

Introduction

Severn Trent Water is one of the largest of the ten regulated water and sewerage companies in England and Wales and part of Severn Trent Plc, a FTSE100 company. We strive to provide high-quality services to more than 4.3 million households and businesses in the Midlands and mid-Wales. Our aim is to deliver outstanding customer experience, the best value service and provide environmental leadership in the industry.

Every five years water companies have a statutory obligation to produce and publish a Water Resources Management Plan (WRMP). The WRMP should demonstrate that we have long term plans in place to accommodate the impacts of population growth, drought, environmental obligations and climate change uncertainty. For the WRMP19 there is a new strategic challenge in the form of demonstrating that our plan does not put at risk the Water Framework Directive status of the water bodies in our region.

The WRMP is due to be finalised in 2019. As part of this process companies are required to produce a draft WRMP (dWRMP) that is consistent with the Water Resources Planning Guideline. Our dWRMP is published for consultation in January 2018.

Assurance statement basis

Ofwat, EA and the DWI have set out the approach they expect companies to follow in completing the dWRMP and have outlined specific requirements for assurance, including a signed Board assurance statement.

As would be expected for a long-term view, and acknowledged in the EA technical guidance, we have made a number of assumptions. In line with the EA guidance our plan uses *'the most up-to-date technology, methods and data available to produce [our] supply and demand forecasts. However, there is uncertainty in all forecasts. Therefore you should analyse and quantify the variability and uncertainty that are built into your calculations for the dry year annual average demand and critical period (if applicable) scenarios'*. Where we have made material assumptions or used alternative guidance we have highlighted these in our dWRMP.

Our approach to assurance

As part of our goal to become the most trusted water company, we have engaged with our customers and stakeholders to assess their levels of trust in us and the areas that matter to them. We recognise that our long-term plans on water resources is one of the areas that matters most.

Using three lines of defence

As explained in our annual assurance plans¹ and assurance summary, which accompanies our Annual Performance Report, we use an established three lines of defence model for our regulatory submissions. We employ third line assurance in areas of greatest risk. Where that assurance requires specialist engineering, financial or regulatory knowledge, we use external parties to undertake that

¹ <https://www.stwater.co.uk/about-us/responsibility/our-responsibilities-to-you/regulatory-performance/>

assurance. This submission has been reviewed using our established governance and controls framework.

Given the importance of this submission we have employed third line assurance, delivered by expert external parties for those areas of greatest risk. Jacobs Consulting (Jacobs), our established independent technical assessor, has undertaken a two-phase approach to assurance.

Additionally, we have utilised specialist third party consultants to produce some of the data used. Atkins have produced Table 5 and 6 and Artesia have produced Table 3 and line 11b (Distribution Input) of Table 4.

Phase one approach

Phase one assurance included both desk-top reviews and face-to face interviews to review the dWRMP components. Jacobs carried out a *'risk-based review of the methods used to produce the plan [on] areas you considered to be of medium or high materiality – we understand these were typically areas where you: considered the guidance had changed; or were adopting a different approach to WRMP14; and where you considered the plan area was material to the outcome of the dWRMP. ...we concentrate[d] on whether there were any material inconsistencies between your approach and the WRPG.'*

The audits were grouped within eight components of the plan with each one receiving a colour coding from Jacobs as follows:

	We reviewed the component and did not identify any material issues that indicated the team's approach is materially inconsistent with the guideline
	We reviewed the component and identified potentially material inconsistencies with the guideline

Following the assurance, the findings were discussed with Jacobs and a number of changes were made to reflect the recommendations made. A summary of the recommendations made by Jacobs and our response to them are in the next section.

Phase two approach

Phase two assurance was a review of the accompanying data tables. Jacobs reviewed *'whether [we] had correctly populated the tables from the associated output/input material (e.g.: consultant reports, final calculation sheets in workbooks, model output reports) [on] a risk-based, sampling approach'*.

Our assurance findings

Phase 1: the draft Water Resources Management Plan

We engaged Jacobs to review our proposed approach - focusing on consistency and compliance with Ofwat, Defra and DWI guidance. We are pleased that through the robustness of our first and second line of assurance that Jacobs found no material issues in our plan and gave each component a green colour rating.

Jacobs identified some areas for further improvement, in particular that our narrative could be improved to provide greater clarity on the reasons for our decisions and how this links to our regulatory obligations. We have accepted all the recommendations made for our dWRMP and have addressed these in our plan. We have summarised Jacobs recommendations and our response in Table 1 below.

Table 1: Assessment, summary recommendation and management response

WRMP Component(s)	Assessment	Summary Rationale
Problem characterization; overall plan aggregation; baseline supply/demand balances		<p>Summary: There are no material issues related to problem characterisation, overall plan aggregation or the approach taken in producing supply demand balances.</p> <p>Recommendation(s): Ensure that the components reviewed are pulled together with sufficient time to check the key regulatory themes are incorporated and the WRPG and technical guidance has been cross-checked to ensure compliance is visible to the regulators. It is also recommended that the EA checklists are used and reviewed on the final documents before the dWRMP submission.</p> <p>Management Response: We have utilised the WRPG and EA checklists as a key element of our internal 1st and 2nd line assurance checks and logged our compliance status against the checklist as part of our assurance record. We repeated this check prior to finalising our dWRMP.</p>
Stakeholder engagement		<p>Summary: No material issues identified,</p> <p>Recommendation(s): There is scope to ensure our range of engagement, and how we have shaped the plan, is fully reflected in the dWRMP. Jacob’s also noted we are planning further engagement during the consultation period as part of our business plan development.</p> <p>Management Response: Chapter 7 of the dWRMP describes how customers and stakeholders have been engaged and have shaped our plan. Appendix E of the dWRMP gives more detail on our decision making framework. It also describes our stakeholder engagement events and our customer research.</p>
Deployable output (no deterioration); invasive non-native species; abstraction incentive mechanism (AIM)		<p>Summary: No material issues identified.</p> <p>Recommendation(s): We should explicitly state in the narrative the interaction we’ve had with the EA on the method used to develop their no deterioration DO scenarios. Additionally, Jacob’s recommend we considers including use of article 4.7 within our decision making framework.</p> <p>Management Response: Chapter 5 of the dWRMP describes the WFD no-deterioration approach, and Appendix A gives a detailed explanation of how the deployable output scenarios were generated. Article 4.7 of the Water Framework Directive relates to ‘over riding public interest’ arguments, and sets out the criteria that would need to be satisfied. We set our decision making criteria clearly in Appendix E.</p>
Non-household demand forecasting; metering; water efficiency options		<p>Summary: No material issues identified.</p> <p>Recommendation(s): To ensure we have made reasonable efforts to engage with non-household retailers on this subject. There are also a number of other recommendations that should be considered before the final WRMP.</p> <p>Management Response: We proactively wrote to all licensed retailers in March 2017 inviting them to input to our draft WRMP and we wrote again to invite them to share any water efficiency plans by 30 November 2017 - to date we’ve not received any response.</p> <p>Chapter 6 of our draft WRMP explains our proposed metering and water efficiency plans, and technical Appendix D (Our options) explains these options in more detail and the wider options appraisal framework we have used.</p> <p>Our decision making framework considered a wide range of potential alternative future supply and demand scenarios, including different high, medium and low demand growth scenarios. Our supply / demand headroom allowance explicitly allows for uncertainty in the future non-household demand forecast using ranges generated by Experian’s econometric modelling. This is explained in technical Appendix B (demand forecasting) and Appendix C (managing uncertainty)</p>

Water trading; third party solutions		<p>Summary: No material issues identified.</p> <p>Recommendation(s): We should ensure our approach to categorising some trades (eg: those linked to changes to existing agreements) is clearly explained in the dWRMP and that the dWRMP discusses how it hopes to resolve conflicts / mismatches on trades between the draft and final WRMPs.</p> <p>Management Response: Chapter D4 of Appendix D (our options) explains all of the third party trading options we have considered for the draft WRMP and how we plan to continue exploring these between draft and final WRMP, and how we will confirm with potential donor / supplier companies how these trades should show up in each other's plans. We also reference in the main narrative that we will continue to explore with UU and TMS the possible use of a trade from Lake Vyrnwy into the River Severn and how this has the potential to feature in both ours and TMS final WRMP.</p>
Unconstrained options list; screening		<p>Summary: No material issues identified.</p> <p>Recommendation(s): Jacobs noted the approaches to developing and screening the unconstrained option list appear logical and consistent with the WRPG however there is scope to improve the completeness and clarity of the audit trail behind the screening decisions (and therefore evidence the completeness of the described approach).</p> <p>Management Response: Chapter D3 of Appendix D (our options) explains our options screening approach and criteria, and includes a scheme rejection log showing how each of the >200 possible new supply options was taken through our screening approach, and why any options were rejected at an early stage.</p>
Feasible options list		<p>Summary: No material issues identified.</p> <p>Recommendation(s): We should ensure our approach to environmental and social valuation (and other non-cost elements such as risk and planning constraints) is well evidenced and sufficiently presented in the plan.</p> <p>Management Response: We worked with specialist engineering (Atkins) and environmental (Ricardo) consultants to appraise the feasible options and have used their cost and environmental appraisal models to inform the costs and benefits of each scheme. Appendix D includes a summary of the proposed schemes, and we will be sharing a more detailed summary with the Environment Agency only (it will be redacted from the public document on security grounds)</p>
Cost effective and sustainable proposal and modelling; leakage cost curves		<p>Summary: No material issues identified.</p> <p>Recommendation(s): The costs of leakage management used in our modelling are based on relationships derived at WRMP14. Jacobs do not consider this is material in terms of the outcome of the dWRMP and note the modelling and approach taken in generating a preferred plan is considered compliant with the WRPG.</p> <p>Management Response: We recognise that leakage costs and cost curves are based on PR14 datasets and relationships. These cost curves are being updated to reflected latest AMP6 performance.</p>

Phase 2: the data tables

We engaged Jacobs to review our data tables on a 'tick and tie' sample basis to note exceptions between the dWRMP tables and the associated output/input material. Jacobs found that *'for the majority ... we either identified no exceptions or only one or two exceptions'*. Where exceptions were found we corrected these. For table 3 and 4 Artesia have also performed some areas of assurance including a full transposition check on tables 3 and line 11b (Distribution Input) on table 4 to check the data has been entered correctly.

Jacobs conclusions

Overall Jacobs found that *'Overall, we consider there appear to be no areas of material inconsistency with the WRPG. For the plan areas and components we have reviewed, the approach taken and decisions made appear to be compliant based on the audit sessions we have carried out, having*

reviewed the approach, processes and methods. And from our risk and sample based review of your tables, your teams generally appear to have correctly populated them from the associated output/input material.'

Board assurance statement

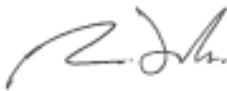
Having reviewed the draft WRMP, the supporting assurance and having taken the above into account, the Severn Trent Water Board makes the following statement:

- The Board is satisfied the plan represents the most cost effective and sustainable long term solution.
- The Board believes it has sufficiently collaborated with customers, partners and regulators to develop a strong understanding of future needs, explore every option, and build consensus on delivery plans.
- The Board confirms the integrity of the risk assessment process put in place by the company for all of its water supplies.
- The Board is satisfied that the WRMP takes account of all statutory drinking water quality obligations, and plans to meet all drinking water quality legislation in full.
- The Board confirms that Severn Trent complies with its duties on drinking water quality matters in its broader resilience and resource planning arrangements.

Signed by and on behalf of the Board:



Liv Garfield
Chief Executive
Severn Trent Water Ltd



Andrew Duff
Chairman
Severn Trent Water Ltd



John Coghlan
Chairman – Audit Committee
Severn Trent Plc