1 How these indicators may be used in practice

The following examples outline how Appendix C findings could help operational teams understand how conditions are evolving through the year:

- **Early winter recharge period** - Low rainfall totals or persistently high SMD may provide an initial indication that soils are not wetting up as expected, and that the aquifer may not receive sufficient recharge to return to normal seasonal levels.
- **Late winter and spring** - Where groundwater levels remain below the long term seasonal profile, elevated SMD can help explain whether soils have remained too dry for recharge to occur, even if some rainfall has been recorded.
- **Summer period** - SPI may continue to indicate meteorological dryness; however, these signals have limited relevance for groundwater recovery because summer rainfall rarely contributes to recharge. They can nevertheless provide useful context for understanding demand pressures or short-term surface impacts.

Together, these indicators support a more complete understanding of hydrological drought development. Their role within this Drought Plan is contextual and advisory, helping to inform situational awareness alongside the groundwater-based triggers, which remain the primary triggers used to determine formal drought stages and actions.

2.3 Groundwater drought triggers

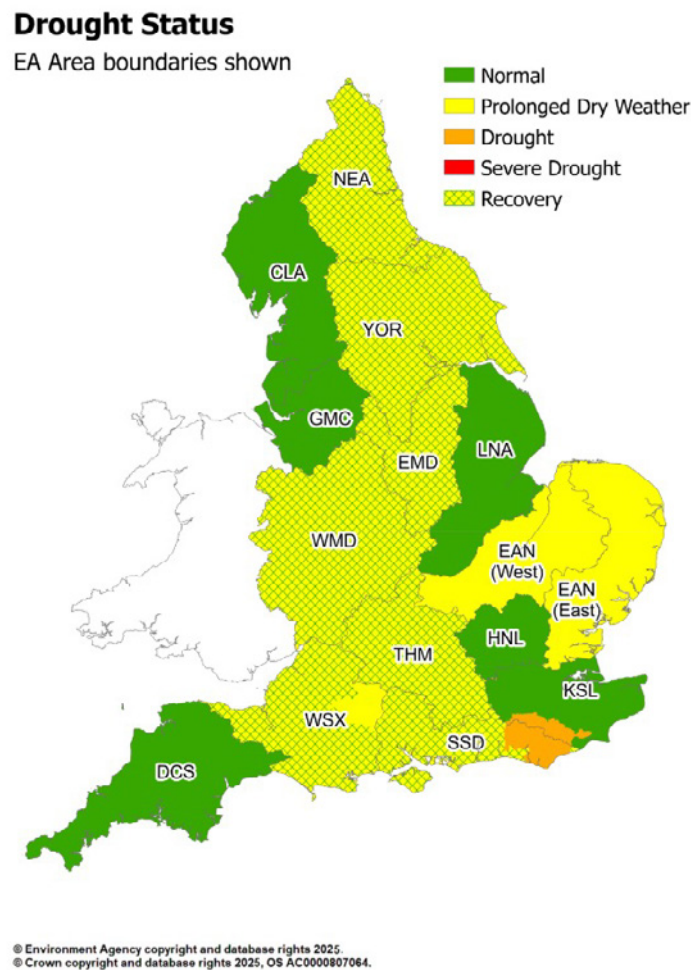
Our Drought Triggers inform decisions and timely actions which would be taken to continue to meet customer demand for water for as long as possible. They inform decisions during normal years to monitor for drought risk, as well as during the emergence of a drought, during a drought and during the recovery stages after a drought. Our Drought Plan accounts for the lead in times for implementing these actions. The triggers for each set of actions are in the form of “control curves”.

2.3.1 Drought severity classifications

For the 2022 Drought Plan, drought triggers were aligned to the Environment Agency drought severity classifications to ensure consistency nationally and with neighbouring water companies. These EA classifications help to ensure that drought actions are proportionate to the drought risk. There are five levels of increasing drought severity of which these drought triggers align: Level 0- Normal, Level 1- Developing (or prolonged dry weather), Level 2- Drought, Level 3- Severe Drought and Level 4- Emergency Plan.

By aligning our triggers with the Environment Agency’s drought severity classifications, we are aligning this Drought Plan with the terminology of environmental drought risk status used by the Environment Agency in the reporting on its website each month⁴. This means that during times of dry weather we can visually show the alignment of the risk that dry weather and drought has on both the environment and upon our customer’s water supply. Portsmouth Water is in the Environment Agency’s Solent and South Downs (SSD) region.

Figure 5: An example of the monthly environmental drought status published each month by the Environment Agency. This example shows the drought status for each region as of January 2026.



⁴[gov.uk/government/publications/dry-weather-and-drought-in-england-summary-reports](https://www.gov.uk/government/publications/dry-weather-and-drought-in-england-summary-reports)

2.3.2 Groundwater drought triggers

As part of this update, we reviewed the groundwater drought triggers included in our 2022 Drought Plan. The review (Appendix C) compared the existing trigger curves against the latest WRSE stochastic groundwater sequences, the historic record, and the Levels of Service return periods they are intended to represent.

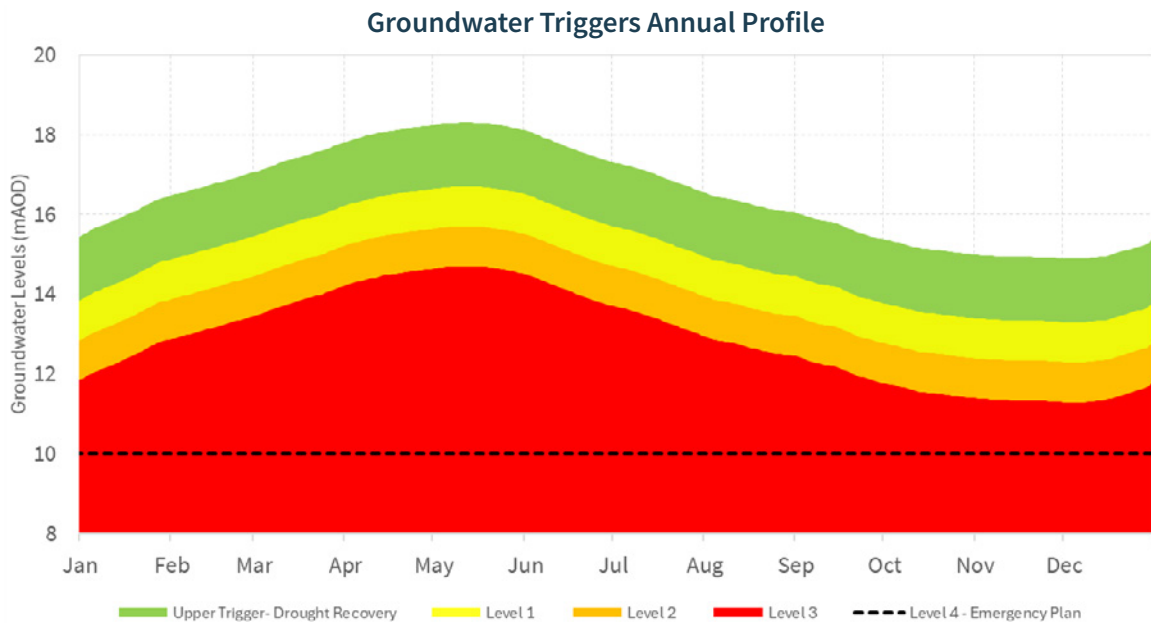
The updated stochastic sequences produce a wider spread of groundwater behaviour and introduce uncertainties, particularly due to sensitivity to extreme historic events such as 1976.

When these sequences are applied directly to groundwater levels, they tend to produce more years that fall below the Level 2 (TUB) threshold, without offering clear operational benefit once modelling uncertainty and the effectiveness of demand measures are considered.

The current triggers remain broadly aligned with the return periods defined in our Levels of Service and continue to perform reliably when tested against both historic and modelled datasets. For these reasons, we are retaining the existing groundwater triggers for this draft Drought Plan which are shown in Figure 6 below.

The actions taken as the drought progresses through each of these stages is described in section 3.

Figure 6: Groundwater triggers annual profile



Our groundwater triggers have been tested to show how our groundwater fluctuates during various types of drought events and the sequence of management actions we would put in place. This is provided in Appendix I 'Testing our Triggers'.

2.4 Other drought triggers

Although we use groundwater as our primary drought trigger, two additional trigger types were reviewed for their effectiveness during the development of this draft Drought Plan: demand triggers and environmental triggers. While neither is being adopted as a formal drought trigger, both play important supporting roles in situational awareness and operational decision-making. The following sections summarise their purpose, the review undertaken, and how each will be used.

2.4.1 Demand triggers

Demand triggers provide an indication of drought pressure by highlighting periods when customer water use increases above expected seasonal patterns. They are designed to identify abnormal or sustained increases in demand that could worsen supply-demand balance during dry weather conditions. Appendix C sets out the background, data sources and analytical methods used to assess historic and current demand behaviours.

A review of demand patterns was completed using our operational and historic records, including data available through the Company's Power BI monitoring dashboard. The analysis looked at:

- Historic seasonal demand cycles
- Recent demand trends and anomalies
- Comparison of current demand against long-term behaviour
- Whether clear, reliable thresholds could be identified to act as drought triggers.

The findings show that while demand behaviour is an important operational indicator, it is highly variable and influenced by many non-drought factors (weather, behaviour change, one-off events). As a result, demand does not consistently align with drought progression in a way that would support robust trigger thresholds.

Although a formal demand trigger is not included in the Drought Plan:

- Demand monitoring will continue to provide operational insights during developing drought conditions.
- Demand trends will support decision-making ahead of Temporary Use Bans (TUBs) and communications campaigns.
- Demand data will be used alongside groundwater triggers and indicator rainfall triggers to validate emerging drought risk.

In summary, demand is a supporting indicator, not a formal drought trigger.

2.4.2 Environmental triggers

For this Drought Plan, no specific environmental triggers have been adopted. This is because the primary function of our Drought Plan is to ensure security of supply for our customers. We do however, recognise the importance of environmental monitoring, particularly on our chalk streams.

The existing environmental conditions on our abstraction licences are in place to protect the environment. We are also undertaking a significant programme of works under the Water Industry National Environment Programme (WINEP) to assess the impacts of our abstractions on all of our catchments. Outcomes from the WINEP will identify these impacts, whilst seeking to understand approaches to protect flows and water quality of our water courses which will inform our WRMP29 and subsequent revision of the Drought Plan. Appendix C lists the conditions on our licences which contribute to the continued protection of the environment.

2.5 Drought Event Management Group

Our Drought Event Management Group provides internal governance and coordinated decision-making during emerging or active drought conditions. The Group convenes when groundwater trends indicate that the Level 1 drought trigger is likely to be reached, or earlier if regional conditions warrant closer coordination, including where neighbouring WRSE companies enter drought. Where WRSE convenes regional drought coordination activities, including regional comms teams or technical tasking, our Drought Event Management Group will integrate those outputs into company-level decision-making.

The Group oversees assessment of the developing drought situation, agrees operational and demand-side actions, and determines when drought status changes are required. It also ensures alignment with regulatory expectations and regional coordination mechanisms.

2.5.1 Group structure, roles and responsibilities

The Group would be chaired by the Head of Water Resources, and brings together senior representatives from key operational, water resources, network, production, water quality, customer services and communications functions.

Table 3 shows the variety of key responsibilities, and the likely department responsible for actioning them. This is subject to change based on the specific requirements of the drought, resource distribution and capacity during the event.

Table 3: Key responsibilities of the Drought Event Management Group

Role / department	Key responsibilities
Asset Management	<ul style="list-style-type: none"> • Chairing the Group • Liaison with the regulators through the Dry Weather Group and regional groups • Reports to the Executive Team • Overall delivery of the Drought Plan • Weekly / Daily review of the water resource position • Water resource monitoring and forecasting • Internal communication of trigger level breaches and required drought management actions • Application for water use restriction measures, Drought Permits/Orders • Lesson learnt reporting
Operations / Production	<ul style="list-style-type: none"> • Implementation of network demand management measures • Technical issues including water quality, supply, and capital works and distribution network • Liaison with regulators including DWI • Water quality monitoring and standards • GW level data collection • Operation of sources, service reservoirs, treatment works • Managing source outputs • Water main distribution network including leak repair • Reporting operational data
Customer Services/Communications	<ul style="list-style-type: none"> • Delivery of the communication plan • Key messaging • Point of contact for media • Customer stakeholder engagement • Customer service interactions • Company call-centre briefing and communications

2.5.2 Transition between Level 3a and Level 3b

We do not have a separate trigger curve for Level 3b, so the move from 3a to 3b during a severe drought is based on a practical judgement by the Drought Event Management Group. We will move to Level 3b when:

- 1** Groundwater levels stay at, or below, the Level 3a trigger and forecasts show they're not likely to recover soon. We'll use the same supporting information we already rely on — rainfall, soil moisture, SPI and other boreholes — to help judge how things are changing.
- 2** The actions we have already taken at Levels 2 and 3a are not reducing demand enough. This includes enhanced leakage work, pressure management, TUBs and NEUBs. These indicators help us understand whether the situation is still worsening.
- 3** We need to start using the more extreme drought measures that sit under Level 3b.

Examples are: applying for or using the Source S drought permit, starting the extreme drought pump changes, or moving to the “More Before 4” communications.

Putting all this together helps us make a clear, shared decision about when the situation has become serious enough to move from 3a to 3b.

2.5.3 Drought Recovery

When drought conditions improve and groundwater levels rise back above the upper recovery trigger, the Group will stand down from active management and shift focus to reviewing the drought response. This includes capturing lessons learned, assessing the effectiveness of actions and communications, and identifying improvements for future plans before the Group disbands. As part of this, the Group will also check groundwater trends at the other Environment Agency observation boreholes, to make sure recovery is happening across the whole aquifer and not just at Well 'X'.



3. DROUGHT MANAGEMENT OPTIONS

We believe that our water resources are sufficiently resilient in periods of low rainfall such that we only anticipate the implementation of our Drought Plan for multi-season droughts. Although the summer of 2025 followed a particularly dry spring, our groundwater levels did not drop to Level 1, so we did not officially implement our Drought Plan. The most recent example of when we implemented our Drought Plan was the summer of 2022. Although the Environment Agency had not declared a drought for the region until August 2022, for the Portsmouth Water area it was considered part of a multi-season drought as it was characterised by a dry winter in 2021-22 followed by a hot dry summer.

Having an advance period of prolonged dry weather put us in a good position to recognise when a drought is developing and gives us time to implement drought management actions. When we need to implement drought management actions, we have different options available.

The options for managing a drought can be divided into three types:

- Demand-side options which focus on reducing the need for water
- Supply-side options which seek to increase the amount of water available
- Extreme drought options, otherwise known as ‘More Before 4’ options designed to delay the implementation of our level 4 Emergency Plan.

Table 4 sets out which drought options we will look to implement in times of dry weather and during a drought as it progresses up to the implementation of the Emergency Plan.

The sections below describe each of the drought options in more detail, and Appendix D sets out our approach to identifying, refining and appraising the drought management options.

Table 4: Drought actions to be implemented at each drought risk level

	Additional demand-side management actions	Additional supply-side management actions
Normal Trigger level 0	Routine demand management actions ⁵	Routine supply-side management actions
Prolonged dry weather Trigger level 1	Enhanced Leakage and Pressure Control. Enhanced communications Regional drought Communications and engagement.	
Drought Trigger level 2	Imposition of Temporary Use Bans (TUBs) restrictions for domestic customers Application for Non-essential Use Bans (NEUBs) restrictions.	
Severe Drought Trigger level 3a	Imposition of Non-essential Use Bans (NEUBs) restrictions.	Source S drought permit application. Prepare to implement more before 4 options.
Severe Drought Trigger level 3b	Implement More Before 4 demand management actions in the communications strategy e.g., National campaigns and ‘Day Zero’ messaging.	Implement The Drought Permit option at Source S Implement Extreme Drought Options such as upgrading pump capacity at Sources T, Q,D, F, H and R.
Extreme Drought - Emergency Plan Trigger level 4	Emergency plan for drought	Emergency plan for drought e.g.,: • Drought Orders for standpipes and rota cuts • Increased abstraction above licensed amounts.

⁵These can be found on our website in the WRMP24 and subsequent Annual Reviews portsmouthwater.co.uk/news/publications/water-resources-planning/

3.1 Demand-side actions

Portsmouth Water has a programme of business-as-usual activities that seek to reduce demand for water. This includes reducing leakage, installing smart meters for household and non-household customers and using communications and community outreach activities to promote water conservation. This baseline demand reduction programme has been determined by the WRMP24 modelling to ensure that our customers have a secure water supply.

During dry weather as the risk of drought increases, demand reduction activities would increase proportionally. These drought action activities align with our WRMP24 but have also benefited from our learning during the dry years we experienced in 2022 and 2025.

The communications activities to encourage demand reduction at each drought risk level are set out in section 5 of this draft Drought Plan. Alongside these communications activities, we could also consider the following, where operationally possible, to minimise overall demand for water during a drought:

- Enhance our efforts to reduce water wasted by leaks
- Reduce the pressure of water in the distribution network
- Apply to the regulator to impose temporary water use restrictions on certain activities using TUBs (Temporary Use Bans – which have previously been called ‘hosepipe bans’)
- Apply to the regulator to impose further restrictions, via a Drought Order, using NEUBs (Non-Essential Use Bans).

Each of these options is detailed in the following sections.

3.1.1 Enhanced leakage and pressure control

We understand the importance of maintaining low leakage levels. If we ask customers to curb their demand, then we think it is very important that we act to reduce any leakage from our network. We do not expect customers to voluntarily restrain their use of water, if we are not also active in minimising wasted water from our activities.

In addition to the common reasons why pipes develop leaks, such as deterioration of materials and physical damage, periods of hot dry weather can also cause leaks. This is because the weather conditions cause soils to dry out and crack, triggering ground movement and potentially dislodging buried pipes. Additional leakage can be anticipated, and thus without additional detection and repair effort, leakage could be expected to rise in drought years.

Our current business-as-usual approach to leakage reduction, as set out in WRMP24 and refined annually through the WRMP Annual Review process, is based on a combination of targeted active leakage control, pressure management, network optimisation and continued investment in mains renewal and smart network technologies.

Pressure management is an integral part of this strategy: maintaining a ‘calm’ network, where pressures are stable and consistent, reduces bursts and leakage, increases asset life, and enables faster localisation of newly emerging leaks. Around 70% of our distribution network is already under pressure control, supported by a growing number of sensors that provide real-time visibility of network performance.

During drought conditions we will implement enhanced leakage control measures that intensify our business-as-usual activities across prevention, awareness, location and mend (the PALM model). This could include the following actions, depending on our leakage reduction activities at the time:

- Deploying additional pressure, flow and acoustic logging equipment to improve network monitoring
- Minimising other routine operational interventions that can trigger increases in leakage (e.g. changing network configurations, and reversing the way water flows along pipes)
- Making more dynamic use of pressure management to reduce both demand and leakage where safe and appropriate
- Increasing customer-facing communications to encourage rapid reporting of leaks
- Accelerating internal awareness of leaks through more frequent DMA flow monitoring
- Using additional internal and external resources to increase detection capacity, including Smart Network Technicians, Network Technicians, Meter Readers and specialist contractors
- Prioritising repair activities, supported by increased repair team capacity and the use of mains renewal teams where appropriate.

These measures would enable a temporary step-up in leakage reduction during drought while maintaining network resilience. Once the Level 1 (developing drought) trigger is reached, these enhanced activities are initiated and then progressively intensified as drought risk increases. The scale and pace of activity will depend on conditions at the time, but broadly follow a staged, proportionate escalation.

As drought conditions deepen, we further increase resources for both finding and repairing leaks, reduce repair times wherever possible, and expand customer communication to drive faster reporting of visible leaks. We also increase the frequency of DMA flow monitoring to accelerate internal leak awareness and adapt the existing leakage-reduction programme to prioritise essential leakage-related activities over other operational work.

Pressure management continues to form a key part of this escalation. Where operationally safe, we implement more dynamic, targeted pressure adjustments to help reduce both demand and leakage, following our established protocol to safeguard vulnerable customers and essential services. More substantial or sensitive pressure reductions, such as reductions below guaranteed standards or time-of-day adjustments, would only be considered under the most extreme drought conditions (Level 4, Emergency Plan).

The scale of demand saving achieved will vary across the WRZ and will be targeted at hotspot DMAs where supply demand pressures are greatest. Leakage is currently calculated weekly, reported fortnightly to the internal operations group and presented to the Board monthly. During drought, reporting frequency will be increased to support rapid decision-making and track the effectiveness of enhanced measures.

Following any drought, a full evaluation of both the leakage-reduction and pressure-management activities will be undertaken. This analysis will inform future updates to the Leakage Strategy, WRMP and Drought Plan. All activities will continue to be led by our specialist leakage team.

3.1.2 Temporary Use Bans

We can impose restrictions on customers' water use through Temporary Use Bans (TUBs), previously known as hosepipe bans, as set out in Section 36 of the Flood and Water Management Act 2010 and the Water Use (Temporary Bans) Order 2010. The legislation sets out that water companies may "prohibit one or more specified uses of water supplied by it if it thinks that it is experiencing, or may experience, a serious shortage of water for distribution". TUBs may need to be implemented if voluntary water restraints through the enhanced communications strategy have not reduced demand sufficiently on their own and the drought continues to worsen.

Under the ban, the following household water uses will be restricted:

- 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.

TUB restrictions do not always prevent people from using water for the above purposes but specifically restricts the use of a hosepipe. This is because hosepipes can use a lot of water very quickly. Using a watering can or a bucket can lead to a much more efficient use of water.

We will fully comply with the regulations produced by the Environment Agency and will follow the Water Industry's 'Code of Practice and Guidance on Water Use Restrictions', to ensure that we apply the TUB in a way that is consistent, transparent and proportionate. We will work as part as the WRSE group and with NAVs to ensure regionally consistent communications and, if possible, within our agreed Levels of Service, to align our approach to restrictions with those of our neighbouring water companies if they are also implementing restrictions. For full details of the exemptions, please refer to Appendix E.

3.1.2.1 When a ban will be implemented and what is affected

TUBs are to be implemented no more frequently than in a 1-in-20 year drought event (a 5% chance of happening in any given year) which is once the Level 2 trigger in the Drought Plan has been crossed.

The whole of our Water Resource Zone (WRZ) would be affected by this activity. The implementation of the ban and what is restricted will be clearly communicated. Prior to implementing TUBs, there will be a minimum two-week consultation with customers and stakeholders.

Once the decision has been made to implement TUBs, a notice will be published on Portsmouth Water's website. Multiple media channels will also be used to communicate the intentions to implement water use restrictions, as set out in section 5.

3.1.2.2 Effect of a Temporary Use Ban

The effect of TUBs will depend on the time of year, the weather situation and position of neighbouring water companies.

In WRMP24, TUBs are estimated to have a 7.2% reduction in demand. Work is currently underway by UK Water Industry Research (UKWIR) to understand the impacts that the implementation of TUBs had during the drought of 2025. Although we did not impose TUBs, the regional position may have still indirectly reduced our demand. Outputs of this work will not be available in time for publication of this draft Drought Plan, but we will review and incorporate the findings into our final Drought Plan 2027.

Whilst we are awaiting the results of the UKWIR project, we have carried out a regression analysis to explore whether Southern Water's 2025 Temporary Use Ban had any effect on Portsmouth Water's demand. The results suggest a small reduction in our observed demand compared with the predicted baseline after the restrictions were introduced, although the effect is minor and subject to significant model limitations.

This initial analysis indicates that cross-boundary behavioural effects may occur, supporting the case for using the upcoming UKWIR national TUBs savings evidence in our final Drought Plan. Once the UKWIR results are available, we will refine this assessment and incorporate an updated, more robust estimate of savings into the Final Plan and WRMP29.

3.1.2.3 Representations and concessions

The legislation for TUBs allows water companies to specify exceptions or concessions to particular groups so they can remain unaffected by the ban. These exceptions aim to minimise the impact on vulnerable customers and the economy. The Code of Practice and Guidance was updated in 2023⁶ to incorporate lessons from the 2022 drought.

There are two types of exceptions to these restrictions which can be applied by water companies:

- Statutory Exceptions: activities/water uses specified in legislation that are exempt from the restrictions
- Non-Statutory Exceptions: activities/water uses which are not subject to a statutory exception, but water companies can grant the use of a hosepipe under certain circumstances.
- Non-Statutory Exceptions can be further split into two categories:
 - 'Common': these exceptions have been agreed by all companies who signed up to the Drought Code of Practice (a policy which aims to ensure a common approach to drought management by UK Water companies). Such exceptions do not require customers to write or make representation to the water company to obtain permission
 - 'Bespoke': these are exceptions which individual water companies can choose to offer customers, depending on the circumstances. These exceptions do require customers to write or make representation to the water company to obtain permission.

Appendix E sets out the exceptions and concessions for Portsmouth Water. Where customers feel that they should be granted a concession that is not listed, they are welcome to contact us with their representation. We will consider all representations to the ban in a fair way, i.e. complaints, requests to be exempted from the ban, and other appeals. We will record all representations and respond appropriately.

3.1.2.4 Policing the ban

During drought situations, there is less water for people and the environment. We will call upon customers to safeguard our precious water resources and ensure their use and enjoyment of water is in keeping with the restrictions and does not impact unfairly on others. Our aim in imposing restrictions is to ensure a fair and equitable distribution of potable water for all and protect the environment in the early stages of drought. It is difficult to police these restrictions, and we hope that customers will use water wisely. Where we are aware of anyone breaking the ban, we will respond with information on the current water resources situation to ensure the individual(s) are aware of the temporary restrictions in place.

Where continued infringements and contraventions are found, we will respond in a manner commensurate with the need to safeguard the availability of water available for distribution. In extremis we might consider prosecution: The law allows the flagrant and repeated abuse of the ban could attract a penalty fine of up to £1,000 (level 3 of the standard scale of fines as outlined in section 32 of the Criminal Justice Act 1982), as set out in the Water Management Act 2010.

⁶Managing through Drought: Code of Practice and Guidance for water companies on water use restrictions – 2023 (UKWIR 2023)

3.1.3 Non-Essential Use Bans (NEUBs)

Should the drought continue to deepen, or the water demand reductions from TUBs are less than expected, we will need to extend the ban to what are considered “non-essential” uses of water. Non-essential use bans, commonly referred to as NEUBs, are a set of measures restricting non-household water use and granted to water companies by the Secretary of State via a Drought Order.

The underpinning legislation for these restrictions is the Drought Direction 2016. For a NEUB to be implemented, the Secretary of State must be satisfied that “by reason of an exceptional shortage of rain, a serious deficiency of supplies of water in any area exists or is threatened”.

The Drought Direction 2016 allows water companies to restrict the use of water by non-household customers for the following purposes:

- Watering outdoor plants on commercial premises using a hosepipe
- Filling or maintaining a non-domestic swimming or paddling pool
- Filling or maintaining a pond
- Operating a mechanical vehicle washer
- Cleaning any vehicle, boat, aircraft or railway rolling stock using a hosepipe
- Cleaning non-domestic premises using a hosepipe
- Cleaning a window of a non-domestic building using a hosepipe
- Cleaning industrial plants using a hosepipe
- Suppressing dust using a hosepipe
- Operating cisterns in an unoccupied building.

Prior to application we will conduct as a minimum a two-week public consultation with customers and stakeholders. We would be particularly keen to hear from our NAV and retailer partners and their customers at this time. Should any substantial objection be received as part of the consultation, it would be likely that a formal inquiry into the application would be necessary.

As with TUBs, we will fully comply with Environment Agency regulations and will follow the Water Industry’s ‘Code of Practice and Guidance on Water Use Restrictions’ for NEUBs. We will clearly communicate the implementation of the ban and what is restricted, using the communication channels listed in Section 5. For full details of the exemptions under a NEUB, please refer to Appendix E.

3.1.3.1 When the ban will be implemented

The potential economic impact on businesses using water could be significant, so therefore NEUBs are to be implemented no more frequently than a 1-in-80 year drought event (a 1.25% chance of happening in any given year) in line with our WRMP24 Level of Service. NEUBs will be implemented once Level 3a (severe drought) of the Drought Plan has been crossed.

The whole of Portsmouth Water’s Water Resource Zone (WRZ) would be affected by this option.

3.1.3.2 Effect of a Non-Essential Use Ban

Portsmouth Water has never implemented a NEUB so has no direct experience of the benefit they provide. However, as stated in WRMP24, we anticipate an additional 4.7% reduction in demand with the implementation of a NEUB (i.e. a total 11.9% reduction, inclusive of the TUB).

3.1.3.3 Representations and concessions

As with TUBs, the legislation for NEUBs allows water companies to specify exceptions or concessions to particular groups so they can remain unaffected by the ban. Appendix E sets out the exceptions and concessions for Portsmouth Water, including the circumstances where we believe concessions are appropriate or otherwise. There are Statutory and Non-Statutory exceptions to these restrictions which can be applied by water companies, these are also included in Appendix E. Where customers feel that they should be granted a concession that is not listed, they will be welcome to contact us with their representation. We will consider all representations to the ban in a fair way, i.e. complaints, requests to be exempted from the ban, and other appeals. We will publicise the mechanism for making an appeal widely in both our pre-application consultation and on our website. We will record all representations and respond appropriately.

3.1.3.4 Policing the ban

As with TUBs, it is also difficult to police the NEUB restrictions, and we hope that customers will use water wisely. Where we are aware of anyone breaking the ban, we will respond with information on the current water resources situation to ensure the individual(s) and organisation is aware of the temporary restrictions in place.

In extremis we might consider taking legal action. Flagrant and repeated abuse of the Ban could attract a penalty fine of up to £1,000 (level 3 of the standard scale of fines as outlined in section 32 of the Criminal Justice Act 1982), as set out in the Water Management Act 2010.



3.1.3.5 Compensation arrangements

Water companies normally have a duty to provide a constant supply of water that is sufficient for domestic purposes. However, if there is (or if there is a danger of) a serious supply shortage because of exceptionally low rainfall, then a drought order may be sanctioned by the Secretary of State for Environment, Food and Rural Affairs. A drought order can change a water company's water supply obligations including quantity, pressure and the means of supply.

There is a statutory duty for Water Companies to compensate owners of other sources of water when drought orders are in force, whilst Condition Q of our Regulatory Licence now requires us to compensate our own customers if, in the event of a drought, we need to restrict customers use. We encourage commercial users who are dependent on mains water supplies for their business operations to consider taking steps to protect themselves from the effects of water use restrictions which are imposed under drought measures. It may be that a number of businesses need to consider pooling resources and if possible, accessing alternative supplies from, say, an area outside that affected by drought.

Where we impose an emergency drought order and need to interrupt or cut off a person's supply as a result of the order which means there is no water for cooking, washing, drinking or flushing the toilet, Condition Q would apply. This states that household customers are entitled to £10 for each day where the supply is interrupted or cut off. The total amount shall not exceed the average amount of water charges payable by household customers in the charging year preceding on average circa £100. Business customers are entitled to £50 for each day where the supply is interrupted or cut off. The total shall not exceed the average amount of water charges payable by that customer in the charging year preceding or if that customer was not liable to pay those charges, £500.

3.1.4 Environmental assessments

3.1.4.1 Habitats Regulation Assessment

All of our demand-management options were confirmed through the HRA Stage 1 Screening to have no pathways for impact on any European Site, as none of these measures involve construction, physical works, land take, or changes to abstraction. These actions operate entirely within our existing network or through temporary restrictions on customer water use, meaning they do not interact with habitats or species and therefore do not give rise to any Likely Significant Effects. As such, no additional actions are required before, during, or after a drought from an HRA perspective in relation to any of these demand-side measures. The full assessment is provided in the HRA report (Appendix F).

3.1.4.2 Strategic Environmental Assessment

All of our demand-side measures have no significant environmental risks under the SEA. They mainly *reduce* demand, which means less abstraction and less strain on rivers, groundwater, and habitats, giving overall small but positive environmental effects.

- **TUBs and NEUBs:** No construction. During operation they give slight environmental benefits by reducing demand. Any downsides (e.g., dry gardens, reduced amenity) are minor and temporary.
- **Enhanced leakage reduction:** Only option with small, local construction impacts, all of which are short-term and easily managed. In operation it provides the biggest environmental benefits, especially for water resources and reducing the need for treatment/pumping.
- **Pressure management:** No construction and delivers strong operational benefits, similar to leakage reduction, by preventing bursts and reducing water loss.
- **Enhanced communications campaign:** No construction and provides small but positive benefits by helping reduce demand.

No special environmental actions are needed before, during, or after implementing our demand-side measures. Aside from normal good practice for any small leakage-repair works (e.g., avoiding pollution, minimising noise, and keeping local residents informed), all other actions can simply be applied as required during a drought, with no extra surveys, monitoring or environmental controls needed, and no additional follow-up beyond routine post-drought operational checks.

3.2 Supply-side actions in a drought

Our WRMP24 demonstrates that even in the most severe drought scenarios, only a single drought permit may be required at Source S (previously known as the North Arundel Drought Permit). This drought permit was chosen as it has the least likely impact upon the environment.

Since the last revision of our Drought Plan in 2022, we have assessed further supply-side options for increasing drought resilience. However, these have been included as 'More Before 4' extreme drought options which would be implemented after our drought permit but before the Emergency Plan – see section 4. We therefore have one supply-side drought option presented in this section.

3.2.1 Source S Drought Permit

Source S normally operates between 1–2.5 Ml/d, constrained by its licensed limit. The proposed drought permit would allow a temporary increase of the licence to 11 Ml/d for around six months, providing essential additional water during a severe drought.

We need this because severe drought scenarios (1 in 125-200 year) could otherwise create a supply deficit. Source S is identified in WRMP24 as the key short-term supply-side option needed to maintain resilience.

Earlier assessments concluded that alternative drought permit options are not feasible, leaving Source S as the only practical solution. Our agreed Level of Service for use of this drought permit is no more frequently than a 1 in 125 year drought event, or 0.8% annual chance.

Whilst drought permits are considered as an option in our WRMP24, they are an aspect of our commitment to sustainable abstraction. In our WRMP24 Appendix 5B we detail the assumptions in the WRMP24 regarding the use of drought permits (Section 2.3 of WRMP24 Appendix 5B) and the assessments and investigations we plan to undertake to ensure the use of drought permits is sustainable (Section 3.3 of WRMP24 Appendix 5B). In our WRMP24 we plan to remove the need for drought permits by 2040/41. Our Drought Plan will be revised before this happens and take account of these changes.

To ensure that we are 'application ready' for the drought permit, we have reviewed and updated the Environmental Assessment Report (EAR) using the new East Hampshire Chichester Chalk (EHCC) regional groundwater model (updated in 2022) to simulate groundwater flow and levels within the chalk aquifer, to understand potential impacts of the Drought Permit. We have also produced a mock Drought Permit Application. These documents are available upon request.

3.2.1.1 Environmental Assessment Report

This section summarises the purpose of the Environmental Assessment Report (EAR) prepared to support the Source S drought permit, the key findings of the assessment, and the steps required to ensure we are "application ready". The summary draws on the updated groundwater modelling, environmental receptor assessment and regulatory compliance tests documented throughout the EAR.

Why an EAR is required

An Environmental Assessment Report (EAR) is required because any drought permit that alters abstraction quantities must be supported by a formal assessment of environmental risks. This is a statutory requirement under the Water Resources Act 1991. We have prepared this EAR to comply with that legislation and with the Environment Agency's expectation that companies are "application ready" in advance of drought conditions.

The EAR provides the necessary evidence to understand the baseline environment, the potential impacts of increasing the Source S abstraction from 2.5 Ml/d to 11 Ml/d, and the monitoring and mitigation measures required to minimise harm. It evaluates how these changes may affect local watercourses, wetlands, species and designated sites, including groundwater-dependent features such as Swanbourne Lake, Mill Stream and parts of the WWT Reserve.

The assessment also demonstrates how the proposed drought permit meets requirements under the Water Framework Directive (WFD), incorporates findings from the Habitats Regulations Assessment (HRA) (which found 'No Likely Significant Effects'), and informs the Strategic Environmental Assessment (SEA) for the wider Drought Plan).

Outcomes of the Environmental Assessment

Water regime and physical environment

Updated groundwater modelling shows that the Source S drought permit abstraction rate has a zone of influence extending from the River Lavant to Swanbourne Lake. The key hydrological findings are:

- Major impacts on the Park Bottom tributary, where natural summer flows are extremely low and predicted reductions are proportionally large.
- Up to Major impacts on the Mill Stream and WWT Reserve, where small groundwater level changes can significantly affect spring-fed inflows.
- Minor impacts on Swanbourne Lake, potentially extending naturally dry summer conditions by around one month.
- Negligible impacts on most other watercourses, including the River Lavant, Paghams Rife, Aldingbourne Rife, Lidsey Rife, Ryebank Rife and River Arun, due to either hydraulic separation or tidal dominance.

Environmental receptors

The assessment identifies several receptors with high sensitivity to flow and groundwater level changes:

- Arundel Park SSSI Units 1 & 2, covering Swanbourne Lake and areas of the WWT Reserve, where habitat quality and species use are strongly linked to water levels.
- NERC priority habitats including reedbeds, lowland fens and headwaters, which depend on stable groundwater and surface water regimes.
- A range of species groups, including fish, macroinvertebrates, macrophytes, bats, birds, otter and water vole, with potential impacts ranging from Minor to Major depending on location, hydrological sensitivity and baseline data availability.

Several receptors also have uncertain impact ratings due to limited recent or long term ecological datasets.

Compliance assessments

Water Framework Directive (WFD)

All WFD surface water bodies were screened out of detailed assessment because hydrological impacts were predicted to be negligible. There is a medium risk of temporary deterioration for the Chichester Chalk groundwater body under the Groundwater Water Dependant Terrestrial Ecosystem (GWDTE) test. This relates to potential short term effects on groundwater-dependent habitats within Arundel Park SSSI and associated wetlands. These effects are expected to be short-term, temporary and reversible.

Habitats Regulations Assessment (HRA)

The HRA concluded 'No Likely Significant Effects' on European sites from the Source S drought permit, either alone or in combination, meaning no Stage 2 Appropriate Assessment was required.

Strategic Environmental Assessment (SEA)

The SEA identified minor, temporary adverse impacts (e.g. biodiversity, water quality, GHG emissions), and beneficial effects linked to improved supply resilience and reduced pressure on existing sources during drought (detailed further in Appendix G).

Overall conclusion

The EAR concludes that, under a worst-case severe drought scenario, the drought permit could give rise to up to Major impacts (low confidence) on a small number of sensitive receptors. However, these impacts occur only in extreme drought conditions, they are temporary and reversible, and they can be avoided, reduced or mitigated through the monitoring and mitigation strategy set out in Section 6 of the EAR.

Overall conclusion compared to the 2022 EAR

While the updated EAR incorporates improved modelling outputs and provides clearer presentation of impact pathways, its overall findings remain consistent with those of the 2022 EAR. Both assessments conclude that:

- Under severe drought conditions, the drought permit could give rise to up to Major impacts on a small number of highly sensitive receptors, but
- These effects would occur only under extreme drought scenarios
- Would be temporary and reversible and
- Could be avoided, reduced or mitigated through the monitoring and mitigation strategy already set out.

The main change since 2022 is not in the magnitude of assessed impacts but in the improved confidence in the hydrological screening, the refinement of impact classifications, and the clearer articulation of monitoring and mitigation requirements. The updated EAR therefore strengthens the robustness and defensibility of the drought permit assessment without altering the fundamental environmental risks identified in 2022.



Next steps and application-readiness actions

To ensure we are fully application ready and environmental risks are minimised during any future implementation of the drought permit, we will finalise and implement the baseline monitoring plan. The monitoring plan has been updated in this EAR and will now be finalised with Southern Water, the Environment Agency and Natural England with the aim of including the finalised monitoring plan with the final Drought Plan 2027.

The monitoring plan defines when action must be taken; the mitigation plan defines what actions will occur. Mitigation measures that may be required during severe drought include:

- Modifying or suspending abstraction when low-flow or low-water-quality triggers are exceeded
- Reducing abstraction after rainfall events to preserve short-term increases in flow important for fish passage and sediment flushing
- Deploying temporary physical measures, such as flow deflectors, refugia or aerators, where localised impacts may occur
- Adjusting hydraulic structures (e.g. sluices, tidal flaps) in the Mill Stream, Swanbourne Lake and WWT Reserve to retain water and protect sensitive habitats.

Roles and responsibilities will be discussed and agreed with each relevant organisation ahead of the final Drought Plan 2027.

Ongoing updates

The EAR will be finalised for the final Drought Plan 2027 and then refreshed again prior to any future permit application to incorporate any new monitoring data, updated modelling, walkover and site-specific findings, and any new regulatory or stakeholder information. For example, in addition to the EAR, we are also actively participating in the Arundel Park SSSI investigation which is a joint Southern Water and Portsmouth Water WINEP investigation.

The project aims to determine whether the increase in groundwater abstractions through the drought permits at two of the Southern Water sites and Source S have hydrogeological linkages to, and could be adversely affecting, designated features of the Arundel Park SSSI. It will build an evidence-based understanding of any abstraction related risks by compiling existing data, improving conceptual and modelling understanding, and identifying any further monitoring or mitigation needed to protect the SSSI.

Outcomes from the EAR will be used to inform the WINEP investigation and vice versa once new information is available.

3.2.1.2 Strategic Environmental Assessment

The SEA builds on the detailed EAR findings by considering the Source S drought permit at a strategic level, assessing how the identified environmental risks perform against the full suite of SEA objectives. Consistent with the EAR, the SEA confirms that Source S remains the most suitable and least environmentally impactful location for a drought permit within our supply area, with potential effects arising only under severe drought conditions. This is reflected in the SEA's assessment, which records moderate, temporary and manageable adverse effects for biodiversity and water environment receptors due to risks such as reduced groundwater support to sensitive habitats, changes in water quality, and reduced river baseflows during operation. These findings reinforce the position that while Source S is one of the more environmentally constrained options in the Plan, it continues to represent the lowest impact and most appropriate supply side measure available for managing severe drought.

Broader impacts

In addition to ecological considerations, the SEA also highlights several broader strategic effects linked to the implementation of the drought permit. These include slight adverse effects on soils, where reduced groundwater levels may contribute to temporary drying and erosion, and slight adverse effects on heritage assets, particularly waterlogged archaeological remains that rely on stable groundwater conditions. The SEA also identifies minor negative impacts associated with energy use and carbon emissions, as higher rated pumping during drought results in increased operational energy demand.

Construction related impacts for Source S are assessed as neutral to slightly adverse, reflecting typical short-term risks such as temporary disturbance, emissions and resource use, all of which can be managed through best-practice construction environmental management. The SEA recognises that despite these risks, the option still provides beneficial effects for water-supply resilience, helping maintain essential public supply during extreme drought conditions.

Monitoring and mitigation

A key conclusion of the SEA is that effective monitoring and mitigation are essential to keeping impacts within acceptable limits. The SEA therefore relies on the EAR's monitoring framework and adaptive trigger-based mitigation approach, such as adjusting abstraction, implementing flow management measures or deploying ecological protection interventions, to ensure that environmental effects are managed proactively and remain temporary and reversible.

Overall conclusion

Overall, the SEA concludes that the Source S drought permit presents strategically significant but controllable environmental risks, consistent with its use only under the most severe drought conditions. The option is retained within the Plan on the basis that it will be strictly governed by real-time monitoring, environmental triggers and operational controls, and that full assessment and mitigation requirements are documented in the SEA (Appendix G) and EAR (available upon request).

3.2.1.3 Habitat Regulation Assessment

The Habitats Regulations Assessment (HRA) Stage 1 Screening concluded that the Source S drought permit option will not give rise to any Likely Significant Effects on European Sites. The assessment identified no viable impact pathways due to the distance between Source S and nearby designated sites, the absence of hydrological connectivity, and the fact that the qualifying features (including Arun Valley wetland habitats, coastal SPA bird assemblages, and bat SAC features) are not sensitive to the operational changes associated with pump-lowering or increased abstraction within the existing source infrastructure. As a result, the option was screened as having 'No Effect' on

all relevant SAC, SPA and Ramsar sites, and does not require progression to Stage 2 Appropriate Assessment.

Full details are provided in the accompanying HRA report (Appendix F).

3.2.1.4 Mock Drought Permit Application

We have produced a mock drought permit to demonstrate that we are fully "permit ready" if a drought ever requires a real application. Using a mock drought scenario, it allows us to practise the full process in advance, follow Environment Agency guidance, and identify the evidence, data and assessments that would need updating in a real event.

The mock application confirms that so long as we update our EAR and undertake the required monitoring, we have the required framework, process, and understanding in place and would be able to submit a full, compliant permit once real up-to-date evidence for the specific drought, and final assessments are provided.



4. EXTREME DROUGHT MANAGEMENT OPTIONS

Extreme drought actions (sometimes referred to as our 'More Before 4' options) are the actions we could take during an extreme drought to delay the need to implement our Emergency Plan as a drought worsens to Level 4. These would only be implemented once all of our demand and supply options described in the previous sections of this Drought Plan have been implemented. While not part of the WRMP24 service levels, these extreme options give us valuable extra tools to manage prolonged drought. They help safeguard supplies and minimise the risk of triggering the Emergency Plan, which would bring much stricter restrictions for customers.

Our previous Drought Plan 2022 identified three 'More Before 4' options. We have reviewed and updated these and considered a wider range of options which could be implemented in an extreme drought. In keeping with the guidelines, our list of options only includes those which:

- Are assessed to be realistic and technically feasible
- Include triggers with realistic lead-in times
- Would be practical to implement
- Are likely to be temporary
- Would not result in permanent increases to deployable output i.e. usually distinct from WRMP options.

Although detailed environmental assessment is not required at this stage for extreme drought actions, we have proactively considered them within our Strategic Environmental Assessment and Habitats Regulations Assessment. This goes beyond the minimum requirements and ensures any potential environmental issues are identified early.

We will consider these options as the drought progresses and discuss them with the Environment Agency to help identify any barriers and to determine whether any further environmental assessment is required. Looking ahead, there is a requirement for water companies to increase resilience to more extreme droughts (up to a 1-in-500-year event), with the expectation that such events should be manageable without the need to implement our Emergency Plan (Level 4 drought restrictions). In the meantime, these actions could be implemented in an extreme drought but may warrant further investigation before being taken forward.

4.1 Extreme drought demand options

Our extreme drought demand actions have been incorporated within the communications strategy and would also involve a further ramping up of the leakage and pressure strategy. These would be assessed at the time, depending on the drought conditions and to align with the national picture during the extreme event.

4.2 Extreme drought supply options

We undertook a review of possible extreme drought options and screened out those which were not in line with guidance (i.e. not practically feasible). The most feasible supply options available to us under extreme drought conditions are designed to increase Deployable Output at a number of sites by removing the current constraint to allow abstraction up to the licensed amount as groundwater levels continue to recede. This could potentially occur at the following sites:

- Source T - Upgrade pump capacity
- Source Q - Upgrade pump capacity
- Source F - Upgrade pump capacity
- Source H - Upgrade pump capacity
- Source R - Upgrade pump capacity
- Source D - Lower pump depth

Quantifying the benefit of these extreme drought options is not appropriate for this draft Drought Plan. Although these actions would allow us to pump closer to the licensed limits at a small number of sites, it is not possible to reliably estimate the additional volume or duration of increased abstraction under these scenarios. Groundwater behaviour becomes highly uncertain at very low water levels, and the potential benefit depends heavily on factors such as antecedent conditions, localised drawdown effects, and the timing and pattern of any remaining recharge. Because these options would only be used in the most exceptional drought conditions, the evidence base available for modelling their performance is extremely limited. Any attempt to quantify uplift at this stage would therefore be unreliable and could be misleading.

Looking ahead, it is possible that some of these extreme drought options may be taken forward for further investigation as part of the WRMP29 options programme. If that happens, we would carry out the appropriate detailed studies, including groundwater modelling, to understand their feasible deployable output, operating limits and potential duration. Until then, these options remain unquantified. They are contingency measures intended solely to delay the need for Level 4 Emergency Plan actions and are included here to demonstrate preparedness rather than to provide a defined, modelled yield.

4.2.1 Implementation timetables

Ordering equipment for these options would take time. Current lead-in times for pumps are around six months, and our team can realistically carry out one pump change per site per week. That means we will need to start planning early, because we would not be able to complete all sites at the same time. How we prioritise work would depend on groundwater forecasts, operational needs and any environmental constraints at the time.

We saw the value of this approach during the dry weather in 2025. As groundwater levels fell, we began internal planning to understand lead-in times, site feasibility and when we might need to make procurement decisions. Using groundwater data and a range of rainfall scenarios, we identified several possible decision points. When those points arrived, we checked the latest forecasts to decide on a go/no-go basis. In the end, recharge picked up and we did not need to take any further action for 2026, but the exercise helped refine how and when we prepare for these options in future.

4.2.2 Environmental considerations

As mentioned, although detailed environmental assessment is not required at this stage for extreme drought actions, we have proactively considered them within our draft Drought Plan SEA and HRA.

4.2.2.1 Habitat Regulations Assessment – Extreme Drought Options

The HRA Stage 1 Screening concluded that all of the groundwater-based supply options proposed for use under extreme drought conditions as listed above, would result in ‘No Likely Significant Effects’ (LSEs) on any European or Ramsar site.

As these options are fully contained within existing infrastructure and require no construction or physical works, only operational effects from increased abstraction were assessed. For all options, the HRA found no viable impact pathways to designated sites, either due to hydrological separation, distance from European sites, absence of functionally linked land, or lack of sensitivity of qualifying features to the type or scale of abstraction proposed.

No impacts on groundwater dependent habitats, water quality, hydrology, or qualifying species (including bat SACs within 30 km) were identified. As a result, none of the groundwater supply options require progression to Stage 2 Appropriate Assessment, and there is no scope for in-combination effects with other plans or projects at this stage of the plan.

4.2.2.2 Strategic Environmental Assessment – Extreme Drought Options

The SEA concludes that the extreme drought groundwater supply-side options would enable additional abstraction during extreme drought conditions but present moderate adverse operational effects on both biodiversity and water environment receptors. These effects arise from the risk of:

- Increased turbidity
- Changes in nitrate levels
- Mobilisation of mineral-rich deeper groundwater
- Reduced groundwater flows to dependent habitats
- Lower river baseflows
- The potential for longer aquifer recovery times following drought.

Each option also presents slight adverse effects on:

- Soils - due to drying and erosion where groundwater levels fall
- Heritage assets - particularly where waterlogged archaeological remains could be affected by declining water tables
- Carbon and resource use, because higher rated pumps increase energy consumption.

Construction phase impacts across all these sites remain neutral to slight adverse, short term and localised, relating to habitat disturbance, temporary emissions, and resource use, and are manageable through robust CEMP measures, pollution control and traffic management.

The SEA also identifies beneficial effects, as these options improve abstraction efficiency and help maintain supply resilience and customer wellbeing during drought.

4.2.2.3 Overall conclusion

Overall, the SEA emphasises that while these options support operational resilience, mitigation measures would need to be put in place to manage environmental risks.

Recognising that there would be environmental damage from these options, they remain only to be used in extreme drought for the purposes of maintaining supply and to delay implementation of the Emergency Plan.

5. CUSTOMER COMMUNICATIONS

Effective, timely and proportionate communication is central to ensuring customers, regulators and stakeholders understand emerging drought conditions and the actions required to manage them. As groundwater levels decline or other indicators suggest increasing risk, we will review the situation continuously and prepare to activate our communications approach.

This would begin with early, pre-emptive messaging when trends move towards the Level 1 trigger, enabling us to raise awareness of water efficiency while maintaining a clear link to the developing drought position. Our full communications activity expands through each drought level and scales in frequency, tone and reach as conditions worsen, drawing on an agile approach that enables rapid adjustment to local circumstances.

The detailed breakdown of actions, delivery channels and trigger-linked interventions is set out in the Appendix H.

5.1 Communications activities across drought levels

Our communications approach is phased and aligned with drought trigger levels so that we will expand and intensify outreach as conditions become more severe. At earlier stages we will focus on awareness and water efficiency, while higher levels involve clearer calls for voluntary reductions, direct messaging to affected areas, and communication of any required restrictions. Escalation remains flexible so that we can adjust frequency, tone and messaging if conditions improve or deteriorate. This approach is supported by collaboration with other WRSE companies to maintain alignment where drought affects the wider region.

Table 5 provides a summary of the types of communication we may deploy at each level of drought. Detailed communications and templates are provided in Appendix H.

Table 5: Summary of communications for each level of drought

Drought Level	Purpose of Communications	Summary of Communications
Normal Trigger level 0	Maintain general awareness of water efficiency and provide routine updates.	Regular water efficiency messaging via website and social media General reminders about using water wisely Promotion of free water saving devices and Get Water Fit tools Routine engagement with regulators and WRSE meetings.
Prolonged dry weather Trigger level 1	Raise awareness of emerging risk; encourage voluntary reductions.	Messages highlighting current dry conditions and increased demand Water saving advice targeted to household and non household customers Localised messages to areas under early pressure Light touch updates to stakeholders such as Councils, CAB, environmental groups Email/SMS updates to customers For vulnerable customers there will be a focus on informing all customers of exemptions/eligibility protection criteria, and also upon connecting with groups which can provide support, for example, Citizens Advice Bureau.
Drought Trigger level 2	Explain drought conditions and introduce formal demand measures.	Clear explanation of drought status and why action is needed Announcement of Temporary Use Bans (TUBs), including exemptions and how to make representations Direct communication to high-use or sensitive areas Increased media activity: press releases, interviews, targeted social media Coordination with WRSE and other companies (including NAVs) to align messages.
Severe Drought Trigger level 3a	Support customers and stakeholders through restrictions and explain environmental and supply impacts.	Updates on drought progression and further restrictions (e.g., NEUBs) Direct engagement with vulnerable customers Business specific messaging for NHH customers likely to be affected Outreach at public locations/events to promote water saving Regular briefings to regulators, LRFs, environmental NGOs and RWG Group.
Severe Drought Trigger level 3b	Reinforce urgent need to reduce demand; prepare customers for potential emergency measures.	Stronger calls to reduce usage with clear, practical steps Warnings about potential escalation if conditions do not improve Updates on drought permit/order applications and environmental safeguards Expanded digital and OOH campaigns WRSE led regional messaging hub and shared materials.
Extreme Drought - Emergency Plan Trigger level 4	Communicate emergency actions and ensure public understanding of essential supply protections.	Clear communication of emergency measures Essential supply messaging, reassurance and safety information Frequent updates via all channels including radio and press Joint industry/national messaging if activated by Water UK/NDG/NAVs.
Post-Drought Recovery	Support transition back to normal operations and reinforce long term behaviours.	Thank you messages recognising customer efforts Explanation of return to normal supply and end of restrictions Continued emphasis on long term water efficiency and climate change impacts Post event updates to stakeholders and customers.

5.2 How, when and what we communicate

We will communicate our drought status, the factors influencing water availability, and the steps both the company and customers can take to manage demand. This would include updates on rainfall, groundwater levels, demand trends and environmental pressures, as well as the operational measures we are undertaking such as enhanced leakage activity and optimising sources.

As drought escalates, we will explain any forthcoming Temporary Use Bans, Non-Essential Use Bans or drought permit/order applications, with sufficient lead-in times to ensure NAVs, retailers and stakeholders can prepare and communicate appropriately.

Messaging would be delivered across a range of channels including digital platforms, social media, email, local press, radio, out-of-home media and stakeholder briefings, with increased frequency as trigger levels rise. Customer queries can be directed through well-briefed customer service teams. Where customer service team members struggle to answer a query, it would be forwarded on to the drought Management Team for them to clarify and then the answer to this query would be added to the FAQ list provided to the customer service team in case it is asked again.

5.3 Tailoring messages to different audiences

We will tailor our communications to the needs of specific audiences to ensure relevance, accessibility and clarity. A full breakdown of these audience groups, and the channels and messages most relevant to each is provided in Appendix H. This includes household customers, those on the Priority Services Register, non-household customers and large commercial users, as well as environmental organisations, local authorities, resilience forums and community groups. Messages would reflect different information needs such as how restrictions affect particular users, practical water-saving advice appropriate to different households or businesses, or reassurance for vulnerable customers. We will follow the principles of inclusive communication and draw on recent customer research to guide message framing, tone and channel selection.

5.4 Coordinated communications across the sector

We will coordinate closely with regulators, neighbouring water companies and WRSE to ensure consistent and clear messaging across the region. This would include participation in dry weather and drought coordination groups, sharing information on drought status, and aligning key messages where regional water shortages emerge. In line with the WRSE Dry Weather Working Group arrangements, we will participate in regional exception reporting and will engage in WRSE-coordinated drought communications when WRSE's regional triggers indicate heightened dry weather risk.

We will also work with NAVs and retailers to ensure communications relating to restrictions or drought measures are aligned and delivered promptly to non-household customers (although it is perhaps inevitable that some of our general communications will also be seen by customers of NAVs and Retailers). At the national level, we will engage with the National Drought Group and its communications subgroup to support cross-sector alignment, particularly where drought affects multiple water company areas. This coordinated approach reduces the risk of customer confusion and strengthens collective messaging.

5.5 Use of research and evidence in developing our plan

Our communications approach is informed by lessons from recent drought events (including 2022 and 2025) and by research undertaken locally and regionally. Customer studies, such as those completed through WRSE and Blue Marble Research, provide insight into awareness levels, preferred communication channels and the type of messaging that most effectively prompts behaviour change.

National guidance and industry reports have also been reviewed to ensure our approach reflects best practice. These findings have shaped the methods, messaging and prioritisation used in this plan. A summary of research and its influence on our communications is provided in the Appendix H.

5.6 Monitoring and evaluation

We will monitor communications effectiveness throughout a drought using measures such as water demand trends, digital engagement metrics, customer feedback and uptake of water-saving resources. This allows us to track how messaging influences behaviour, adapt our approach as conditions evolve, and provide evidence of demand savings where required for example, in support of drought permit applications. Insights gained form an essential part of our post-drought review would be shared with sector partners to support continuous improvement.



6. ENVIRONMENTAL ASSESSMENT

This section provides a high level summary of the environmental assessment processes undertaken for the draft Drought Plan. Full findings are incorporated throughout the option-specific chapters of the Plan, and the detailed SEA and HRA are provided in Appendices F and G respectively. The EAR is available upon request. This section therefore focuses only on overarching conclusions, legal compliance, and any remaining work that is not captured elsewhere.

6.1 Overview of assessment requirements

The Drought Plan is required to be supported by:

- a **Strategic Environmental Assessment (SEA)**
- a **Habitats Regulations Assessment (HRA)**, and
- **Environmental Assessment Reports (EARs)** for any drought permit or drought order options.

These assessments have been completed in accordance with the Water Industry Act, the Conservation of Habitats and Species Regulations 2017, the SEA Regulations 2004, and the Environment Agency's Environmental Assessment for Water Company Drought Planning guidance.

6.2 How environmental assessment findings are integrated in this plan

To avoid duplication and keep things clear, the findings of the SEA, HRA and EARs have been integrated directly into the relevant chapters:

- Demand-side options – see Section 3.1
- Source S drought permit – see Section 3.2.1
- Extreme drought (“More Before 4”) options – see Section 4.2.2

The remainder of the findings that are relevant to the Plan as a whole are provided in the sections below.

6.3 Overall draft Drought Plan SEA findings

The SEA highlights several environmental points that apply across the whole plan that remain important regardless of which individual options are triggered:

6.3.1 Positive cumulative effects (demand-side actions)

Across all drought stages, the SEA concludes that the combined package of demand side measures (leakage reduction, pressure management, TUBs/NEUBs and communications) provides consistent cumulative environmental benefits, primarily through:

- Lower abstraction during sensitive periods
- Improved groundwater and surface water protection
- Reduced carbon/energy use associated with reduced treatment and pumping.

6.3.2 Potential adverse cumulative effects (supply side actions)

Where multiple supply-side options are used in combination (Source S permit + extreme drought pump changes), the SEA identifies that cumulative risks can arise, particularly in extreme drought conditions. These include:

- Temporary reductions in groundwater levels across chalk-dependent ecological systems
- Reduced baseflow in tributaries with naturally low summer flows
- Localised water quality effects linked to deeper groundwater
- Prolonged aquifer recovery times following multi-season droughts.

These themes do not apply to any single option alone and therefore are not captured in earlier chapters.

6.3.3 Mitigation principles that apply across the whole Plan

The SEA sets out a suite of strategic mitigation approaches applicable to all drought actions, including:

- Ongoing groundwater and river-flow monitoring
- Ecological monitoring before, during and after drought
- Pollution prevention and best practice site management during any works
- Use of adaptive abstraction controls triggered by environmental thresholds
- Retention of water in sensitive habitats where operationally feasible
- Consideration of renewable or lower-carbon pumping options.

These cross-cutting measures support the option-specific mitigation described earlier and require further work to confirm what is feasible and to clarify organisational roles and responsibilities.

6.4 Overall draft Drought Plan HRA findings

While option specific HRA findings are included throughout Sections 3 and 4, the overall conclusions from the HRA Stage 1 Screening apply across the entire Drought Plan and are therefore summarised here:

- None of the seven supply-side drought options screened in for Likely Significant Effects (LSEs).
- No hydrological or ecological pathways were identified between the abstraction points and any European designated sites.
- No functionally linked land supporting SPA bird features lies within relevant distance of the options.
- All options operate within existing infrastructure, with no construction or land take.
- No in-combination effects were identified at this stage; however, screening will be revisited when neighbouring water companies publish updated Drought Plan environmental data.
- As a result, no option requires Stage 2 Appropriate Assessment.

These strategic HRA findings complement, but do not repeat, the option-specific summaries already integrated in Sections 3 and 4.

6.5 Environmental Assessment Reports (EARs) and application readiness

The Drought Plan is required to demonstrate “application readiness” for any drought permit or order. For this Plan:

- A full, updated Environmental Assessment Report (EAR) has been completed for the Source S drought permit, including baseline, impact assessment, monitoring plan and mitigation measures.

- A mock drought permit application has been completed to identify evidence requirements and ensure readiness during a real event.
- The monitoring and mitigation plan will be finalised with the Environment Agency, Natural England and Southern Water before publication of the final plan.

The EAR findings are contained in Section 3.2.1.1. The EAR is only required for our Drought Permit option rather than for the plan as a whole.

6.6 Future work and updates

Environmental work will continue beyond publication of the Draft Plan and will be incorporated into the final Plan or the next revision:

- Finalisation of the Source S monitoring and mitigation plan (to be included in the final Drought Plan 2027).
- Integration of any revised regional or inter-company environmental data, including updates from the WRSE programme.
- Review of groundwater trigger curves and environmental dependencies as part of WRMP29 and the next Drought Plan cycle.
- Re-assessment of extreme drought options using updated drought modelling and environmental datasets.

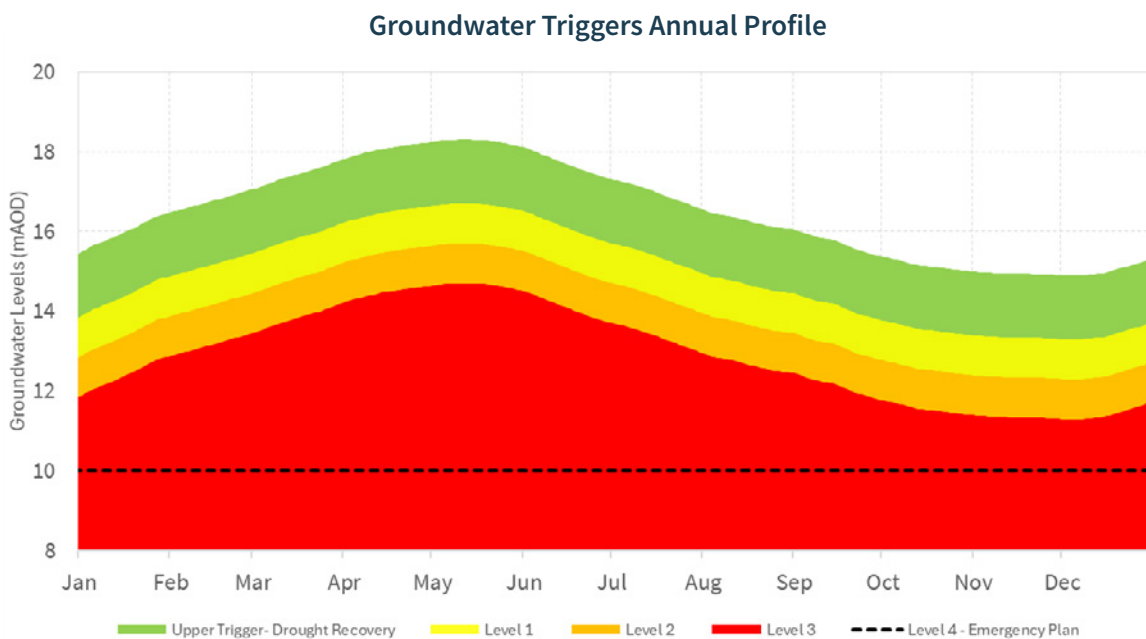


7. RECOVERY FROM DROUGHT

As the weather becomes wetter and the water resources situation improves, we will start to recover from drought. During this time, we will continue to carefully monitor groundwater and rainwater, along with all other regular routine environmental monitoring along with any other requirements set out in our EAR monitoring plan.

As groundwater rises, we will start to progress through the triggers for drought risk moving back towards normal conditions. We will still carry out the activities associated with each of the levels of drought risk that we are experiencing although our communications would reflect the receding risk.

Figure 7: The annual profile of groundwater triggers



Although we will tailor our actions to be appropriate to the situation at the time, Section 5 sets out the key messaging and communication activities that we will most likely employ.

As our supply area recovers from drought and moves back towards normal conditions, we will continue to communicate the situation, with an emphasis on thanking customers for doing their bit. We will however highlight that the climate is changing and the population is growing so continuing to use water wisely is important and emphasise the importance of continuing with water saving measures.

Specific communication activities could include (but not restricted to) the following:

- Ramping down of communication. Moving back towards BAU activities in level 0.
- Ramping down of media. Moving back towards BAU activities in level 0.
- Communication continues to thank customers for their support during the drought.
- Research to assess how we did throughout the whole drought process and how we could improve - a reflective exercise to inform a lessons learnt process.

During this period, our Drought Management Team will continuously monitor and report on the overall position of our water resources. Any decision declaring a drought has ended, will be based on the information presented throughout this period of monitoring. As the drought status is stepped down to a reduced level, the Drought Management Team will discuss which actions are no longer necessary and these will be stopped. We use our 'Upper Trigger' which is set above the 'Level 1' trigger to notify us when there is full groundwater recovery.

Whilst making decisions to lift certain restrictions, we will be liaising with several regulators and stakeholders, who could be affected by our decisions. These will include but are not limited to the following:

- Environment Agency
- Natural England
- Neighbouring Water Resource Companies
- Household Customers
- NAVS
- Retailers.

We will also engage with our neighbouring water companies and the Environment Agency in advance of the decision to lift drought restrictions in order to understand the wider water resource and environmental situation and explore possible opportunities for coordinating any messages to reflect the changing circumstances.

8. END OF DROUGHT

8.1 Identifying the end of a drought

It is vital for us to recognise when a drought event has ended, and we can safely de-escalate our drought actions. A drought does not necessarily end when it starts to rain again. The Environment Agency considers that a drought has ended when:

- The risk to the security of supply and environment from drought, are no greater than they would be during a normal year
- Normal conditions have resumed for a specified period of time.

Normal conditions in this case does not only refer to rainfall, i.e. when rainfall levels have returned to normal, but rather, that water resources have recovered back to normal conditions. Depending on how severe a drought is, it can take time for the rain to recharge the aquifers and increase groundwater levels back to normal.

To decide when a drought has really ended, we will not rely on just one thing. Instead, we will look at a small set of simple indicators to check that conditions have properly improved and are likely to stay that way. These are the same types of indicators we already use throughout the plan to understand drought progression.

We will look at:

- **Groundwater levels at Well 'X' and our other observation boreholes** (including Finchdean) so we can see whether the whole aquifer is recovering, not just one location.
- **Recent rainfall and recharge indicators** such as soil moisture and SPI, because these help us understand whether recovery is likely to continue.
- **Customer demand trends**, to make sure water use has settled back to normal levels.
- **Any environmental monitoring**, especially where we used drought actions that required closer observation, in particular the Drought Permit site.

We will also think about the likelihood of conditions turning dry again, using available weather and groundwater forecasts. This helps make sure we don't declare the end of a drought too early, only to return to restrictions soon afterwards. This approach was used following the summer of 2025 and provided essential forecasting to make our decisions.

These indicators, combined with the judgement of the Drought Management Team, will give us a clear and sensible picture of when conditions have returned to normal.

8.2 The post-drought review

Once we have declared the end of a drought and conditions have returned to normal, we will carry out a post drought review. In this review we will identify any lessons learnt and any improvements that could be made both to the Drought Plan and the overall drought management strategy. During the drought, we will monitor the impact of our actions to manage demand and enhance our supply. Once the drought has ended, we will carry out the following reviews:

- A review of our response with respect to triggers and actions to understand if our triggers gave us sufficient notice to implement our demand management actions. We will also review the actual lead in times for action implementation.
- A full analysis of the effect of scaled up measures for leakage reduction and pressure management, the effect of demand restrictions as well as any environmental effects following the implementation of our drought permit. This analysis would inform both the Leakage Strategy and our subsequent Drought Plan.
- A review of our communication actions at the different stages of drought, to understand whether our actions had the desired effects, whether our communications reached their target audiences, any unexpected occurrences, aspects which worked well and aspects that might need further improvement.

We will produce a report detailing the lessons learnt review and its findings, and share it with the water industry, regulators, customers, and other stakeholders. We will integrate any recommendations into our next Drought Plan.

9. FUTURE REVISIONS AND IMPROVEMENTS

This section explains the work that will be completed before we publish the final Drought Plan 2027, as well as the areas that will continue to develop afterwards. We will review all representations from the consultation of this draft Drought Plan, prepare a Statement of Response, and make any necessary changes before publishing the final version of the Plan. Alongside the consultation process, there are several technical, environmental and regional workstreams still in progress that will feed into the final Plan as they conclude. Beyond publication, we will continue to refine our drought planning through annual health checks, updated modelling and new environmental evidence, ensuring the Plan remains robust and reflective of changing conditions.

9.1 Work to be completed for the Final Drought Plan 2027

Before the final version of the Drought Plan is published, several pieces of work will be completed to ensure the Plan reflects the latest evidence, regulatory expectations and regional alignment.

9.1.1 Regional and national updates

- **UKWIR** – The outputs from the UKWIR estimated demand savings from TUBs in 2025 are not available for inclusion in this draft Drought Plan but will be used to inform the final plan and WRMP29 development.
- **Southern Water collaboration** – We are continuing joint work on the River Itchen, including the coordination of drought triggers and abstraction management. Any agreed changes will be incorporated into the final Plan.
- **National Drought Group (NDG) lessons learned** – The NDG is preparing a summary of lessons from the 2025 dry weather and drought period. Its findings will inform refinements to our communications, operational readiness and environmental considerations.

9.1.2 Environmental assessment updates

- **Source S monitoring and mitigation plan** – The monitoring and mitigation plan for the Source S Drought Permit will be finalised with the Environment Agency, Natural England and Southern Water to ensure we remain fully “application ready”.
- **SEA and HRA updates** – The SEA and HRA appendices will be updated to include any in-combination findings once neighbouring water company draft Drought Plans are available, and will be finalised to fully reflect the final Drought Plan and consultation responses.

9.1.3 Communications and stakeholder engagement

The tactical communications plan will be updated where relevant to align with any findings from the NDG lessons learnt review around what worked well in 2025, and also with any customer research findings from Blue Marble and regional WRSE research.

9.2 Ongoing work after publication

On an ongoing basis, this Plan will continue to be updated through annual drought plan health checks, as required by the Environment Agency. These checks will incorporate operational monitoring, environmental data, changes in risk profile and any learning from across the sector. The drought triggers themselves will form part of the annual review process, ensuring that the control curves, environmental indicators and rainfall-based tools remain robust and reflective of evolving evidence.

Together, these updates will ensure that the final Drought Plan 2027 is comprehensive, technically robust, environmentally sustainable and aligned with best practice across the region and the wider sector.



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