

By email  
Secretary of State for Environment, Food & Rural Affairs

22 February 2023

Dear Secretary of State,

## **Severn Trent Water – draft water resources management plan 2024 consultation response**

Long-term water resources planning is a key business planning activity and 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 through the 2024 price review (PR24). Therefore, it is vitally important that we consider whether water companies are identifying the best value approaches and delivering these, to ensure the best outcomes in terms of targeted investment to address challenges. The water resource management planning process is essential to help Ofwat and water companies get this right. As a statutory consultee, we welcome the opportunity to comment on Severn Trent Water's draft water resource management plan (WRMP), which it published in November 2022. This letter provides a summary of our assessment of Severn Trent Water's draft WRMP and should be read alongside our letter setting out the wider context of our review and the general approach to the assessment of companies' draft WRMPs.

Severn Trent Water supplies water to approximately 4.6 million homes and businesses in England, from the Bristol Channel to the Humber, and from Shropshire to the East Midlands. Its water resources are planned on the basis of 15 water resources zones (WRZ). Severn Trent Water has identified key challenges in its water resource forecasts that require action to reduce demand or provide additional supplies.

Overall, there are some areas of Severn Trent Water's plan that are in line with our expectations for this stage of a draft WRMP. In particular, it delivers on expectations by:

- setting out the drivers behind the water resource challenges faced across the planning horizon, and the influence these have on the supply demand balance;
- undertaking a best value assessment that follows best practice and links across to strategies in regional plans.

However, there are several material areas we have identified from our assessment where the plan does not yet provide sufficient and convincing evidence that it delivers the best value, low regret plan in the interest of customers and the environment. The annex to this letter

provides detail on the specific areas of the company plan that we consider need further work and evidence. In particular, in its final WRMP Severn Trent Water should:

- quantify and justify the reasoning for changes in water needs between the end point of WRMP19 and the starting point for WRMP24, and that PR19 schemes are being delivered as planned and accounted for appropriately in the supply-demand balance. Severn Trent Water should evidence that the improvements expected from the agreed green recovery schemes are built into the final WRMP;
- provide sufficient and convincing evidence to show it has robustly tested the sensitivity for the date to meet 1 in 500 year drought resilience. This should include presenting the costs, benefits and impact on the selection of preferred schemes of choosing alternative dates including a test of 2050. This is important as the date chosen is likely to affect which schemes are selected and when, and therefore the costs and benefits provided by the plan overall.
- provide sufficient and convincing evidence that the number and range of options available to meet water needs is appropriate given the scale of those needs. Severn Trent Water has used largely the same options considered for previous planning rounds, however these are likely to be insufficient given estimated increase in water needs. Having a wide range of feasible options available is important to demonstrate that a plan does not miss better value options and is ultimately best value.
- demonstrate how it has optimised its demand reduction strategy over the planning period and how this has influenced its decision-making process. This is important because Severn Trent Water is forecasting significant demand reductions and needs to give confidence that these will be delivered reliably and efficiently.
- provide robust and clear supporting evidence for its data tables. We are concerned about the level of detail and accuracy applied to the WRMP data tables. The tables had missing, incomplete, and resubmitted data. This has limited our ability to assess the plan, and raised concerns about Severn Trent Water's ability to finalise the plan with accurate information.

We thank Severn Trent Water for its hard work and effort in producing a detailed draft WRMP and responding to queries throughout the consultation process. Severn Trent Water should now focus on delivering the expected outcomes of the current plan (WRMP19 funded via PR19) and considering the responses to this draft consultation in its final plan. We look forward to continuing to work together as final WRMPs are prepared, to protect water resources now and in the future.

Yours sincerely



**Aileen Armstrong**  
**Senior Director, Company performance and price reviews**

## Annex

In this annex we outline further details on the points raised in our main letter alongside more detailed comments on different areas of the draft plan. Our points reflect our assessment approach and focus on:

- **Demand management ambition and outcomes** – alignment with government targets and statutory requirements for water demand.
- **Assessment of water needs** – including key drivers for WRMP24 and the supply demand balance forecast and the need for enhancement investment.
- **Options to meet water needs** – the approach taken to identifying and screening options for both supply and demand, review of demand management and supply side proposals including sensitivity testing for key areas, sufficiency of options and option utilisation under normal and peak scenarios, including scalability and modularity.
- **Decision making and prioritisation** – best value decision making for customers and the environment, how the company has approached strategic planning frameworks and alignment with Ofwat’s long-term delivery strategies and common reference scenarios<sup>1</sup>.
- **Long term best value programme** – cost efficiency, bill impact and affordability of the plan.
- **Customer and stakeholder engagement** – the type and quality of interaction with customers and stakeholders and the impact this has had on the draft plan formulation and proposals.
- **Board assurance** – company assurance and governance processes, including Board engagement and sign-off.

### Demand management ambition and outcomes

The UK SPS for Ofwat states that reducing demand for water can relieve pressures on water supply and increase our resilience to extreme drought. Water companies must act to reduce demand for water in a way that represents value for money in the long-term. We expect all companies to use their WRMPs to show how they will meet long term water demand targets including:

- halving leakage across the industry by 2050, in comparison to 2017-18 levels<sup>2</sup>;

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<sup>1</sup> Ofwat, [PR24 and beyond: Final guidance on long-term delivery strategies](#), April 2022

<sup>2</sup> For example, [February 2022: The government’s strategic priorities for Ofwat – GOV.UK \(www.gov.uk\)](#)

- reducing per capita consumption (PCC) to 110 litres per head per day (l/h/d) by 2050<sup>3</sup>.

A further target is now set in the Environmental Targets (Water) (England) Regulations 2023<sup>4</sup> for the reduction of potable water supplied by water undertakers in England to people in England. This is that the volume supplied per day per head of population is at least 20% lower than the 2019–20 baseline by 31 March 2038. We expect companies to demonstrate how they will deliver against this target in their final WRMP.

We welcome that Severn Trent Water’s plans to reduce leakage by 50% by 2045, which is five years sooner than the industry target water companies have agreed to<sup>5</sup>. The company also indicates it will deliver PCC of 110 l/h/d by the 2050 target date. The company's final WRMP should also reference the target to reduce distribution input by 20% by 2037–38 and demonstrate how it plans to deliver this through a combination of reductions in the key demand components, leakage, household consumption and non-household consumption.

### **Demand reduction strategy**

We are concerned that the company's draft WRMP provides insufficient evidence of demand reduction target testing and optimisation and how it has influenced its decision-making process. Further explanation of decision making and justification for the selected demand reductions is required in its final WRMP<sup>6</sup>.

### **Delivery of PR19 performance commitments and WRMP19 targets**

The company has stated to us that it is committed to delivering its PR19 leakage performance commitment level and provided a revised profile of leakage reduction. We are concerned however, that based on the draft WRMP data tables, the company does not forecast to deliver its PR19 performance commitment levels for PCC by 2024–25. The company has also stated it does not consider it is appropriate to submit a PCC performance trend at this point but will do so as part of its PR24 business plan.

We expect the company to deliver reductions to meet the 2024–25 PR19 performance commitment levels and WRMP19 targets and continue to consider that companies should

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<sup>3</sup> For example, [February 2022: The government’s strategic priorities for Ofwat – GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/2022/02/22/2022-02-22-the-governments-strategic-priorities-for-ofwat)

<sup>4</sup> Defra, [Environment Act](https://www.gov.uk/government/consultations/2021/12/22/2021-12-22-environmental-targets) 2021: environmental targets December 2021

<sup>5</sup> Company data indicates this is delivered from a 2019–20 baseline which is equivalent to a 53% reduction from a 2017–18 baseline.

<sup>6</sup> Ofwat, [PR24 final methodology – Appendix 9: Setting expenditure allowances](https://www.ofwat.gov.uk/consult/indpr24/indpr24_09_setting-expenditure-allowances), December 2022

have the strongest possible incentives to deliver reductions in per capita consumption.<sup>7</sup> We do not consider it is valid for companies to expect additional customer funding to address deficits resulting from under delivery in the current or previous periods. We expect the company to review its proposals in the context of its most up to date water use and PCC performance data, for its final WRMP.

## Business demand

Severn Trent Water's draft WRMP presents a 2029–30 business demand level that is 3.6% higher than the 2019–20 baseline level.<sup>8</sup> The company's plan also indicates an increase in business demand across the 2025–30 period. We have previously highlighted the opportunity for companies to deliver business demand reductions and our expectations for WRMP24 are that companies deliver significantly improved levels of water efficiency in the business sector<sup>9</sup> and we expect the company to set out and clearly justify an ambitious strategy for non-household demand reduction in its final WRMP to inform its PR24 business plan. We also expect the company to explain how the revisions it intends to make to its non-household consumption trend have impacted the optimisation and best value option selection in its preferred plan.

## Per capita consumption (PCC)

The data provided by the company to date indicates that it is proposing a three-year average PCC reduction over the 2025–30 period that will deliver a level of PCC 4.8% below the 2019–20 baseline by 2029–30. This represents a further reduction of only 1.3% beyond the company's 2024–25 performance commitment level of 3.5%. As the company further develops its forecast PCC performance trend from draft WRMP to final WRMP it should ensure it is demonstrating sufficient ambition to challenge itself to reduce PCC levels.

## Leakage

Setting a glidepath to meet optimum long-term targets and outcomes should enable an efficient and deliverable long-term programme of investment to be identified. The company's plan only considers a single leakage profile. The company's consultation question asks for support of a 16% reduction by 2025–30 and then 9–13% reduction per price control period

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<sup>7</sup> Ofwat, '[Sector overview: Final determinations of in-period outcome delivery incentives for 2021–22](#)', November 2022, pp8–9.

<sup>8</sup> Combining measured and unmeasured non-household consumption figures, business demand is expressed as a three year average. The average of the reporting year and the two previous years.

<sup>9</sup> Ofwat, Environment Agency, 'Delivering greater water efficiency in the business sector', March 2020 and 'Delivering greater water efficiency in the business sector', February 2021.

after that until 2045. After 2045 no further leakage reductions are to be delivered. Neither the selected glidepath, nor any alternatives, are discussed in the draft WRMP until this point. The company should present sufficient and convincing evidence that it has tested an appropriate range of profiles and explain more robustly why this profile – rather than doing more or less in the near term – is optimal from a timing of investment perspective. This is particularly important given the company's preference to deliver high-cost mains renewals to meet the relatively fast reductions proposed for 2025–30.

The range of options for leakage reduction include active leakage control, mains renewal, pressure management and metering. However, the plan contains insufficient evidence and lacks disaggregated costs and benefits of activities to fully understand whether these are best value in the long term. In general, the company has not presented enough feasible options, with only ten demand management options in data tables, for us to be confident that those selected are optimum and best value. We expect the company to present further options and disaggregate the costs and benefits of these activities in its final WRMP.

Only five feasible leakage options (at a programme activity level) are presented in the draft WRMP data tables with three of these featuring in the preferred plan. In its final WRMP, the company should present a wider range of options with its costs and benefits, together with sufficient and convincing evidence why they are long-term best value. It is currently unclear why the activities and their scale (eg replacing mains at a rate of ~0.8% per year over 2025–30) have been selected.

Severn Trent Water has not discussed its policy with regards to customer supply pipe leakage. We are encouraging companies to evaluate the benefits of a common industry approach to addressing leakage on customers own pipes. We expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMPs. We will support companies in the development of a common approach but expect the industry to lead on the development.<sup>10</sup>

The company chooses mains renewal with a high cost and low benefit for the near term (including for 2025–30) which may be a consequence of sub-optimal leakage glidepaths or limited options. This results in a leakage reduction enhancement expenditure unit cost of 7.9 £m/MI/d for the 2025–30 period. This unit cost is more than sixteen times greater than that requested by the company at PR19. The plan contains insufficient evidence that this is a credible cost increase. The company has higher relative leakage levels than the industry

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<sup>10</sup> The Water UK document '[A leakage routemap to 2050](#)' committed to an informed debate on customer supply pipe strategy by December 2022.

median<sup>11</sup> and therefore there is likely to be scope for it to deliver more through active leakage control and pressure management. The draft WRMP already explains how these activities have been key to achieving recent reductions, but the strategy does not make full use of these going forward. We expect the company to review its leakage reduction proposals and provide sufficient and convincing evidence it is presenting a best value solution based on efficient activity costs in its final WRMP.<sup>12</sup>

## **Metering**

It is unclear how Severn Trent Water has developed its metering strategy and optimised the pace of delivery of smart metering. More of Severn Trent Water's area is now classified under serious water stress<sup>13</sup> and as a result the company has changed its strategy on metering. It is now recommending moving to compulsory advanced metering infrastructure (AMI) with the aim of full coverage (95% meter penetration) by 2035. Although the company identified different roll-out approaches and two technology alternatives, the costs and benefits of each of these is not presented to provide confidence that the proposed metering programme is optimal. A high-level comparison of company costs and benefits for metering improvements across the 2025–30 period indicates that its costs of delivering metering benefits are significantly higher than for other companies. The company needs to provide sufficient and convincing evidence that the unit costs of its AMI meter installations are efficient with the costs currently presented being higher than PR19 unit costs and current outturn.

The interaction between metering options and the PCC glidepath to 110l/h/d is also not explored. The company should present sufficient and convincing evidence to explain this in its final WRMP. The decision-making process identifying how outputs from models and optimisation tools are developed into recommendations for executive team and Board sign off is not clearly explained in the draft WRMP. For the final WRMP the company should provide further detail of this decision-making framework, as well as sufficient and convincing evidence to justify why the preferred metering option is best value from a technology and timing of investment perspective.

## **Development of demand reduction performance trends for final WRMP and business plans**

The company has confirmed that its forecast PCC and business demand (non-household consumption performance trends are still in development for its PR24 business plan and subject to uncertainty. As the company further develops demand reduction performance

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<sup>11</sup> Ofwat analysis based on 2021–22 annual performance report levels of average annual leakage normalised against mains length and connected properties

<sup>12</sup> Note the Ofwat analysis undertaken adjusted all costs to the 2020–21 price base.

<sup>13</sup> [Water stressed areas – final classification](#), Environment Agency (2021)

trends<sup>14</sup> from draft WRMP to final WRMP it should include the reasons for changes and explain the impact of any revisions on the optimisation and best value option selection in its preferred plan.

We expect the company to provide sufficient and convincing evidence in its final WRMP to justify why its selected targets for demand reduction (leakage, PCC and business demand) represent the best value approach to meeting a supply-demand balance or delivering long-term strategic outcomes. This should include evidence of target testing and a clear explanation of the company's decision-making process.

As stated in our PR24 final methodology, we expect consistency between final WRMPs, company long-term delivery strategies and business plans at PR24. Any areas of variance between final (and published) planning frameworks and business plan submissions need to be fully explained, supported by compelling evidence. This should also include the reasons for changes and include confirmation that customers and the environment are not or will not be worse off<sup>15</sup>.

## Assessment of water needs

A robust assessment of current and future water needs is critical as it drives the gap between supply and demand and therefore drives the scale of investment required for the 2025-30 period and beyond.

We provided detailed feedback on Severn Trent Water's assessment of water needs in our pre-consultation feedback in 2022. Some of our feedback has not been appropriately or fully addressed in the draft WRMP and has been raised again in amongst points in this section. Severn Trent Water should provide sufficient and convincing evidence that the feedback has been addressed in the final WRMP.

The company's supply demand balance starting point for the draft WRMP24 is lower than its forecast for the same point in the final WRMP19. The company has provided limited high-level information regarding the reasons and appropriateness of the changes to components of the supply-demand balance. This means that there are some concerns that the overall outcome of the WRMP19 as funded at PR19 has not been delivered in the round. The company should fully quantify and justify the reasoning for changes between WRMP19 and the starting point

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<sup>14</sup> Leakage, PCC and business demand

<sup>15</sup> Ofwat, [Creating tomorrow, together: Our final methodology for PR24 Appendix 9 – Setting expenditure allowances](#), December 2022, p 85.

for WRMP24 at a supply-demand balance component level with sufficient and convincing evidence.

There is limited evidence provided that the benefits of funded PR19 activities have been appropriately factored in to the draft WRMP24 baseline supply-demand balance. This includes the zonal water available for use (WAFU) benefits of the relevant supply-side and demand-side green recovery schemes. The company should provide granular details of the benefits of funded schemes and how and when these have benefitted the baseline supply-demand balance. Where a step change in supply-demand balance between WRMP19 and WRMP24 is not sufficiently justified by scenario drivers, and may instead be as a result of non-delivery or underperformance, considerations will be made at PR24 in the assessment of enhancement funding.<sup>16</sup>

Severn Trent Water should ensure that it is on track with WRMP19 supply- and demand-side options delivery, making substantial efforts where necessary to meet PR19 commitments ahead of WRMP24.

Severn Trent Water should provide sufficient and convincing evidence to show that it has robustly tested the sensitivity for the date to meet 1 in 500 year drought resilience. This should include presenting the costs, benefits and impact on the selection of preferred schemes of choosing alternative dates including a test of delivery in 2050. The selected date to achieve 1 in 500 year resilience should be justified based on this testing and optimised based on the costs and benefits. This is important as the scale of impact and importantly the date for achieving it is a key driver for scheduling schemes in the investment programme. The company currently states that this is a regulatory target it must meet and that customers agree with the target level and date. However, customers have not been provided with any context for this or any data on the alternatives. This point was raised in the pre-consultation meeting and has yet to be appropriately addressed.

The company should summarise its problem characterisation in the main plan narrative for its final WRMP. Severn Trent Water has used a 60 year planning horizon, however, it should clearly explain in its final WRMP the rationale for the chosen planning horizon, and evidence that this policy choice does not influence the proposed investments.

Sustainability reductions and long-term environmental destination are key drivers of investment for this company's plan. Severn Trent Water should provide sufficient and

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<sup>16</sup> Ofwat, [PR24 final methodology: Appendix 9 – Setting expenditure allowances](#), December 2022, pp86-87.

convincing evidence in its final WRMP that abstraction reductions are not double counted when licence capping is combined with environmental destination scenarios.

The company has integrated the supply and demand forecast drivers of change into one section in its main plan but leaves more granular components, including outage and process losses, for Appendix A. In Severn Trent Water's final WRMP, we expect to see all key drivers and components of supply demand balance broken down, where individual components contributions can be seen and compared against each other.

The company states that, in light of its experiences in 2022, it is reviewing its Water Resource Zone boundaries. Any changes should be clearly described in its final WRMP narrative.

The company has updated its population forecasts since WRMP19 which has resulted in a change in assumed population of over 500,000 for the year 2025-26. This is a significant change for a starting assumption and, although the company describes the methodology which results in the change, it provides insufficient evidence that this updated number accurately represents the population the company serves. We expect the company to provide sufficient and convincing evidence that the revised population forecast for WRMP24 is reliable including validation against outturn, and why it is so different to the WRMP19 forecasts from less than five years ago.

## Options to meet water needs

Identifying an appropriate number and range of options to meet water needs is essential to ensure that customers and stakeholders have confidence that the preferred programmes are optimal. We are concerned that Severn Trent Water has not updated its unconstrained list of options, basing it on WRMP19. This means that the same options considered for previous rounds of planning are still the starting point for draft WRMP24 which are likely to be insufficient given the increase in need being presented. The company should provide sufficient and convincing evidence that the number and range of options is appropriate given the presented scale of challenge, including at a zonal level.

Some of the screening criteria applied to the unconstrained options list do not align with the need to identify suitable and technically feasible options to progress to more detailed appraisal. This includes the screening criteria "Could the option offer supply / demand benefits at a regional or national scale?" which is not a requirement of an option to be suitable for consideration in a WRMP. There is a general lack of detail, transparency and apparent consistency in the application of the options screening process, and therefore we are concerned about options included in the preferred plan. Severn Trent Water should reconsider its criteria for screening options to ensure they are relevant to the screening decision making process and justify the criteria inclusion with sufficient and convincing evidence in the final WRMP. If we continue to have concerns around the quality of the

optioneering process at the final WRMP, we reserve the right to query and request additional evidence at PR24 and make decisions on appropriate funding accordingly.

The company's plan presents a list of 187 options that are rejected at the screening stage. However, the reasons and justification for rejection are different to the screening criteria the company states it will use. The company should confirm that the screening criteria listed are those that it used to determine its feasible option list and update the reasons for rejection to reflect the criteria used.

The company rejects most third-party options that feature on the unconstrained option list. This is particularly true for non-incumbent water company third party options. There is insufficient evidence that the company has met the expectations around the identification and fair treatment of third-party options as described in the water resources planning guidelines. This includes the company taking a passive approach to option identification stating that many options were rejected due to no formal offers being received, where guidelines expect an active engagement role for the company. Severn Trent Water also states that third-party options are not developed enough to assess, so it cannot formally appraise them. This contradicts the expectation that companies should support third-parties in their provision of information and analysis as part of the development of third-party options. We expect sufficient and convincing evidence in the final WRMP that all parts of the guidance have been appropriately followed in relation to third party options and that the lack of third-party options in the company preferred plan is low regret best value.

The company states that the Upper Derwent Valley Reservoir Expansion strategic resource option (SRO) presents a significant challenge, including compliance with Habitats Regulation Assessments, for which other options have been screened out for. The options screening process does not detail what alternatives to this option have been considered and why they may have been otherwise excluded. We expect Severn Trent Water to address feasibility questions around this option in the final WRMP, and via the RAPID programme through which the development of the solution is overseen.

Severn Trent Water has not provided sufficient information regarding option utilisation in its draft WRMP. Extra information was provided to Ofwat on utilisation after querying and the majority of options look to have high utilisation from data provided, though some uncertainty remains. These options are mainly to replace lost water from licence capping and environmental destination abstraction reductions. We require more robust evidence on utilisation in the final WRMP, in line with feedback in our pre-consultation feedback letters to fully explain and justify the utilisation rates given and to provide evidence that modularity and scalability in optioneering has been fully considered and explored to manage low utilisation situations. We expect Severn Trent Water to provide more detailed evidence in its final plan that operational interventions have been considered and will be implemented where appropriate if this is the best value solution.

## Decision making and prioritisation

The company's plan explains how it is informed by the regional plan and there is line of sight from best value metrics to plan objectives. An explanation of the approach to managing uncertainty and adaptive planning has been provided, the adaptive plan addresses some known issues and future uncertainties have been tested against scenarios.

Severn Trent Water proposes a core pathway in line with the WRPG definition, that includes investment to meet future uncertainties and additional option value to allow further flexibility in the future. The company clearly compares the options selected in the core and preferred pathways.

The company sets out that it has used its decision making model to prioritise the options that are chosen most frequently under a wide range of scenarios. Severn Trent Water should explain more clearly in its final WRMP how it has used scenario testing, including the common reference scenarios, to identify low-regret investment that is required in all or most plausible futures. This should expose what investment should be undertaken regardless of future circumstances.

As part of this evidence, Severn Trent Water should clearly set out the impact of the Ofwat common reference scenarios compared to the 'most likely' scenarios on which the preferred plan is based. This should include quantifying the impact on demand of the low and high scenarios for climate change, demand, and abstraction reductions across the planning period. The company should also quantify the estimated impact on the expenditure requirement of:

- 1) planning based on the high scenarios for climate change, demand, and abstraction reductions, and the slower scenario for technology; and
- 2) planning based on the low scenarios for climate change, demand, and abstraction reductions, and the faster scenario for technology.

This will allow for improved understanding of the drivers of investment, the sensitivity of the plan to future scenarios and confidence in the investments being proposed.

There is no evidence that the company has considered appropriate technology scenarios, which should be addressed in the final WRMP. We also expect Severn Trent Water to test the Ofwat common reference scenario for low abstraction reductions, which is to 'assume only currently known legal requirements for abstraction reductions up to 2050'. Following the approach agreed between Ofwat, the Environment Agency and the regional water resources planning groups, companies should:

- include agreed 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.

The company presents three alternative pathways that address what it considers to be the largest long-term uncertainties. Severn Trent Water explains its key uncertainties and assumptions in detail, accounting for some of those uncertainties using adaptive pathways and scenario testing.

The adaptive plan provides detail on the decision points that lead to alternative pathways. However, the company should review the timing of the decision points in the final WRMP plan. For example, the climate change trigger point is before the decision point. Typically, a decision point is placed in advance of the trigger to move to a different adaptive pathway. The climate change trigger point should be clarified, including more detail about how climate change will be monitored in respect to this trigger.

Severn Trent Water has identified the constraints it has imposed on its decision-making process and has applied decision support methods to inform decision making. As noted above, we have concerns about the screening process Severn Trent Water has used in narrowing the options from its non-constrained list (see the 'Options to meet water needs' section above). Severn Trent Water should further demonstrate in its final plan that decision making has not been influenced by artificial constraints and that constraints are appropriate. Severn Trent Water provides a clear explanation of the optimisation process used to derive the preferred programme, including use of advanced decision support tools and complex decision support tool output comparison. The company explains that it sometimes applies engineering judgement (rather than the standard optimisation process) to select preferred options and the sequencing of these options. The company should clearly identify instances where it applies this judgement and explain how it impacts its decision-making in the final WRMP.

Severn Trent Water uses inconsistent terminology to refer to the preferred best value plan and least cost plan. In some places the preferred best value plan is referred to as the least cost plan and in other places as the 'Most likely' pathway. For the 'Most likely' pathway the company presents a best value plan and least cost plan. It is unclear however which of these two plans is the preferred plan. In some parts of the plan, the company suggests that the preferred plan is the least cost plan, but the costs presented in Table 8 suggest that the preferred plan is more expensive than the least cost plan. The company should clearly identify the preferred best value plan and the least cost plan and use consistent terminology when referring to these plans in the final WRMP.

Although Severn Trent Water sets out the methods and approaches used to assess best value, the plan does not clearly present the costs and benefits of the proposed solutions against best value metrics. The plan also does not clearly present the costs and benefits of the least

cost plan against the preferred plan and other plans (at least not on a like for like basis). The company accepts this in Appendix G where it states that the costs and benefits of the preferred plan are not comparable to those of the 'Most likely' best value and least cost plans due to cost refinements. The company should clearly present and compare the costs and benefits of the preferred plan against the least cost plan in the final WRMP. In doing so, the company should make sure that both the best value plan and least cost plan address the same problem such that they can be compared on a like for like basis.

Severn Trent Water sets out the metrics, and weighting of metrics, that it uses to inform the assessment of best value, and against which costs and benefits are appointed. The company explains that the metrics have been defined and consulted on as part of Water Resources West's Emerging Regional Plan and the weighting of the metrics has been informed by the understanding of customer preferences and stakeholder views. Severn Trent Water however does not explain how the customer research informing metric weightings complies with Ofwat's high quality standards for customer research. The company should use the collaborative research informing outcome delivery incentives to inform these weightings where relevant. Where collaborative research cannot be used, or where considered unsuitable to inform these weightings, the company should present compelling evidence to support the use of alternative sources of evidence in final plan.

The company presents feasible and preferred options that only have 5 to 10 year lead in times (with some at 15 years) for the main resource, production and distribution option types. Other companies' draft WRMPs have a more diverse range of option lead in times. This, together with the company's comments around its robustness of costs and that updates are needed before PR24, raises concerns about option development and data reliability. Option lead in time is important for the optimisation and investment scheduling process. The company needs to provide sufficient and convincing evidence in its final WRMP that the lead in times presented are robust, and that these are then optimally selected and scheduled in its preferred programme.

Severn Trent Water proposes to invest £210 million in interconnecting its network in the 2025-30 period. The company should ensure the benefits it has identified for these schemes are sufficiently evidenced. Additionally, the company may have schemes where interconnectors are necessary to deliver new supplies to areas of demand. In such cases the schemes should be evaluated by combining the costs of developing the new supply with the interconnector costs as a single option to produce an optimised best value plan. We also reiterate our pre-consultation feedback, which aligns with the WRMP guidelines, that sub zonal schemes (not impacting on zonal WAFU) can be discussed within the narrative of the WRMP to provide context but they need to be presented and justified with sufficient and convincing evidence in PR24 business plans rather than the WRMP. When presenting such enhancement schemes, companies should clearly identify how they have assessed the

degree of overlap with activities they are funded to deliver through base expenditure.<sup>17</sup> Companies should not expect additional customer funding to address risks resulting from under delivery in the current or previous periods.

Severn Trent Water has not referred to Ofwat's public value principles<sup>18</sup>, although the plan adheres to most of the principles. Severn Trent Water has not referred to Ofwat's public value principles. We would like Severn Trent Water to use Ofwat's public value principles, and reflect expectations referred to in the PR24 final methodology, within its best value planning process in its final plan and explain how these have been used to inform best value decision making.

## Long term best value programme

We have concerns regarding the robustness and reliability of the costs and benefits presented by the company in its preferred programme. The company stated that it needed to undertake further detailed assurance on data that has been presented in its consultation, when it responded to our queries through the consultation. Severn Trent Water also confirmed it had not yet assessed the impacts of its plan on base expenditure and that it intended to use a more detailed build-up of costs to inform its final WRMP and business plan submissions. We are also concerned that the costs and benefits of strategic schemes that apply to Severn Trent Water are not accurately represented in the planning tables.

While we recognise that plans will develop over time, and that costs and benefits may be refined, we are concerned that the company is not demonstrating sufficient and convincing evidence that it has a confident and accurate understanding of the efficient costs and benefits associated with the delivery of its plan. If the costs and benefits of options are to change significantly then this will impact the decision-making process and the justification for the optimised preferred programme consulted upon in the draft WRMP. In its final WRMP we expect the company to clearly explain any changes to costs and benefits presented for the preferred plan from those presented in its draft WRMP. The company should provide sufficient and convincing evidence for the reasons behind changes and explain how these have impacted the decision-making and optimisation process that produced its final WRMP preferred programme.

The company has identified £1.3 billion of enhancement expenditure relating to delivery of its WRMP24 in the 2025-30 period. This is a significant increase on the £284 million supply demand balance enhancement expenditure programme the company requested for the

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<sup>17</sup> Ofwat, '[Creating tomorrow, together: Our final methodology for PR24 Appendix 9 – Setting expenditure allowances](#)', Annex A1

<sup>18</sup> [Ofwat Public Value Principles](#)

2020–25 period at PR19.<sup>19</sup> Over the 2025–50 period the company has identified a requirement for over £6 billion of enhancement expenditure.

For the investment proposed, Severn Trent Water plans to deliver around 173 Ml/d of supply demand benefit (excluding interconnectors) in 2025–30. The company proposes to deliver benefits at a higher cost in comparison to other companies<sup>20</sup>. While part of the investment relates to strategic schemes and interconnectors that deliver over a longer timeframe, the company presents that approximately 40% of the 2025–30 enhancement investment will be on leakage reduction. The company proposes to deliver leakage reductions at a unit rate of approximately 7.9 £m/Ml/d in the 2025–30 period. This unit rate is significantly higher than the 0.5 £m/Ml/d requested at PR19, recent outturn unit costs and reflects the company's preference for mains replacement that has been discussed above.

The company's proposals include high metering unit costs of 13.3 £m/Ml/d for the 2025–30 period and it should outline efforts it will make to further reduce these costs. The company also states in its query responses that the benefits of basic/AMR meters being replaced with AMI meters is uncertain and represents this within target headroom. The company should provide sufficient and convincing evidence of the benefits assumed for these installations (currently stated as a 0 to 5% saving). The company should also explain why, with the stated uncertainty, they form part of the best value plan. It should also explain how exactly this has been incorporated into target headroom and the quantified impact on the supply-demand balance that the investment has. The company's approach in this area differs from other companies and therefore it should also provide compelling evidence to justify including these demand reduction benefits into target headroom rather than directly into the supply demand balance.

The company should provide sufficient and convincing evidence that the preferred options being selected, across all areas of its plan, are best value in its final WRMP24 and ensure costs are reliable, efficient and appropriately allocated. This is particularly important where it has selected more expensive options, on a unit cost basis, in its preferred plan compared to those that have not been selected.

Several of Severn Trent Water's supply-side options proposed for delivery in 2025–30 have higher unit costs when compared to PR19 and outturn. These include Strensham WTW expansion and Homesford WTW capacity increase with unit costs of 4.9 and 4.4 £m/Ml/d respectively. The company should provide sufficient and convincing evidence that the costs

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<sup>19</sup> This total for PR19 includes requests for supply demand balance expenditure including metering and strategic regional schemes (2021–22 price base)

<sup>20</sup> Based on the data submitted by companies in their draft plans and comparison against the industry median

and supply-demand benefits of these schemes, and others in its 2025–30 programme, are robust and efficient. This should also include details of how additional abstraction will be available from these sources in drought conditions, how its inability to abstract up to full licence is not a result of poor maintenance of the sites, and that future base maintenance savings of any upgraded assets at these locations have been accounted for in programme costs.

The company states that the impact of investment and future affordability of the WRMP in the context of broader plans will be considered as part of PR24. This raises concerns about the disconnect in the processes and that affordability and investment scheduling considerations have not informed the draft WRMP that has been consulted on. Sufficient and convincing evidence is needed to justify any changes between the draft WRMP and final WRMP because of these considerations. Our PR24 final methodology sets out our expectation that there should be consistency between the final WRMP, the long-term delivery strategy and business plan.

Severn Trent Water has assessed the draft WRMP's impact on customer bills, stating an estimated increase of £1.73 would be seen on an average customers annual bill (totalling approximately £43 by 2050). We welcome this being presented in the draft WRMP, however the bill increases impact does not appear to have been tested with customer engagement, nor is any context provided to show that there will be other costs impacting bills at PR24. We expect the company to provide sufficient and convincing evidence that the estimated bill impacts of the programme (and other areas of investment for PR24) has informed customer engagement and choices around policy drivers and therefore scheduling of investment in the final WRMP.

We are concerned about the level of detail and accuracy applied to the WRMP data tables, which has included missing, incomplete and resubmitted data. This has led to difficulties in our assessment, and some later re-submissions have not been able to be considered. This is particularly disappointing, as our pre-consultation feedback emphasised the need for robust WRMP data to lead consistently into business plans for PR24 decisions. We also wrote to all regulatory directors on 30 August 2022 emphasising that "plan assurance should include thorough quality assurance of the accuracy of the information in your draft WRMP24 data table submissions. We encourage you to ensure you submit accurate draft WRMP24 data tables first time round. If you do not, we may identify poor data quality in your submission in our public consultation response to you." This must be resolved as a priority for the final WRMP and we would also encourage the company to engage with the market further to reduce uncertainty around costs for its final WRMP and to increase the accuracy of bottom-up estimates.

## Customer and stakeholder engagement

Severn Trent Water has carried out stakeholder engagement and reflected customer participation in the significant challenges included in its draft plan. Its draft WRMP set out clearly the information provided to stakeholders and how stakeholder feedback was reflected in the draft WRMP. However, there is limited evidence provided regarding co-funding or co-delivery of options. We expect to see further clarity on this and potentially further work reflected in the final WRMP. As mentioned above we also expect to see sufficient and convincing evidence that the estimated bill impacts of the programme (and other areas of investment for PR24) has informed customer engagement.

## Assurance

A signed statement of assurance from the Board has been provided, as well as a supporting statement, confirming the engagement and support of the Board with the draft WRMP. A description is given of the governance structure and the assurance process followed to ensure robust decision making. No evidence is provided that the Board were specifically informed about future licence capping, which is a potential risk for Severn Trent Water. We expect Board discussions on licence capping should be completed for the final WRMP, as well as a full Board assurance statement, accompanied by a supporting statement.

As identified above, the draft WRMP programme for 2025–30 represents a significant uplift in expenditure compared to the PR19 programme. For its final WRMP we expect the company to provide sufficient and convincing evidence that the Board has challenged and satisfied itself that the WRMP and the expenditure proposals within them are deliverable in the context of the wider PR24 business plan proposals. The company should also demonstrate that it has put in place measures to ensure that the plans, of which the WRMP forms a key part, can be delivered.<sup>21</sup>

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<sup>21</sup> Ofwat, [Creating tomorrow, together: Our final methodology for PR24 Appendix 9 – Setting expenditure allowances](#), December 2022, p122.