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By email

Granville Davies
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Water Resources North

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Dear Mr Davies

Water Resources North (WReN) draft regional plan

We welcome the opportunity to comment on WReN's draft regional plan published November 2022. This letter, which has been published on our website, represents our assessment of the draft plan. Our comments build on those we provided on the [emerging plan](#) that was published January 2022.

Long term water resources planning is a key business planning activity and is essential for the efficient delivery of resilient water services for customers and protecting and enhancing the water environment. Ofwat has a key role to play in enabling this by funding business plans through PR24. Therefore, it is vitally important that we consider whether water companies are identifying the best value approaches to achieve the right outcomes. The regional plans and WRMPs are essential in helping Ofwat and water companies get this right. Our assessment of these plans has focused on the need for investment, options considered and their cost, decision making processes, and the approach to understanding best value. We have separately set out the approach we have taken to reviewing the draft WRMPs and regional plans and this letter must be read in conjunction with that overarching letter which is available on our website.

The comments provided in this letter are without prejudice to any subsequent statutory consultation responses we may make on the relevant company WRMP or decisions that we make regarding business plans at PR24 and any subsequent price review. We expect WReN to address our feedback in its final regional plan, and we expect the final regional plan to inform companies' final WRMPs. We will take the quality of the final WRMP into account when assessing company business plan proposals¹.

¹ [Creating tomorrow, together: our final methodology for PR24. Appendix 9 – Setting expenditure allowances](#), Ofwat (December 2022)

This letter identifies the main themes that we are seeing across the regional groups before summarising the main points relevant for WReN and finally going into the more detailed feedback covering each of the five areas of our assessment in depth.

Main themes

The draft plans, most of which were published in November 2022, have moved on significantly from the previous emerging plans published in January 2022 and we welcome the progress that has been made. Nonetheless, many of the cross-cutting themes we raised previously are still relevant. These cross-cutting themes apply across the regional groups and are set out below.

The **scale of water needs** has grown significantly from previous planning rounds, driven by long term changes to abstraction under the environmental destination scenarios included in the [water resources national framework](#), agreed sustainability reductions and the impact of time limited licence capping. The latter is raising significant challenges in the short term as many of the options to meet water needs will take time to develop. Because abstraction changes are large and uncertain, companies need to present plans that avoid abortive investment and plan investigations that can prioritise the right solutions. The long-term delivery strategies which companies are developing for PR24 will help manage the uncertainties in this area and we expect to see the common reference scenarios used to identify and justify low regret investment in the final plans.

Despite our previous feedback, and the predicted increased water needs, most regional groups have chosen 2039-40 as the regulatory target for achieving **1 in 500 year level of drought resilience without sufficient testing or explanation**. We expect regional groups to explore fully the trade-offs around different pathways to 1 in 500 year drought resilience at a regional scale and to identify and present the costs and benefits of varying the timing of this in the final plans.

We are still seeing insufficient options scoped in many draft plans. We understand this is linked to the significantly increased water needs the draft plans are seeking to meet. However, water companies, and regional groups, need to develop new and innovative options to demonstrate that the proposals they are putting forward are optimal. This has been reinforced by our review of option costs in the draft WRMPs which has found some companies with notably high unit costs that suggest decision-making models have insufficient options to work with.

In line with the UK government's strategic requirements for Ofwat, we expect companies, working as part of regional groups, to **reduce demand for water** to relieve pressures on water supply and increase resilience to extreme drought. We expect companies to use these regional plans to adhere to demand targets including:

- halving leakage across the industry by 2050, in comparison to 2017/18 levels²;
- reducing personal consumption to 110 litres per head per day (l/h/d) by 2050².

A further target, set in the Environment Act 2021³, also now requires the use of public water supply in England per head of population to reduce by 20% from the 2019 to 2020 baseline reporting year figures, by 31 March 2038 and we expect regional groups to demonstrate how they will deliver against this target in their final plans.

Most regional groups and companies are planning to meet government targets for leakage and personal consumption (including WReN). However, we are still seeing a lack of robust and tailored glidepaths to meet those targets and our concerns remain around the deliverability of demand management strategies. Without robust testing and tailoring of demand management strategies within and between companies we cannot be confident we are seeing optimal proposals. We have previously highlighted the opportunity for companies to deliver non-household demand management and our expectations that company plans deliver significantly improved levels of water efficiency in the business sector. We expect to see ambitious strategies for non-household demand management in the final regional plans and associated WRMPs. We also expect to see companies delivering on the commitments they made in WRMP19 and PR19 and this should be the starting point for these plans.

Summary of points specific to WReN

We have reviewed each draft regional plan and as part of our assessment we have considered:

- Assessment of water needs.
- Options to meet water needs.
- Decision making and prioritisation.
- Ambition and outcomes.
- Stakeholder engagement.

WReN's draft plan shows good progress from the emerging plan. WReN does not face the scale of water resources challenges seen in the southeast and east of England. It also has fewer water companies to coordinate across with most of the challenges focused in the Yorkshire grid zone. We therefore do not expect highly complex planning approaches from WReN and we have been broadly comfortable with the approaches taken so far. However, WReN is seeing a potentially shifting position with increasing water needs and this is highlighting the limitations of its approach in some areas. WReN plans to catch up with this, but we want to see this work accelerated. While there has been good progress, we have

² [February 2022: The government's strategic priorities for Ofwat – GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/2022/02/2022-02-20-the-government-s-strategic-priorities-for-ofwat)

³ Defra, [Environment Act 2021: environmental targets December 2021](https://www.gov.uk/government/consultations/2021/12/2021-12-20-environmental-targets)

outstanding concerns that need to be addressed before the final plan is published. These include:

- **Drought resilience** – WReN should explore the costs and benefits of flexing the 1 in 500 year drought resilience target year further. While this has been done to an extent, it currently focuses on impacts on water needs rather than outcomes.
- **Abstraction** – Planned reductions in abstraction are significantly larger than previously estimated. WReN needs to demonstrate that its plan does not introduce abortive investment should this level of abstraction reduction not happen and should plan investigations to find the best value options to adapt to future uncertainty.
- **Options sufficiency** – WReN should develop a wider range of options for its final plan to reflect its changing water needs. While WReN has roughly average preferred option net present cost (NPC) of £11.57 m/Mld (national average is 10.96m/Mld), some feasible option costs are very high which can constrain the scope for choice between options when optimised. Assumptions and methods applied to the cost calculations should be clearly explained to demonstrate that options are not excluded from selection due to artificially high costs.
- **Consideration of transfers and third-party options** – there are no transfers from WReN to Water Resources East (WRE) selected and the plan lacks evidence that the potential for transfers to other regions has been fully explored. WReN needs to provide evidence in its final plan that it has explored the potential for transfers, and third-party options, thoroughly.
- **Decision making and prioritisation** – WReN needs to be clearer about what is driving the differences and the relative benefits between the best value and least cost plans and what this means for customers. WReN should also explain how it will avoid abortive costs if the Severn Trent Water transfer to Yorkshire Water is maintained.
- **Links with WRMPs** – WReN needs to be explicit about how the final plan informs final WRMPs.
- **Ambition** – despite setting a high level of ambition on demand (110 litres per person per day (l/p/d) personal consumption and 50% leakage reduction), WReN has not optimised different approaches to achieving these targets and needs to explore this, and the scope for non-household water efficiency, for the final plan.

Detailed comments for WReN

This section sets out our more detailed comments on each of the five areas we have focused on specific to the draft WReN regional plan.

Assessment of water needs

An appropriate assessment of need is the foundation of a successful plan. We have identified a range of areas that require further focus in relation to this, which are set out below. WReN

is facing a planning challenge of low risk with medium strategic needs and complexity factors driven primarily by environmental need, climate change, demand growth and changes to existing water imports. Our comments take this assessment into account.

WReN has undertaken its deployable output assessment in line with government expectations to be resilient to a 1 in 500 year drought event. Northumbrian Water states that it can maintain a surplus in both its water resource zones across the planning period under this resilience standard once demand management and leakage reductions have been included. Meanwhile, Yorkshire Water has made a choice to implement the 1 in 200 year drought resilience standard at the beginning of the planning period and then switch to a 1 in 500 year drought resilience standard in 2039/2040. WReN should explore the costs and benefits of flexing the 1 in 500 year drought resilience target year further using sensitivity testing.

Exploring transfers: WReN has referenced our emerging plan feedback on transfers and described the work undertaken across regional groups to develop this area. However, there are still no export options from WReN selected by other regions. WReN point to cost and environmental implications as the reason for this. Eight inter-regional transfers have been explored and out of these, only one is to WRE. WReN state that the reason for not exploring more transfers to WRE is because WRE zones in surplus are geographically much closer to the WRE zones in deficit than the WReN zones, and therefore are not justified or included within any plans. However, we note that WRE is very low on options to meet longer term water needs, currently relying on desalination, and therefore question whether the potential to use transfers that could cascade through the network has been sufficiently explored. WReN should work with WRE to provide further analysis of this in its final plan.

Abstraction: Our feedback on the WReN emerging plan was that the region should continue to work with environmental regulators locally to agree a way forward based on current evidence and a sufficiently long-term view of future pressures. WReN has accepted this and is proposing a period of investigation and analysis to reduce the uncertainty associated with the nature, scale and timing of changes required. Since the local evidence and understanding will not be available immediately, WReN should focus on how that uncertainty will be managed in its final plan. To support this we want WReN to:

- Explain how its final plan considers the full range of potential abstraction changes without unnecessarily bringing forward investment that may not be needed.
- Carefully scope its planned investigations to better understand the links between abstraction and the local environment (eg surface water and ground water interactions) and the type of option that may be most beneficial in that context.

The proposed investigations are important because solutions could include reductions in overall abstraction, changes in how abstractions operate (such as changing river flow related conditions or seasonal variations) or moving where abstractions or discharges are in the

catchment or waterbody. We are keen that this sort of thinking informs regional and company plans as we want to see local water management solutions thoroughly considered before companies select replacement water from the list of feasible supply options. Local water management solutions have the potential to be lower cost and to bring greater benefits than simply replacing the water lost with another supply option that is likely to bring its own environmental impacts.

While WReN has included a low environmental destination scenario focused on current legal requirements up to 2050 it is not clear whether this is in line with the approach agreed between Ofwat, the Environment Agency and the regional water resources planning groups to test the Ofwat common reference scenarios for abstraction reductions at PR24. WReN should make sure its final plan has a scenario in line with that applied in the regional reconciliation process as follows:

- include agreed Water Industry National Environment Plan (WINEP) changes and licence capping; and
- use the agreed BAU+ scenario to form a long-term view, but use local reviews to remove licence reductions with significant uncertainty, to form a plausible 'extreme low' scenario.

Data consistency: We have aimed to reconcile the data published in regional plans with the data provided by companies in support of their WRMPs. In doing this we have identified some differences which we have not been able to reconcile. Companies and regional groups should ensure there is consistency in information (such as distribution input (DI) and final plan leakage) in the final plans, and if differences do occur, these should be identified and explained.

WReN has updated its demand forecasts since the emerging plan consultation to align with the best available forecasts from each company WRMP. While this is a welcome improvement, WReN needs to be clear in its final plan where the supply demand balance presented has been altered by changing assumptions, so it is comparable across the iterations of the plan.

Options to meet water needs

Identifying the right range of options to address needs within region and more broadly is a critical part of the regional planning process. We set out below a range of areas that require further focus in this area. Firstly, we note that appendix 5 "option identification and appraisal" was submitted significantly later than the rest of the report. WReN should make sure the final plan and all appendices are submitted in a timely manner to help make sure the plan is transparent and all stakeholders can fully understand what is proposed.

Options sufficiency: As part of our feedback on the emerging plan we highlighted that WReN should develop a broader range of options. Not enough progress has been made in this area. WReN is now facing potentially greater water needs than it has done in the past which makes it even more important to have a sufficiently broad range of options available to meet those needs and develop optimal programmes. These needs are driven by the proposed cessation of a transfer from Severn Trent Water and potential abstraction changes. WReN notes in its plan that it will continue to develop options in future iterations of its plan. WReN should accelerate this work particularly focusing on options to meet needs in the Yorkshire Grid resulting from the proposed cessation of the Severn Trent Water transfer in 2035. WReN should also develop further options to better understand the potential for exports from the region. WReN should also set out how the opportunities for the expansion of existing reservoirs, which our analysis confirms is typically significantly lower cost than developing new resources, have been explored.

Third party options: WReN has continued its engagement across sectors. However, this does not seem to have yielded third party options. WReN should seek these options out particularly with the power and navigation sectors as they may offer more attractive options than the companies are able to develop independently.

Cost data: WReN has presented the costs of options appropriately within its planning tables. There are, however, no details in the plan to clearly identify the assumptions and methods applied to the cost calculations. WReN should provide a clear narrative on this in its final plan, accompanied by worked examples for preferred demand and supply side options showing the profile of annual costs. Furthermore, we have identified some inconsistencies between the regional planning Table 4 and Northumbrian Water's draft WRMP Table 4 and we would like WReN to ensure these are consistent in its final plan.

Decision making and prioritisation

Plans must compare options appropriately to arrive at the right outcomes. We welcome many aspects of the approach WReN has taken to decision making and prioritisation. These include that:

- The approach described to identifying and using best value metrics is in line with guidance and includes a wide range of customer-informed metrics based on regulatory and policy drivers, customer preferences and stakeholder engagement.
- Total carbon emissions in the reconciliation baseline and the final best value plan were compared, along with a clear discussion of the trade-offs between whole life carbon emissions and other considerations, to agree the final best value plan.
- The decision-making approach and decision support tools used are appropriate to the scale of the problem faced in the region. The region selected a Multi-Criteria Analysis (MCA) based on a set of metrics corresponding to pre-defined objectives, to select options and produce plans.

- With respect to the selected preferred plan, WReN has created five alternative pathways with reference to the Ofwat common reference scenarios, where appropriate, in the context of material supply-demand risk.
- WReN has used adaptive planning to identify and manage risk and uncertainty. WReN accounts for risk and uncertainty through headroom calculation and five alternative pathways. Alternative pathways are well explained and clearly presented in Figure 7.2 of the main report.
- WReN has presented a single strategic plan, centered around the Yorkshire Grid zone where key supply demand balance challenges arise, along with the preferred adaptive solution. The options selected under each pathway are clearly presented.

We have also identified a range of areas that require further focus before the final plan is published.

Least cost and best value comparison: The least cost plan is provided as a benchmark for the best value plan and comparison of the two is presented using normalised metrics in the main report and actual values in appendix 5. WReN should discuss in more detail the difference in activities between the two plans and cost comparison, setting out what the benefits are, how much it is going to cost and how it is going to be delivered. Cost comparison with WRMP19 should be provided in the final plan where relevant.

Artificial constraints: WReN should demonstrate in its final plan that decision making has not been influenced by artificial constraints. This includes presenting the implications of sensitivity testing of different profiles of 1 in 500 year drought resilience, flexing the use of drought permits and orders, testing different glide paths on water efficiency and leakage as well as use of temporary use bans and non-essential use bans.

Sensitivity testing: In our emerging plan feedback, we requested that WReN robustly evidence why a date for a pathway to diverge should be selected and the likely sensitivity to the investment programme of changing this date. The draft plan is not clear on this, and WReN should evidence this clearly in its final plan.

The approach WReN has presented to sensitivity testing is broadly appropriate to the uncertainties it faces. Beyond the Ofwat common reference scenarios, WReN developed additional scenarios and clearly explained the results and consequences of testing on the plan. However, it is not clear how or whether the low climate change or growth scenarios have been used to inform identification and justification of low regret investment. The final plan needs to set out how the common reference scenarios affect the supply demand balance given the solutions in the preferred pathway, and clearly demonstrate that the core pathway supply options are optimal under a wide range of likely futures, including the common reference scenarios.

Clarity on some underlying assumptions: WReN should set out more clearly what data is used for each of the scenarios in its final plan. These include the data used for growth forecasts in the low and high demand scenarios as well as explaining whether Representative Concentration Pathway (RCP) 2.6 and RCP 8.5 were used for the low and high climate change scenarios, respectively.

Links with WRMPs: Overall, WReN's decision making is transparent. There is discussion on reconciliation between the regional process and outcomes, as well as where individual company WRMPs contribute to the regional WRMP. However, discussion on how the regional plan is informing individual company WRMP24 plans, as requested in emerging plan feedback, was insufficient and should be included in the final plan. Our review suggests that the WReN plan adheres to most of the Ofwat public value principles, although it does not directly reference them. WReN should reference Ofwat's public value principles in its final plan and provide narrative on how the principles are followed in the plan.

Cost efficiency: When considering the whole life cost NPV, the unit costs of preferred options in WReN (average of around £11.6m/ml/day) tend to compare well against the costs from other regions. WReN has some competitively costed large projects that are driving this from both Northumbrian Water and Yorkshire Water. Leakage control, new groundwater and metering and water efficiency generally offer low unit costs in this region. Surface water enhancement options tend to be higher cost when compared across the industry. Overall, the region has a relatively small number of large, preferred options presented with a total NPC for preferred options of around £3,631m. As we said earlier WReN should accelerate its options development, particularly focusing on options to meet needs in the Yorkshire Grid resulting from the proposed cessation of the Severn Trent Water transfer in 2035. WReN should also confirm whether its costs are in line with Water Resource Planning Guidelines requirements in its final plan.

Ambition and outcomes

It is important that the plans are sufficiently ambitious and are in line to achieve agreed outcomes. As we said above, Ofwat expects companies to use these regional plans to adhere to demand targets including personal consumption, leakage and overall water use^{2, 3}.

The WReN plan is broadly in line with the expectations from the national framework which characterised the North as facing modest water resources pressures. However, these pressures are increasing as environmental water needs, drought resilience and demands from outside the public water supply are better understood. We set out our view on this in the assessment of water needs section of this letter. We have identified two areas that require further focus in this area and these are set out below.

Leakage and water efficiency: We are pleased that WReN is proposing to get to below 110 litres per person per day (l/p/d) personal consumption by 2050. We also welcome WReN's

intention to make a 50% reduction in leakage by 2050. However, WReN notes that there is a high reliance on future innovation beyond existing leakage techniques and methods and needs to work on this further to reduce the uncertainty in its final plan.

WReN should set out in its final plan how it will align with the [government target](#) to reduce the use of public water supply in England per head of population by 20% from the 2019 to 2020 baseline reporting figures, by 31 March 2038, with interim targets of 9% by 31 March 2027 and 14% by 31 March 2032, and to reduce leakage by 20% by 31 March 2027 and 30% by 31 March 2032.

Profiling activity across the planning period: In response to WReN's emerging plan we requested that they set out how they are profiling changes in personal consumption, reductions in non-household consumption, and leakage across the planning period to optimise outcomes. This has not been addressed and WReN needs to prioritise this for its final plan.

Stakeholder engagement

Stakeholder engagement must be meaningful, have sufficient reach and be appropriately targeted. WReN has demonstrated this by presenting the views and needs of stakeholders well, as well as giving a good overview of customer concerns found in their research. WReN's description of the workshops undertaken, particularly regarding their content and the subsequent customer concerns highlighted is good.

Highlighting policy choices: WReN has shown a good level of engagement with a variety of stakeholders and customers, using a variety of means. Meaningful choices and questions were posed to customers, highlighting key policy conflicts.

WReN should continue to liaise with stakeholders on how the consultation responses will affect the final plan. WReN should now consider the responses to its draft regional plan consultation, and any additional stakeholder engagement carried out, and explain how these have influenced its final plan.

Planning to meet water resources needs over the coming 25 years and beyond is of the utmost importance and these plans will have important implications for customers, society, and the environment. This is why we have pulled together this detailed feedback and why we expect to see the necessary improvements for the final plans. Once you have had a chance to consider these comments in detail, we would like to hear how you plan to address them and will be in touch to arrange a date for this in mid-March 2023.

Yours sincerely



Aileen Armstrong

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