

Drought Preparedness Inquiry

Written Evidence to the House of Lords
Environment and Climate Change Committee



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Executive summary

Water UK is responding to this consultation on behalf of all water companies in England, as drought management in the other nations is devolved to the Scottish and Welsh parliaments and the Northern Ireland Assembly. The management of drought involves monitoring river, reservoir and groundwater levels, and taking defined action when water levels dip below certain trigger points, which vary by time of year. This action includes increasing communication with customers, increasing the number of staff dedicated to reducing water leaking from pipes, moving water around the distribution network to points where it is most needed and, finally, introducing restrictions on water use. Water UK believes that the process of managing a drought, except in its emergency phase, is largely adequate. In our view, however, the regulation which dictates what is done to avoid the damage droughts can cause is not. The six issues we would like to highlight are:

- 1) **The decision by the Environment Agency to force water companies in England not to accommodate the future growth in the need for water by businesses:** The Environment Agency determines whether and the extent to which water companies can increase the water available to them – for example by way of allowing them to abstract water from the environment or construct new reservoirs. Every five years, the Environment Agency publishes its National Framework for Water Resources which makes assumptions concerning the needs businesses will have for water in the future. The most recent National Framework was published in June 2025 and explicitly excludes provision for water needed by critical and fast-growing new industries such as data centres.¹ Furthermore, water companies are being required to plan on the assumption that businesses will use less water over time, as the UK Government has set a target for businesses in England to reduce their use of water by 9% by 2038 and 15% by 2050.² In attempting to justify these targets when they were set in 2022, the then UK Government asserted that, “...the reduction in economic dependence on heavy industry and manufacturing means there is no longer a strong link between non-household water demand and economic activity”.³ However, the emergence of new potentially water hungry industries – such as data centres, hydrogen production and carbon capture and storage – strongly suggests this may not be the case. Water companies are required by law to prioritise household over non-household customers, so this inadequate planning restriction imposed by the Environment Agency will hit business growth first. Water companies should have more flexibility to plan for business growth – including by allowing flexible adjustment mechanisms

¹ Environment Agency (2025) [National Framework for Water Resources 2025](#)

² Defra (2022), [Water Targets: detailed evidence report](#), p.26.

³ Defra (2022), [Water Targets: detailed evidence report](#), p.81.

to cover the full cost on the network of new business demand so that a lack of water is not a barrier to growth. See our response to [question nine](#) for more detail.

- 2) **Water companies should be required to plan on the basis of forecasts not targets:** The Environment Act 2021 set targets for reducing water demand in England. Water companies have very few levers to meet those targets and, on current trends, they will not be met. Yet water companies are required to plan as if those targets will be met. As a result of planning water resources on the basis of targets that appear impossible to meet, demand is 220 million litres a day higher than was as assumed in Water Resources Management Plans. Currently the deficit is being met by accepting a greater risk of environmental harm, and increased restrictions on water use, in the event of a drought. This deficit may not be apparent in a wet year, where there is excess water to take from the environment. However, in 2025, which saw the driest spring in England since the nineteenth century, this deficit ultimately meant that reservoir, river and groundwater levels dropped earlier, restrictions on use occurred earlier, and there was greater environmental harm than would otherwise be the case.^{4,5} The Environment Agency should urgently revise its guidance so that planning for vital water resources is done on the basis of reasonable forecasts of future use rather than overly ambitious targets. See our response to [question nine](#) for more detail.
- 3) **A misjudgement about the balance of risk:** The Environment Agency's approach to 'headroom' – allowing for more water to manage uncertainty around future forecasts for factors such as climate change and population growth – in water resources planning guidelines is flawed. It assumes companies should accept more risk into the future, rather than allowing for more headroom in their plans, but it does not acknowledge that building infrastructure to increase the supply of water takes between 10 and 15 years. As such, it could well be too late to provide the 'headroom' we need if forecasts are wrong – which they almost certainly are. The impact of having too little water for the environment, society and the economy, is far higher than the cost of providing too much. See our response to [question nine](#) for more detail.
- 4) **A need for the UK Government to accelerate emergency drought planning:** The UK Government has been slow to plan for an emergency drought - a drought which hits level four, the highest level in company drought plans - which affects one or more companies concurrently, a scenario which could arise as early as next year if we see a dry winter. The UK Government's planning should be accelerated so it is ready for the spring. See our response to [question four](#) for more detail.
- 5) **A need for the UK Government to make choices about water prioritisation in extreme drought conditions:** The UK Government currently lacks a vision for which non-household users should be prioritised, and which types of household have highest priority, when rationing water in a drought. These decisions contain political trade-offs and should be made by politicians and not be left to water companies or regulators. See our response to [question seven](#) for more detail.

⁴ Met Office (2025), [Double Record Breaker: Spring 2025 is warmest and sunniest on UK record](#)

⁵ Environment Agency (2025), [Water Resources 2024 to 2025: Analysis of the water industry's annual water resources performance](#)

- 6) **The ability for the Environment Agency and Natural England to thwart the timely execution of water company drought plans, even though each company plan is approved by the Secretary of State.** Specifically, Environment Agency and Natural England have the ability to frustrate the introduction of a drought permit. This means that the robust approach water companies take to developing drought plans, approved by the Environment Secretary, which set out the sites from which additional water will be abstracted, is undermined. The problem this presents is two-fold; first, objections to drought permit applications lead to delays to water companies supplementing vital water supplies that households and businesses need. Secondly, even in the absence of formal objections to applications, companies receive informal comments from the Environment Agency. As the Agency decides on permit applications, these can have a chilling effect, putting additional doubt on water companies as to whether they should proceed with permit applications. This results in unnecessary complexity to important considerations of how best to meet customer demand in times of water stress. See our response to [question four](#) for more detail.

Below, we answer each of the select committee's questions in turn.

Introduction

There are different types of drought which can affect the environment, society and the economy in different ways:

- **Agricultural drought:** A lack of rainfall leading to a soil moisture deficit which affects crop production and farming practices.
- **Environmental drought:** A lack of rainfall that causes damage to habitats and ecosystems.
- **Water supply drought:** Lack of rainfall that means potential restrictions on water customers and/or further water being needed from other sources or the environment. This can occur at different times to the above types of drought, particularly in areas where, due to water company investment, public water supply is more resilient to a longer-term lack of rainfall than the surrounding environment.

While the effects of these droughts can be interrelated, for the purposes of this briefing we have focused largely on our members' responsibilities for preparation for, and managing the impact of, a public water supply drought.

1) What are the potential risks of increased drought in England to: the urban, industrial, and rural environment; people, species and habitats; and the economy?

Climate change is increasing the risk of drought, and the impact of drought is growing:

- **People:** If the government does not ensure sufficient water resources are available, there is a risk that severe water restrictions may be imposed on the public. In a long-term, multi-season and very severe drought, these could include turning off water supplies to homes entirely, and requiring the public to collect water from standpipes in the street, or implementing rota cuts, where groups of homes lose access to water in turn. While not unprecedented, the most severe restrictions have only been used rarely, most recently in 1976.
- **Industry:** In the event of a severe drought, Environment Agency guidance to water companies on drought plans suggests that non-essential use bans would be imposed on businesses before supplies are restricted to domestic consumers. This would have the largest effect on specific industries (e.g. window cleaning, car washes).⁶ However, in a severe drought, greater disruption would occur, and businesses may have to stop using water entirely to conserve supplies for domestic use. For example, farmers could be asked to stop irrigating, leading to economic costs for their businesses and potential food supply price shocks. This is a growing problem because, as well as manufacturing and other more traditional uses, water is increasingly used in new critical processes. For example, the Environment Agency predicts that hydrogen production, essential to decarbonising industries that cannot rely on electricity, could require 767 million litres of water a day by 2050.⁷
- **Species and habitats:** During a drought, water companies will apply to the Environment Agency for drought permits or, in more serious cases, to the Secretary of State for the Environment for a Drought Order. These permits and orders can temporarily alter a company's abstraction licenses to allow them

⁶ Environment Agency (2025), [Water Company Drought Plan Guideline](#), p.25

⁷ Environment Agency (2025), [The National Framework for Water Resources 2025](#), p.22.

to take more water from the environment. Water companies will always try to avoid increasing the level of water abstracted because of the potential for environmental harm.

2) How will climate change affect drought risk (including severity, frequency and type) and impacts of drought?

The third Climate Change Risk Assessment highlights an increased risk of drought and of higher summer temperatures.⁸ This is a particularly challenging combination because higher temperatures also typically lead to surges in water demand, placing further strain on stretched resources.

There are also expected to be changes in the *pattern* of rainfall which will impose further stresses on the system – while there will be less rain overall in the summer, ‘when it does rain, the rainfall will be more intense’.⁹ This imposes further stresses on the current system of water resources management because:

- The first increased river flows caused by rainfall after a long dry period are at risk of being highly polluted because pollutants will have had time to accumulate on highways and agricultural land between rainfall events, and in heavy rain are likely to be washed into rivers. This effectively means that first flows may not be treatable to drinking water standard and so need to be left in the river.
- Even if heavy rain persists for a few days and water is clean enough to take from the environment, water companies’ abstraction licenses usually have daily caps, so they cannot take all of the excess water they might need to speed their recovery from drought.

3) How comprehensive and responsive is drought monitoring in England? Could early-warning systems be more effective?

From the perspective of the public water supply, the system of drought monitoring in England is comprehensive. Short of more accurate long-term weather forecasting, it is not clear how water companies could improve drought monitoring. The full approach to monitoring is set out below. However, while monitoring is effective, our preparedness for long-term drought through proactively building sufficient supplies is not, because the Environment Agency requires water companies to plan on the basis that they will achieve ambitious demand reductions (see [question nine](#)).

Drought monitoring system

Under the current system, every five years, water companies produce drought plans. The Environment Agency and Natural England are consulted on these plans, and they are approved by the Secretary of State for the Environment, Food and Rural Affairs.¹⁰ These plans contain actions in four levels of drought (see below). Each of these is accompanied by trigger levels – based on the water level of reservoirs and groundwater sources and flow levels in rivers – which vary by time of year. For example, it is expected that a reservoir will be far lower in August than in February so the trigger water level for drought stages in

⁸ UK Climate Risk (2021), [UK Climate Risk Independent Assessment \(CCRA3\) Technical Report Chapter 1: Latest Scientific Evidence for Observed and Projected Climate Change](#), p.52.

⁹ UK Climate Risk (2021), [UK Climate Risk Independent Assessment \(CCRA3\) Technical Report Chapter 1: Latest Scientific Evidence for Observed and Projected Climate Change](#), p.60.

¹⁰ As required in Section 39B of the Water Industry Act 1991.

February will be far higher than that for August (see the example for Severn Trent's North Staffordshire water resource zone below).¹¹

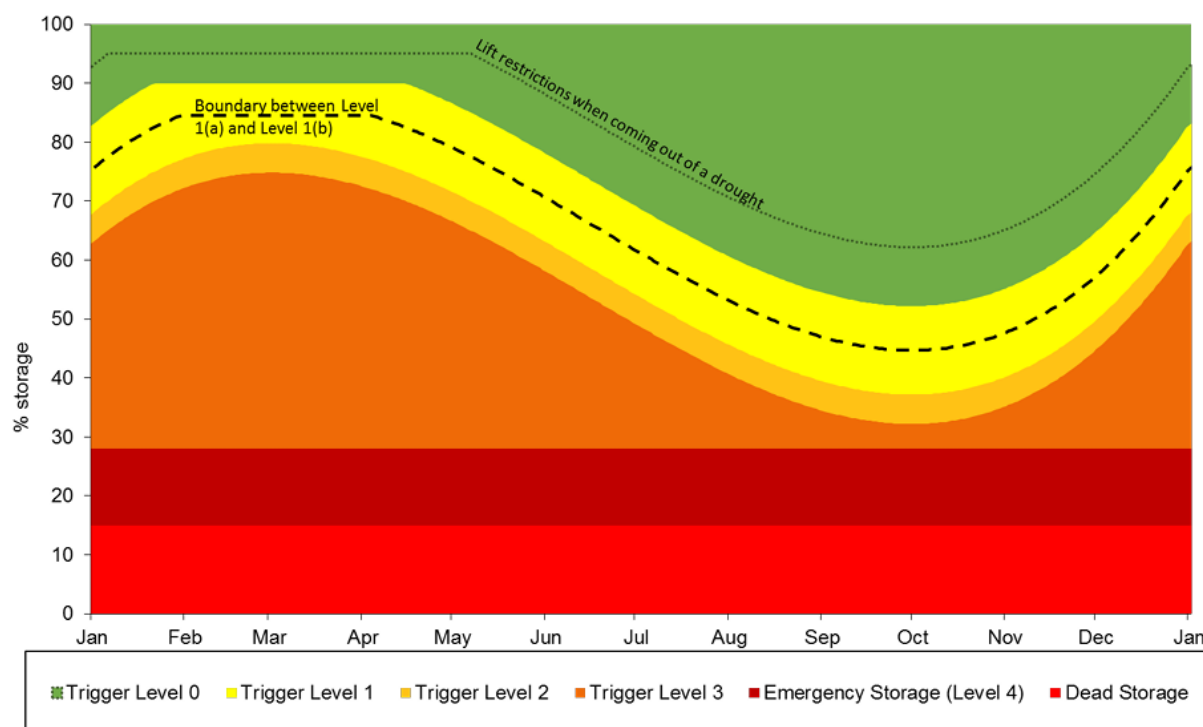


Figure 7 Graph showing drought level zones for North Staffordshire

The levels of drought for public water supply are:

- **Level 1 – Prolonged dry weather:** a period of below average rainfall that begins to affect river flows and soil moisture deficits. Once water levels hit this trigger, companies will commence early action including deploying surge teams to fix leaks, communicating with customers about the drought and encouraging customers to use water efficiently, bringing new sources of water into supply (such as sources for which water companies have licenses for but for which water is ordinarily uneconomical to treat), and moving water around their network to support the areas most severely affected.
- **Level 2 – Drought:** A worsening of dry conditions that begins to significantly affect the environment, and water supplies. At this stage, alongside the actions above, companies will apply for drought permits which are identified as only risking minor or negligible environmental harm to temporarily increase the volume of water they are allowed to abstract from the environment. Between April and September, before applying for drought permits, companies will ordinarily announce temporary use bans – imposing restrictions on customer usage such as banning the use of hosepipes in gardens. The specific locations where water companies will apply for drought permits will be specified in their drought plans.
- **Level 3 – Severe drought:** A critical stage where water shortages are long-lasting. At this stage, alongside the above actions companies may apply for drought orders from the Secretary of State. Such orders may provide for additional water to be abstracted from the environment, even in environmentally sensitive

¹¹ Taken from Severn Trent (2022), [Drought Plan 2022-2027](#), p.19

sites, and for the imposition of Non-Essential Use Bans – bans on business use of water for activities such as car washing and window cleaning. The latest drought guidance now also requires companies to set out further actions they could take at ‘level 3b’ to avoid hitting the worst level of drought restrictions, including drought permits to take more water from the environment given the potentially major environmental impact such abstraction during a time of drought can cause.¹²

- **Level 4 – Emergency plan for drought:** At this stage, companies activate emergency drought plans which may include the most severe restrictions, such as cutting off groups of houses from supply in turn (rota cuts) or shutting off supply to households entirely and requiring customers to collect water from standpipes in the street.

Separately, the Environment Agency maintains drought triggers to indicate if any of its regions are in drought – using broadly the same classification as that set out above. However, the Environment Agency’s classification for one region can be different to that of a water company in the same area because water companies’ water supply networks are designed to mitigate natural variations in rainfall and so often use infrastructure triggers (e.g. reservoir levels) rather than just relying on environmental triggers (e.g. river flows). These differing systems can create unhelpful challenges for communication with the public as bill payers ask why a company has a hosepipe ban, but the Environment Agency has not declared the region to be in drought. Recognising the constraints of differing drought triggers between companies and the Environment Agency, it would be helpful if the agency coordinated its public messaging with companies as far as possible.

4) How effective are drought response protocols in England, both before a drought has been declared and once a drought is underway? Are there opportunities for improvement?

The process of monitoring for drought and gradually implementing controls outlined in question three is broadly effective but the process for applying for drought permits and drought orders is not, and could jeopardise water companies’ ability to respond to drought events. Additionally, once restrictions hit level four – emergency response – responsibilities become less clear. These two issues are dealt with in turn below.

Drought permits and drought orders

Background

Water companies in England must produce a drought plan every five years under the Water Industry Act 1991 as amended by the Water Act 2003¹³ and in accordance with the Drought Plan Regulations 2005 and the Drought Plan (England) Direction. The Water Industry Act 1991 sets out that, “A drought plan is a plan for how water companies will continue, during a period of drought, to discharge its duties to supply adequate quantities of wholesome water, with as little recourse as reasonably possible to drought orders

¹² Environment Agency (2025), [Water Company Drought Plan Guideline, 2025](#)

¹³ Sections 39B and 39C [Water Industry Act 1991](#).

or drought permits under Chapter 3 of Part 2 of the Water Resources Act 1991.” Water companies cannot publish their plans until they receive permission from the Secretary of State.¹⁴

In devising drought plans, the Environment Agency states that water companies, “...must prioritise implementing [their] supply actions that have the least environmental impact and for which [they] have high confidence in and evidence to support that assessment and maintain compliance with [their] abstraction licence conditions.”¹⁵

The Environment Agency also requires that drought plans set out the circumstances in which a water company would seek a “drought permit”. Such permits are issued by the Environment Agency if it, “...is satisfied that, by reason of an exceptional shortage of rain, a serious deficiency of supplies of water in any area exists or is threatened then.” If it is so satisfied, it may issue a drought permit which makes provision, “...as appears to the [Environment Agency] to be expedient with a view to meeting the deficiency.” Under such circumstances, the Environment Agency may permit a water company to:

- take water from any specified source or to modify or suspend conditions on an abstraction licence held by the water company; and/or
- discharge water to specified places, to modify or suspend discharges or filtering/treating of water held by the water company.

Each drought plan lists sites for abstraction of water during a drought. Sites are only included after robust monitoring to consider the environmental impact abstraction of water during a drought would cause. In drafting their drought plans, water companies consult the Environment Agency whose guidance requires them to regularly monitor the sites they have selected to understand if there is any change in the effect that taking more water has on the local habitat.

Issues

The law provides for the ability of water companies to abstract more water from the environment during a period of drought. However, as we shall demonstrate, the time it takes for drought permits to be issued is unnecessarily long and delays can exacerbate the effects of a drought.

During summer this year, one water company in an area experiencing a drought was told by the Environment Agency about its concerns about the potential seriousness of the effect of taking more water from one habitat even though it had been identified as a drought permit site in a company’s drought plan. The Environment Agency suggested that because, in its view, of the seriousness of the impact of taking more water from protected habitats, for which Natural England is responsible, it did not think a drought permit should be granted. The Environment Agency took this view despite the water company’s drought plan - approved by the Secretary of State - making explicit provision for drought permits from the site in question.

¹⁴ Section 2.8 in [Water company drought plan guideline, 2025](#). Environment Agency, 16th June 2025.

¹⁵ Environment Agency (16th June 2025), [Water Company Drought Plan Guideline, 2025](#). Section 4.3

The raising of concerns by the Environment Agency created a problem for the company because the timeline in Environment Agency guidance for drought permits to be approved is 12 working days as long as there are no objections.¹⁶ However, as the Environment Agency's concerns related to protected habitats, it indicated that Natural England would be likely to object to the application.

If there are objections to a permit application, the Environment Agency will seek to hold an inquiry within a week, and respond within a week. As a result, the holding of an inquiry by the Environment Agency doubles the time it can take for approval to be granted from two weeks to four weeks. However, the Environment Agency's guidance states that if Natural England is of the view that the proposed abstraction could harm a site protected under the Habitats Regulations, then the duration of the inquiry is extended and the Environment Agency has 28 days to respond to the application from the date that the water company lodged its application. If Natural England objects, then two weeks would be needed for a hearing, which can take up to seven days, and decision which can take a further seven days. Therefore, it can take up to six weeks for a drought permit to be issued (or rejected).

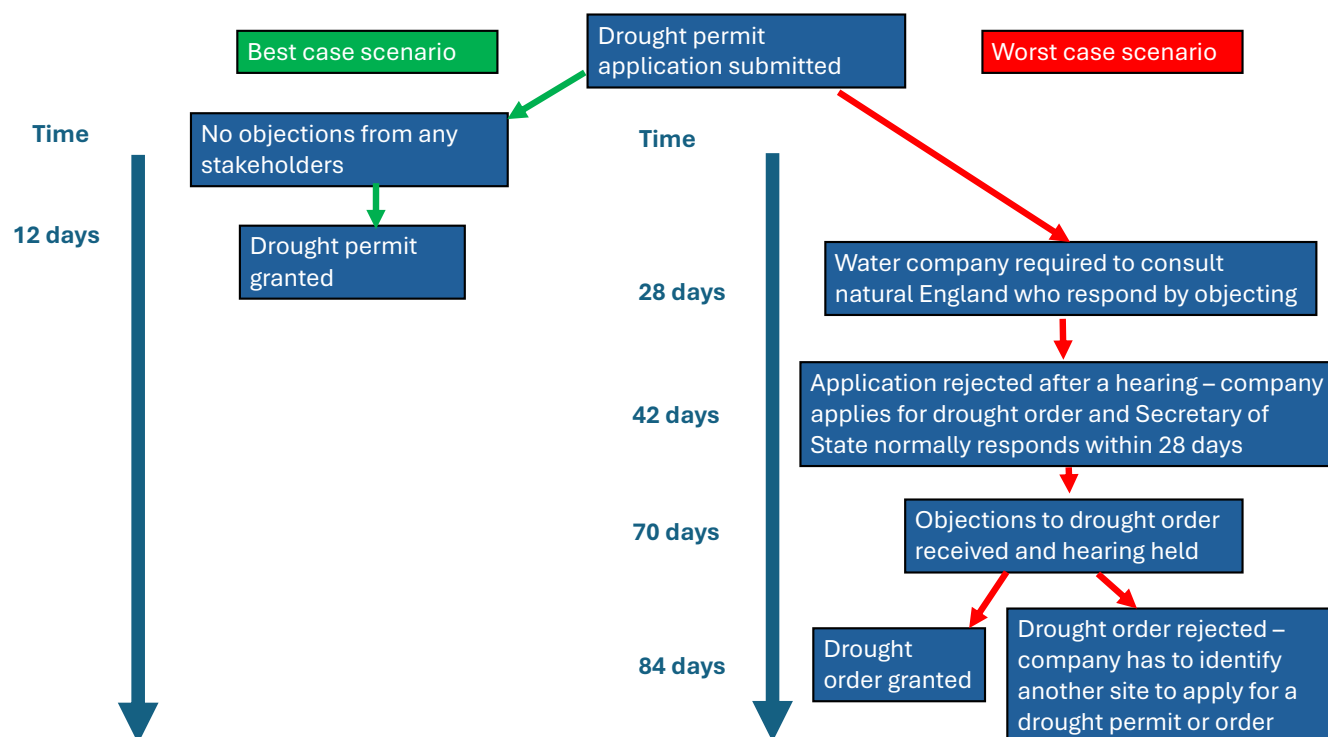
During a drought, such delays threaten a water company's statutory obligation to supply adequate supplies of drinking water to people. Drought plans are expressly drafted to set out the action required to avoid breaching that statutory obligation. Before each drought plan is approved by the Secretary of State, they are subject to extensive and highly detailed planning and consultation. No drought plan can be approved unless and until Natural England has been consulted.

Yet, even though the Environment Agency was consulted on the drought plan in question, when the water company raised its intention to submit a drought permit application, local Environment Agency officials suggested that the drought permit could be rejected as it *might* have an impact on a protected habitat.¹⁷ This also meant that the application would take 28 days rather than 12 because Natural England would need to be consulted. Furthermore, should an application for a drought permit be rejected, a water company has no right of appeal. The only course of action it may then take is to seek a drought order directly from the Secretary of State – a process which itself has a 28-day application period assuming there are no objections. If there are objections, the process can take almost three months to resolve. See the diagram below.

¹⁶ Environment Agency (2019) [Drought Permits and Drought Orders](#) (accessed 13.05.25)

¹⁷ Environment Agency and Natural England (2018), [Joint Statement - Planning and Permitting](#), p.1

Drought permit and drought order application processes – best and worst case scenarios:



Through the Water Industry Act 1991, Parliament has expressly provided for drought plans to be prepared by water companies so that the adequate supplies of wholesome drinking water can continue to be provided during a drought. Such plans clearly set out, with the Secretary of State’s approval, the circumstances in which a water company would apply for a drought permit.

The water industry strongly believes that, when those circumstances have occurred, then the drought permit in question should be sought and granted. In fact, there appear to be strong grounds for removing the need for applying for a permit entirely. Instead, water companies should be able to take the steps set out in their drought plans without the need to obtain permits. It does not seem reasonable for a third-party to seek to stop a water company from following the drought plan that a Secretary of State has approved.

Water companies have indicated to us that the Environment Agency can, and does, discourage them from applying for drought permits. That is to say, water companies can be discouraged from following the steps set out in the drought plan approved by the Secretary of State. Such a situation is clearly invidious for a water company and we hope that the House of Lords’ Environment and Climate Change Committee will call this out. Indeed, even informal comments by the Environment Agency to a water company concerning the high likelihood of Natural England’s putting forward an objection can have a chilling effect on the actions of water companies, pushing them to consider other options to avoid going through a potentially long and burdensome administrative process to obtain the water they need to supply customers in a drought.

Such action by the Environment Agency and Natural England is akin to re-opening drought plans on which they have already been consulted and which the Secretary of State has approved. The direct result is that water companies are less able to plan effectively for drought events.

Secondly, the process of obtaining a drought permit should be streamlined. The industry believes that once a drought permit is granted, in a drought plan, it should be available to use once agreed triggers have been hit. The current cumbersome application process to the Environment Agency can slow down companies' response and risk water companies needing to move to more stringent restrictions earlier than they would otherwise need to. The process for notifying the public is also clearly in need of modernisation. Currently, under Schedule 8 of the Water Resources Act 1991 section 1a and section 1b, water companies are required to publish a notice of their application for a drought order in at least one local newspaper circulating in the affected area and in the London Gazette.¹⁸ This is both impractical, given the decline in the number of local newspapers in circulation since 1991, and ineffective, given the decline in readership. The industry believes that while affected groups – such as local authorities and environmental groups - should be notified when a drought permit or order is due to come into effect, digital methods of notification – such as website announcements and direct emails to stakeholders and customers – would be more practical and effective.

Emergency planning

The industry is also concerned that emergency planning has been too slow. The Environment Agency only issued guidance for water companies on compiling emergency drought plans in October 2025, after the driest spring in England since the nineteenth century and the warmest summer on record.

The industry believes the draft guidance is not sufficient because it does not indicate the level of support companies could expect from the government, though it did ask companies what level of support they consider they might need. This is very concerning because emergency drought restrictions are used rarely, with the last use of what are now classified emergency drought restrictions, such as requiring customers to collect water from standpipes in the street, taking place in 1976. There will inevitably be a role for government in managing the emergency response in the event of an extreme, long-term and multi-season drought.

5) What are the potential economic costs of drought management actions that may be needed in the future?

The potential economic cost of drought management in the future is large and growing. In 2018, the National Infrastructure Commission estimated that the cost of responding to extreme drought over a thirty year period would be almost double the cost of taking proactive measures.¹⁹ It based its estimate on the expectation that the UK Government would want to keep water running as long as possible and that it

¹⁸ [Water Resources Act 1991](#), Schedule 8, Sections 1a and 1b

¹⁹ £40 billion compared to £21 billion (2018 prices). See National Infrastructure Commission (2018), [Preparing for a Drier Future](#), p.4.

would seek to give effect to such a desire by, for example, tankering water around the country. Therefore, it considers its estimate to be the true cost of emergency resilience.²⁰

While this work has not been updated, Water UK believes the cost of emergency resilience is likely to rise. As the nature of businesses dependent on water for at least some of their activities is growing, those activities are more essential for the economy as a whole because:

- Even efficient closed-loop data centres will require some water. If they are unable to function, the knock-on effect on large swathes of the economy, increasing their reliance on AI and data processing, is likely to be substantial. For example, between July 2024 and January 2025 alone, there was an investment of £14 billion, or an average of £200 million a day in AI infrastructure.²¹
- The UK government alone plans to expand the size of sovereign computing power by 20 times by 2030, which will increase the demand for water for cooling.²²
- Other sectors of the economy will also increasingly require more water. The Environment Agency estimates that carbon capture and storage and hydrogen could require 767 million litres of water a day by 2050.²³
- Other sectors in the government's growth strategy will also be potentially large water users – such as gigafactories, which the government is supporting through subsidies.²⁴

Much of this water can and should come from non-public water supply sources – through direct abstraction from the environment or through water recycling - because it is highly inefficient to use treated drinking water for many of these purposes. However, in a drought scenario, these industries will be extracting from the same depleted environment as water companies. This will likely increase costs for the environment, society and the economy of droughts in future.

6) In what ways are residents, businesses and industry involved in drought management planning and drought actions? Could engagement by water companies with their customers be improved?

Water company engagement with residents, industry and businesses in the development of plans takes a number of forms:

- The public, businesses and industry are consulted on public water supply drought planning. Companies consult publicly on statutory drought plans which are updated every five years. These plans include proposed levels of resilience including the frequency with which water companies expect to impose restrictions such as temporary use bans.

²⁰ National Infrastructure Commission (2018), [Preparing for a Drier Future](#), p.18.

²¹ Department for Science, Innovation and Technology (2025), [UK AI sector attracts £200 million a day in private investment since July](#).

²² Department for Science, Innovation and Technology (2025), [AI Opportunities Action Plan](#), p.9.

²³ Environment Agency (2025), [The National Framework for Water Resources 2025](#), p.22.

²⁴ <https://www.gov.uk/government/news/another-boost-for-british-car-industry-as-1-billion-secured-for-new-sunderland-gigafactory>

- Companies consult publicly on their long-term Water Resources Management Plans, also updated every five years and taking an at least 25-year view.²⁵ These plans set out how companies will meet water supply needs into the future, estimating future growth, levels of demand, the impact of climate change and the potential need to reduce abstraction.
- Once a company enters prolonged dry weather status – stage one in a drought plan, it increases messaging to customers on the need to save water. For example, at the start of May 2025, two months into the 2025 drought, companies began communicating with millions of customers in areas with prolonged dry weather using a range of media including direct customer emails, social media, radio broadcasts and TV appearances.

However, Water UK believes there is a stronger role for government-led messaging during an emerging drought event. While the Environment Agency issue press releases covering meetings of the National Drought Group, and when one of the Environment Agency regions is experiencing ecological drought, there is no centralised protocol for *government* communications asking the public to use less water.

7) Are roles and responsibilities in relation to drought management clear enough?

Water UK does not believe that roles and responsibilities in relation to drought management are clear enough, because:

- Government has not set out a clear hierarchy of priority non-household water users in the event of emergency conditions. Water companies should not be required to make choices over whether to prioritise supply to schools, hospitals, prisons or industry. These are fundamentally political choices that should be made by elected representatives following advice from their officials on the relevant trade-offs. Equally government should set out which types of domestic consumers should get priority in an emergency.
- Government has not provided companies with clear guidance on what it will do (for example, vis-a-vis emergency reporting and advisory structures or battle rhythm) in the event of an emergency – such as if a very dry winter follows the very dry spring and hot summer of 2025.
- In an emergency, companies will do everything they can to manage drought impacts and keep public water supply running, but there will clearly be a role for government in managing the emergency response.
- Water UK believes that a clear, government-led, communication campaign is needed in the event of a severe drought, to supplement existing water company messaging to their customers. Ofwat's £100 million water efficiency campaign was supposed to address this challenge by encouraging the public to use less water, but since it was first planned in 2022, not a penny of the money has yet been allocated.

8) What lessons can be learnt from other countries about managing rapid or severe droughts? What innovative solutions or technological approaches to water

²⁵ The requirement for these plans is set out in Section 37a of the Water Industry Act 1991. The requirement for a minimum 25 year view is set out in Environment Agency (2023), [Water Resources Planning Guideline](#).

management are being deployed in other countries to improve drought resilience and preparedness?

Drought could be more effectively prepared for if water was managed in a more agile and efficient manner in England. There are a number of international best practice improvements to both water management and drought which the UK could adopt:

- Dynamic abstraction management:** In England abstraction is managed through abstraction licenses issued by the Environment Agency which govern the amount of water the license holder can take from the environment. These usually have daily as well as annual limits, as well as ‘hands off flow’ conditions – the point at which flow in the river is too low, so abstraction must be either reduced or stopped.²⁶ Most abstraction licensees have meters at their abstraction point and must return readings to the Environment Agency quarterly.²⁷ However, this limited provision of information, lacking in granular detail means that the EA has a limited understanding of when abstraction is happening and how abstractions, individually and cumulatively, are actually affecting the water environment. This may mean that, if licenses are underused at certain times, more water is available in the environment than the Environment Agency assumes. If this water was made available, through a more dynamic understanding of abstraction, smarter licenses could be introduced and inflexible daily and annual caps on licenses could be changed to allow water companies to recover from drought faster. Australia has a far harsher climate than England, with multi-season droughts being a recurring phenomenon.²⁸ In Melbourne, electronic loggers provide daily readings of actual abstraction levels in certain catchments, allowing for stricter enforcement, but also potentially more flexible licencing.²⁹
- Drought hierarchies:** As noted above the government should proactively set out a hierarchy of water users in the event of a drought, as has happened in Spain and the Netherlands. In Spain, the highest priority is given to urban water supply, followed by irrigation and agricultural use, industrial users (with electricity production highest priority), aquaculture, recreational users, navigation and transport, and finally other residual uses.³⁰
- Water recycling:** The UK is behind a number of more forward-thinking countries including Singapore and Australia in its reutilisation of greywater (water already used in households such as washing machines) and rainwater. More extensive use of rainwater and greywater as a resource for domestic non-potable purposes such as toilet flushing and watering the garden would reduce pressure on precious potable water caused by non-potable uses. Currently, Drinking Water Inspectorate requirements for wholesome water make it difficult to use recycled water for domestic purposes.

²⁶ Environment Agency (2025), [Managing Water Abstraction](#)

²⁷ Environment Agency (2018), [Manage your water abstraction license online](#)

²⁸ Anglian Water (2014), [Markets, water shares and drought: Lessons from Australia](#)

²⁹ Anglian Water (2014), [Markets, water shares and drought: Lessons from Australia](#)

³⁰ European Union, Factsheet #62: [Hierarchy of priorities/preferences for water allocation](#) and [Displacement series: ranking in water scarcity](#) | [Information Point Living Environment](#)

9) Are emerging sources of future water demand, such as new housing, data centres, industry and energy processes, adequately accounted for in water resource planning and drought plans? What impact might these sources of future demand have on drought risk?

The current system for managing water demand is inadequate, and the latest Water Resources Management Plan guidance from the Environment Agency for the next price review does not correct these flaws. These are set out below.

Incomplete assessment of need

The National Framework for Water Resources 2025, setting out the Environment Agency's view of the balance of water supply and demand over the next twenty-five years, is incomplete. By its own admission it does not include the potential demands of data centres.³¹ While, where possible, data centres should use non-potable water supply for cooling, the national estimate of water resources need should include estimates of their usage in its forecast. Not doing so risks limiting essential growth because data centre development could be constrained for no other reason than a lack of water.

Planning on the basis of targets rather than forecasts:

Across the water resources planning period from 2020-24 demand has fallen by 0.6%, but it was forecast to fall by around 5% - leaving a gap of at least 300 million litres of water a day – more than the daily output of four of the ten reservoirs proposed at PR24.³² This is because the Environment Agency requires water companies to plan on the basis of targets to reduce demand rather than forecasts.

The draft Water Resources Management Plan guidance, currently under consultation, states that

*“If your position is significantly different from your previous plan forecast, you should discuss and agree your approach with regulators. Regulators expect you to achieve your previous WRMP commitments... We acknowledge that achieving 110 litres per person per day could be a challenge for some companies and insufficiently ambitious for others given current levels and customer base. We would not want companies to plan for unrealistic forecasts that could jeopardise future water security. **By exception**, if you determine that you cannot fully deliver this, you must provide clear evidence and justification to customers and stakeholders through your plan, explaining why it isn't possible. Justification may also draw on the options and level of investment that would otherwise be required to meet the target.”*³³

This guidance is unchanged from existing planning guidance. Indeed, Ofwat used the water demand targets in its consultation response to Thames Water's draft Water Resources Management Plan 2025 to ask it to

³¹ Environment Agency (2025), [National Framework for Water Resources 2025](#), 9.4

³² Water UK analysis based on projected water use in WRMP 2019 data tables for 2024-25 and actual per capita consumption in 2024-25. The reservoirs are Havant Thicket (21 ml/d), Broad Oak (22 ml/d), Fens (87 ml/d), South Lincolnshire (166 ml/d).

³³ Planning guidelines consultation, p.87. [bolding added]

‘revise ambitions against the governments [sic] demand management targets, including meeting the 2050 110 litres per head per day...consumption target’.³⁴

This guidance is problematic for several reasons:

- Water companies are committed to reducing demand *as far as possible*, but in many cases demand reduction is not in companies’ gift – as is demonstrated by the very minor demand reduction across the last five years. Indeed, the current Chair of the Environment Agency has admitted that reducing demand is ‘notoriously difficult’.³⁵
- Given that demand reduction *on average across the sector* was not as great as had been forecast, it should be as a default rather than ‘by exception’ that forecasts for demand reductions should be reset for the next price review, or preferably sooner, especially in light of current water shortages.
- As a general principle, assumptions about per capita consumption should be based on *forecasts* rather than targets.

The same logic applies to non-household growth where the guidance notes the need to not constrain growth but also states that plans should set out how they contribute ‘to Defra’s water demand target [reducing non-household demand by 9%]’.³⁶ Water UK disputes that this should be the default position because:

- Water companies have even fewer levers to address non-household demand than they do to address household demand, not least as the law requires communication to be via non-household retailers.
- It assumes that the past is a guide to the future. This is not the case. Non-household demand has not meaningfully declined for more than a decade, and evidence suggests that new industries may be more water hungry rather than less.
- The industry wants to support growth and recommends that it should be for *government* to determine whether the 9% reduction target in the Environment Act is consistent with its growth ambition and, if not, which it wishes to prioritise.

Headroom

Future water demands are uncertain because rates of population growth, economic growth, demand and climate change cannot be accurately predicted over a 25-year time horizon. As a result, the water resources management planning guidance instructs companies to allow ‘headroom’ to cover uncertainty in their plans. The position on headroom in the draft guidance under consultation is largely unchanged from existing guidance. Water UK believe this is fundamentally misguided and that advice on headroom should

³⁴ Ofwat (2023), [Thames Water – draft water resources management plan 2024 consultation response](#), p.2

³⁵ <https://www.gov.uk/government/speeches/ea-chair-speech-on-ways-to-better-manage-water-supply>

³⁶ Planning guidelines consultation, p.88.

reflect the impact to society, the environment and the economy of running out of water – an impact which is far higher than that of delivering slightly too much.

The guidance rightly suggests that “if target headroom is too large it may drive unnecessary expenditure. If it is too small, you may not be able to meet your planned level of service”. However, it then goes on to say that companies “should accept a higher level of risk further into the future... because as time progresses... uncertainties will reduce and [water companies will] have time to adapt to any changes”.³⁷ This is not true. There are unlikely to be further savings from reducing demand or cutting leakage above and beyond the steep reductions already planned. The only way to “adapt to any changes” at scale is to construct reservoirs, water-transfer projects, reuse schemes or desalination plants, some of which take around 15 years to plan and build. In any case, the guidance is forgetting that it is not water companies, but our country, namely our environment and our economy, that is being told to “accept a higher level of risk”. The impacts of undersupply are far higher than the costs of oversupply, so companies should be instructed to err on the side of oversupply when future demand is uncertain.

Water UK believe that there should be a standard for *real* headroom – above and beyond modelling uncertainty. This could vary by water resource zone size, because larger water resource zones are naturally more resilient, and companies should deliver this over time to reflect differing levels of current headroom across the country.

Environmental destinations

Water UK agree with the need for long term planning to protect the environment from over abstraction. However, we are concerned that currently the planning requires companies to make very large investments, or accept large reductions in underlying resilience, on the basis of high-level Environment Agency modelling with no governance over how those decisions can be challenged.

At present, the guidance refers to an UKWIR report which suggests that

“It is unlikely that bespoke flow targets can be confidently identified and approved within a single cycle of Environmental Destinations investigations – in practice, it may take two or three cycles to improve understanding and for all parties to reach agreement. In the meantime, where there is uncertainty about the degree of flow recovery required, an adaptive planning process allows for abstraction reduction and habitat restoration actions as an interim no- or low-regrets solution to deliver short- and medium-term benefits”³⁸

This approach places companies in a catch 22. Water supply options are often not linear but are lumpy (you deliver a new reservoir or you don’t, albeit with some adjustment for size), and have 15-year plus lead times. Therefore, if environmental destination targets suggest a reservoir is required in 15 years, and a

³⁷ Planning guidelines consultation, p.97.

³⁸ UKWIR, EA and Natural Resources Wales, [National Framework for Water Resources: Environmental Destination Investigation Framework](#), p.48.

company disagrees with this analysis, there is no way to challenge the decision because they must have 3 planning cycles' worth of data (also 15 years) to do so.

Reducing abstraction from groundwater sources, particularly where there is strong evidence they are *not* connected to local river flows, also introduces new resilience risks. Firstly, where a company may have relied on several different groundwater sources, they may now be dependent for supply on a single reservoir, decreasing resilience by adding single points of failure to the system. Additionally, groundwater sources react differently to rainfall than rivers (they draw down and fill up slowly), meaning they offer resilience to a short, sharp drought. Keeping these sources in supply, at the very least as drought permit options, will ensure future supplies are more, not less, resilient.

Water UK believe that a governance mechanism must be inserted into the system to allow companies and regulators to present trade-offs to *government* between flow targets – which are not in themselves environmental outcomes - and resilience and affordability. Without this, companies will be required to deliver projects which may add little or no environmental benefit at great cost, or accept far lower levels of system resilience.

Population growth

Water UK welcomes the increased focus on growth in the new guidance, but we still see value in a common methodology for linking local plans to ONS forecasts to ensure a consistent understanding of actual headroom and underlying resilience between areas. This will become more important as water transfers become a more common feature of the system (e.g. Grand Union Canal transfer, Cheddar 2 transfer). Risk around incorrect growth forecasts – a risk which has already materialised in some parts of the country – should be reflected in required headroom.

Peak demand

The current guidance states that 'if [a company's plan] includes a critical period of high demand, it should be informed by previous peak demand years...'.³⁹ Water UK believes that appropriately planning for peak demand should be an essential requirement. Customers rightly expect water to come from their taps, whatever the time of year and whoever else is using the network, so companies should be required to plan for peak demands and be funded to do so. This is in line with the 'peak demand' resilience standard recommended by the National Infrastructure Commission.⁴⁰

³⁹ WRMP29 consultation, p.86

⁴⁰ National Infrastructure Commission (2024), [Developing Resilience Standards in UK Infrastructure](#)

10) How should the Government consider drought management alongside its other priorities such as nature restoration, food security, flood management and expansion of artificial intelligence?

As set out in our answer to [question seven](#) above, Water UK believes that government should set out a formal hierarchy for prioritising water use in a drought.

In addition, flood risk management and water resources management are fundamentally linked and should be managed accordingly. For example, the abstraction license flexibility outlined in our answer to [question eight](#) could allow greater abstraction to reduce river flows when they are dangerously high. Equally, groundwater abstraction can lower the water table and thus lower the risk of groundwater flooding. Water UK is concerned about the confused position on flooding set out in the current draft water resources planning guidance. The guidance states:

"Where there are concerns about the adverse effects of groundwater rebound, you should liaise with local authorities. Environmental objectives [to reduce abstraction] must still be met but solutions may need to be adjusted to mitigate the risks of secondary impacts if agreed with the Environment Agency."

In this guidance, it is unclear what is meant by 'environmental objectives must still be met' because if those objectives are to reduce groundwater abstraction based on an environmental flow indicator level, and that leads to groundwater flooding, then it is not clear how those objectives can be met without causing flooding.