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By email

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Dear Chris

WRSE emerging regional plan consultation response

WRSE has published an emerging regional plan for consultation. We welcome the opportunity to comment on the plan and this letter sets out our response. This letter will be published on our website on 15 March. We have included a range of cross cutting themes and more detailed comments that are specific to WRSE. In places our comments build on or reference [comments we made last January](#) on the method statements.

The work of the regional groups has been shaped by the [water resources national framework](#) and the [water resources planning guideline \(WRPG\)](#). We understand that the emerging plan for consultation is intended to:

- Signal early sight of the big challenges and candidate solutions (including strategic water resource solutions in the RAPID programme) to get initial feedback from stakeholders.
- Report outputs from the inter-regional reconciliation and best value selection processes.
- Be widely available and a way of gathering broad views from interested parties.
- Represent an important step in an ongoing process of plan development.

The January 2022 emerging regional plans are not statutory water resource management plans (WRMP) with associated data tables or a formal preferred plan. However, we have reviewed the emerging plans and this letter sets out our feedback to WRSE based on the information available. At this time there is very limited information available on option costs, benefits or tradeoffs, which has constrained our ability to review the plans in detail. We will require access to this information at the next stage of the process in autumn. We also note that timescales are tight for the regional groups to get their plans to where they need to be

for the next round of consultation. Our intention in providing this feedback is to help regional groups to do this.

The revised regional plans and company level WRMPs expected in the autumn will help inform whether individual strategic water resource solutions included in the RAPID programme will progress beyond gate two. This makes the approach, robustness and transparency of decision making even more important.

This is the first time we have seen five regional plans being developed that cover the whole of England and with important links into Wales for the West group. The plans are important because they represent an opportunity to meet water needs at a regional and national scale more efficiently than would be possible through individual aggregated water company plans. The aims of the plans align with [our strategy](#) by:

- seeking to improve water company efficiency and performance for customers;
- driving water companies to meet long term challenges through increased collaboration and partnerships; and
- working across sectors to serve a wider public purpose, delivering more for customers, society and the environment.

In the letter that we sent in January 2021, we set out our expectations of the regional plans in terms of tiers of spatial planning, timely delivery and planning complexity. We expect regional plans to shape the company water resources management plans (WRMPs) and investment plans for beyond 2025. Public water supply investment within WRMP24 will then form part of companies' business plans submitted to Ofwat as part of the next price review (PR24) as set out in our recent [PR24 expectations letter](#).

The comments provided in this letter are without prejudice to any subsequent statutory consultation responses we may make on the relevant company WRMP24 or decisions that we may make at PR24 in connection with the business plans.

Main themes

I'd like to start by recognising the achievement that the publication of the five regional plans represents. Each of the regional groups has invested significant time and energy into the development of the plans both individually and alongside other regions to make this work. The work on reconciliation of the plans, which has involved each of the groups, is an example of the time and energy that has been put into aligning the plans and working together to find more efficient solutions.

As a result of the work put in over the last few years, we now have a set of five emerging plans that were published together and marked by a joint launch event. In itself, this represents a big step forward in water resources planning and I understand that this sort of progress takes

sustained effort and collaboration. The comments provided in this letter are intended to support the continuation of that progress as each of the regional groups tackles the work that remains to be done.

There are several areas that stand out from the review of the emerging regional plans for consultation that are relevant across the regional groups and are worth raising together. These are set out below.

The data available on options has not allowed us to look at costing at this stage. The approach to options costing through regional plans and WRMPs needs to be robust enough to enable the right decisions to be made. Regional groups and water companies should note that Ofwat will require further information on costs at the WRMP stage to allow the necessary scrutiny. Cost of options presented should be the cost of delivering the full benefit or demand reduction and the costs presented at the WRMP24 stage are expected to be the same as those submitted in business plans at PR24. Plans should compare the cost of the best value plan to the least cost plan. The difference in expenditure, and benefits, should be clearly stated and cost drivers fully explained.

Options where companies seek funding at the business plan stage should have all known environmental and drinking water quality risks identified and mitigations costed. If there are significant risks which could prove to be showstoppers, mitigations agreed with environmental regulators or alternative options should be available. Drawing out key assumptions and uncertainties in your final costings in your plan will help Ofwat have confidence in your costing consistency through PR24.

We are expecting significant effort on demand management and want to see glide paths backed up by commensurate water company actions. This should include the potential for coordination of action at a regional and national level and considerations of the benefits that could bring. Where your future initiatives to reduce personal consumption to 110 litres/head/day are reliant on government policy, we ask that you clearly articulate which policies your assumptions rely on, and your assumed dates of implementation. Beyond supporting water efficiency in households, and as noted in our previous letters from [March 2020](#) and [February 2021](#) on the subject, there is significant potential for improved water efficiency in the business retail sector. Improving water efficiency in non-households can and should make a significant contribution to meeting national water needs on a long-term, sustainable basis. Regional groups should demonstrate they are working effectively with retailers to set ambitious plans for improving water efficiency in the non-household sector and making appropriate assumptions around how water efficiency can be improved.

While the regions are generally proposing to meet requirements around drought resilience, personal consumption, and leakage, we've not yet seen enough focus on profiling those changes to optimise outcomes. We want to see sensitivity analysis undertaken on this to

understand if there are significant savings or changes in benefits that could be achieved from shifting dates earlier or later in the planning period.

Further work is needed to fully understand and prioritise changes required to water abstraction. The abstraction reductions currently proposed in the emerging plans are large and carry uncertainties, particularly in the Water Resources East and Water Resources South East plans. Regional groups should work with environmental regulators to reduce the uncertainty around these figures and profile required changes across the planning period before the next plans are published. Changes to the way water is managed should deliver a net gain to the diversity and quality of the environment to enable a better overall outcome.

The plans are proposing a step change in investment. Regional groups should therefore think carefully about the deliverability of the plans from a practical perspective. This includes current supply chain constraints and affordability concerns. Regions should be making sure that their proposed solutions are adaptable and that smaller scale options aren't discounted in favour of larger solutions. Demand management has an important role within this as part of the twin track approach.

Some of the plans include insufficient options in comparison to the projected needs. This situation risks making all available options seem low regret as they tend to be selected widely in the modelling. The plans must include a suitable number and range of options against the projected need. Regions should also be considering supply options to facilitate transfers to neighbouring regions where this could represent the best value approach.

The regional plans show some evidence of cross-sector collaboration. This is encouraging as cross-sector projects have the potential to bring additional social benefits. However, water customers should only be expected to fund solutions consistent with the proper carrying out of the functions of a water company. We expect third parties who will benefit from the solution to contribute a fair share of costs according to their own responsibilities and the benefits they realise.

Timescales for the improvements to be made to the regional plans are tight. While this has partly been accommodated by a formal delay to English WRMPs from August to October (Welsh WRMPs are expected to be submitted in September) the short timescales mean that regional groups will have to prioritise their work carefully to make the necessary improvements by the next consultation.

We expect completed data tables to be published by all groups¹ with the next round of regional plans so that the plans are transparent and regulators / stakeholders are able to understand and comment on the decisions made. Linked to this, plans published in the autumn should be as self-contained as possible to allow stakeholders to understand the main points without needing to review a long list of previous documents or appendices.

Points specific to WRSE

We have high expectations of WRSE. It is the longest established regional group – in place since 1996 – and the region it covers faces the greatest public water supply challenges. The level of sophistication in the plan is broadly aligned with the challenges it faces and represents an impressive and complex body of work. The comparatively wide range of points we raise in this response reflects the amount of material submitted and the sophistication of the approaches developed. Despite the work already completed there remain areas that need to be developed further. Perhaps the most notable of these is the application of WRSE's best value approach as the emerging plan has been developed to represent least cost rather than best value. There are a range of other areas that also require further focus. WRSE should:

- Clarify what the estimated drought resilience is at the start of the period and address inconsistencies in the documentation on water needs to achieve 1 in 500 year drought resilience.
- Work with environmental regulators to understand and prioritise changes to abstraction to deliver a net gain to the diversity and quality of the environment and enable a better overall outcome.
- Clarify what level of personal consumption WRSE expects to see by 2050 and detail its approach to achieving demand side savings to give confidence in their deliverability.
- Make sure it is considering the full range of options available by, for example, clarifying how it has worked through the potential options available to enhance existing assets before looking to new solutions and exploring the use of drought permits and orders beyond 2040.
- Set out how it is profiling changes in drought resilience, personal consumption, and leakage across the planning period to optimise outcomes.
- Explain its approach to adaptive planning more clearly including why pathway branch points are excluded in the first 15 years.
- Clarify the cost information used in the plan and confirm which options are selected at what time and why they represent a low regret least cost programme.
- Build on the approach taken in the main plan summary document to present the work in a way that is transparent and accessible to stakeholders. This is a particular challenge

¹ Water Resources West was the only region that published data tables alongside its emerging regional plan

for WRSE because the complexity of the approaches used risk making the plan difficult for stakeholders to engage with.

The team has reviewed each emerging regional plan for consultation focusing on:

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

This section sets out our comments on each of these areas specific to your 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 related to this and set these out below.

WRSE is looking at some potentially very deep reductions in water abstraction in the long term. This is using a 'central' scenario that is not explained in detail. WRSE should focus on using local understanding from engagement with environmental regulators, water companies and stakeholders on what needs to change and by when to inform its prioritisation of actions and investigations to achieve the best long-term outcome and set these out clearly. This area is critical to the plan because it is driving a large component of the need.

WRSE states that 625 Ml/d of water is required to provide resilience to a 1 in 500 year drought event by 2040 which represents a significant proportion of the overall water needs up to 2040. However, the supply demand balance tables for dry year annual average 1 in 100 year and 1 in 500 year droughts included in Annex 1 do not align with the figure included in the main plan. WRSE should clarify which figures are correct.

The WRSE plan says it will achieve 1 in 500 year drought resilience by 2040 (as per WRPG 4.7). A sensitivity test has been carried out to move the end of the first branch from 2040 to 2035 with limited impact. However, we note that the fixed 2040 drought resilience target may be obscuring sensitivity caused by changing the adaptive pathway trigger point. We suggest that both the drought resilience target date and adaptive pathway trigger point date are tested individually, and in combination. This should include flexing the 1 in 500 year drought resilience to 2050 where more flexibility is considered appropriate to identify if there are significant cost savings or additional benefits that could be achieved from moving dates.

WRSE is not planning to use Drought Orders or Permits as options after 2040, except for events in excess of the 1 in 500 year return period. Annex 1 states that scenarios have been tested comparing the cost impact of using or not using Drought Orders and Permits, however

the results are not presented. WRSE should explore the cost, benefit and option selection impact of retaining the use of some Drought Orders and Permits beyond 2040. This is important to avoid unnecessary costs from resource development and to avoid the associated environmental impact that the additional development likely to arise from ruling out the use of Drought Orders and Permits could bring.

WRSE has generated public water supply and demand forecasts up to 2100, with intermediate points at 2040 and 2060. We welcome the application of this planning horizon as it has allowed the plan to explore a wide range of potential futures and the uncertainties associated with these. The impact of the pandemic is noted in the plan, however WRSE should clarify whether or how this influenced the public water supply demand projections. WRSE should consider the Ofwat [common reference scenarios](#) on water resources shared 17 November last year and should factor these – and any amendments following consultation – into the regional plan as appropriate.

WRSE's work to forecast non-public water supply water needs and integrate these within the investment model is welcomed. WRSE should continue to explore non-public water supply water needs and refine forecasts based on engagement with other sectors, ensuring potential growth areas are investigated.

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 have identified a number of areas that require further focus in relation to this, which are set out below.

Demand reduction options are shown to represent more than half (54%) of the total water resource gains for the 2025–2040 plan, and 56% of the 2040–2060 plan. Despite this, WRSE does not specifically commit to achieving the 110 l/h/d personal consumption level by 2050, as included in the National Framework. WRSE should:

- Clarify what level of personal consumption it expects to reach by 2050.
- Detail the demand management options and glidepaths to meeting the demand reductions expected.
- Present the impact that different demand profiles have on decision making, and therefore costs and benefits, in the period up to 2040 and beyond.
- Test whether uncertainty associated with the achievement of company-led demand reduction can be managed within its adaptive pathways.
- Consider including the uncertainty in government initiatives (which is stress tested) in its adaptive pathways so these can be used to plan supply and demand options to resolve potential future deficits.

WRSE includes a range of supply option types in its emerging plan. These include transfers, reservoir expansion, new reservoirs, water recycling, groundwater aquifer storage and recovery, and desalination. However, WRSE should:

- Clarify how it has worked through the potential options available to enhance existing assets before looking to new solutions. In particular, we note that WRSE has looked at 12 new reservoirs, but only one reservoir expansion scheme. This is alongside 16 desalination options, which remain a prominent option type in the low adaptive scenario.
- Make sure that the range of options within each option type is sufficient to allow real choices between them, including comparably sized alternative options with similar lead in times.
- Explain how network improvements have been considered as options alongside new sources of supply, including pipe, pump and treatment work constraints, and treatment works loss recovery.
- Set out how third-party options have been included and considered alongside other options and present the options selected clearly.
- Ensure it has updated individual company data, assumptions or forecasts and incorporated these appropriately into the regional planning process, as per WRRPG section 2.
- Engage with WRE through subsequent reconciliation rounds, to understand whether there are potential transfers from the East region into the South East as part of a best value plan.

While it is encouraging that WRSE has considered over 200 catchment options the water resource benefits of these options are not clearly explained. Where the water resource benefits are low or absent it may be appropriate to include these options in different plans and pick up on broader benefits, for example, the water quality benefits. WRSE should clarify the benefits expected from these schemes and why they are best included in a water resources plan rather than drainage and wastewater management plans or through the business plans.

The emerging plan discusses non-public water supply users in WRSE, quantifying the volumes of water abstracted across multiple sectors, and how this may change over the planning horizon. While a number of multi-sector options are identified, further development is required on potential water resource benefits, particularly to the public water supply sector. WRSE should clarify how it will continue to develop these options.

Decision making and prioritisation

Plans must compare options appropriately to arrive at the right outcomes. We have identified a range of areas that require further focus which are set out below.

WRSE's emerging plan is not yet a best value plan. Instead, WRSE has published a best value method statement which sets out how it plans to arrive at a best value plan. We have not commented on the best value method statement in depth as part of this review. However, we note the complexity of the approach, and we would like to work with WRSE to further understand how it will be applied and to make sure it is achievable in the time available.

The WRSE emerging plan is not always clear or consistent on which options are being selected when and what is driving the selection. For example, the Severn Thames River Transfer is included in all three pathways (high, medium and low) in some parts of the plan (see figure 1.3 annex 3) but excluded from the low pathway in others (such as page 16 in the main report). WRSE should explain more clearly which options are selected at what time and why they represent a low regret least cost programme.

WRSE has set out an emerging least cost adaptive plan up to 2075. However, this has not been compared to alternative least cost adaptive plans in the submission. We would like to see the range of least cost plans produced up to 2100, and evidence of comparison across these. Justification for the preferred least cost adaptive plan, in relation to alternatives with varying assumptions, should then be presented clearly. The difference between the preferred least cost adaptive plan and the best value adaptive plans, which are being developed, should then be used to support decision making around the preferred best value adaptive plan.

When WRSE has developed a best value plan it should compare its cost against the least cost plan. The difference in expenditure should be clearly stated and cost drivers fully explained (as per WRPg section 10.4). It is important that WRSE clearly identify the bill impacts of the proposed programmes and engage with customers on the issue (as per WRPg 4.1.1) to inform and justify best value plan selection as part of wider decision making.

WRSE has identified carbon (both operational and embodied) as a best value metric and plans to use the metric to optimise the plan in the next phase of work. WRSE should:

- Expand on its methodology for optimising on carbon.
- Explore the sensitivity of decision making to carbon to identify tradeoffs.
- Demonstrate that carbon is being considered as part of decision making rather than simply mitigating emissions after decisions have been made.

Adaptive planning is a more sophisticated way of managing known uncertainties than lumped target headroom (WRPg section 10.8) and we support WRSE taking this approach. However, the choice of adaptive pathways and trigger points should be made based on the uncertainties and drivers of the uncertainties at that time. It should be clear why a date has been selected for a pathway to diverge and sensitivities to the investment programme should be explored by varying this date. WRSE should revisit and explain its thinking on the exclusion of branch points in the first 15 years and explore whether uncertainties are present which justify branch points prior to 2040.

WRSE has used an investment model to optimise across nine situations representing varying futures and has selected programmes of options for each. However, it is not always clear what data and futures are represented by the situations, and which has been presented for the regional reconciliation. It is also not clear which situation and associated programme is preferred within the least cost adaptive plan presented within the submission. WRSE should clarify the situation presented at regional reconciliation, and whether the associated programme of options constitutes the preferred programme within the least cost adaptive plan. WRSE should also explain how the situations map to the Ofwat long term planning scenarios.

WRSE has not yet produced a monitoring plan and it should develop this alongside the best value adaptive plan. The monitoring plan should include trackable metrics that assess and measure the progress and performance of the adaptive plan through time and support decision making around switching between alternative pathways.

We are concerned that the WRSE investment model is unable to balance supply and demand in the absence of all Government-led demand management activities beyond water labelling. This dependency presents a risk to the plan which WRSE needs to understand and manage.

WRSE has developed a new resilience framework. This is intended to assess the region's resilience to a wide range of shocks and stresses that could impact public water supplies, the water supplies of other sectors and the environment. We have met with WRSE to discuss this framework and remain concerned that:

- The metrics mainly represent different aspects of drought resilience, for example R1 (uncertainty of option supply/demand benefit (incl climate change)), R4 (availability of additional headroom), A1 (Expected time to failure), A2 (Duration of enhanced drought restrictions) are all water resources focused and therefore risk introducing duplication.
- Some metrics can be counter-intuitive, for example:
 - R3 (Risk of failure of planned service due to other physical hazards) is included alongside water resource focused metrics within the reliability metric and could cancel out or be misinterpreted at this aggregate level.
 - R1 could be captured via headroom or valued as an uncertainty range in Ml/d rather than as a score and R4 is expected to be minimal once 1 in 500 resilience plus climate change has been accounted for.
 - A3 (operational complexity and flexibility) is characterising effluent reuse schemes as low resilience compared to other options due to reliance on chemicals. We note that chemical availability is a risk across supply options and it needs to be clearer why WRSE considers this to be a higher risk for effluent reuse than other options.
- The plan is not entirely clear on how the resilience framework fits with the best value metrics to ensure there is a balanced consideration of resilience and broader best value assessment.

- It increases the complexity of the remaining work. WRSE already has a lot of work to do to get to a best value plan before the next round of plans and may wish to consider whether the resilience framework is critical to the success of the plan.

Where the regional plan selects sub-water resource zone resilience schemes, WRSE should consider and justify schemes that are 'non-drought resilience only' and do not contribute to the supply demand balance via requests in company business plans where appropriate. While these options can be described in the regional plans and WRMPs, they should have some benefit to or impact on one or more components of the supply demand balance to be considered as regional plan / WRMP schemes (as per WRPG sections 8.2).

WRSE acknowledge that there is a risk of double counting benefits and dis-benefits particularly in relation to the environmental and resilience metrics. As far as possible, metrics should be discrete and independent measures of plan performance. There should be a clear line of sight from objectives, through to metrics designed to measure various associated aspects of plan performance, through to outcomes. Sub-metric scores should be explained and used to justify the best value plan selected in addition to aggregate metric performance to ensure transparency and to avoid perception of a 'black box' approach. Where investment is needed beyond least cost the value of the additional benefit needs to be presented and the robustness of the valuation data is important for significant areas of investment.

Decision making should be transparent and WRSE has provided a narrative and informative visuals which are accessible to stakeholders. However, WRSE should describe more clearly why options are selected and when, including cost, benefit and lead in time data to justify the selected plan. Where programme scheduling influences the selection of a higher cost and / or lower value option this should be explained. WRSE should also provide more detail on how strategic decisions are made within the group, who is involved in the process and how it will transition to a best value plan that can inform WRMPs.

Ambition, outcomes and stakeholder engagement

It's important that the plans are sufficiently ambitious and are in line to achieve agreed outcomes. Stakeholder engagement must be meaningful, have sufficient reach and be appropriately targeted. We have identified a range of points relevant to these areas that require further focus which are set out below.

The WRSE plan is broadly in line with the scale of challenges articulated in the national framework though water requirements have increased significantly. WRSE has considered water demands outside public water supply and has included 30 MI/d capacity for paper and power sectors. However, it's not yet clear how that will work in practice at an options level. WRSE should develop this further in the next iteration of the plan.

WRSE recognises that further work is required to achieve alignment between the different water-related planning activities such as drainage and wastewater management plans and flood risk management. WRSE should continue to build on this area.

The WRSE approach to stakeholder engagement has been positive. It has hosted a range of well attended webinars and supported the launch of all five regional groups on 17 January. WRSE presents a broad range of questions for consultation and has set up an online system to capture responses. WRSE has also engaged extensively through a series of workshops. WRSE should detail how this engagement will shape its plan.

WRSE has published a wide range of documentation that includes a particularly helpful and clearly set out interactive summary of the plan. However, there are many annexes spread across the WRSE publications page and information is divided between these in a way that makes it challenging and time consuming to find. For example, it's not clear specifically what information would be included in Annex 2 'the solution' or Annex 3 'our emerging plan'. WRSE should address this for its next consultation and publish its data tables.

The WRSE emerging plan is not sufficiently clear on costs. Programme costs are presented as £8bn but it is not clear what this includes and is therefore not helpful for customers. Within this total the plan says that supply side option totex is £1.5bn in the preferred programme. However, this appears less than the cost of some of the infrastructure options individually so it's not clear what is included in the figure. WRSE should clarify the cost information included in the plan and present it on an option basis.

I look forward to seeing these points addressed in the next iteration of your plan. Once you have had a chance to consider these comments in detail we would welcome the opportunity to speak with you about them and to hear how you plan to address them. My team will be in touch to arrange a date for this in late March.

Yours sincerely

John Russell

Senior Director, Ofwat