Water Resources Management Plan

Statement of Response to our Draft WRMP Consultation

June 2023

WONDERFUL ON TAP



This document contains statements that are, or may be deemed to be, 'forward-looking statements' with respect to Severn Trent's financial condition, results of operations and business and certain of Severn Trent's plans and objectives with respect to these items.

Forward-looking statements are sometimes, but not always, identified by their use of a date in the future or such words as 'anticipates', 'aims', 'due', 'could', 'may', 'will', 'would', 'should', 'expects', 'believes', 'intends', 'plans', 'projects', 'potential', 'reasonably possible', 'targets', 'goal', 'estimates' or words with a similar meaning, and, in each case, their negative or other variations or comparable terminology. Any forward-looking statements in this document are based on Severn Trent's current expectations and, by their very nature, forward-looking statements are inherently unpredictable, speculative and involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future.

Forward-looking statements are not guarantees of future performance and no assurances can be given that the forward-looking statements in this document will be realised. There are a number of factors, many of which are beyond Severn Trent's control, that could cause actual results, performance and developments to differ materially from those expressed or implied by these forward-looking statements. These factors include, but are not limited to: the Principal Risks disclosed in our latest Annual Report and Accounts (which have not been updated since the date of its publication); changes in the economies and markets in which the Group operates; changes in the regulatory and competition frameworks in which the Group operates, against or which affect the Group; and changes in interest and exchange rates.

All written or verbal forward-looking statements, made in this document or made subsequently, which are attributable to Severn Trent or any other member of the Group or persons acting on their behalf are expressly qualified in their entirety by the factors referred to above. No assurances can be given that the forward-looking statements in this document will be realised. This document speaks as at the date of publication. Save as required by applicable laws and regulations, Severn Trent does not intend to update any forward-looking statements and does not undertake any obligation to do so. Past performance of securities of Severn Trent Plc cannot be relied upon as a guide to the future performance of securities of Severn Trent Plc.

Nothing in this document should be regarded as a profits forecast.

This document is not an offer to sell, exchange or transfer any securities of Severn Trent Plc or any of its subsidiaries and is not soliciting an offer to purchase, exchange or transfer such securities in any jurisdiction. Securities may not be offered, sold or transferred in the United States absent registration or an applicable exemption from the registration requirements of the US Securities Act of 1933 (as amended).

Executive Summary

We published our draft Water Resources Management Plan (dWRMP) in November 2022, which set out how we will deliver long-term, best-value, sustainable water resources to meet demand to 2050 and beyond. We then commenced a 12-week consultation period.

We received 394 separate comments from 27 stakeholders/stakeholder groups. In addition to this we ran several stakeholder events, attended by 55 stakeholders to gain further targeted feedback on our plans. Feedback was received from a wide range of stakeholders, from Regulators to Councils, farmers, trusts and customers.

We have reviewed each of these comments and, where appropriate, we have used the feedback to update and improve our plan. There have also been some changes in the requirements and availability to transfer water from some of our neighbouring companies since the dWRMP was published. While these changes impact the order in which schemes are selected, and remove some schemes from our plan, they do not materially alter the recommendations made in our plan.

Our Statement of Response document includes:

- A summary of the key feedback we received from our stakeholders.
- An overview of the improvements we have made to our WRMP, both because of this feedback, and due to further information becoming available as we have continued to develop our plan.
- An explanation of how further customer research has helped shape our plan
- Supporting Appendix A which lists all of the stakeholder comments we received and our responses.

Summary of the Key Changes to the Plan

We have increased and brought forward our demand reduction ambition, reducing the scale of the deficits we will face. We are still finalising our PR24 plan, however the outline scheme selection for the 2025-2030 period remains similar to the selection within our dWRMP. We will detail this in our revised dWRMP.

Customers and stakeholders remain supportive of our long-term ambitions to reduce leakage by 50% by 2045, and household customer demand reduction to the 110 per person per day by 2050, including compulsory metering. We have increased our non-household demand reduction plans in response to consultation feedback, and in line with Government EIP targets, with a reduction of 15% by 2050.

Several stakeholders provided feedback regarding environmental assessments, and potential impacts of the Strategic Resource Options (SROs). As a result of our increased demand ambition, the reservoir expansion component of the Upper Derwent Valley Reservoir Expansion (UDVRE) is no longer in our preferred plan. We have a reconciled position with Water Resources South East (WRSE) regarding the ongoing requirements for investigations related to the Severn to Thames Transfer (STT). The scheme does not feature in our preferred plan, but is part of alternative pathways for the WRSE companies.

This document describes changes to the plan in response to the consultation feedback, however some activity to address that feedback is still ongoing. In some cases, this is due to the scale of the activity, such as SEA/HRA reporting. As specified by Ofwat through their query process, our WRMP must directly reflect the content of our PR24 plan, which is still being finalised. Consequently, we will continue to optimise our WRMP between now and the submission of the Final Plan, so reserve the right to make changes which ensure our WRMP24 and PR24 are aligned. We will work closely with our regulators in making these updates.

Contents

1.	Introduction	5
2.	Our Consultation Process	5
3.	Summary of the key messages from the consultation process	6
4.	Summary of Workshop Responses	.21
5.	Summary of Customer Research for WRMP	. 22
6.	WRMP Timeline and Next Steps	. 25

Statement of Response

1. Introduction

We published our draft Water Resources Management Plan (dWRMP) in November 2022, which set out how we will deliver long-term, best-value, sustainable water resources to meet demand to 2050 and beyond. We then started a 12-week consultation period which ran until 22 February 2022. Through this time, we encouraged our customers and stakeholders to feedback on our dWRMP.

We received 393 separate comments from 30 stakeholders/stakeholder groups. In addition to this we ran several stakeholder events to gain further targeted feedback on our plans. Feedback was received from a wide range of stakeholders, from Regulators to Councils, farmers, trusts and customers.

All feedback has been reviewed in detail, and used to help further develop our WRMP to ensure it meets the needs of our stakeholders and customers. As part of this process, responses have been written to every comment received, which are provided broken down by stakeholder in Appendix A.

The feedback has been collated into key themes, and Section 3 of this document summarises this feedback. Sections 4 and 5 go on to explore the feedback received through our consultation events and customer research, then Section 6 describes the timeline through to publication of our final WRMP (fWRMP).

2. Our Consultation Process

Our consultation period began on 14 November 2022 when we published our dWRMP on our public-facing website^[1]. Consultation was open for customers, stakeholders and regulators to give their views. The consultation period was 14 weeks and closed on 22 Feb 2023.

As well as publishing the document, we also notified various organisations (including Ofwat, Defra, Environment Agency (EA), Consumer Council for Water (CCW), Canal & River Trust, local politicians and Councils, Rivers Trusts, Wildlife Trusts, Natural England, English Heritage, National Trust and various environmental groups) that it was now live and invited them to a series of consultation events.

Three stakeholder events were held in November and December 2022, with invites going to 272 people from 105 organisations. Two events were held online and one in-person event at our Coventry offices. In total 55 people attended from 34 organisations (including those listed above) and we discussed not only what was in the dWRMP, but also how we could work together and develop ideas around particular topics, including demand management, supply scheme options and protecting and enhancing our environment.

Alongside those workshops, we've run a program of stakeholder engagement, from weekly and monthly meetings for some, to single meetings where stakeholders told us they didn't require any more. We did this throughout the consultation period with all key stakeholders, and those meetings are continuing until we submit the final plan later this year.

We've also held various stakeholder workshops on specific subjects to see how we can work together on joint projects to solve issues. A few examples are:

¹ <u>severntrent.com/wrmp</u>

- Getting input from CCW to create our compulsory metering campaign.
- Workshops with both NAVs and Retailers to explore how we can all work better together to help deliver the PCC targets.
- Multi regulator workshops regarding how we are appraising options and doing environmental assessments.
- An all-stakeholder workshop on emerging options, where we invited people to contribute ideas on 3rd party / multi-sector options that we could take away.
- A non PWS workshop to understand the needs of other abstractors in our region.
- An Environmental Destination workshop looking at sustainable abstraction.

Customers and stakeholders had the opportunity to feedback on our dWRMP through the events held, and via both DEFRA and a dedicated email inbox for more open responses.

3. Summary of the Key Messages from the Consultation Process

We received a good amount of constructive feedback. In general, the documents and plan were well-received. Many of the comments related to work we had already done or had planned to do between draft and final WRMP publication. Others simply requested further clarification and evidence within our narrative and appendices. We categorised each comment as either supportive, challenging or building on our plan (see Figure 1).



Figure 1 - Categorisation of dWRMP feedback received

3.1 Overview

Overall, we saw positive feedback around how our documents were constructed. For example, the Consumer Council for Water (CCW) said: "The explanation of the Demand and Supply options is clear and easy to understand. There is a well-written and informative customer quick guide that explains the problems that the region is facing and the company's plans to address them. The quick guide is clear; written in an easy-to-read manner."

Some comments are addressed through changes we have made to align to updated guidance, our developing WINEP submission and our emerging PR24 plans. See Appendix A for details of all the comments and our responses.

3.2 AMP7 Delivery

In developing our plan, our baseline supply demand balance includes the benefits from schemes and demand reduction activity we will have delivered by 2025. This includes defined schemes from WRMP19, as well as additional Green Recovery schemes funded through investment following the COVID-19 pandemic and accelerated AMP8 schemes as set out below.

3.2.1 AMP7 Supply Schemes

Our WRMP19 included supply options to replace the output from unsustainable sources of abstraction, and to give us the capability to meet future demand and maintain drought resilience without putting the Water Framework Directive objectives at risk. Our PR19 final determination included three schemes to provide the extra resource capacity required by the end of AMP7. These were as follows:

- Scheme 1: 7.5 MI/d benefit to Strategic Grid WRZ.
- Scheme 2: 25 MI/d benefit to Nottinghamshire WRZ.
- Scheme 3: 36 Ml/d benefit to North Staffs WRZ.

The schemes will deliver a total supply-demand benefit of 68.5 Ml/d. These are the water supply, treatment and distribution schemes needed to replace unsustainable sources of abstraction and maintain the forecast long term supply demand balance. However, during the early scheme delivery stage we have carried out detailed investigations that have resulted in us having to make changes to our original WRMP19 proposals. This primarily relates to Scheme 1, where we have taken the decision not to proceed with this option. Detailed site surveys determined that this scheme will not provide the deployable output benefit previously anticipated. However, to ensure that we will still provide the total WRZ benefit we have committed to, we brought forward the delivery of the following additional project.

• Thornton Reservoir to support Cropston Water Treatment Works.

The Thornton Reservoir to Cropston scheme is a modified WRMP19 option and provides a deployable output benefit of 7.5 MI/d to the Strategic Grid Water Resource Zone and is therefore a suitable replacement to Scheme 1. Early completion of this scheme will also provide increased headroom to enable us to operate more

effectively during periods of high demand. Construction has completed and we are waiting on final commissioning.

Schemes 2 and 3 continue to be progressed by our delivery teams, with construction and commissioning programmed for years 4 and 5 of AMP7 where we are confident that the benefits will be delivered as previously envisaged, and are included in our supply forecasts.

3.2.2 Green Recovery

We have three schemes in our Green Recovery programme which will further enhance our supply demand position and the benefits are included in our plan. There are two demand management improvements and one supply scheme.

The schemes were developed in response to the request from Ofwat, alongside Defra, the Environment Agency, the Drinking Water Inspectorate and the Consumer Council for Water, for water companies to play their part in the green economic recovery from COVID-19. The ambition of this is to build back greener from the pandemic and to deliver lasting environmental improvements, while meeting the economic and social challenges England faces.

We already have a proactive metering programme as part of our ambition to reach near universal metering coverage by 2035. Through the Green Recovery we are trialling AMI smart metering technology. We've already installed over 75,000 meters and are on track to install 157,000 (91,000 meter replacements, 66,000 new installations by 2025 with the benefits of this programme built into our baseline).

A further demand reduction programme is our non-household audit programme. This programme is on track to deliver 3000 audits by 2025 and the associated savings are included in our plan.

As part of our Green Recovery programme, we are delivering a scheme using a new abstraction licence from the River Trent providing 65 MI/d average, 93 MI/d peak abstraction increasing our supply capacity into our Strategic Grid water resource zone. The scheme is scheduled for completion by the end of AMP7 and is included in the baseline supply-demand balance (SDB) for our Strategic Grid Water Resource Zone.

3.2.3 Accelerated Schemes

Two further schemes are included within our SDB as part of our accelerated AMP8 programme. Draycote Reservoir expansion and accelerating delivery of our AMP8 metering programme.

Increased capacity at Draycote Reservoir will provide additional raw water storage and a deployable output benefit of 9 MI/d from 2026.

Our accelerated AMI smart metering programme includes an additional 250,000 meters to be installed by 2025, providing 11.3 MI/d modelled benefit to our SDB by 2026.

3.3 Drought Resilience

In developing our WRMP we have set our ambition to be resilient to a 0.2% annual chance of failure due to drought, giving a 1 in 500-year level of resilience by 2039. This level of service is set against the introduction of emergency drought orders, such as the use of standpipes. Our WRMP24 ensures that we will meet this 1 in 500-year level of resilience by 2039, however our assessment concludes that through the actions we have taken in the past, our raw water supplies are already at a 1 in 200-year level of resilience.

For our draft plan we used a 1 in 200 level of resilience in our baseline to 2039, switching to 1 in 500 from that point. In line with feedback and updated guidance, our final plan uses the 1 in 500 level of resilience from the start of the planning period, we have then factored in the SDB benefit of the 1 in 200 through to 2039. Customers and stakeholders continue to support this level of resilience and our proposed levels of service.

Following the 2022 drought event, we conducted internal and external workshops with the Environment Agency, reviewing the challenges that were experienced to identify any lessons learned to further improve our drought resilience. A summary of the 2022 experiences and lessons learned is included in a new Appendix to our WRMP – Appendix I, Drought 2022 Review.

3.4 Reducing Demand

We received a lot of support for our demand ambition directly through consultation responses and at our stakeholder events. However, there were several questions around pace, delivery and a challenge to go even further, especially in our ambition on non-household demand reduction. In contrast we also received challenge regarding the dependence our plan placed on demand side measures and their deliverability, especially reducing customer demand.

Leakage

Our proposed approach for leakage, which sees us continue the pace of leakage reduction we have delivered in AMP7 on our path to deliver 50% reduction by 2045, five years ahead of Government targets, was generally well received and we thank stakeholders for their support. A number of stakeholders did however challenge this ambition and questioned should we go further and faster, where others challenged our ability to deliver this level of ambition. The plan we have set out is very ambitious, with innovation needed to achieve the full reductions by 2045 and maintain leakage at that low level. As we deliver our WRMP over the coming years we will accelerate this programme of work and / or achieve greater reductions if the technological, environmental and economic case for our customers justifies further reductions. We have a good track record on meeting our

leakage reduction targets, achieving them in 11 out of the past 12 years. Our plans for AMP8 will see a further 16% reduction.

Delivery of our leakage ambition will be achieved through a number of activities. Our household metering programme, which is aiming for near universal meter coverage by 2035 using smart meter technology will play an important role in delivery of this target. Other leakage reduction activities include:

- Active leakage control where we find and fix leaks on our network.
- Mains renewal where water mains are proactively replaced to prevent future leaks and bursts.
- Pressure management actively managing the pressure on the network to help reduce rates of leakage.
- Reducing trunk mains leakage we are increasing the levels of metering on our larger trunk mains to help find and fix leaks.

Despite the scale and range of these activities we recognise the part innovation in leakage management will play in delivering the long-term reductions, and we continue to explore new opportunities with the supply chain and water sector, for example using satellite technology to aid leakage find and fix in 2022.

Non-Household Demand Reduction

We acknowledge both from the feedback we received and the new WRPG published in March 2023 that there are greater opportunities to deliver demand savings through working with water Retailers and directly with non-household customers. We have updated our WRMP to include additional options to deliver non-household demand reduction in line with the new Government targets which aim for a 9% reduction in commercial consumption by 2038. We expect this to be delivered via non household metering, water efficiency activity and working with Retailers and their customers, with a target of 15% reduction by 2050. This programme has been developed through the learnings from our AMP7 Green Recovery programme targeting non-household water efficiency audits. We have also started a series of workshops with retailers to see how we can work better together to reduce demand and promote water efficiency with our 193,000 non-household properties.

PCC Ambition and Delivery

In our draft WRMP, and for our final plan, we have set the challenge of delivery of customer side behaviour change and the delivery of sustainable PCC reductions. The COVID-19 pandemic resulted in unprecedented changes to customer demand profiles and behaviours, and although we are seeing demand fall as consumer habits slowly return towards pre-pandemic patterns, we are expecting to achieve the forecast WRMP19 reductions, which has been challenged during the consultation process. Although we recognise we are not achieving the shorter term goals, we are committed to playing our part in delivering the long term government ambition to reduce PCC to 110 litres per person per day by 2050 via our own water efficiency activity, household smart metering and the Government's Water Labelling programme. In our dWRMP, impacts of the Government's water labelling programme were included later in the forecasts due to uncertainty around delivery mechanisms. In line with the latest planning guidance, and feedback from consultees, we have now included the impacts of labelling from 2025. We have tested the sensitivity of achieving these demand reductions are not seen.

Metering

We remain committed to our long-term ambition from WRMP19 to achieve near full metering coverage by 2035. In our dWRMP we set out how we intend to build on the proactive programme of metering we started in 2020, and move to a compulsory metering programme from 2025. Through both our customer research, and consultation feedback from stakeholders, the overall response was positive and supportive of the switch to

compulsory metering, which will continue to feature in our final plan. Key concerns raised related to the need for supporting customers who struggle to pay because of increases in their bills after moving to metered charges.

We understand that compulsory metering is going to be a tricky subject and even though we expect around 60% of customers to actually be better off with a meter, we know it could possibly be very worrying for some, especially in the current financial climate. We will create a communications campaign around this and make sure that what is going to happen is clear for our customers.

In our draft plan we said that customers would have one year after meters were installed before they were billed according to how much they use, but in our final plan we intend to change that to two years - this will give people longer to become aware and comfortable with the data they'll get and to understand how much water they are using and on what. The two years will allow people to possibly change their habits and hopefully use less, but also manage their financial situation so that a measured bill is not a shock.

Our customer research also showed that people who were against having a water meter fitted tended to warm towards the idea if they were engaged by people who already had a meter and said it worked out better for them. We'll be taking that into account in our campaign.

We understand that this could still be very challenging for some of our customers, which is why we have help and support schemes available for anyone struggling at this time. We've also recently increased the level of support available to customers who need it, with an additional package of measures worth £30m to help 100,000 more customers pay their bill by 2025.

Our customer support schemes include;

- Severn Trent Trust Fund Customers who live in the Severn Trent area and are unable to meet the cost of water charges can apply for help directly, and to organisations that work in the area of debt advice.
- The Big Difference Scheme can offer a reduction of 90% off water bills for customers on low incomes.
- Water Sure is a scheme for Severn Trent customers that caps customer bills at the average yearly charge.
- Priority Services Register is available to Severn Trent customers if they feel they would benefit from a
 more personalised service. The register helps identify customers with medical conditions, disability or
 restricted mobility, sight or hearing loss and those who would appreciate receiving their bills in a
 different format.
- Additionally, as part of our PR24 plan, we'll be looking at what support we can offer to anyone affected by an unexpected bill for a leak on their property as a result of having a meter installed.

3.5 Water Resource Zones

In response to our consultation, the EA have requested we reflect on the experiences of the 2022 drought and conduct a review of our Water Resource Zone (WRZ) boundaries. The EA have asked that we do this post submission of our WRMP, but that we include:

- A timeline of activity,
- Estimation of when regulatory input will be required,
- Regular reporting on progress via the WRMP annual review process.

WONDERFUL ON TAP

This section describes our approach and will be included in the fWRMP.

Figure 2 shows the 15 Water Resource Zones (WRZs) that were amended in 2019 to reflect the new company boundaries and were used in WRMP19. For our most recent dWRMP we had carried out a simple review and decided that these zones remained appropriate for our draft plan.





However, during the 2022 drought year, it has become apparent we need to further review our WRZs. When looking at our options to implement a Temporary Use Ban (TUB) in August/September 2022, we decided that the most suitable option, if a TUB was required, would be to put this on for only the Northern part of our Strategic Grid zone. For our previous 2014 drought plan we did have the option to use sub-zonal TUBs. This indicated that a review of the Strategic Grid zone will be required to assess its compliance to the EA's guidance on WRZ integrity that states 'risk of supply in a single WRZ should the same'. Furthermore, the scheme options within our fWRMP include options to improve connectivity in the northern part of the Strategic Grid WRZ with the Nottingham WRZ, which may also change the risk/level of service within these zones.

We therefore agree with the Environment Agency that we should carry out a full review of our WRZs, specifically focusing on whether the Strategic Grid zone should be split up. As we will be looking at our water resource zones in close detail, we will take this opportunity to review all WRZs across the company.

In their consultation response, the EA have asked us to report on this as part of our WRMP Annual Review. We therefore propose to carry this out over the next 18 -24 months and will report on the progress and outcome of the analysis in the WRMP Annual Reviews. If the WRZ's are changed, we would propose to shadow report our WRMP Annual Review using both our current and new WRZs in parallel for leakage, water balance and the Supply-Demand Balance Index (SDBI). We would like to work with the EA to agree the scope of the work we will undertake. We will continue to use our current zonal structure for this WRMP24 and PR24. We detail our proposed work plan in Table 1.

Table	1	Our	plan	to	update	our	WRZs	(key	dates)
-------	---	-----	------	----	--------	-----	------	------	--------

Action	Complete by
Carry out a full risk-based review of our WRZs, sharing draft outputs with the EA during	May 2025
our regular meetings and in the WRMP Annual Reviews	
Publish updated proposed zonal structure, as necessary, at WRMP AR 2025	June 2025
Shadow report, if applicable, both current (WRMP23) WRZs and new WRZs for leakage,	APR26, WRMP AR
Water Balance and SDBI.	26, EPA SDBI 2026
Report using only new WRZs, if applicable, from ARP / WRMP AR 2027 onwards	April 2027
Use our new zones, if applicable, for development of WRMP29 and PR29	2027

The process we will use to update our WRZs.

We will update the zones, as necessary, following the EAs 2016 guidance note on WRZ integrity. Figure 3 below shows a flow chart of the key activities we will carry out to ensure the new zones are compliant with this EA Guidance and also make sense operationally and within our models.

Figure 3 - The process we will undertake to review our WRZs



*Temporary Use Bans (TUBs), Non-Essential Use Bans (NEUBs), Emergency Drought Orders (EDOs)

3.6 Environmental Impact & Enhancement

We understand and are committed to our obligations to prevent deterioration of Water Framework Directive (WFD) status and to achieve the objectives set out in the River Basin Management Plans. Severn Trent's contribution to achieving these statutory obligations have been agreed with the EA through the Water Industry National Environment Programme (WINEP). The Environment Agency's WINEP planning guidance has been updated since our draft WRMP24 was produced and our understanding of how to tackle this challenge has evolved accordingly.

Preventing WFD status deterioration and abstraction licence capping

Since the dWRMP was published, we have continued our technical assessment of the WFD environmental risks associated with our sources of abstraction and we have worked with the Environment Agency to better understand their expectations. In particular, we have refined our assessment of how any future abstraction licence changes should be represented in the PR24 WINEP and the WRMP.

Our dWRMP used an early, risk-based assessment of the potential for future WFD status deterioration and the timing of when we would need to make abstraction licence changes. Our assumption was that we would prioritise future abstraction licence changes between 2030 (highest risk sites) and 2040. Our latest understanding of the EA's WINEP expectations and the priority order of when licence changes would be required means that we have made some amendments to the timing of these licence changes. The most significant change from the dWRMP is that the WINEP now expects that licence caps will be implemented by 2035. A summary of the changes between the dWRMP assumptions and our latest WINEP understanding is outlined in Table 2. Our updated WRMP24 assessment reflects the SDB impacts of this latest WINEP view of licence capping priorities and timing.

dWRMP						March 23 WINEP		
Water Resource Zone	Source DO losses 2030 (MI/d)	Source DO losses 2035 (MI/d)	Source DO losses 2040 (MI/d)	Cumulative Source DO losses by 2040 (MI/d)		Source DO losses 2030 (Ml/d)	Source DO losses 2035 (MI/d)	Cumulative Source DO losses by 2040 (MI/d)
Bishops Castle			1	1		0	1	1
Chester		0.0		0	1	0	0	0
Forest and Stroud	2		1	3		1.5	0.7	2.2
Kinsall	1			1		1	0	1
Mardy	1			1	1	1	0	1
North Staffordshire	23		21	44	1	21	20	40
Ruyton			1	1		0	1	1
Shelton	28		17	45	1	29	8	37
Stafford		3		3	1	0.3	2.5	2.8
Whitchurch	4			4	1	4	0	4
Wolverhampton	5		2	7	1	4	2	6
Notts	71		1	72]	70	2	72
Newark	2			2	1	2	0	2
Strategic Grid	22		7	29	ĺ	15	11	26
Total	159	3	51	213]	148	49	196

Table 2: Abstraction licence capping assumptions

However, through the WINEP process we have highlighted to the EA that their licence capping priorities for our Shelton WRZ are unlikely to be achievable in the time available due to the scale of alternative sources of water supply that will be required. In particular, the decision of United Utilities since the dWRMP was published to withdraw their offers of new, treated water imports to our Shelton WRZ means that we have insufficient options that could be deployed within the EA's preferred timescales. We continue to discuss with the EA the options for our Shelton zone and the mitigation measures that we will put in place to manage the WFD deterioration risk while we implement the long-term alternative supplies required.

Environmental Destination (ED)

Our WRMP sets out our plans to make abstraction licence reductions to enhance and protect the environment over the next 10 years along with longer term plans to improve the water environment by 2050. Our plans to cap abstraction licences between 2030-35 and provide alternative, sustainable sources of water supply form the first step in our commitments to helping water bodies along the pathway to WFD good status. In the longer term, our WRMP sets out options that would allow us to leave more water in the environment and help water bodies across our region to achieve good status and be more resilient to future climate change.

We received feedback from our regulators and wider stakeholders on the scale and pace of the long-term environmental improvements proposed in our dWRMP. Using that feedback, we have developed further ED scenarios for the WRMP that explore opportunities to accelerate the timing of making licence reductions in priority areas to help achieve WFD improvements.

We recognise the need to bring forward improvement actions as soon as feasible and affordable and we are evaluating scenarios to explore what may be possible. Currently there is a lot of uncertainty in the assessment of future water environment needs and we have included a substantial investigation programme and option development in our next business plan. We are in fact going to be starting this early, so we have better information to inform our next plan. We will seek to understand the challenges better and to further develop a holistic range of options including nature-based solutions and multiple benefits.

Since we published our dWRMP we have agreed with the EA the extent of our AMP8 WINEP programme, which includes extensive technical investigations and options appraisal in the catchments where abstraction reductions will be required to achieve the ED objectives. Our AMP8 technical investigations will provide us with a more robust understanding of both the pressures and options to achieve WFD and nature recovery obligations.

While the WRMP considers the water abstraction impacts of achieving our WFD and nature recovery obligations, it is important to note that Severn Trent is delivering a much broader range of environmental protection and improvement measures. For example, the WINEP includes our commitments to improve river water quality, protect and enhance water catchments, improve designated sites, and enhance biodiversity across our region. Overall, we are already committed to delivering a broad package of investment in environmental enhancement in AMP8 that will contribute to improving catchments and ecological resilience. We have summarised this broad package of planned environmental interventions in the final plan.

3.7 Low Regrets, Best Value Plan & Decision Making

Option selection and clarity on our low regrets and best value planning was identified as an area for further improvement by our stakeholders. To secure future water needs and support a thriving environment, our 25-year strategy needs to keep pace with changing service levels and risks. We propose to:

- Accelerate all investment that enables demand reduction, delivering universal household metering that will unlock future reductions.
- Carry out all 'no-regrets' investment (i.e., statutory abstraction licence capping) to ensure our water sources are sustainable.
- Keep pace with the increasing need for water, driven by climate change and population growth.

• Bring forward investigations to drive greater certainty about our future water needs.

To develop the best value long-term plan, we must demonstrate that our investment is optimal given a wide range of plausible scenarios and their likely occurrence. We have considered a number of plausible futures, developing different scenarios and considering the best way of meeting our customers' future water supply needs in all of those possible futures. This provides a systematic way of establishing how robust our investment choices are to future uncertainties. These include:

- 13 demand-side model runs to optimise our demand strategy.
- 42 supply-side model scenarios.
- 32 sensitivity tests.
- 8 common reference scenario tests.
- >12,600 model outputs.

To standardise the measurement of costs and benefits, we have used the agreed Water Resources West (WRW) best value planning metrics.

We have taken care to ensure a balanced range of scenarios and ensure they are not overly biased towards a particular future. Using this range of scenarios allows us to define our 'no-regrets' options and build a best value plan. Scenarios tested included least cost, maximisation of additional benefits, and futures in which climate change impacts are more severe, population growth is faster, and/or where Strategic Resource Options (SROs) are approved by the Regulators' Alliance for Progressing Infrastructure Development (RAPID). We also tested each of Ofwat's eight common reference scenarios. We recognise that there is uncertainty around our assessment of dry-year annual average deployable output of schemes, so we use the investment optimisation approach to test whether these uncertainties would change our conclusions.

3.7.1 Reconciliation and Regional Alignment

Consistency of timing and volume of transfers with regional plans and other company plans was highlighted as an area for improvement. Following the draft plan submission, further reconciliation activity has been undertaken with neighbouring companies and the regional groups to ensure consistency of our plans. All members of the WRW regional group have continued to work collaboratively to develop their WRMPs in a regional context. Their revised plans are consistent with the regional SoR, and we have developed an agreed, common statement on key areas as set out in Table 3 below.

Table 3: Agreed WRW common statements on key areas

Environmental Destination (ED)	Wales WRW has continued to develop the plan for Wales including further meetings with NRW and stakeholders. Each of our member companies with operations in Wales have committed to investigations and schemes in their 2025-30 National Environment Programme (NEP) relating to Environmental Destination in Wales. There are also opportunities identified from the development of new water resource options.
	England Early in the planning period the latest position agreed with the EA on licence capping, to protect the environment from deterioration due to sustained increases in abstraction, has been included for their preferred plans.

	All members in England are using the latest best estimate of the 2050 BAU+ locally verified scenario (referred to as BAU+ in the plan). This scenario uses existing policy and regulatory approaches now and into the future. It also includes applying flow targets required for European designated riverine sites by 2050 at the latest. Locally verified refers to the analysis that the regional group has done to refine the scenario data developed at national scale by the Environment Agency for the National Framework. This incorporates the discussions held locally with stakeholders and regulators plus work that has already happened or is in progress to ensure the right level of protection and enhancement is being applied.
	and scenarios. Further scenarios have been developed to evaluate undertaking licence reductions earlier to accelerate the achievement of current regulatory needs and bring
D	resilience to the water environment.
resilience position	despite Hafren Dyfrdwy and Welsh Water not being required to meet a 1 in 500 level of resilience by 2040.
Demand	All members in England are planning to achieve the government policy objectives, part of
management	the Environmental Improvement Plan, for demand reduction:
policy	• 20% reduction in Distribution Input per head of population by 2038
	 Non-household demand reductions of 9% by 2038 and 15% by 2050
	 Per Capita Consumption (PCC) reduction to 110 litres/head/day by 2050 and are
	using the dry year annual average position.
	All members in England have adopted the leakage reduction targets of 20% by 2027, 30% by 2032, 37% by 2038 and 50% by 2050 (at the latest) from 2017/18 levels.
	Hafren Dyfrdwy has adopted the leakage target of 50% reduction from 2019/20 baseline levels by 2050, with a leakage reduction target of 10% in AMP8, and 110 litres/head/day PCC target in a dry year by 2050.
	Welsh Water has adopted the leakage target of 50% reduction from 2017/18 levels by 2050, 110 litres/head/day PCC target in a dry year by 2050 and the non-household reductions of 15% by 2050.
Supply	All members have adopted the intermediate scenario of climate change (RCP 6.0) in their
resilience	preferred plan.
	All members have generated regional-level hydrological and climate change datasets, collaborated on extensive water resources model development, and undertaken in-depth analysis on outputs.
	United Utilities, Severn Trent and Welsh Water are proposing investment in new supplies and/or increased network connectivity across WRW from early on in the planning period to further bolster supply resilience. South Staffs and Hafren Dyfrdwy only have demand options selected and therefore are not.
Reconciliation	All members have worked collaboratively through a reconciliation workstream to ensure
– Scheme	the transfer scheme selection aligns across the region and with other regions. The
selection	preferred plan transfers are:
	 25 MI/d Vyrnwy raw water from United Utilities to Severn Trent in 2030;
	Grand Union Canal transfer from Severn Trent to Affinity Water selected in 2031
	at 50 MI/d, increasing to 100 MI/d in 2040;
	 Cessation of the Derwent valley export from Severn Trent to Yorkshire Water in 2035.
	The alternative pathways for the STT have also been aligned with WRSE.

3.8 Strategic Resource Options (SROs)

Three SROs were included in our dWRMP: Grand Union Canal (GUC), Upper Derwent Valley Reservoir Expansion (UDVRE) and Severn to Thames Transfer (STT).

Grand Union Canal

The GUC SRO is being selected in Affinity Water's preferred plan. Currently requiring water into supply in the 2031/32 financial year, this scheme uses up to 115 Ml/d of recycled water from Severn Trent's Minworth WwTW, which will undergo tertiary treatment before being pumped via a pipeline and discharged into the canal network at a location close to Atherstone. The canal will undergo a series of engineering improvements to allow water to be moved south through the network to be abstracted at Leighton Buzzard, where it will undergo further treatment to drinking water standard and be pumped into Affinity Water's network. Extensive environmental investigations and modelling have been completed on both the river system downstream of the current Minworth discharge (River Tame, River Trent and Humber Estuary) as well as on the canal network the water will be transferred through, looking at both mitigating any potential impacts as well as investigating enhancements for nature and societal gain. We have engaged extensively to date, and this engagement will ramp up over the next few years. This engagement with regulators and canal users about the project over the last few years has resulted in environmentally beneficial changes to the scheme, such as moving the Affinity Water abstraction location north so the water is not transferred over Tring Summit. This means there will be no interaction between the transfer and the internationally important habitat of the Chalk Streams in the southeast of England.

Upper Derwent Valley

We received many comments from a wide range of consultees regarding the proposed UDVRE SRO. Key concerns raised focused on the potential impacts on protected areas, and compliance with SEA, HRA and WFD requirements. Significant additional assessment is still required for this scheme, which will be undertaken as it moves through the RAPID gated process. In our draft plan the scheme was not needed until at least 2050, which means no final decision is required in this round of WRMPs, and the more detailed SRO environmental appraisals can inform the final decision at WRMP29 or later.

Nevertheless, in response to the consultation feedback received, we have removed the Upper Derwent Valley Reservoir Expansion scheme from our preferred plan. The scheme is replaced by a combination of leakage, customer demand management and accelerated supply options from later in our preferred plan time horizon. We will instead explore the potential costs, benefits and timing of the potential Derwent Valley Reservoirs expansion scheme through our alternative pathways and we will use this evidence to inform future decisions on this scheme.

Severn to Thames Transfer

Through the regional reconciliation process that has continued post submission of our draft plan, the Severn to Thames Transfer (STT) has been removed from the preferred plan and is now included in one of the alternative pathways. The section below sets out the joint company and regional statement on the scheme.

STT represents a strategic resource option that facilitates the transfer of water from the River Severn to the River Thames. This would be supported by several sources of water² from United Utilities and Severn Trent.

During the development of the draft regional plans and Water Resource Management Plans, STT was selected as part of the WRSE regional solution, in conjunction with other schemes, in 2050. This was also reflected in WRW's plans.

Whilst STT featured in both regions' draft preferred plans, a series of sensitivity tests at the time showed that the STT could be selected as early as 2039, if the South East Strategic Reservoir Option (SESRO) could not be developed, or not at all if government water efficiency policies resulted in a lower demand forecast due to increased water efficiency.

In March 2023 the regional reconciliation process began its third round. At this time none of the regions had finalised a preferred revised regional plan. Therefore, sensitivity runs were undertaken to explore what might happen under certain scenarios. This scenario modelling used the updated STT data, but some other information in the WRSE model was based on the draft plan.

The scenario testing approach confirmed that if the WRSE companies met the 110 l/p/d PCC target by 2050 then STT was not selected in the reported pathway (preferred plan). Sensitivity tests also confirmed the need for STT in scenarios without SESRO or with government water efficiency interventions not reducing demand to the levels anticipated. Therefore, the need for STT inclusion in an adaptive plan was confirmed. Given that the revised draft plan was still under development for WRSE, but we knew that the revised regional plan would seek to achieve the 110 l/p/d PCC guidance target, the more likely scenario was that STT would not be required in the preferred plan for WRSE or WRW. This was the agreed outcome of reconciliation for inclusion in the revised draft WRMPs, which includes alternative pathways to deal with potential changes.

Although the water companies are working toward mitigating those risks through their plans, they are influenced by factors outside of the control of the companies and therefore have a reasonable likelihood of

² The North West Transfer enabling use of Vyrnwy Reservoir, and recycling water from Minworth and Netheridge.

occurring. The alternative pathways recognise different potential outcomes. In either case, there is a need to progress development of the STT system³ in the next 5 years so it can be delivered by 2039 if required.

As the regional plans continue to be developed, the risks associated with the promotion of certain schemes or delivering the water efficiency targets, set out in the Environment Improvement Plan, remain. Both regions have developed a series of adaptive regional plans to help offset some of this risk.

The adaptive regional plans consider three scenarios:

- 1. Benign scenario in which schemes and assumed savings from water demand reduction measures are delivered (this is aligned to the reported pathway/preferred plan)
- 2. A short-term adverse scenario in which preferred supply options aren't delivered and STT is then required to be developed and operational by 2039/40; and
- 3. A long-term adverse scenario in which the projected demand management savings do not materialise and additional water from STT is required by 2050.

Through this approach, both regions would monitor the delivery of the schemes and benefits of their plans to understand if their plans are still on track or whether they need to adapt to one of the scenarios above.

For the regional plans to remain flexible and adaptive, it is critical that key schemes are progressed in a timely manner. In the case of STT and the potential for it to play a part in the short-term adverse scenario, this would require development of the scheme to continue over the next AMP period (2025 to 2030) and through the next gates to provide confidence that the scheme could be utilised when required. Proposed milestones are under development and in discussion with RAPID to be reflected in future gate submissions.

Therefore, both regions and relevant companies are promoting the continued development of the STT system in their WRMPs, Regional Plans and business plans to provide confidence to regulators and the Secretary of State that their plans are robust and can adapt to meet their statutory duties in the future. This jointly agreed text demonstrates alignment of the companies and regions on this need to solve national water resources risks identified in the National Framework.

3.9 Non-Public Water Supply (nPWS)

We received some feedback around addressing the needs of the nPWS sector and third party needs. Although nPWS needs are not a specific component of company WRMPs, as a member of WRW, we have assessed the future nPWS requirements, including direct engagement with representatives of the nPWS sectors, including CRT, NFU and the power sector. We are committed to supporting the regional planning process to help address nPWS needs, however Government and Regulators will need to address appropriate funding mechanisms, as regulated public water supply companies cannot cross subsidise the nPWS sector. No

³ STT System includes the STT and the sources that feed water to the STT, namely Severn Trent Sources (Netheridge), Minworth and the North West Transfer. Changes to the flow regime in the Severn catchment due to releases, interactions with the Severn Regulation Scheme, a bypass pipeline for the Afon Vyrnwy and system operation are within the scope of the STT project.

proposed changes are being made to our plan, however we are exploring how we support potential switching of private water supply users to public supplies.

4. Summary of Workshop Responses

The responses that were received through our stakeholder workshops have been collated with those received via email and summarised into key theme classifications in Figure 4 below.

Figure 4 Classification of our consultation responses



Leakage was a key theme from the workshops we held, and stakeholders considered leakage reduction to be a highly important issue, and one that needed urgent attention. Stakeholders generally felt we had identified the correct areas of focus and supported tackling the issue of leakage and the introduction of metering, keeping in mind the need to support different customer groups, and those most impacted by changes. It was felt the targets being set were realistic and achievable based on our previous track record. However, concerns were raised about the possible impacts of shifting policy arrangements and climate change scenarios that require modelling.

When asked if they agree with our plan to deliver a 50% reduction in water leakage by 2045, 43% of voters said that they agreed, with a further 28% saying that they strongly agreed.

Paying attention to leakage and the use of metering was felt to offer a good way to educate customers about the value of water, but the view was that this needed to be taken on balance with the current cost-of-living crisis and empowering customers to feel in control of their options.

WONDERFUL ON TAP

Following on from leakage was water efficiency and demand management. Stakeholders were asked to reflect on the various water efficiency options and were asked to rank these options order of effectiveness. 'Education related savings' came out marginally on top, followed closely by 'Home water efficiency checks, 'Non-household audits' and, finally, 'Provision of free and subsidised water efficiency products to customers'. All of these form part of our plan.

When looking at supply options and ED, stakeholders were positive about our future plans, and this was reflected in the poll results, where 42% said they agreed, and a further 10% strongly agreed. Only 2% disagreed with the plans, with no one strongly disagreeing.

It was noted that plans were very focused on our existing assets, and that it would be valuable for us to be more 'externally' facing, working in closer partnership with organisations within catchments and across identified catchment boundaries. Stakeholders stressed the importance of this to mitigate any adverse effects, especially to wildlife in surrounding areas.

When stakeholders were asked about nature-based solutions, most (58%) strongly agreed in pursuing these, although a strong case was made that all options should be kept in view. It was felt that a less constrained approach, with much greater sharing of work across catchments, and problem solving would be valuable, including making use of the third sector, but that this needed to bring benefits to the customer rather than higher bill costs.

Taking this feedback on board, we will continue working closely with stakeholders, such as the Catchment Based Solution (CaBA) stakeholder groups in our region on both water quality and water resource related issues. We will also work with local organisations on the development and delivery of solutions.

5. Summary of Customer Research for WRMP

An additional supplement to the dWRMP public consultation was the further robust qualitative and quantitative research that was carried out by Blue Marble, a customer market research company, to understand customer views on our dWRMP, including its acceptability and affordability. This customer research explored customer feedback and opinions for investment, priorities and intergenerational fairness, which provided key insights into how our dWRMP was supported by customers and any areas for refinement.

The research consisted of:

- Ten face-to-face group discussions of 105-120 minutes with customers (70-80 customers).
- Four online group discussions (again seven to eight people per session).
- An extra online session with seven customers specifically around water recycling.
- We also emailed a survey to 100,000 Severn Trent customers and received 4,500 responses from household customers and 200 non-household responses.
- A further 'Tap Chat' survey was carried out with our online customer community, again specifically around water recycling in April 2023 with 706 customers responding.

As well as the specific dWRMP research, we also took into account the following pieces of Severn Trent research (see Table 4):

- WRMP and Water Resilience Research, Britain Thinks, April 2022.
- Strategic Investment Insight, November 2022.

- Severn Trent Social Barometer, September 2022.
- Environmental Destination and Compulsory Metering Survey, Accent, May 2022.
- Universal Metering Research, Britain Thinks, June 2022.
- Tap Chat research on compulsory metering, April 2022.

Finally, as part of the regional WRW group, we carried out an exercise where we consolidated all of the research undertaken by WRW companies (from the last couple of years) into one holistic regional view, which also gave us some great insight into whether views were specific to an area, or widely held views.

Table 4 Summary of key feedback from our customer research

Our conclusions	What we heard from customers
Customers trust and expect us to deliver a reliable supply of water, now and in the future. They expect us to plan for climate change and drought.	58% of customers tell us that "meeting the challenges of climate change and drought to ensure there is enough water for everybody" is a high priority (Severn Trent Social Barometer, September 2022). "Investing to adapt to the impacts of climate change" is ranked highly in qualitative research, giving us confidence in our Social Barometer findings (Strategic Priorities, December 2021).
	In our qualitative research, customers identify climate change, drought and extreme weather as within the range of environmental and economic events they expect us to plan for (Water Resources and Resilience, Britain Thinks). "Impacts of climate change and the availability of future water supplies" emerges as important for both household and non-household customers (Strategic Investment Insight, November 2022).
	Through our scenario testing, we have assessed a range of climate futures, including the high impact RCP8.5 projections (4 ^o C warming future) to ensure our preferred plan and alternative pathways allow us adapt to a wide range of plausible futures. Our plan is designed to meet a 1 in 500 resilience standard to extreme drought by 2039.
Climate change is a growing concern for customers. Views are mixed on the pace of change, but young people are in favour of planning for more	In qualitative research, customers are pleased to know we are planning for climate change uncertainty. Adaptive planning is recognised as a sensible approach to this uncertainty (WRMP and Water Resilience research, Britain Thinks, April 2022).
severe scenarios.	Customers tell us planning for warming of between 2 and 3.7°C is "reasonable" (WRMP and Water Resilience research, Britain Thinks, April 2022).
	47% of household customers, and 43% of non-household customers, want us to plan for a medium climate change scenario (Strategic Investment Insight, November 2022). 48% of future household customers (aged 18-24) want us to plan for a more severe scenario (Strategic Investment Insight, November 2022).

	Our preferred plan meets the central RCP6.0 scenario, and we have an alternative pathway that plans for the more severe RCP8.5 that we can switch to if required.
Customers support demand reduction through metering and water labelling	Before receiving information on the impacts of water metering, 50% of customers support universal metering. This number is significantly higher among metered (68%) vs unmetered customers (29%). 27% of customers neither support nor oppose.
	After receiving information, 58% of customers support universal metering, with 78% and 38% of metered vs unmetered customer support (Environmental Destination and Compulsory Metering survey, Accent, May 2022).
	Positive unmetered customers prefer smart meters over semi-smart meters (Universal Metering research, Britain Thinks, June 2022). 81% of customers support compulsory water labelling of products by the end of 2024 (Tap Chat research, April 2022).
	We are continuing with our plans to introduce compulsory metering and have brought forward the benefits of the Government's water labelling programme.
Although customers want us to protect and improve the environment, concerns such as the cost of living are starting to dominate mindsets.	Environmental concerns are high; however, we have seen a decline in the past year as cost of living and the economic situation dominate (Environmental Destination and Compulsory Metering survey, Accent, May 2022).
	Over the past year we have seen a decline in the proportion of customers who want us to exceed our legal obligations to protect the environment (from 68% in September 2021 to 61% in September 2022 Severn Trent Social Barometer).
	When thinking about what they want us to do, customers state tackling global warming as their primary concern, followed by pollution (air, plastic, water) and the decline / extinction of life (WRMP and Water Resilience research, Britain Thinks, April 2022).
	Mindful of the current cost of living situation as part of linked PR24 planning, we are developing further options to support customers who may be struggling to pay.
Customers find the proposed 1-in-500-year level of drought resilience, to be delivered by 2039, acceptable.	75% of household customers, and 75% of non-household customers, consider it "acceptable" that we meet the Government expectation of drought resilience. 8% of household customers and 5% of non-household customers would find this approach "unacceptable". They wanted us to meet the standard earlier than 2039. Most customers stated this was due to the importance of a continuous supply of water.

	<i>Our plan is designed to meet a 1 in 500 resilience standard to extreme drought by 2039.</i>
Customers are mixed in their views of how fast we should tackle the environmental destination challenge, with a slight preference for an adaptive approach.	Our Environmental Destination and Compulsory Metering survey (Accent, May 2022) concluded the following: 45% of customers support an adaptive approach to environmental destination, compared to 42% who favour extensive investment immediately. Customers' reasons for supporting extensive immediate investment, centre on doing the best we can now for the future of the environment, and avoiding uncertainty. Those who support an adaptive approach are focused on the fact we will know more (following investigations) in five years' time. They tell us that they want to minimise spending on something that might not be needed. After seeing the potential bill impact of meeting our ED commitments, there is a small (non-significant) shift of views towards extensive investment immediately – although support for an adaptive approach is still slightly higher. <i>Our adaptive planning approach will allow us to bring forward</i> <i>environmental improvements as we move through subsequent planning</i> <i>cycles should opportunity arise</i> .

6. WRMP Timeline and Next Steps

Following the publication of our SoR, we will submit a revised version of our dWRMP. This will demonstrate specifically how the stakeholder and customer feedback detailed above has changed our plan. We will continue working on this plan to complete any ongoing activities that we have committed to within this SoR in preparation for our fWRMP. In line with expectations set by Ofwat through the query process, this will also enable us to ensure our WRMP is fully aligned with our PR24 plan.

Our regulators will review this document, along with our revised dWRMP, and all representations made by our stakeholders through the consultation process. We will work closely with our Regulators as we make these updates, so they are aware of what is changing. We currently anticipate that we will be granted permission to publish our fWRMP in autumn 2023.

Outputs of our WRMP will form part of our PR24 Business Plan, which is to be submitted to Ofwat in October 2023. The determination of our Business Plan will then inform our AMP8 Delivery Programme, starting in April 2025 until March 2030.

We will continue working with WRW to create the Final Regional Plan, which will be published in autumn 2023.

A high-level timeline is shown in Figure 5 below.

Figure 5 – High level WRMP timeline

