

Summary

Water UK is responding to this consultation on behalf of all water companies in England, as water resources management in the other nations is devolved to the Scottish and Welsh parliaments and the Northern Ireland Assembly. In its engagement with Defra on the reforms proposed by the Independent Water Commission, Water UK has said that the Water Resources Management Plan (WRMP) 29 process should be paused to allow companies to engage with the development of a new water supply planning framework.

If the WRMP 29 process goes ahead, Water UK believes the guidance currently being consulted on – largely unchanged since water resource management planning guidelines for PR24 – contains fundamental flaws which should be addressed. A lack of water is impeding economic growth right now, with businesses blocked from expansion in parts of Sussex, Essex, Cambridgeshire, Oxfordshire, Norfolk, parts of the Humber and Suffolk. The situation has become so bad that, solely due to a lack of water, the Environment Agency formally objected to the building of a new cancer hospital in Cambridge which caused its construction to be delayed. New housing is being blocked, threatening the government's target to build 1.5 million new homes. Many new data centres, whose needs for water are explicitly excluded from the Environment Agency's forecasts, are having their developments delayed and are being forced to use much more expensive cooling systems. This situation is set to get much worse in the future due to climate change; population growth; and the rapid growth of water-intensive industries that require evaporative cooling, such as data centres and gigafactories.

Current forecasts for reductions in water put into supply in the next five years assume ambitious demand and leakage targets will be hit. The current forecasts have also not allowed sufficient headroom – spare capacity in the system to cope with uncertainties in future forecasts for factors such as climate change and population growth. For example, current plans have not captured a dramatic change in population growth which diverted from Office for National Statistics forecasts – namely that by 2030 there will be 1.5 million more people living in the country than was forecast in 2022 when 2024 plans were developed. If existing WRMP forecasts for the volume of water put into supply are re-forecast correcting for current population projections and assuming demand and leakage reductions follow recent trends rather than targets, there is already a potential 400 million litre a day shortfall in water available for use by 2030 – equivalent to the daily output of more than four of the 10 reservoirs in the current supply scheme pipeline.

The flaws in the water resources management plan guidelines for the next planning round that should be corrected are:

- **Failure to allow for business growth:** Current water resources management plans assume a 6% drop in non-household demand by 2037-38. While the updated guidance says that Water

Resources Management Plans should not constrain growth, it also says that plans should set out how they contribute to Defra’s water demand target. These two things are contradictory, as the water demand target relies on a reduction in non-household demand of 9% by 2037-38. Water companies should either be asked to meet targets for non-household demand reductions *or* to support growth – they cannot do both (see [section 2](#)).

- **Planning on the basis of targets rather than forecasts for domestic demand and leakage:** The guidance requires companies to meet stringent domestic demand and leakage reduction targets which, if not realised, will result in a large gap between supply and demand. Indeed, there is already a 220 million litre a day gap between estimated and actual water put into supply in 2024-25 because highly ambitious demand reductions have not been achieved (see [section 2](#)).
- **Headroom:** Required ‘headroom’ – spare capacity in the system to allow for the uncertainty in forecasts - into the future should reflect the cost to the environment, society and the economy of not having enough water compared with the cost of delivering slightly too much supply infrastructure. Current guidance suggests companies should ‘accept more risk’ going into the future, – which really means that the country should accept more risk in the supply of its drinking water. Given how long new supply schemes can take to deliver, we think accepting a higher risk is dangerous and should not occur (see [section 3](#)).
- **Environmental destination:** Current targets for reducing the amount of water that companies take from the environment are inflexible and not necessarily based on actual environmental harm. These decisions are based on high level modelling and the evidence base for challenging them can be up to fifteen years of environmental data. A clear and proportionate governance structure is needed to challenge these decisions to ensure that investment is driven by actual environmental need (see [section 4](#)).
- **Flooding:** The guidance is unclear on how companies should address the risk of ground water flooding arising from reductions in the amount of groundwater taken from the environment. If the amount of groundwater taken from the environment is reduced, the groundwater table will rise, and in some areas will increase flood risk. All planned reductions in the amount of groundwater being taken from the environment should automatically consider the risk of flooding (see [section 5](#)).
- **Growth forecasts:** While we welcome the increased emphasis on growth in the new guidance, we believe there should be a consistent approach to modelling growth across the country. However, as outlined above, this emphasis directly contradicts the Environment Agency’s decision that *targets* should be the basis for *forecasts* which determines, for example, whether a new reservoir is built. This will become even more important as water transfers become an increasing feature of the system and water companies require clarity about their neighbours’ levels of resilience as well as their own (see [section 6](#)).
- **Peak demand:** The current guidance confirms that a target for peak demand is optional. Given that people and businesses use far more water in the summer than they do in winter, we believe

this is dangerous. Therefore, we believe that there should be a ‘peak demand’ targeted resilience standard which companies should invest towards. This will require careful design to avoid perverse incentives, and should only be introduced once government has been presented with clear choices about the costs and benefits of different level of standard (see [section 7](#)).

- **New appointments and variations:** The guidance is not clear about how New Appointments and Variations (NAVs) should engage with incumbent water companies about the levels of resilience that should be included in their Water Resources Management Plans. This risks water companies adding spare capacity to the contractual volume of water asked for by NAVs even if the NAV has already calculated required spare capacity in their contractual volume, double counting the volume of spare capacity required (see [section 8](#)).

1) Introduction

This consultation provides the water industry’s view of the Environment Agency’s draft Water Resources Management Plan guidelines for PR29. Defra are currently engaging on whether Water Resources Management Planning should be paused, with a light touch review at PR29, followed by a new water supply plans in 2032-33. As set out in our previous engagement with Defra we remain of the view that:

- The full WRMP 29 planning process should be paused to allow water companies to engage with the development of a new planning framework for water supply plans.
- Where this is needed, in the interim companies should be enabled to divert to the highest scenarios in WRMP 24.
- Companies should be enabled to re-open their WRMPs if they feel their water resource needs have diverged significantly enough from those set out in WRMP 24.

The water resources management plan guidance for the 2029 planning round contains many of the flaws in the 2024 planning guidance. During asset management period seven (2020-25), the country has seen housing and new businesses blocked in some parts of the country, notably Cambridge and North Sussex, for no other reason than a lack of water. Key issues we propose to raise in the response are set out below.

2) Planning on the basis of targets rather than forecasts

Across the water resources planning period from 2020-25 demand has fallen by 0.6%, and it was forecast in 2019 to fall by around 5% - leaving a gap of up to 695 million litres of water a day – more than the daily output of five of the ten reservoirs proposed at PR24.¹

The current draft WRMP guidance states that

“If your [household water demand] 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 [the target reduction

¹ SESRO, Fens, South Lincs, Broad Oak and Havant Thicket. This calculation is based on comparing WRMP19 projections for 2024-25 and outturn figures.

*in demand to] 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.”²*

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.
- 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 PR29, especially in light of current water shortages.
- As a general principle, assumptions about future 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%]'.³ 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. After the introduction of the non-household retail market, water

² WRMP 29 consultation, p.87. Emphasis in bold added.

³ WRMP consultation, p.88.

companies cannot even directly contact businesses to encourage them to use water more efficiently – even though they consume 30% of water each day.

- 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 – data centres, hydrogen production, giga factories - will be more water hungry rather than less.
- The water industry wants to support growth and recommends it should be for *government* to determine whether the 9% reduction target in the Environment Act 2021 is consistent with its growth ambition and, if not, whether it wishes to prioritise growth or the target.

3) Headroom

The position on headroom – the spare capacity in the system required to manage uncertainty in future long-term forecasts of factors such as climate change and population growth - for WRMP 29 guidance is unchanged from that in WRMP 24. Water UK believe this is fundamentally misguided and that advice on headroom should reflect the cost to society, the environment and the economy of running out of water – a cost which is far higher than that of delivering slightly too much water infrastructure. The Environment Agency’s guidance cites research it sponsored from UK Water Industry Research which 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”.⁴ 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 requires the construction of 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. This standard should be delivered over time to reflect differing levels of current headroom.

4) Environmental destinations

Water UK agrees with the need for long term planning to protect the environment from the risk of taking too much water from water bodies. The Environment Agency is reducing over time the amount of water that companies can abstract with the goal of ensuring a healthy water environment in the future.

⁴ WRMP 29 consultation, p.97.

However, the Environment Agency's method for determining future reductions in abstraction licenses is to use high level modelling which sets a target level of flow and makes assumptions about how abstraction licenses affect that flow. This target level of reduction is referred to as an 'environmental destination'.

There is a relatively straightforward relationship between abstraction from rivers and the volume of water in them. The same is not true of groundwater abstraction, where groundwater aquifers may or may not be connected to local water courses and so reducing abstraction may or may not increase the volume of water in a nearby river. As a result, environmental studies are needed to determine whether groundwater abstraction reductions are likely to deliver increased flow in rivers – improving the environment.

Currently almost two-thirds of the projected public water supply deficit to 2050 is driven by a need to reduce abstraction. Much of this is likely needed, but the water industry is concerned that at least some of these reductions may be unnecessary. However, EA guidance suggests that water companies may need to gather two or three planning cycles (10-15 years) worth of environmental investigation data to justify not achieving their target levels for reducing abstraction. 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 company disagrees with this analysis, there is no way to challenge the decision because they must have up to three planning cycles worth of data (also 15 years) to do so. This should be reviewed to ensure that reductions in abstraction are, in fact, necessary and will deliver actual environmental improvements that are proportionate to their costs.

Given the increase in the water supply deficit based on correcting the ambitious demand reduction assumptions above, any saving from removing unnecessary abstraction reductions may be used by additional demand.

5) Flooding

Water UK is concerned about the confused position on flooding set out in the current guidance. When groundwater abstraction is reduced, groundwater levels will rise and in some instances this will create a flood risk. The guidance states:

"Where there are concerns about the adverse effects of groundwater rebound, you should liaise with local authorities. Environmental objectives 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' even if there are concerns about 'the adverse effects of groundwater rebound', i.e. flooding. The 'environmental objectives' in question are the Environment Agency's abstraction reduction targets, and in some places

these necessarily increase flood risk. Water UK believes that any reduction in groundwater abstraction should be accompanied by an assessment of likely impacts on flood risk.

It is possible that the above guidance is intended to suggest that there should be flexibility in abstraction reduction targets. If this is the case then Water UK would welcome this approach, but believe it should be clearly set out. If the Environment Agency is willing to countenance more flexible abstraction at times of high groundwater levels, this will potentially enable new water supply solutions – which make use of this water - to be included in WRMPs.

6) Population growth

There is no standard method for forecasting population growth in the guidance. Water UK welcome the increased focus on growth in the new guidance, but we see value in a common method for population growth forecasting which links local plans to Office for National Statistics forecasts to ensure a consistent understanding about actual headroom and underlying resilience between water companies. If different population growth scenarios are used in different regions, then it would likely result in differing levels of resilience. This will become more important as water transfers become an increasing feature of the system (e.g. Grand Union Canal transfer, Cheddar 2 transfer).

7) Peak demand

The WRMP 29 guidance does not require companies to plan for ‘peak demand’ – that is, how much water might typically be needed in a summer heatwave. The guidance states that ‘if [a company’s plan] includes a critical period of high demand, it should be informed by previous peak demand years...’.⁵ Water UK does not believe that planning for peak demand should be an option. 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.⁶

Designing a peak demand resilience standard requires careful consideration and any standard should adopt the following principles:

- i) **Rolled out over time:** No resilience standard should be introduced as an enforcement position. As set out in the National Infrastructure Commission’s (NIC) report on resilience standards “it may not be possible to achieve desired levels of resilience at speed given the relatively long lives of infrastructure assets. Standards may need to be phased in over time and

⁵ WRMP29 consultation, p.86

⁶ National Infrastructure Commission (2024), [Developing Resilience Standards in UK Infrastructure](#)

... different infrastructure operators may need different timelines for introducing standards to reflect the different starting positions of their asset bases”.⁷

- ii) **Affordable:** As the NIC report suggested, the introduction of any standards should be iterative. Regulators should set out an indicative set of options for a standard, water companies should cost those standards and then *government* should decide what the appropriate level of resilience is. This is fundamentally a political choice because, as the NIC pointed out, ‘government may or may not wish to override the cost/benefit analyses it receives because it believes the importance of resilience goes beyond cost’.⁸
- iii) **Considering all relevant variables:** Peak distribution input – the amount of treated water a water company is putting into supply at any moment in time - increases at times of high demand, such as hot summer days. Therefore, any resilience standard should consider all factors which increased overall distribution input at peak times – including the increased risk of leakage breakout during hot dry summer months where dry soils cause ground movements which burst pipes. The standard should also be stress tested against the highest demand likely in hot temperatures.

8) New appointments and variations:

To enable competition Ofwat has the power to appoint new companies to provide water and/or sewage services for an area previously served by an incumbent water company. An existing new appointment can also have its appointment varied if it wishes to extend its service area. Collectively, these new providers are known as new appointments and variations (NAVs).

While the guidance highlights that NAVs need to produce water resources management plans, it is vague about how NAVs should engage with incumbent water companies. The guidance suggests that water companies should plan for the ‘contractual volume’ they have agreed to supply to NAVs, but if NAVs have already incorporated a dedicated safety margin, or ‘headroom’, in their contractual volume then this has the potential to be double counted in water company plans when they consider headroom requirements.

Worse, since NAVs usually pay for the volume of water supplied not the volume they hold in contract, there is a potential for the cost of the additional capacity, which the NAV requires for resilience purposes, to be passed on to customers of the incumbent water company who may not enjoy the same level of resilience. To ensure efficient and accurate planning, we believed that clear mandatory guidance from regulators is important – setting out common assumptions for per capita water consumption, headroom and other variables that NAVs must follow to prevent inconsistent methodologies.

⁷ National Infrastructure Commission (2024), [Developing Resilience Standards in UK Infrastructure](#), p.15.

⁸ NIC report, pp.29-30.