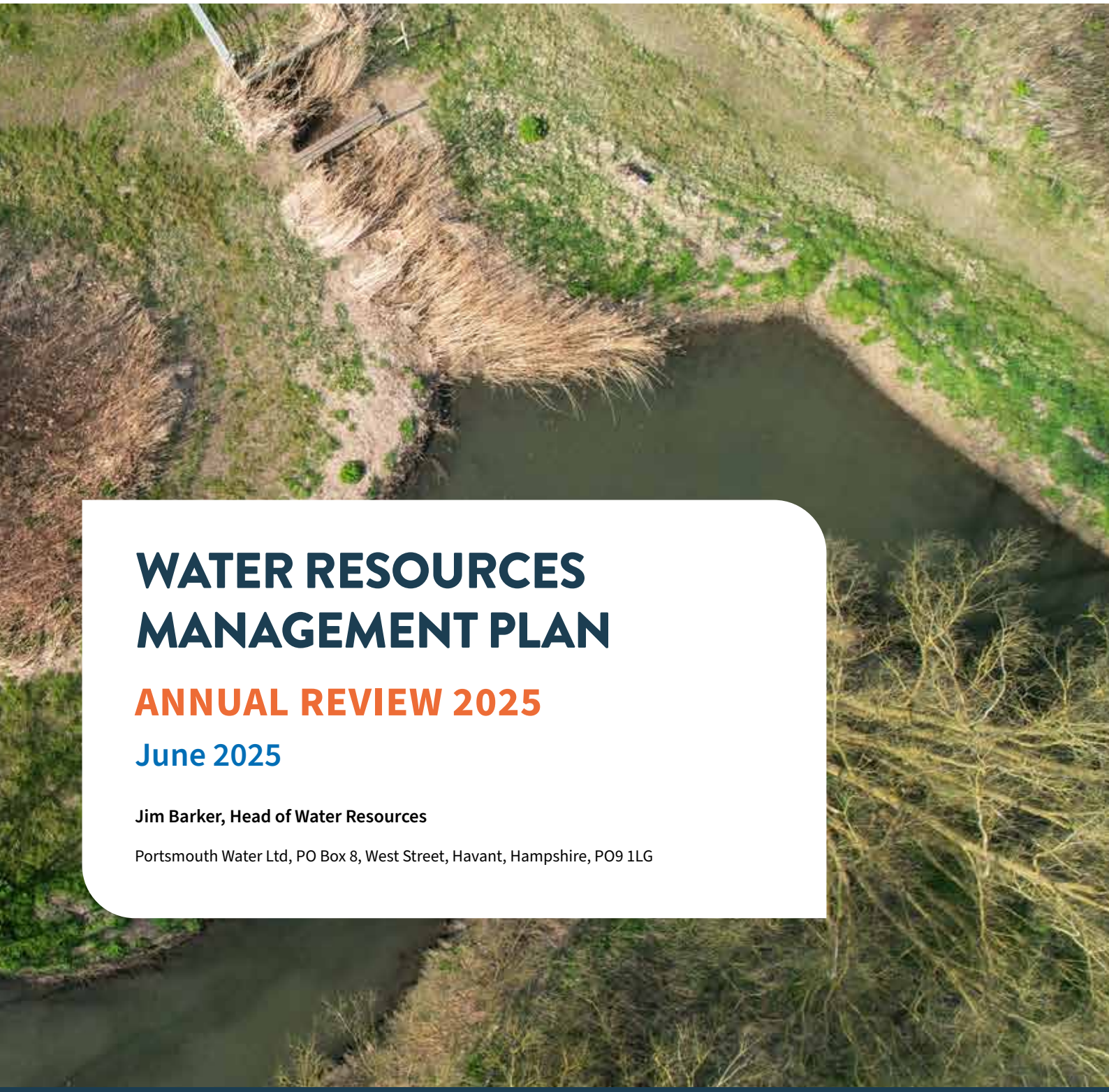
Portsmouth Water



WATER RESOURCES MANAGEMENT PLAN

ANNUAL REVIEW 2025

June 2025

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EXECUTIVE SUMMARY

Water Resources Planning

The Water Act 2003 places a duty on all water companies to prepare an updated Water Resources Management Plan (WRMP) every five years. As part of the WRMP process, it is a statutory requirement to review progress against the Plan and report it to the Secretary of State (SoS) in an Annual Review.

Our current WRMP is our WRMP 2024 ('WRMP24') which was published in October 2024. This Annual Review 2025 (AR25) sets out our performance for 2024-25 in comparison to our forecast position for the same year in our WRMP24.

Key regulator guidance for this Annual Review

The updated regulator's guidance requires us to present our supply, demand and resulting supply demand balance (SDB) for 2024-25 in two ways:

- **Outturn position** – a 'real-world' scenario demonstrating what has occurred throughout the year using verified and audited data for the various components of supply and demand, aligned where applicable to values reported to Ofwat. The outturn scenario provides a baseline for the adjusted (uplifted) scenario, and it is designed to output a supply demand balance that is close to zero i.e. the amount of water we take from the boreholes, springs and river should be equivalent to the amount we delivered to customers, once factors such as leakage and treatment process losses are considered.

- **Adjusted (uplifted) position** – a 'what-if' scenario where we adjust the outturn data to demonstrate what our supply demand balance would have been if 2024-25 had been a dry/drought year. For example, we estimate how much additional water our customers might have used owing to warmer weather conditions. This scenario provides the best comparison with our WRMP24 forecasts.

For each of these scenarios we report annual average and critical period data. Our critical period condition represents the week during 2024-25 during which our outturn Distribution Input was at its maximum. For 2024-25, this was the week of 30th June 2024.

The key components of supply and demand within this Annual Review

The determination of our supply demand balance for the adjusted outturn scenario considers numerous sub-components. The key information is as follows:

- **Distribution Input (DI)** – Our DI is 4% higher than planned for the annual average condition and 3 % higher than planned for the critical period condition, when compared to the WRMP24 forecasts. A key driver is outturn leakage levels being 4.1 Ml/d higher than our WRMP24 target. However, Non-Household and Household consumption were also contributary factors.

- **Household per Capita Consumption (PCC)** – We are within 3% of our WRMP24 household PCC target of 163 l/h/d for the annual average scenario and within 2% of our target in our critical period scenario. PCC is higher than forecast and this is partially attributed to a recent update of our population data to better reflect the 2021 Census, following the release of new data sets.

- **Total Water Available for Use (WAFU)** – Our WAFU is 1% lower than planned for the annual average condition and 2% lower than planned for the critical period condition, when compared to the WRMP24 forecasts. A key driver for performance is deployable output reductions associated with (i) a few sites being out of supply for more than 6 months of the year and (ii) delays to the delivery of our final AMP7 groundwater scheme.

Supply demand balance and what this means for our customers

The purpose of this Annual Review is to understand how we are performing against our published WRMP24.

The ‘waterfall’ figures below demonstrate the key differences between our adjusted outturn performance and our published WRMP24.

The key conclusion is that in the unprecedented scenario that Southern Water Services had requested the full 30 Ml/d bulk supply every day throughout 2024-25 in a 1 in 200 year drought event, the supply demand balance would have been in deficit for both the annual average (-12.2 Ml/d) and critical period (-3.5 Ml/d) conditions.

If we exclude the headroom allowance (the buffer for uncertainty), our true deficit for 2024-25 was -7.3 Ml/d for the annual average condition. For the critical period (peak summer demand) conditions there would have been a small surplus of 2.3 Ml/d. This implies that for the shorter critical period, we estimate we could have provided the full 30 Ml/d to SWS if requested. However, had Southern Water requested the full 30 Ml/d every day of the year, we may have only been able to provide around 22 Ml/d on average.

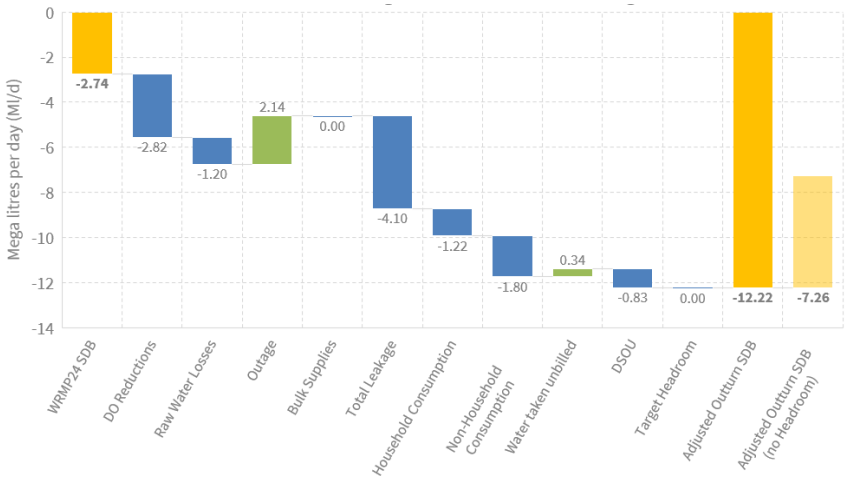


Figure A: 2024-25 Performance compared against WRMP24 (Annual Average)

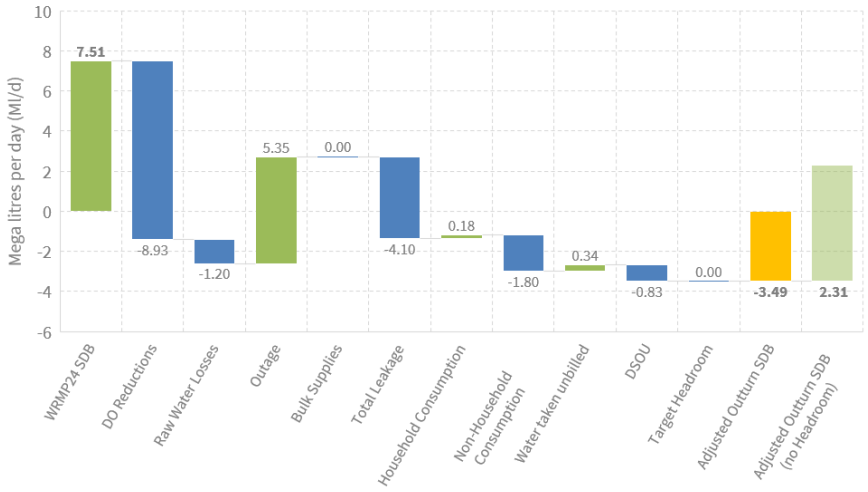


Figure B: 2024-25 Performance compared against WRMP24 (Critical Period)

Forward look and action plans

We would like to reassure our customers, regulators and stakeholders that we are doing everything within our capabilities to safeguard services to our customers and support regional supplies to Southern Water. We have improved our position since last year and recognise that further work is required to return to the forecast WRMP24 balance over the course of AMP8. To that end, we have developed detailed action plans for each key component of the Supply Demand Balance.

A major part of our strategy is the rollout of our smart metering programme, which commenced in April 2025. We have made substantial progress by installing over 20,000 additional not-for-revenue meters. These meters will catapult our smart metering journey in the early years of AMP8. This initiative is expected to significantly reduce household and non-household consumption and tackle customer-side leakage — a relatively untouched area that may represent a significant share of our total leakage.

The outlook for 2025–26 includes further positive developments. The return of the Source S to service will benefit the supply demand balance in the next annual review. We also expect to complete our final AMP7 deployable output (DO) improvement scheme. Progress continues at pace on the Havant Thicket winter storage reservoir, as we move confidently into the Big Build phase.

Looking ahead, we expect to be broadly re-aligned with our WRMP24 forecast by the end of March 2027. However, we do not operate in a static world. We will continue to refine our plans using the latest data and experiences, and we are committed to delivering our action plans without complacency.

WRMP24 is our most ambitious and collaborative plan yet. It will increase our resilience to increasingly severe drought events, while reducing our reliance on, and impact to, the precious chalk-based environment that characterises our supply area. We remain acutely aware of the need to mitigate risks to our security of supply and will continue working closely with all relevant stakeholders to reduce our Supply Demand Balance deficit in a robust and achievable way as we move into AMP8.

1. INTRODUCTION

1.1. Reporting Requirements

1.1.1. Water Resources Management Plans and Annual Reviews

Our Water Resources Management Plans (WRMP) are updated every five years to make sure they reflect the latest situation and especially our customers' needs whilst protecting our environment. WRMP19 detailed our supply and demand side action plans for implementation in AMP7 (2020-2025), and our current WRMP24 (published in October 2024) details the actions we need to take throughout AMP8 (2025-2030) to build a resilient and sustainable future up to 2075.

Our performance against these plans is reviewed every year through the Annual Review process. This report reviews our performance in 2024-25 against the forecast assumptions made in WRMP24, following Environment Agency Guidance.

1.1.2. Environment Agency Guidance

Updated Environment Agency guidance published in March 2025[1] sets out the expectation of the Annual Review and the submission procedure. In accordance with this guidance, our review will assess our performance in 2024-25 against the recently finalised WRMP24, but importantly also highlight where and why this differs from the final year of our previous plan (WRMP19). We will also set out whether we are proposing any changes to our drought plan because of dry weather.

The updated guidance requires us to present our supply, demand and resulting supply demand balance (SDB) for 2024-25 in two ways:

- **Outturn position** – a 'real-world' scenario demonstrating what has occurred throughout the year using verified and audited data for the various components of supply and demand, aligned where applicable to values reported to Ofwat. The outturn scenario is designed to output a supply demand balance that is close to zero i.e. the amount of water we take from the boreholes, springs and river should be equivalent to the amount we delivered to customers, once factors such as leakage and treatment process losses are considered. **Note – this methodology is different to our 'outturn' methodology in previous Annual Reviews and so performance cannot be directly compared to previously published reports.** The outturn values are provided as a baseline for the adjusted scenario described below.

- **Adjusted (uplifted) position** – a 'what-if' scenario where we adjust the outturn data to demonstrate what our supply demand balance would have been if 2024-25 had been a dry/drought year (1-in-20 year level of demand and 1-in-200 year level of supply). For example, we estimate how much additional water our customers might have used under warmer and drier weather conditions. This scenario provides the best comparison with our WRMP24 forecasts. **This methodology is comparable to our 'uplifted' methodology in our published Annual Review 2024.**

In addition, this Annual Review 2025 (AR25) also provides a view on how we performed against our WRMP19 in the final year of AMP7 (Appendix D), as well as a forward look for our WRMP24 programme and how we are positioned as we enter the first year of AMP8.

1.1.3. Reported scenarios

For our outturn and adjusted scenarios, we report values as an annual average and critical period. Our "critical period" scenario represents the week during 2024-25 during which our outturn Distribution Input

[1] Environment Agency, March 2025: Water resources management plan annual review and annual data return. Guidance for England and Wales.

(DI) was at its maximum. For 2024-25, this was the week of 30th June 2024. All critical period values are therefore representative of our position during the summer peak demand. The data tables for both scenarios, including outturn and adjusted positions (i.e. four tables in total), are presented in Appendix A.

1.1.4. WRMP24 Monitoring Plan

For the first time, our published WRMP includes a monitoring plan.

Our published WRMP24 Monitoring Plan[2] sets out the thresholds, triggers, actions and timelines that apply at both our company level and Regional level, necessary to understand our progress through our adaptive planning scenarios.

The preferred supply and demand options in our WRMP24 mean that our key adaptive trigger point is the year 2039-40. Up to that point, our preferred options are chosen in all scenarios, effectively giving us a single plan. However, in addition to the Environment Agency's AR25 guidance and in accordance with our WRMP24 Monitoring Plan, Appendix B of this AR25 also provides an update on:

- Whether we will be required to implement our supply-side drought permit in 2025,
- Consistency with Southern Water Services (SWS's) WRMP24 (which is on a different publication timeline to ours),
- Management of short-term Water Framework Directive (WFD) 'no deterioration' related risks,
- Time Limited Licence variation assessments,
- Review of SWS demand management progress,
- Our outturn headroom assessment,
- Progress made on the regional schemes linked to our future decisions.

The output of our AR25 will be provided to WRSE to support the regional plan monitoring.

1.1.5. Joint Regulators Requirements

Following the submission of our AR24[3], we received feedback[4] from the Joint Regulators (Defra, Environment Agency and Ofwat) expressing their concerns with our reported security of supply, and their perceived risk to the environment resulting from that performance. The five key topics highlighted in that feedback were leakage, PCC, metering, supply side scheme delivery and overall supply demand balance (SDB).

We provided a response document[5] in November 2024 which detailed our action plans to improve both our SDB and our alignment with our WRMP24. Furthermore, we met with the Joint Regulators in February 2025 to update them on progress with these action plans. These meetings will continue every six months with the next meeting scheduled for July 2025.

This AR25 presents further updates on our action plans originally presented in November 2024. An amalgamated update is provided in Appendix C.

1.1.6. Ofwat Annual Performance Report

All the data sources used to obtain the values within this report align with the Ofwat Annual Performance Report (APR), which has been independently assured. The APR will be published on our website in due course.

[2] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/10/10A-fWRMP24-App-Monitoring-Plan_published_final.pdf
[3] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/07/Portsmouth-Water-WRMP-Annual-Review-2024.pdfhttps://www.portsmouthwater.co.uk/wp-content/uploads/2024/07/Portsmouth-Water-WRMP-Annual-Review-2024.pdf
[4] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/11/Portsmouth-Water-WRMP-AR-JRL-2024.pdf
[5] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/11/2024-11-29-PRT-WRMP-AR24-Defra-Letter-Response.pdf

1.2. Our Company

1.2.1. Supply area and levels of service

Our supply area is shown in Figure 1 and is made up of a single Water Resource Zone (WRZ). On average, we distribute around 175 million litres of water each day to over 740,000 customers in around 320,000 properties. We also provide water to neighbouring water companies in the South East and to New Appointments and Variation companies (NAVs). We are a "water only" company. That means we only supply drinking water to customers. SWS provide the wastewater service to our customers.

Figure 1 Portsmouth Water Supply Area

The distribution system includes significant strategic treated water storage and a spine main that runs East to West across our region. This system ensures that all our customers experience the same levels of service (LoS), which are consistent between our WRMP24 and our current Drought Plan[6]:

- Temporary Use Bans > 1 in 20 years, representing an annual risk of 5%.
- Non-Essential Use Bans > 1 in 80 years, representing an annual risk of 1.25%.
- Emergency Drought Orders > 1 in 200 years, representing an annual risk of 0.5%.

1.2.2. Drought Planning

In addition to our WRMP, we have a statutory requirement to produce a Drought Plan every five years which is an operational document setting out the steps required within the company during a developing drought. The Drought Plan must align with the current WRMP and so is currently being updated through 2025 to align with WRMP24. The draft Drought Plan 2027 will be published for public consultation in the autumn of 2025.

We have recently been consulting on our Strategic Environmental Assessment (SEA) Scoping document which presents the proposed framework for assessing any environmental impacts of the Drought Plan.

At this point in the year, we are not proposing to make any material changes to our current Drought Plan 2022 as a result of the recent dry weather. We will keep this decision under review should the unseasonably dry weather continue throughout the summer.

We continue to work closely with SWS in a joint project to review drought triggers pertaining to the River Itchen, from which both companies extract water. The outputs of the project will be reflected in our Drought Plan 2027.

[6] https://www.portsmouthwater.co.uk/wp-content/uploads/2022/04/Final-Drought-Plan-2022.pdf

1.2.3. Regional Context

Throughout the last plan period (2020-25), we have had a changing role in the supply of water to the Southeast. We currently support SWS, our neighbouring water company, with bulk supplies of wholesome water. In addition, in this period we have begun the construction of the Havant Thicket winter storage reservoir, which is due to enter service in 2031-32. The reservoir will enable us to provide a further bulk supply into SWS's Hampshire zone to help reduce abstraction from sensitive chalk rivers.

Our WRMP24 explores potential further uses for the reservoir to maximise its potential as a major water asset and further support the reduction in abstraction from Chalk groundwater and surface water sources.

Additional information on regional schemes is provided in Appendix B.

1.3. Our Water Resource Position during 2024-25

As previously identified, for this AR25 we are guided to report on the outturn scenario (what happened in 2024-25) and an adjusted scenario ('what if' there had been a severe drought in 2024-25). In this section we identify the water resources position in 2024-25 and whether this was representative of a 'normal', 'wet' or 'dry year'.

Following the exceptionally wet conditions of the previous year, in 2024-25 we saw our driest year since 2018-19, with the total recorded rainfall nearly 10% less than the 30-year long-term average (LTA). However, as Figure 2 shows, the consecutive dry months occurred after the summer peak demand (October to March) which meant that there was no significant pressure on our ability to maintain reliable supplies for our customers.

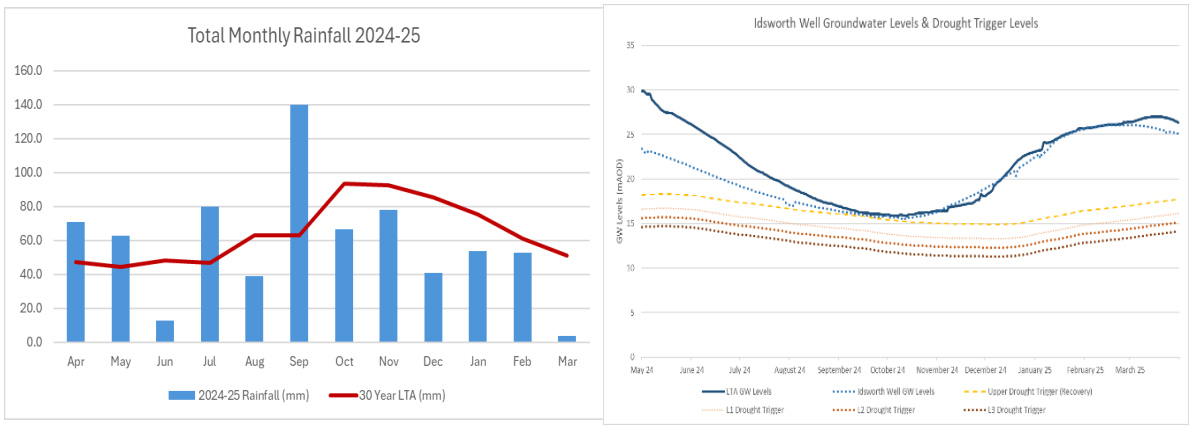


Figure 2 Monthly rainfall, groundwater levels and Drought Trigger Levels in 2024-25

We abstract most of our water for supply from the chalk aquifer underneath the South Downs. The volume of rain we received during the previous year meant that we started 2024-25 with groundwater levels well above average levels as shown in Figure 2, which supported our supply capabilities during the summer months. The significant September 2024 rainfall then helped to recharge groundwater levels, ensuring that they stayed very close to, or just above, the LTA for the rest of the reporting year.

Despite lower-than-average rainfall since September, overall, the outturn scenario for 2024-25 was close to a 'normal year' condition based on analysis of Distribution Input data. It means that for the adjusted scenario, within this AR25 we need to uplift the annual average and critical period data to enable a comparison with the dry year data in our WRMP24.

1.4. Presentation of the Annual Review 2025

The following sections within this report provide further detail on the outturn and adjusted scenarios for the annual average and critical period conditions that have been introduced in the sections above:

- **Section 2** describes the **supply-side** components including raw water abstracted, deployable output reductions, water losses, bulk supplies and outage.
- **Section 3** describes the **demand-side** components including household and non-household consumption, leakage, water taken unbilled and distribution system operational use.
- **Section 4** identifies the **headroom** allowance, which takes into account the uncertainties inherent within the supply and demand forecast.
- **Section 5** confirms the **supply and demand balance.**
- **Section 6** provides a **forward look and conclusions.**

The appendices for this Annual Review provide the data tables (Appendix A) and further information on our WRMP24 monitoring plan (Appendix B) and our action plans (Appendix C). In the final appendix (Appendix D) we present information associated with our previous WRMP (our WRMP19).

2. SUPPLY

2.1. Supply side summary

In this section we review the elements of our balance that collectively account for our supply capability, represented by the **total water into supply** in the outturn scenario and by our theoretical **total water available for use (total WAFU)** in the adjusted (dry year) scenario. These values are calculated as follows:

- Total water into supply is the volume of raw water abstracted, less losses and bulk supplies (water sent to SWS and NAVs). This reflects the quantity of water available to deliver to our customers.

- Our total WAFU models a 1 in 200 year drought by starting with the WRMP24 forecast Deployable Output (DO), applying any DO reductions for sites unavailable in such a drought, and then deducting our adjusted losses, maximum contractual bulk supplies and adjusted outages. This reflects the total water availability for our customers in a drought scenario.

Table 1 shows how each of these components contribute to the total water into supply (outturn scenario), or the Total WAFU (adjusted scenario).

Table 1: Components contributing to Total Water into Supply and Total WAFU

Supply Components (Ml/d)	Outturn		Adjusted/uplifted		WRMP24	
	Annual Average	Critical Period	Annual Average	Critical Period	Annual Average	Critical Period
Raw Water Abstracted	**190.58**	**220.56**	**n/a**	**n/a**	**n/a**	**n/a**
WRMP DO	**n/a**	**n/a**	**221.66**	**275.98**	**221.66**	**275.98**
Deployable Output Reductions	n/a	n/a	2.82	8.93	0.00	0.00
Outage	n/a	n/a	4.46	1.25	6.60	6.60
Losses	3.60	3.60	3.60	3.60	2.40	2.40
Adjustment for utilising water storage	n/a	9.22	n/a	n/a	n/a	n/a
Bulk Supplies (SWS & NAVs)	7.54	3.99	32.09	32.09	32.09	32.09
Total Water into Supply or Total WAFU	**179.43**	**203.76**	**178.69**	**230.11**	**180.56**	**234.89**

The key observations to make are as follows:

- Our WAFU in the adjusted scenario for annual average conditions is 178.69 Ml/d, which is **1.87 Ml/d (around 1 %) less** than we had forecast we would be able to supply in a 1 in 200 year drought event in WRMP24.

- Our WAFU in the adjusted scenario for critical period conditions is 230.11 Ml/d, which is **4.79 Ml/d (around 2 %) less** than we had forecast in WRMP24.

The impact of having less WAFU on the supply demand balance is considered later in Section 5 in the context of the wider supply demand balance. The gap between our WRMP and performance is predominantly driven by:

- **'Deployable Output (DO) Reductions':** This is the result of a few sites experiencing long term outage (>6 months), in addition to a project overrun for one of our supply-side AMP7 schemes, and
- **'Losses'** which are made up of raw water and process losses within treatment works.

All supply side components are explained in further detail below and an update of the action plans designed to return our Total WAFU back in line with WRMP24 assumptions is provided in Appendix C.

2.2. Raw Water Abstracted

Raw Water Abstracted is applicable only to the outturn scenario, as there is no comparative value in WRMP24. It represents the volume of water that we abstracted throughout the year from our sources. The abstraction data are the starting point for the 'Total water into supply' calculation. The value used for the annual average condition is the same as that externally assured and reported to Ofwat in the Annual Performance Report (APR). For the critical period condition the value represents the weekly abstraction at the time when our customers had the greatest demand for water.

2.3. WRMP Deployable Output and Reductions

2.3.1. WRMP Deployable Output

The WRMP Deployable Output (DO) represents the forecasted total DO of our Water Resource Zone (WRZ) within the WRMP24. It is used as the base to then deduct any changes to DO (as described below) to obtain our 'WRMP adjusted DO' calculation. As such this value is not an outturn value but is transcribed directly from the WRMP24. The following should be noted:

- **Drought Options:** We included drought plan related supply side schemes within our WRMP19. These comprised implementation of a Drought Permit at Source S, and the use of Temporary Use Bans (TUBs) and Non-Essential Use Bans (NEUBs) to lower the demand for water and conserve supplies as a drought develops. The reliance upon these schemes continues within our current WRMP24 **(i.e. they are included within the WRMP24 DO for 2024-25)**, although our plan assumes the Source S Drought Permit will not be required beyond 2040-41.
- **Havant Thicket Reservoir:** This scheme remains a key legacy from WRMP19 and a cornerstone of our long-term commitment to playing our part in providing sustainable water supplies for the Southeast. The scheme was due to be implemented in 2029-30 under WRMP19, but this has moved to 2031-32 in the WRMP24. An update on this project is provided in Appendix B. **The scheme was not forecast to provide a DO benefit during 2024-25 within the WRMP24 and therefore it is excluded from calculations in this report.**

The sections below provide additional detail on the DO reductions we have applied in this Annual Review.

2.3.2. Deployable Output Reductions

Summary of reductions

This DO reductions value represents the theoretical reduction of available DO in a 1 in 200 year dry weather scenario caused by the unavailability of production processes on sites.

DO reductions for 2024-25 fall into two categories, long-term outages (> 6 month duration) and Supply-side scheme overruns. These are then deducted from the WRMP24 DO value, to obtain the 'adjusted WRMP24 DO', as presented in row 6.1FP in the data tables. This is illustrated in Table 2.

DO reductions may also occur if there have been sustainability reductions beyond those predicted by the WRMP24 i.e. changes to our abstraction licences. However, there are no sustainability reductions that impacted the 2024-25 reporting year.

Table 2: Adjusted WRMP Deployable Output

Components	Annual Average	Critical Period
WRMP24 DO	**221.66**	**275.98**
Long term outages	2.82	3.43
Supply side scheme overruns	0.00	5.50
Sustainability reductions	0.00	0.00
Adjusted WRMP DO	**218.84**	**267.05**

The total DO reductions contribute negatively towards the SDB by 2.82 Ml/d and 8.93 Ml/d under the annual average and critical period conditions respectively, as they represent a reduction compared to the WRMP forecast. The long-term outages and the supply side scheme overruns are explained further below. Whilst there were no sustainability reductions in 2024-25, we also present information on our environmental investigations that could influence reductions in future years.

Deployable Output reductions from long term outages

Five sources were offline for the entire 2024–25 year due to long-term outages.

- **Source G** – We were periodically running this source to waste to enable the collection of water quality data, and it was originally on track to be brought back into supply by the end of July 2025. Subsequent Drinking Water Safety Plan audits have identified a potential source of contamination adjacent to air valves on the pumping main from the site, which pose an unacceptable risk to drinking water quality. We are currently prioritising the remediation work around the air valves to protect from this risk in future but may be delayed by land access issues. We are expecting that the site will be back into supply (depending on resolving the issues) by the **end of September 2025.**
  We will continue to prioritise this issue and report on progress to the regulators.
- **Source S** –This site was offline due to the need for an extensive maintenance programme and installation of new equipment. Testing of the source was completed in **early April 2025** and the source has been back in supply since then. Whilst the unavailability of the site is recorded in this report, its return to service means it will not feature as a reduction in future reporting periods.
- **Source D –** A survey of the site has confirmed it will require extensive work to return the site to service. We are developing a plan for this work, which is likely to take 18 months from the internal allocation of funding, due to the need for extensive water sampling before returning to supply.
- **Source I –** This source was originally taken out of supply due to a positive cryptosporidium detection. We have been investigating options to allow the source to be returned to supply in early AMP8, focussing on reducing the water quality risks, including UV treatment, new filters and contact time improvements. We are currently investigating and remediating air valves, working on pressure testing the main, and looking to repurpose an existing building for the final compliance sample room. We have recently received results from the full suite of water quality parameters and all measured substances are within tolerances and there are no failures. We expect **full reinstatement of the site early 2026**, in time for 2026-27 reporting.

- **Source E -** The licence for this source was voluntarily surrendered in May 2025. It is represented as an 'unused licence' in our WRMP24 and is not included in our starting position or forecast. Therefore, there is no DO reduction associated with this source, and it will be removed from future Annual Reviews.

To reflect a 1 in 200 year drought, we have applied assumptions for each site experiencing long term outage, and the subsequent DO reductions for the adjusted scenario are presented in Table 3. In summary, we assume that Source G and Source S would have been fast-tracked back into supply in a drought year.

Table 3: Adjusted Deployable Output reductions from long term outages

Site	WRMP24 Site DO		Assumed action in drought	WRMP24 DO reduction	
	Annual Average	Critical Period		Annual Average	Critical Period
Source G	1.52	2.48	Fast tracked into supply for peak summer demand (June). Fully operational for DYCP scenario, 2-month reduction of availability in DYAA	0.26	0.00
Source S	1.93	2.38		0.33	0.00
Source D	0.81	1.62	Would require 18 months of sampling prior to being put back into supply. 100% DO reduction.	0.81	1.62
Source I	1.42	1.81	Due to water quality risks the site would not be online. 100% DO reduction.	1.42	1.81
Source E	0.00	0.00	Licence recently voluntarily surrendered. Negligible impact on WRZ DO.	0.00	0.00
			Total DO reductions from long term outages for 2024-25 (Ml/d)	**2.82**	**3.43**

AMP7 Supply side scheme overrun

Within our WRMP19 we included Groundwater Schemes for delivery in AMP7 and our AR24 provided information on the completed schemes. The final scheme, Source C, is included as a DO reduction for this AR25.

Historically, Source C has encountered air and turbidity impacts when at full capacity, running the larger borehole pumps. The purpose of the WRMP scheme was to mitigate these issues and make the site more resilient in dry weather scenarios. The identified scheme was to commission new Variable Speed Drive (VSD) pumps to allow the fine tuning of levels of turbidity through the control of water velocities, allowing us to increase abstraction and improve DO during the critical period by 5.5 Ml/d.

This is a scheme to improve site peak DO, and so there is no source level benefit associated with the annual average. It was part of our WRMP19 plan and was due for completion to allow benefit in 2024-25.

We have experienced numerous technical challenges at this site and the VSD commissioning has overrun. As our period of peak demand has approached this summer, we have taken the decision to restore the site to its non-VSD operation, to de-risk the likelihood of outage through this period.

We aim to return to the project after the summer and plan to reinstate the full DO of the new scheme **by October 2025.**

Deployable Output loss from sustainability reductions

There were no DO losses from sustainability reductions implemented in the reporting year. However, we have commenced Water Industry National Environment Programme (WINEP) investigations that may have a DO impact in future years. A brief update is provided in this section.

We have secured funding through the AMP8 Price Review to deliver a programme of eight Water Resources Investigations as part of our WINEP commitments. These investigations are designed to meet the

environmental legislative requirements set out in the Water Framework Directive (WFD), Habitats Directive, and other key environmental regulations.

Although the AMP8 period begins in April 2025, we proactively started work ahead of schedule. We have appointed consultants to assess the potential impacts of our current and future groundwater abstractions on the sensitive chalk streams and groundwater-dependent ecosystems in our supply area. These assessments will help define a sustainable abstraction regime that balances environmental protection with public water supply and will also explore whether Nature-Based Solutions (NbS) could help us find a best value and sustainable solution.

Our programme includes seven river catchment investigations—covering the Hamble, Meon, Wallington, Fishbourne Stream, Ems, Lavant, and the West Sussex Western Streams (Aldingbourne Rife, Pagham Rife, Lidsey Rife, and Ryebank Rife)—as well as a region-wide appraisal of sustainable abstraction 'environmental destination' scenarios. The findings will play a key role in informing our next Water Resources Management Plan (WRMP29).

Our consultants are using the Environment Agency's updated East Hampshire and Chichester Chalk (EHCC) groundwater model for the WINEP investigations. Phase 1 of the programme has already been completed and reported to the Environment Agency and Natural England.

Key conclusions and recommendations from Phase 1 include:

- Confirmation that the EHCC model is suitable to support our investigations.
- Agreement on river reaches to be used in the environmental assessments.
- Defined baseline scenarios for future groundwater modelling.
- Agreed methodologies for environmental and NbS optioneering assessments.
- Recognition of the potential for NbS to support both environmental and water resource objectives
- A programme of targeted monitoring to begin in 2025.
- A recommendation to remove Lidsey Rife and Ryebank Rife from further detailed assessment.

We will continue to provide updates within future Annual Reviews and include details on the scale of the abstraction licence reductions required when the information is made available as the project progresses.

2.4. Outage

2.4.1. Outage summary

For the purpose of this report and in accordance with WRMP24, outage is defined as events lasting more than one day, but less than six months and include both water quality outages and asset outages[7]. According to the updated AR25 guidance:

- **Outturn outage**: We are no longer required to report outturn unplanned, planned or total outage. These are left blank in the data tables.

- **Adjusted outage**: This value should reflect the total level of outage we would have experienced if 2024-25 was a dry year, equivalent to the WRMP24 scenario, using the same methodology as we applied in AR24 in the shadow reported 'uplift' scenario. This provides a realistic view of our outage performance that can be compared against WRMP24. Total outage is no longer required to be separated into planned and unplanned outage in the data tables. However, to obtain the total adjusted outage, we have assessed our unplanned and planned outage separately to determine which would have still taken place in a drought scenario. With respect to the critical period condition, if an outage event would have occurred over the peak week at the end of June (or two weeks either side), and could not have been avoided, then the event has been assumed to also contribute to the adjusted dry year value.

[7] This is different to the definition of outage used by Ofwat to report the common performance commitment and the two values cannot be compared.

The adjusted outage values for 2024-25 are 4.46 Ml/d (annual average) and 1.25 Ml/d (critical period), as shown in Table 4. These are lower than our WRMP24 outage assumption of 6.6 Ml/d for both scenarios and therefore contribute positively to our overall SDB.

Further detail on the planned and unplanned outage components is provided in the next sections. This includes an update on Drinking Water Inspectorate (DWI) notices.

Table 4: Adjusted Outage for the Dry Year Annual Average and Critical Period Scenarios

Total adjusted outage (Ml/d)	DYAA	DYCP
Unplanned Outage	1.62	0.20
Planned Outage	2.84	1.06
Totals	**4.46**	**1.25**

2.4.2. Planned outage

The planned outage events that we have excluded from our adjusted outage values are those that would not have occurred if 2024-25 had been a drought year. For example, certain Drinking Water Inspectorate (DWI) actions and non-urgent replacement of equipment would have been deferred until we had recovered from drought.

Further detail on outage events during 2024-25 is provided below:

- **Source O –** this site was offline until September 2024 for commissioning of the Ultra-violet (UV) treatment plant. In the event of a drought, it would not have been possible to fast track the commissioning, so this contributes to the adjusted planned outage in both the annual average and critical period scenarios.

- **Source A Works** – this site was off for 2 days over the summer for high voltage maintenance, which would have been necessary in a drought event, and took place over the critical period, so is therefore included in both scenarios.

- **Source K** and **Source F–** the planned outages at these sites occurred as a result of Process Risk Assessments (PRAs). It is assumed that these could still have been completed during the year whilst avoiding the critical period. Therefore, they are included in the annual average adjusted value only.

Table 5 shows the impact on adjusted planned outage from each of these sites.

Table 5: Adjusted Planned Outage for 2024-25

Adjusted Planned Outages (Ml/d)	Annual Average	Critical Period
Source O	1.87	0.81
Source A	0.13	0.24
Source K	0.33	0.00
Source F	0.51	0.00
Total adjusted planned outages for 2024-25 (Ml/d)	**2.84**	**1.06**

2.4.3. Unplanned outage

All unplanned outages throughout 2024-25 would have still occurred in the event of a drought except for the water quality related outage at Source C. This event was triggered by an earlier planned outage that would not have occurred in a drought, and therefore the subsequent unplanned event is also excluded.

The remaining unplanned outages included in the adjusted value are related to various causes, including dosing equipment failure, sensor failure and water quality shutdowns. Only one of these outages occurred during the peak demand period – this was at Source R and was caused by operational issues with the chlorine dosing process.

The resulting unplanned adjusted outage values are 1.62 Ml/d for the annual average scenario and 0.20 Ml/d for the critical period scenario. Table 6 shows the impact on adjusted unplanned outage from each of the relevant sites.

Table 6: Adjusted unplanned outage for 2024-25

Unplanned Adjusted Outages (Ml/d)	Annual Average	Critical Period
Source P	0.05	0.00
Source O	0.01	0.00
Source A	0.68	0.00
Source K	0.38	0.00
Source F	0.23	0.00
Source R	0.16	0.20
Source J	0.11	0.00
Total adjusted unplanned outages for 2024-25 (Ml/d)	**1.62**	**0.20**

2.4.4. Drinking Water Inspectorate Notices and Outage

Drinking Water Inspectorate (DWI) Notices can impact the number and duration of outage events recorded within the year. We currently have 15 live DWI Notices and whilst they have not significantly impacted the adjusted outage during 2024-25, it is important to recognise the potential for impact during AMP8. These Notices are related to:

- the company's management and training practices,
- NIS cyber assessment framework,
- AMP8 PFAS Strategy,
- AMP8 Lead Strategy,
- drinking water safety plans,
- reservoirs and networks (specifically associated with metals); and
- treatment works for parameters including cryptosporidium, metals, nitrate, and risks to disinfection.

A team of specialists have been established to deliver the programme of works developed to meet the requirements of the Notices. This programme includes increasing water quality monitoring, particularly for PFAS, reviewing incoming risks to water quality and the controls available, updating documentation and procedures, and increasing structured training across the business.

Several Notices require planned shutdown of treatment works to undertake remedial works, upgrades, or install new treatment processes. These planned shutdowns will be programmed to take place outside peak demand periods and will therefore have limited impact on resilience to supply from a WRMP perspective. However, if any parameters are detected above permissible limits at any site across our supply system, this could lead to a temporary impact on available supplies. We will proactively monitor and manage these activities so that we reduce losses to a minimum whilst ensuring the safety of supply. We have undertaken

extensive monitoring for PFAS across all our abstractions. Two of the abstractions have elevated levels of PFAS and have been designated as Tier 2 sites, the rest are designated Tier 1. A DWI undertaking has been issued to undertake further assessment, including an enhanced catchment assessment to understand whether any sources historic or current sources exist in those catchments.

We have also had elevated levels of a pesticide detected at one of our abstractions. The levels detected are below the stringent drinking water standards but are consistently elevated. This is a repeat seasonal event first detected last year. Extensive catchment investigations have been undertaken without concluding the source and associated agricultural practises from where this pesticide originated. Engagement with farmers and agronomists continues to raise the awareness of the water quality concerns.

No new notices were issued by the Drinking Water Inspectorate (DWI) during 2024-25.

2.5. Raw water losses, treatment works losses and operational use

Raw water losses, treatment works losses and operational use ('Losses') capture the unaccounted volume between water abstracted from the environment and water entering into our potable distribution network. It is calculated by:

Raw Water Abstracted – (Distribution Input + Bulk Supplies) = Losses

In 2024–25, our annual average outturn Losses are calculated as 3.6 Ml/d, which is an improvement on the 4.82 Ml/d reported in the previous Annual Review. Note that we have not made any adjustments for service reservoir or raw water storage, because when considering changes in storage on an annual basis they have a minimal impact on the result.

If we use the same calculation for our critical period outturn Losses, we obtain a value of 12.82 Ml/d. This is unrealistically high because over the shorter peak week, the role of reservoir storage becomes a key factor. We abstracted more water to put into our reservoirs to maintain resilience i.e. the water was not lost, it was stored for later use. Therefore, for the critical period condition we have assumed that losses are the same as for the annual average condition (3.6 Ml/d). The remaining 9.22 Ml/d is assigned to the 'adjustment for utilising water storage' in the AR25 outturn tables.

Our WRMP24 allows for a value of 2.4 Ml/d in both the annual average and critical period scenarios, which means that the Losses component has contributed negatively to our SDB by 1.2 Ml/d.

Following last year's report, we initiated our System Monitoring Strategy project designed to enhance data collection from source to tap. It will enable us to closely monitor our losses and identify the root causes for any losses, allowing us to tackle them with confidence. Further detail is provided in Appendix C.

2.6. Bulk Supplies

2.6.1. Types of bulk supply

We have two types of external potable bulk supplies, exports to Southern Water Services (SWS) and the export of supplies to New Appointments and Variations, otherwise known as NAVs. In 2024-25, we supplied an annual average total of 7.54 Ml/d of water to these bulk supplies, with 3.99 Ml/d being supplied during the critical period. The sections below provide further information.

2.6.2. Bulk Supplies to Southern Water

We currently operate two bulk supplies to SWS. One is feeding east into their Sussex Zone, with a maximum capacity of 15 Ml/d and with a 1 Ml/d 'sweetening flow' maintained all year round. The volume on this supply is contracted on a 'reasonable endeavours basis', with notice periods required to ramp up/down supplies.

The second bulk supply sends water west into SWS's Hampshire Zones. It has a contracted maximum capacity of 15 Ml/d, and a 'sweetening flow' of 0.4 Ml/d maintained all year round. The volume is contracted on both a guaranteed reserved and best endeavours basis. Notice periods are 6 months to reserve the water for Business As Usual (BAU) purposes, or at least 5 days due to unforeseen circumstances.

Despite these contracting terms, we commit that we will always seek to provide water to SWS if requested. Our only reason for not doing this, is if we are unable to without jeopardising the supply to our own customers (due to site outage or other network constraints).

Figure 3 below shows the volume of water we supplied to SWS throughout the year, and the red line is the annual average of 6.38 Ml/d. During the critical period peak week at the end of June 2024, we only supplied 2.4 Ml/d. This is because the peak week demand from our customers in the reporting year does not necessarily align with the period when SWS required higher bulk supplies from us.

Two peaks are immediately obvious on Figure 3. In September we increased our supply to SWS to nearly 24 Ml/d, with the water being requested to support SWS's Abstraction Incentive Mechanism (AIM) performance commitment on the River Itchen. The other peak in October was to support SWS during operational issues they experienced during commissioning one of their sites in their Hampshire zone.

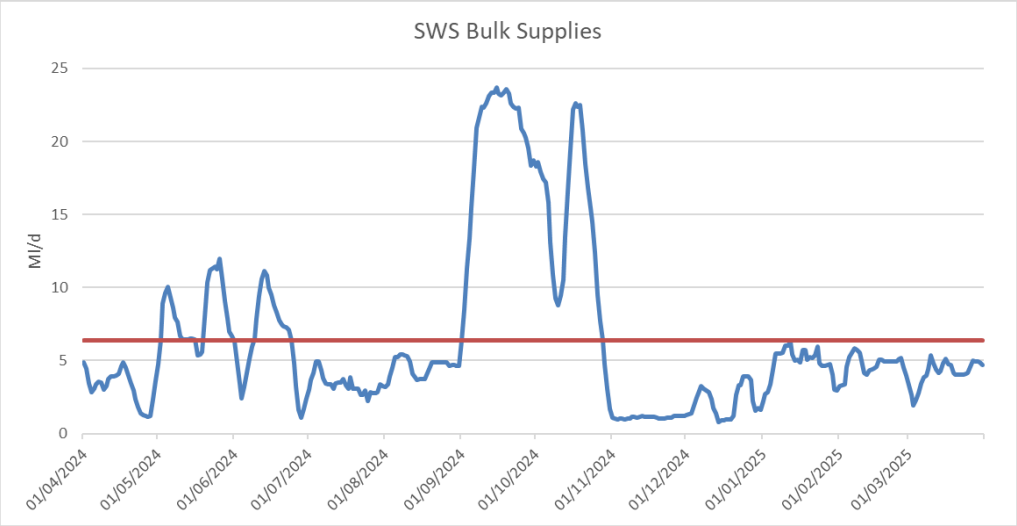


Figure 3: Annual outturn profile of bulk supplies to Southern Water in 2024-25

For the purposes of this report and following EA guidance, we have used the maximum possible volume of 30 Ml/d to SWS in the calculation of our adjusted scenario SDB, in line with the WRMP24 planning assumption.

2.6.3. New Appointments and Variations (NAVs)

A growing number of new housing estates within our supply zone are supplied their drinking water by New Appointments and Variation companies (NAVs). There are three NAVs operating on our supply zone: Leep Utilities, IWNL and Icosa water. The water we supply these companies is included as bulk supplies in the WRMP24 and Annual Review tables.

The outturn values for the NAV bulk supplies are 1.16 Ml/d for the annual average condition and 1.59 Ml/d for the critical period condition. The volume of NAV supplies in the adjusted scenario tables reflects the relevant contractual values for 2024-25 as per the WRMP24 (2.09 Ml/d) and therefore follows the same approach as that used for the adjusted bulk supplies to SWS.

2.7. Supply-side Conclusions

This chapter has demonstrated that our adjusted scenario calculations suggest that in the event of a 1 in 200 year drought event we have **1.87 Ml/d (annual average) and 4.79 Ml/d (critical period)** less Total Water Available for Use (WAFU). This equates to approximately a **1% variance and 2% variance** from the WRMP24 assumptions respectively.

The gap is predominantly driven by Deployable Output Reductions and Losses. An update of the action plans designed to return our Total WAFU back in line with WRMP24 assumptions is provided in Appendix C. The impact of having less WAFU on the supply demand balance is also considered later in Section 5 in the context of the wider supply demand balance.

The next sections summarise the demand side components of our annual review.

3. DEMAND

3.1. Demand side summary

In this section we review the elements of our balance that collectively account for water demand, indicated by our **Distribution Input** (DI). Table 7 shows how each component contributes to DI for the outturn and adjusted scenarios.

Our **Outturn DI** is the amount of treated wholesome water that we put into our network to supply our customers during 2024-25. Our **Adjusted DI** models a 1 in 200 year drought by uplifting household consumption to reflect the anticipated increase in demand that we would have experienced due to dry weather. Comparing the adjusted DI to the WRMP24 forecasts for the planned dry weather scenario in the plan allows us to assess our performance over the last year.

Table 7: Components contributing to Distribution Input

Demand Components (Ml/d)	Outturn		Adjusted		WRMP24	
	Annual Average	Critical Period	Annual Average	Critical Period	Annual Average	Critical Period
Household Consumption	116.13	140.46	122.65	164.49	121.43	164.67
Non-Household Consumption	31.57	31.57	31.57	31.57	29.77	29.77
Leakage	28.10	28.10	28.10	28.10	24.00	24.00
Water Taken Unbilled	2.28	2.28	2.28	2.28	2.62	2.62
Distribution system operational use	1.35	1.35	1.35	1.35	0.52	0.52
Distribution Input	**179.43**	**203.76**	**185.96**	**227.80**	**178.34**	**221.58**

The key observations to make are as follows:

- our DI in the adjusted scenario for the annual average condition is 185.96 Ml/d, which is **7.61 Ml/d higher (4%)** than we had forecast the DI to be in a 1 in 200 year drought event in WRMP24.
- Our DI in the adjusted scenario for the critical period condition is 227.80 Ml/d, which is **6.21 Ml/d (3%)** higher than we had forecast in WRMP24.

The impact of higher DI on the supply demand balance is considered later in Section 5 in the context of the wider supply demand balance. The gap between our WRMP24 and 2024-25 performance is predominantly driven by:

- **Leakage** which contributed +4.1 Ml/d to our adjusted DI.
- **Non-Household Consumption** which reflects the total water consumed from non-residential properties and was +1.80 Ml/d (annual average) more than forecast.
- **Household Consumption** which reflects the total water consumed by residential properties and was +1.22 Ml/d above forecast as an annual average, but -0.18 Ml/d less than forecast in the critical period.
- The smaller components of '**water taken unbilled**' and '**distribution system operational use**' (DSOU) collectively contribute to our higher DI by +0.49 Ml/d.

All demand side components are explained in further detail below and an update of the action plans designed to return our DI back in line with WRMP24 assumptions is provided in Appendix C.

3.2. Household Consumption

3.2.1. Summary of household consumption for 2024-25

Household consumption refers to the volume of water consumed within a household, excluding any supply pipe leakage at the property. Table 8 below provides a breakdown of our performance in 2024-25 for both measured and unmeasured household properties.

Table 8: Measured and Unmeasured Household Consumption

Household Consumption (Ml/d)	Outturn		Adjusted		WRMP24	
	Annual Average	Critical Period	Annual Average	Critical Period	Annual Average	Critical Period
Unmeasured Households	78.28	96.29	83.21	114.84	83.02	115.42
Measured Households	37.85	44.17	39.44	49.66	38.41	49.25
Totals	**116.13**	**140.46**	**122.65**	**164.49**	**121.43**	**164.67**

The breakdown shows that expressed as an annual average, the adjusted outturn values were 1.03 Ml/d above forecast for measured households, and 0.19 Ml/d above for unmeasured households. However, for the critical period condition, the adjusted measured household value is 0.41 Ml/d above forecast whereas the unmeasured household value is 0.58 Ml/d below forecast.

3.2.2. Household consumption over AMP7

This is only the second year that EA reporting guidelines have required us to adjust outturn consumption values to reflect our dry year planning scenario in our WRMP. Therefore, comparison of performance is limited. But to help to contextualise our performance in 2024-25 to the rest of AMP7, we have summarised key information on the annual average values in Figure 4.

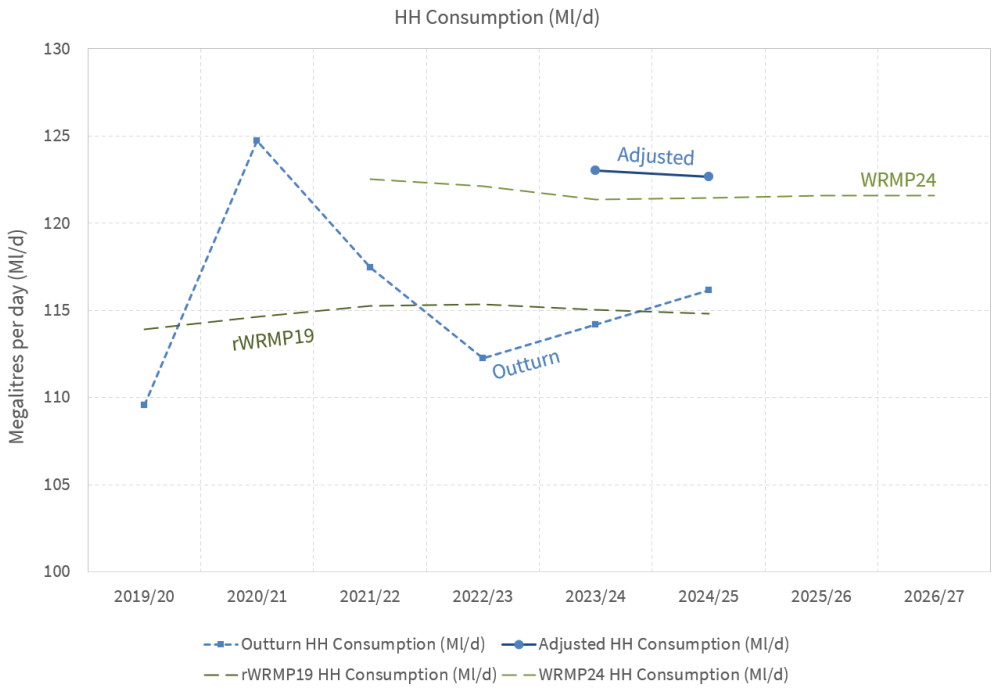


Figure 4 Outturn, adjusted and WRMP household consumption over AMP7

The information on Figure 4 helps to show the difference between our WRMP19 and WRMP24 forecasts. It demonstrates that WRMP24 was rebased to reflect the higher consumption that we have observed in recent years, influenced by factors such as the Covid-19 pandemic and a shift to home working.

If we are to look at the outturn trends on the graph, our household consumption has marginally increased since last year. This can be explained by the drier weather conditions experienced in 2024-25 compared to the exceptionally wet year of 2023-24.

Once the data is adjusted to estimate household consumption in a dry year, our consumption fell from 123.02 Ml/d in 2023-245 to 122.65 Ml/d in 2024-25. This would suggest that our water efficiency campaigns were effective in encouraging reduced water usage throughout the year.

Figure 5 provides a sample of the types of communication we share with customers and stakeholders about rainfall, groundwater and water efficiency tips.

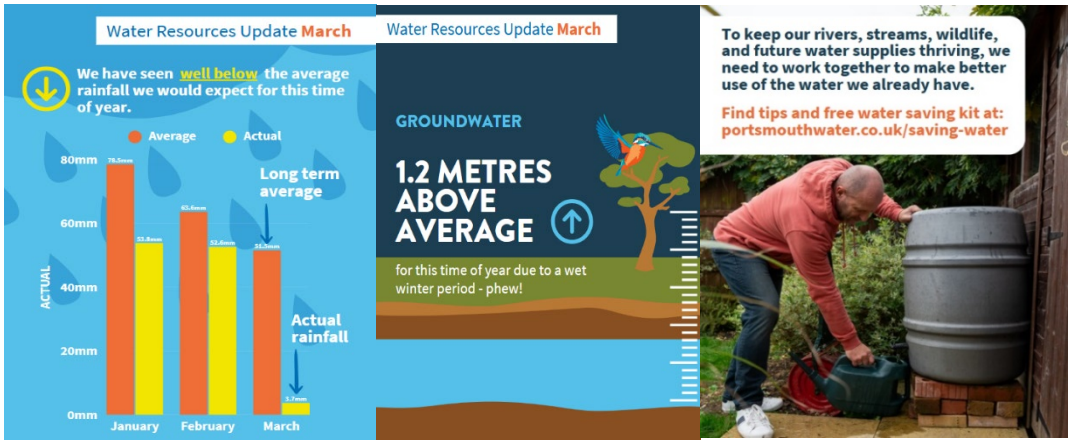


Figure 5: Example of water efficiency communications

3.2.3. Household Per Capita Consumption

As Figure 4 above illustrates, we have seen a net positive (reducing) trend in our total household consumption (Ml/d) volumes, however, another measure of household consumption is **average per capita consumption (PCC)** in litres per head per day (l/h/d).

Table 9 below highlights how we performed in terms of PCC, calculated as consumption in Ml/d divided by population served – this places great importance on ensuring that population figures are accurate.

Table 9: Household Per Capita Consumption

PCC (l/h/d)	Outturn		Adjusted		WRMP24	
	Annual Average	Critical Period	Annual Average	Critical Period	Annual Average	Critical Period
HH Population served	725,720				742,970	
Unmeasured PCC	176.1	216.6	187.2	258.3	171.2	238.0
Measured PCC	134.6	157.1	140.3	176.6	148.9	191.0
Average PCC	**160.0**	**193.5**	**169.0**	**226.7**	**163.4**	**221.6**

Our 2024-25 adjusted average PCC of 169.0 l/h/d is 5.6 l/h/d (around 3 %) higher than our WRMP24 assumption of 163.4 l/h/d. However, in early 2025 we undertook an exercise to refresh our population data. This was in response to feedback on our WRMP24 appendix 4Cb, which recommended a refresh of population evidence due to uncertainty around the 2021 Census estimates and the intercensal mid-year-estimates, following the release of new data sets.

Figure 6 below shows the impact that this exercise has had on our reported PCC. It also demonstrates that the WRMP24 was rebased to reflect the higher consumption that we have observed in recent years. The key points from the figure are:

- Our outturn HH population estimate has been revised down by 17,247 compared to WRMP24.
- Our adjusted scenario average PCC has increased by 3 l/h/d since last year.
- If removing the impact of the updated population by keeping it the same as last year, our adjusted scenario average PCC would be 165.8 l/h/d – which is a slight decrease from last year's 166.3 l/h/d.

It can therefore be inferred that the sole driver for the increase in reported PCC is our population refresh exercise, rather than a real-world increase in water usage.

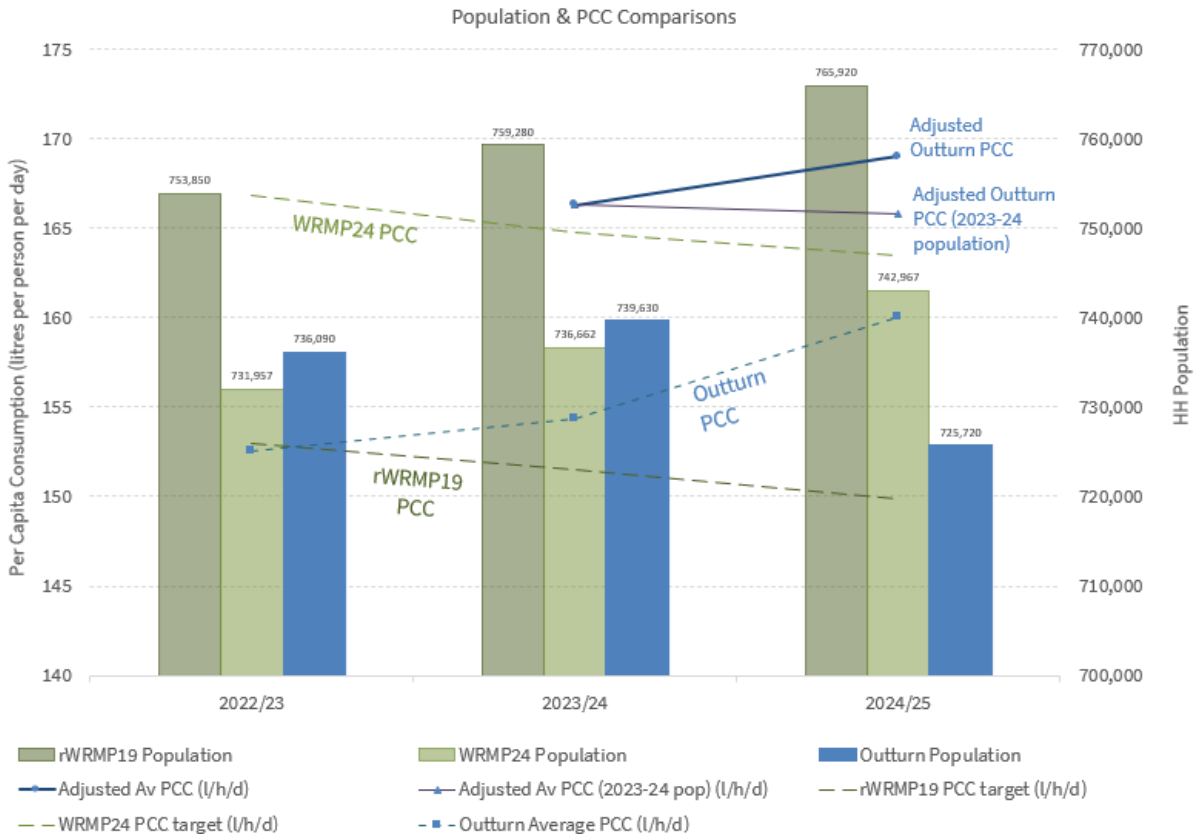


Figure 6: Population and PCC comparisons

Whilst we have evidenced that our PCC has not increased from a consumption point of view since last year, we recognise the need to reduce the gap between adjusted outturn and our WRMP24 average PCC target of 163.4 l/h/d.

We remain firmly committed to reducing PCC to below 110 l/h/d by 2050 for domestic households. As described in the WRMP24, this improvement will be delivered both by our own actions and through our engagement with customers, and with the assumption that government interventions will be timely and support our efforts. Our full action plan was provided in our response to Defra's letter in November 2024, with an update made to the joint regulators in February 2025. Within Appendix C we provide an update of our current position and progress with the action plans, for both measured and unmeasured households.

The majority of our customers remain unmeasured, and our immediate PCC strategy continues to focus on this group. With the activation of WRMP24, we will reduce the proportion of unmeasured households significantly across AMP8 through a phased rollout of compulsory Smart Metering. This will provide accurate consumption data allowing tailored support to customers whilst providing them with greater control over their usage.

This transition forms a cornerstone of our demand reduction strategy and long-term resilience planning.

3.3. Non-Household Consumption

3.3.1. Summary of non-household consumption for 2024-25

Non-household consumption is the amount of water consumed by properties that are not occupied as domestic premises, for example, factories, offices and commercial premises. Table 10 below provides a breakdown of our performance in 2024-25 for both measured and unmeasured properties.

Table 10: Measured and Unmeasured non-household consumption

Non-Household consumption (Ml/d)	Outturn and Adjusted Scenarios	WRMP24
Unmeasured Non-Households	0.58	0.61
Measured Non-Households	30.99	29.16
Totals	**31.57**	**29.77**

In 2024-25, non-household consumption accounted for 31.57 Ml/d[8] of our adjusted DI which was 1.8 Ml/d greater than estimated in WRMP24.

3.3.2. Non-Household consumption over AMP7

The methodology used for Non-Household Consumption has not changed and so our 2024-25 outturn values can be directly compared to outturn values throughout AMP7 (see Figure 7). Furthermore, the outturn values can be compared directly with the WRMP24 forecasts as no uplift is applied as per WRMP24 methodology.

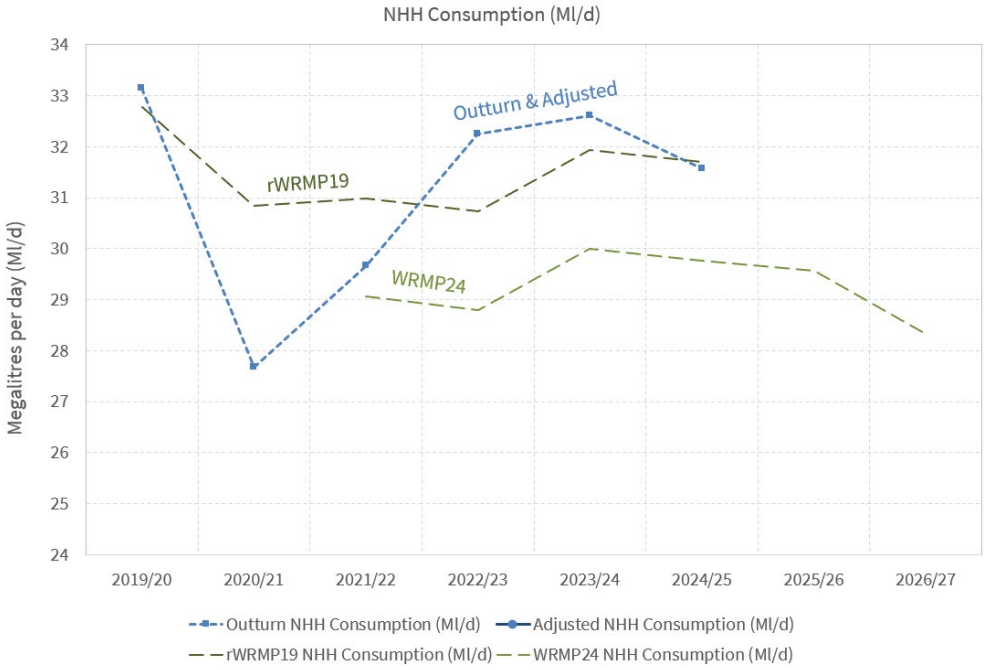


Figure 7: Non-household consumption throughout AMP7

The information on Figure 7 helps to show the difference between our WRMP19 and WRMP24 forecasts. It demonstrates that WRMP24 was rebased to reflect the lower consumption that we had observed, influenced by factors such as the Covid-19 pandemic and a shift to home working instead of office working.

Our 2024-25 Non-Household Consumption outturn volume has returned to levels lower than 2022-23, with a 1.05 Ml/d decrease since last year. This value compares favourably with our rWRMP19 target of 31.71 Ml/d, but we recognise that there are further improvements to be made to deliver on our WRMP24 assumption.

Within Appendix C we provide an update of our current position and progress with the action plans for non-households.

[8] This value represents the outturn for 2024-25. There are no dry year or critical period uplift factors applied to non-household consumption as per the WRMP24 methodology.

3.4. Total Leakage

Leakage includes any potable water that is lost from the network, including Underground Supply Pipe Leakage (USPL) and other distribution losses. The leakage value is the same for the outturn and adjusted scenarios, as well as for annual average and critical period conditions, as per the WRMP methodology. Unlike customer consumption, leakage is an element of demand that is mostly in the control of companies but is heavily influenced by the weather, typically extremes of temperature and rainfall.

Figure 8 shows how leakage has fluctuated over the reporting year. Our reported total leakage for 2024-25, expressed as an annual average, is 28.1 Ml/d.

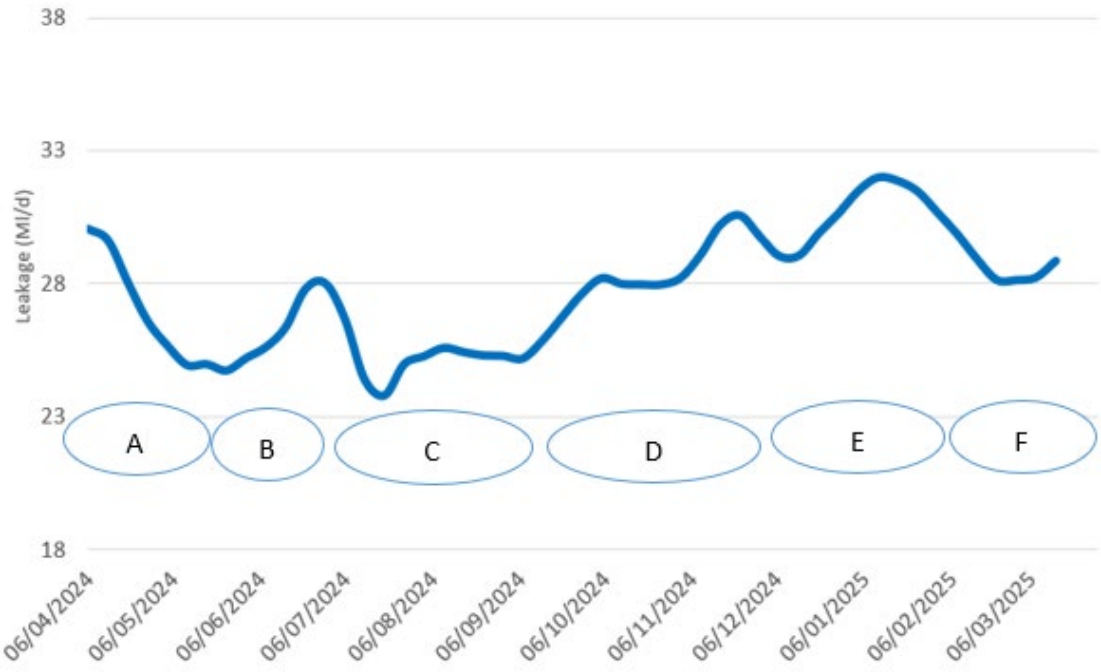


Figure 8: Leakage profile over 2024-25

Key points throughout the year are explained below:

- A – Quick Reduction in Leakage through spring with calm weather conditions aiding the continued Leakage Recovery Drive.
- B – Increase in Leakage in June 2024 as hot summer conditions (Our critical period for the year came at the end of June) led to ground movement causing a leakage breakout.
- C – Quick recovery through July, with breakout still occurring, but lower than the levels seen in previous summers. Maintained lower level of leakage through August and September despite summer conditions with the continued recovery drive.
- D – Increase in Leakage through Autumn with out of the ordinary levels of breakout for the time of year (also seen in other parts of the country), which led to a higher-than-expected level of leakage heading into winter.
- E – Further Increase in Leakage through Winter following a period of below freezing temperatures causing ground movement. Overall, however, the temperature profile experience would classify the period as an average winter.

- F – Leakage Recovery made following winter into spring, with conditions returning to usual calm spring conditions.

Our WRMP24 leakage target for 2024-25 was 24 Ml/d, which was comparable to our rWRMP19 target of 24.05 Ml/d. Although we have slightly reduced our total leakage since last year by 0.09 Ml/d, we recognise that we require significant ongoing improvement.

In November 2024 we provided the Joint Regulators (Defra, Ofwat and the Environment Agency) with a detailed action plan timeline which can be found on our website[9]. In summary, we revisited our PALMR model which sets out our leakage activities in terms of Prevent, Aware, Locate, Mend and Report, detailed up until the end of 2025-26.

Within Appendix C we provide an update of our current position and progress with the action plan for leakage reduction.

3.5. Water Taken Unbilled & Distribution System Operational Use

"Water taken unbilled" contains two elements: Legally unbilled water which includes water used for firefighting purposes, whilst water illegally unbilled includes use from occupied void properties.

Distribution System Operational Use (DSOU) refers to water that has entered our network, but which is intentionally run to waste, such as water used for the purpose of mains flushing. It is different to that included in the process losses as it has already entered the network.

These two components account for a combined 3.14 Ml/d in our WRMP24. Our outturn total value of 3.63 Ml/d is slightly higher than this assumption, primarily from the DSOU, and so negatively contributes to our SDB by 0.49 Ml/d via the DI value.

Network flushing is an important maintenance activity to ensure the quality of water we supply our customers and must be guided by our water quality sampling programme. However, we will continue to train our operational teams in the most efficient techniques for flushing that will minimise the water lost for the outcome the operation needs to achieve.

3.6. Demand-side Conclusions

This chapter has demonstrated that our adjusted scenario calculations suggest that in the event of a 1 in 200 year drought event we have demand (Distribution Input) that is **7.61 Ml/d or 4% (annual average) and 6.21 Ml/d or 3% (critical period) higher than our WRMP24 forecasts.** The gap is predominantly driven by higher than forecast leakage, although NHH and HH consumption were also higher than forecast.

Our WRMP24 set out an ambitious programme of demand-side measures, centred around achieving a 50% reduction in leakage by 2040 and reducing per capita consumption (PCC) by around 26% by 2050, relative to 2021–22 levels. These measures were selected as part of our 'High Plus' basket of demand options and represent a significant step-change in how we manage water demand across our supply area.

Key actions identified in the WRMP include:

- The roll-out of universal household and non-household smart metering, beginning in 2025–26, with a 10-year implementation window.

- Upgrades and replacements of existing 'analogue' meters to smart technology, ensuring that, where practicable, all meters will be smart by 2035.

[9] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/11/2024-11-29-PRT-WRMP-AR24-Defra-Letter-Response.pdf

- Company efforts to drive water efficiency, complemented by government-led initiatives such as mandatory water labelling and tighter building regulations.

These actions remain the foundation of our long-term demand reduction strategy, but as with all strategies we recognise the need for continuous refinement, particularly for PCC and leakage, to reflect our ongoing position and improvements required to maintain our targets.

Importantly, we report our progress and evolving action plans every six months to the Joint Regulators (Ofwat, Environment Agency, and Defra) and will continue to do so to improve confidence that we can deliver the challenging demand reductions set out in our WRMP24, while adapting to new opportunities as they arise.

An update of the action plans designed to return our Distribution Input back in line with WRMP24 assumptions is provided in Appendix C. The impact of having greater Distribution Input on the supply demand balance is also considered later in Section 5 in the context of the wider supply demand balance.

The next sections describe our 'headroom' assumptions and report upon the overarching supply demand balance for this Annual Review.

4. HEADROOM ASSESSMENT

In accordance with the Water Resources Planning Guidance, our supply-demand balance includes a margin between supply and demand to allow for uncertainties inherent within the supply and demand forecasts. This margin is known as 'headroom.' The headroom value determined for each year across the planning horizon is termed the "target headroom allowance". The aim of calculating a target headroom allowance is to provide a reasonable margin to cover the combined impact of factors leading to uncertainty on the supply-demand balance at a defined level of risk.

The target headroom allowance in our WRMP24 is 4.96 Ml/d and 5.80 Ml/d for the annual average and critical period conditions respectively. These are retained within the presentation of our supply demand balances for the adjusted scenario i.e. we have not amended our target headroom forecast since the publication of the WRMP24 and so these values remain.

The next sections present our outturn and adjusted supply demand balances for this Annual Review. They draw together the supply and demand component information presented within the previous chapters so that we can understand our position relative to the WRMP.

5. SUPPLY DEMAND BALANCE

As previously identified, for this AR25 we are guided to report on the outturn scenario and an adjusted scenario:

- **Outturn position** – a 'real-world' scenario demonstrating what has occurred throughout the year using verified and audited data for the various components of supply and demand, aligned where applicable to values reported to Ofwat. The outturn scenario provides a baseline for the adjusted (uplifted) scenario, and it is designed to output a supply demand balance that is close to zero i.e. the amount of water we take from the boreholes, springs and river should be equivalent to the amount we delivered to customers, once factors such as leakage and treatment process losses are considered.

- **Adjusted (uplifted) position** – a 'what-if' scenario where we adjust the outturn data to demonstrate what our supply demand balance would have been if 2024-25 had been a dry/drought year. For example, we estimate how much additional water our customers might have used owing to warmer weather conditions. This scenario provides the best comparison with our WRMP forecasts.

This section describes the overall summary of the Supply Demand Balance (SDB) situation considering our performance for the year. The SDB is calculated by subtracting the Distribution Input (DI) and the Target Headroom from the Total Water Available For Use (WAFU). The sections below present the following SDBs:

- **Outturn SDBs (annual average and critical period conditions)**, which the Environment Agency expects to be close to zero.

- **Adjusted SDBs (annual average and critical period conditions)** to reflect a WRMP dry year scenario based on our WRMP24.

The next chapter then goes on to present the conclusions of this Annual Review.

5.1. Outturn Supply Demand Balance

The outturn SDB for this Annual Review is reported as zero for both the critical period and annual average conditions, as expected based on new guidance from the Environment Agency.

Section 2.1 shows that our total water into supply was 179.43 Ml/d for the annual average condition, and 203.76 Ml/d for the critical period. The same values are reported in Section 3.1 for the Distribution Input (demand) for each condition which therefore nets off as zero.

A zero SDB shows that we abstracted the water we needed to maintain supplies to our customers, and the bulk supplies to SWS and NAVs. Due to the change in guidance this year, this is the first time we have reported our outturn SDB in this way, so it is important to note that it cannot be compared to previous Annual Review 'outturn' SDBs.

5.2. Adjusted Outturn Supply Demand Balance against our WRMP24

Table 11 below shows our adjusted outturn values compared to our WRMP24 forecasts for 2024-25.

As described in the chapters above, our available supply (Total WAFU) is lower than forecast and the demand for water (Distribution Input) is higher than forecast. These both contribute negatively towards our adjusted outturn SDB. This means that:

- We are reporting an annual average SDB deficit of -12.22 Ml/d, which is -9.49 Ml/d below our WRMP24 forecast for 2024-25 of -2.74 Ml/d.

- We are also reporting a critical period SDB deficit of -3.49 Ml/d, which is -11 Ml/d below our WRMP24 forecast for 2024-25 of +7.51 Ml/d.

Table 11: Adjusted Outturn Supply Demand Balance relative to our WRMP24 Forecast

Supply Demand Balance	Annual Average (Ml/d)			Critical Period (Ml/d)		
	Adjusted Outturn	WRMP24	Variance	Adjusted Outturn	WRMP24	Variance
Total Water Available for Use	178.69	180.56	-1.87	230.11	234.89	-4.79
Distribution Input	185.96	178.34	7.61	227.80	221.58	6.21
Target Headroom	4.96	4.96	0.00	5.80	5.80	0.00
Supply Demand Balance	**-12.22**	**-2.74**	-9.49	**-3.49**	**7.51**	-11.00

The 'waterfall' charts presented in Figure 9 and Figure 10 below show how each component contributes to the differences between our WRMP24 forecasts (the left-most column on the charts) and our 2024-25 reported values (the right-most column on the charts).

These demonstrate that:

For the annual average condition, the most significant contributors to the negative SDB are leakage (- 4.10 Ml/d) and DO reductions (-2.82 Ml/d). They are offset to some degree by lower than forecast outage which provides a positive contribution to the SDB (+2.14 Ml/d).

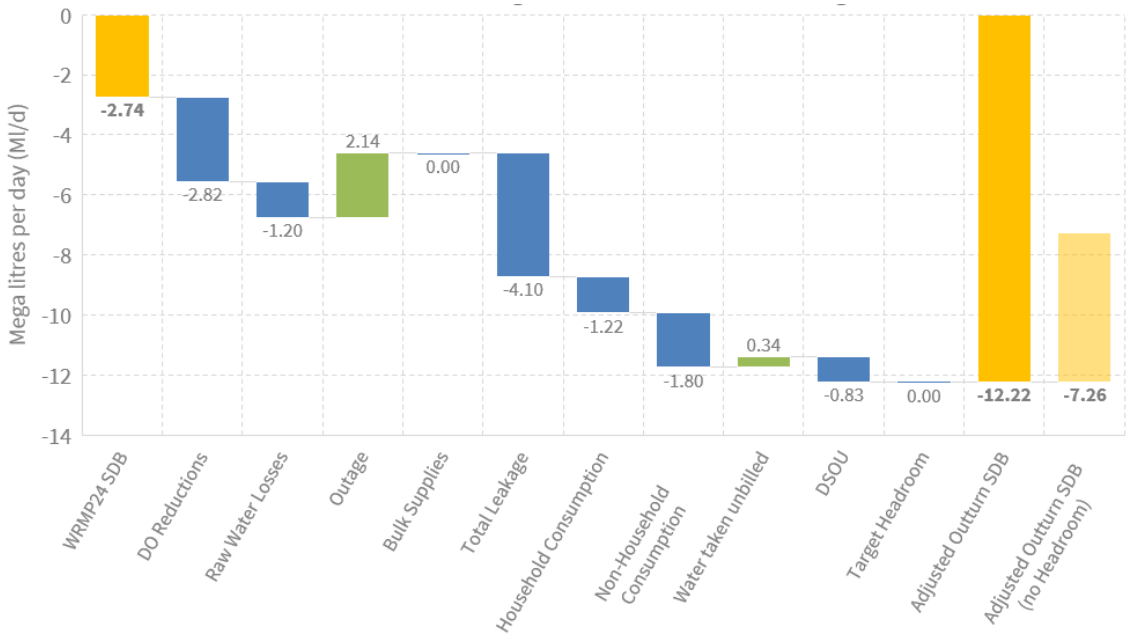


Figure 9: 2024-25 Performance compared against WRMP24 (Annual Average)

For the critical period condition, the most significant contributors to the negative SDB are, again, leakage (- 4.1 Ml/d) and DO reductions (-8.93 Ml/d), with DO Reductions having a more significant impact than in the

annual average scenario. As per the annual average condition they are offset to some degree by lower than forecast outage contributing positively to the SDB (+5.35 Ml/d).

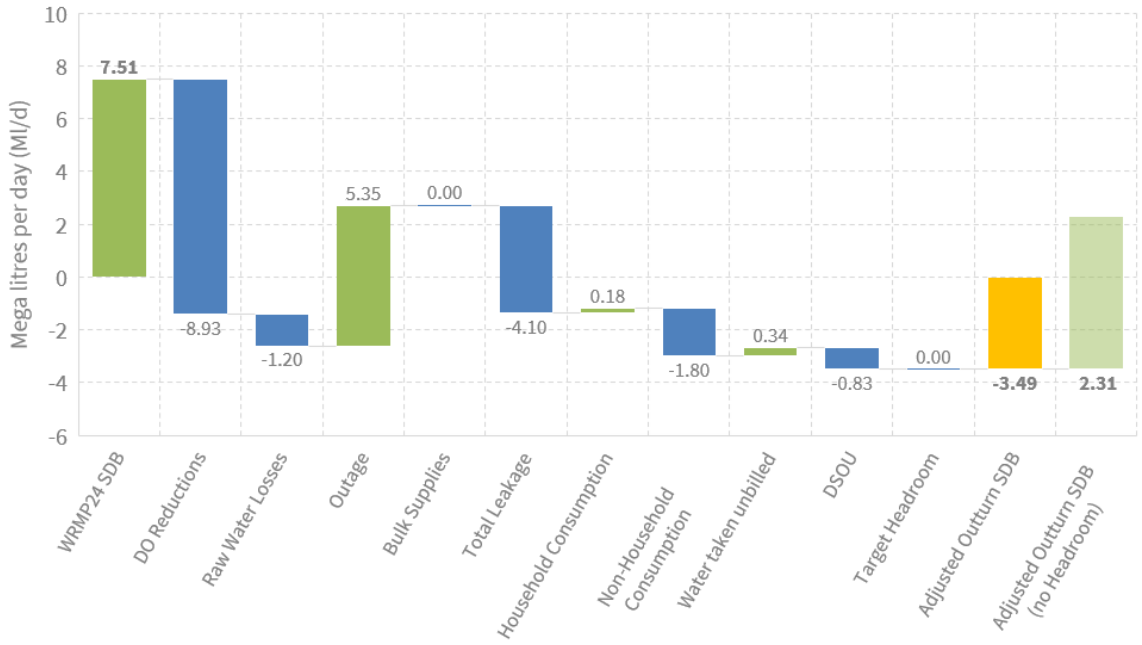


Figure 10: 2024-25 Performance compared against WRMP24 (Critical Period)

The supply demand balances suggest that if 2024-25 had experienced a prolonged period of dry weather equivalent to a 1 in 200 year event, it would have been more challenging to supply the maximum volume of bulk supplies to our neighbours (if they had requested it). This can be explored further by considering the true SDB deficits i.e. those that exist once the buffer for uncertainty (headroom allowance) is removed.

The charts in Figure 9 and Figure 10 show that if we remove the headroom allowance, our true deficit for 2024-25 was 7.26 Ml/d for the annual average condition. For the critical period condition there would have been a small surplus. This implies that for the shorter critical period (peak summer demand), we estimate that we would have been able to provide the full 30 Ml/d to SWS. However, had SWS requested 30 Ml/d every day of the year, we consider that we would have only been able to provide around 22 Ml/d on average.

6. FORWARD LOOK AND CONCLUSIONS

The purpose of this Annual Review is to assess our performance against our published WRMP24 and look ahead to what's next. A key conclusion is that, in the unlikely scenario where Southern Water Services (SWS) had requested the full 30 Ml/d bulk supply every day throughout 2024–25 during a 1-in-200-year drought event, the supply demand balance would have been in deficit: -12.2 Ml/d on an annual average and -3.5 Ml/d during the critical period.

However, if we exclude the headroom allowance (our buffer for uncertainty), the true deficit for 2024–25 improves to -7.3 Ml/d on an annual average. For the critical period condition, there would have been a small surplus of 2.3 Ml/d. This suggests that, during peak summer demand, we estimate we could have provided the full 30 Ml/d to SWS. However, had the full 30 Ml/d been required every day of the year, we consider that we could have only provided approximately 22 Ml/d on average.

We would like to reassure our customers, regulators and stakeholders that we are doing everything within our capabilities to safeguard services to our customers and support regional supplies to Southern Water. We have improved our position since last year and recognise that further work is required to return to the forecast WRMP24 balance over the course of AMP8. To that end, we have developed detailed action plans for each key component of the Supply Demand Balance.

A major part of our strategy is the rollout of our smart metering programme, which commenced in April 2025. We have made substantial progress by installing over 20,000 additional not-for-revenue meters. These meters will catapult our smart metering journey in the early years of AMP8. This initiative is expected to significantly reduce household and non-household consumption and tackle customer-side leakage — a relatively untouched area that may represent a significant share of our total leakage.

The outlook for 2025–26 includes further positive developments. The return of the Source S to service will benefit the supply demand balance in the next annual review. We also expect to complete our final AMP7 deployable output (DO) improvement scheme. Progress continues at pace on the Havant Thicket winter storage reservoir, as we move confidently into the Big Build phase.

Looking ahead, we expect to be broadly re-aligned with our WRMP24 forecast by the end of March 2027. However, we do not operate in a static world. We will continue to refine our plans using the latest data and experiences, and we are committed to delivering our action plans without complacency.

WRMP24 is our most ambitious and collaborative plan yet. It will increase our resilience to increasingly severe drought events, while reducing our reliance on, and impact to, the precious chalk-based environment that characterises our supply area. We remain acutely aware of the need to mitigate risks to our security of supply and will continue working closely with all relevant stakeholders to reduce our Supply Demand Balance deficit in a robust and achievable way as we move into AMP8.

Appendix A: Data Tables

AR Outturn Data – Annual Average

WRMP ANNUAL REVIEW DATA TEMPLATE - WATER BALANCE COMPONENTS

Required scenario and submission information	
Water company:	Portsmouth Water
Year of data submission:	2024-25
Reporting against WRMP:	WRMP24
WRMP pathway reporting against:	Preferred plan (Situation 4)
Scenario:	Outturn Annual Average

									Water company totals	RZ1
WRMP24 FP data tables row reference	**Annual Review row reference**	**Component**	**Derivation and type of data**	**Units**	**DP**	**Data requirement**	**Page or section reference in AR narrative or report**	**Notes on data provided**	**Portsmouth Water**	**PWSPRT**
		SUPPLY								
		Resources								
1FP	1AR	Raw water abstracted	Input outturn data	Ml/d	2dp	Required	Section 2.2		190.58	190.58
N/A	1.1AR	Additional abstraction through drought permits or orders that were implemented in the reporting year	Input outturn data	Ml/d	2dp	Required		n/a		
N/A	2.1AR	Internal raw water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	3.1AR	Internal potable water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	5.2AR	Internal raw water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	6.1AR	Internal potable water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	2.2AR	External raw water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	3.2AR	External potable water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	5.3AR	External raw water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	6.2AR	External potable water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required	Section 2.6	Southern Water and NAV's	7.54	7.54
1.1FP	5.1AR	Non-potable water supplied	Input outturn data	Ml/d	2dp	If applicable		n/a		
N/A	10.4AR	Adjustment for utilising water storage	Input outturn data	Ml/d	2dp	If applicable		n/a		
N/A	10.5AR	Water into supply (own sources)	Input outturn data: = Raw water abstracted + Adjustment for utilising water storage – raw water treatment work losses and operational use – outage experienced	Ml/d	2dp	Required	Section 2.1	Formula does not include outage as per latest EA guidance	186.98	186.98
N/A	10.6AR	Total water into supply	Water into supply (own sources) + (total water imported) - (total water exported)	Ml/d	2dp	Required	Section 2.1	Calc	179.43	179.43
		Process Losses								
8FP	9AR	Raw water losses, treatment works losses and operational use	Input outturn data	Ml/d	2dp	Required	Section 2.5	Raw water abs - DI - Outturn BS	3.60	3.60
9FP	10AR	Total outage experienced	Input outturn data	Ml/d	2dp	Required	Section 2.4			
N/A	10.1AR	Unplanned outage	Input outturn data (10.1AR and 10.2AR should sum to 10AR)	Ml/d	2dp	Optional	Section 2.4.3			
N/A	10.2AR	Planned outage	Input outturn data (10.1AR and 10.2AR should sum to 10AR)	Ml/d	2dp	Optional	Section 2.4.2			
		DEMAND								
45FP	11AR	Distribution input (in reporting year)	Input outturn data: Total household and non-household consumption + water taken unbilled + distribution system operational losses + total leakage	Ml/d	2dp	Required	Section 3.1	Calc	179.43	179.43
12.1FP	11.1AR	Non-potable water demand/consumption	Input outturn data	Ml/d	2dp	If applicable		n/a		
		Consumption								
12FP - 23FP	23AR	Measured non-household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.3		30.99	30.99
13FP - 24FP	24AR	Unmeasured non-household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.3		0.58	0.58
14FP - 25FP	25AR	Measured household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.2		37.85	37.85
15FP - 26FP	26AR	Unmeasured household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.2		78.28	78.28
18FP	29AR	Measured household - pcc	Input outturn data: (Measured household consumption * 1,000,000) / (measured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3	Calc	134.6	134.6
19FP	30AR	Unmeasured household - pcc	Input outturn data: (Unmeasured household consumption * 1,000,000) / (Unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3	Calc	176.1	176.1
20FP	31AR	Average household - pcc	Input outturn data: (Measured and unmeasured household consumption * 1,000,000) / (measured and unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3	Calc	160.0	160.0
21FP	32AR	Water taken unbilled	Input outturn data	Ml/d	2dp	Required	Section 3.5		2.28	2.28
22FP	33AR	Distribution system operational use	Input outturn data	Ml/d	2dp	Required	Section 3.5		1.35	1.35
		Leakage								
23FP	34AR	Measured non-household - USPL	Input outturn data	Ml/d	2dp	Required			0.39	0.39
24FP	35AR	Unmeasured non-household - USPL	Input outturn data	Ml/d	2dp	Required			0.04	0.04
25FP	36AR	Measured household - USPL	Input outturn data	Ml/d	2dp	Required			3.82	3.82
26FP	37AR	Unmeasured household - USPL	Input outturn data	Ml/d	2dp	Required			10.42	10.42
27FP	38AR	Void properties - USPL	Input outturn data	Ml/d	2dp	Required			0.38	0.38
28FP	39AR	Distribution losses	Input outturn data	Ml/d	2dp	Required			13.05	13.05
29FP	40AR	Total leakage	Input outturn data: Total USPL + distribution losses	Ml/d	2dp	Required	Section 3.4		28.10	28.10
		CUSTOMERS								
		Properties								
31FP	42AR	Measured non-household - properties	Input end of reporting year data	000's	3dp	Required			11.908	11.908
32FP	43AR	Unmeasured non-household - properties	Input end of reporting year data	000's	3dp	Required			1.536	1.536
33FP	44AR	Void non-households - properties	Input end of reporting year data	000's	3dp	Required			2.086	2.086
34FP	45AR	Measured household - properties (excl. voids)	Input end of reporting year data	000's	3dp	Required			117.759	117.759
34.7FP	45.7AR	Measured void household - properties	Input end of reporting year data	000's	3dp	Required			3.679	3.679
35FP	46AR	Unmeasured household - properties (excl. voids)	Input end of reporting year data	000's	3dp	Required			186.214	186.214
35.1FP	47AR	Unmeasured void household - properties	Input end of reporting year data	000's	3dp	Required			3.542	3.542
36FP	48AR	Total resource zone properties (inc voids)	Input end of reporting year data : Total non-household properties + total void non-household properties + total household properties + total void household properties	000's	3dp	Required		Calc	326.724	326.724
		Population								
37FP	49AR	Measured non-household - population	Input end of reporting year data	000's	3dp	Required			15.129	15.129
38FP	50AR	Unmeasured non-household - population	Input end of reporting year data	000's	3dp	Required			1.952	1.952
39FP	51AR	Measured household - population	Input end of reporting year data	000's	3dp	Required			281.144	281.144
40FP	52AR	Unmeasured household population	Input end of reporting year data	000's	3dp	Required			444.576	444.576
41FP	53AR	Total resource zone population	Input end of reporting year data: Unmeasured and measured household population + Unmeasured and measured non-household population	000's	3dp	Required	Section 3.2.3	Calc	742.801	742.801
		Metering								
44FP	57AR	Total measured household metering penetration (incl. voids)	Input outturn data: Measured household properties exc. voids / (measured household properties exc. voids + unmeasured household properties exc. voids + measured and unmeasured household void properties)	%	1dp	Required	Appendix C	Calc	37.8	37.8
		SUPPLY-DEMAND BALANCE								
50FP	18AR	Observed supply-demand balance (in reporting year)	Total water into supply - DI	Ml/d	2dp	Required	Section 5.1	Calc	0.00	0.00

AR Outturn Data – Critical Period

WRMP ANNUAL REVIEW DATA TEMPLATE - WATER BALANCE COMPONENTS

Required scenario and submission information	
Water company:	Portsmouth Water
Year of data submission:	2024-25
Reporting against WRMP:	WRMP24
WRMP pathway reporting against:	Preferred plan (Situation 4)
Scenario:	Outturn Critical Period

									Water company totals	RZ1
WRMP24 FP data tables row reference	**Annual Review row reference**	**Component**	**Derivation and type of data**	**Units**	**DP**	**Data requirement**	**Page or section reference in AR narrative or report**	**Notes on data provided**	**Portsmouth Water**	**PWSPRT**
		SUPPLY								
		Resources								
1FP	1AR	Raw water abstracted	Input outturn data	Ml/d	2dp	Required	Section 2.2	Uses abstraction value during the Peak Week (30-6-24)	220.56	220.56
N/A	1.1AR	Additional abstraction through drought permits or orders that were implemented in the reporting year	Input outturn data	Ml/d	2dp	Required		n/a		
N/A	2.1AR	Internal raw water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	3.1AR	Internal potable water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	5.2AR	Internal raw water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	6.1AR	Internal potable water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	2.2AR	External raw water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	3.2AR	External potable water imported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	5.3AR	External raw water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	6.2AR	External potable water exported (in the reporting year)	Input outturn data (Observed/recorded transfer volumes)	Ml/d	2dp	Required	Section 2.6	Uses BS value during the Peak Week (30-6-24) SWS + NAV	3.99	3.99
1.1FP	5.1AR	Non potable water supplied	Input outturn data	Ml/d	2dp	If applicable		n/a		
N/A	10.4AR	Adjustment for utlising water storage	Input outturn data	M/d	2dp	If applicable		Adjustment to account for additional abstraction into storage reservoir during peak week	-9.22	-9.22
N/A	10.5AR	Water into supply (own sources)	Input outturn data: = Raw water abstracted + Adjustment for utilising water storage – raw water treatment work losses and operational use – outage experienced	Ml/d	2dp	Required	Section 2.1	Formula does not include outage as per latest EA guidance	207.75	207.75
N/A	10.6AR	Total water into supply	Water into supply (own sources) + (total water imported) - (total water exported)	Ml/d	2dp	Required	Section 2.1	Calc	203.76	203.76
		Process Losses								
8FP	9AR	Raw water losses, treatment works losses and operational use	Input outturn data	Ml/d	2dp	Required	Section 2.5	Same as Annual Average value	3.60	3.60
9FP	10AR	Total outage experienced	Input outturn data	Ml/d	2dp	Required	Section 2.4		0.00	n/a
N/A	10.1AR	Unplanned outage	Input outturn data (10.1AR and 10.2AR should sum to 10AR)	Ml/d	2dp	Optional	Section 2.4.3		0.00	n/a
N/A	10.2AR	Planned outage	Input outturn data (10.1AR and 10.2AR should sum to 10AR)	Ml/d	2dp	Optional	Section 2.4.2		0.00	n/a
		DEMAND								
45FP	11AR	Distribution input (in reporting year)	Input outturn data: Total household and non-household consumption + water taken unbilled + distribution system operational losses + total leakage	Ml/d	2dp	Required	Section 3.1	Calc	203.76	203.76
12.1FP	11.1AR	Non potable water demand/consumption	Input outturn data	Ml/d	2dp	If applicable		n/a		
		Consumption								
12FP - 23FP	23AR	Measured non household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.3		30.99	30.99
13FP - 24FP	24AR	Unmeasured non household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.3		0.58	0.58
14FP - 25FP	25AR	Measured household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.2		44.17	44.17
15FP - 26FP	26AR	Unmeasured household - consumption	Input outturn data	Ml/d	2dp	Required	Section 3.2		96.29	96.29
18FP	29AR	Measured household - pcc	Input outturn data: (Measured household consumption * 1,000,000) / (measured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3	Calc	157.1	157.1
19FP	30AR	Unmeasured household - pcc	Input outturn data: (Unmeasured household consumption * 1,000,000) / (Unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3	Calc	216.6	216.6
20FP	31AR	Average household - pcc	Input outturn data: (Measured and unmeasured household consumption * 1,000,000) / (measured and unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3	Calc	193.5	193.5
21FP	32AR	Water taken unbilled	Input outturn data	Ml/d	2dp	Required	Section 3.5		2.28	2.28
22FP	33AR	Distribution system operational use	Input outturn data	Ml/d	2dp	Required	Section 3.5		1.35	1.35
		Leakage								
23FP	34AR	Measured non household - uspl	Input outturn data	Ml/d	2dp	Required			0.39	0.39
24FP	35AR	Unmeasured non-household - uspl	Input outturn data	Ml/d	2dp	Required			0.04	0.04
25FP	36AR	Measured household - uspl	Input outturn data	Ml/d	2dp	Required			3.82	3.82
26FP	37AR	Unmeasured household - uspl	Input outturn data	Ml/d	2dp	Required			10.42	10.42
27FP	38AR	Void properties - uspl	Input outturn data	Ml/d	2dp	Required			0.38	0.38
28FP	39AR	Distribution Losses	Input outturn data	Ml/d	2dp	Required			13.05	13.05
29FP	40AR	Total leakage	Input outturn data: Total USPL + distribution losses	Ml/d	2dp	Required	Section 3.4		28.10	28.10
		CUSTOMERS								
		Properties								
31FP	42AR	Measured non-household - properties	Input end of reporting year data	000's	3dp	Required			11.908	11.908
32FP	43AR	Unmeasured non-household - properties	Input end of reporting year data	000's	3dp	Required			1.536	1.536
33FP	44AR	Void non households - properties	Input end of reporting year data	000's	3dp	Required			2.086	2.086
34FP	45AR	Measured household - properties (excl. voids)	Input end of reporting year data	000's	3dp	Required			117.759	117.759
34.7FP	45.7AR	Measured household void properties	Input end of reporting year data	000's	3dp	Required			3.679	3.679
35FP	46AR	Unmeasured household - properties (excl. voids)	Input end of reporting year data	000's	3dp	Required			186.214	186.214
35.1FP	47AR	Unmeasured household void properties	Input end of reporting year data	000's	3dp	Required			3.542	3.542
36FP	48AR	Total resource zone properties (inc voids)	Input end of reporting year data : Total non-household properties + total void non-household properties + total household properties + total void household properties	000's	3dp	Required		Calc	326.724	326.724
		Population								
37FP	49AR	Measured non-household - population	Input end of reporting year data	000's	3dp	Required			15.129	15.129
38FP	50AR	Unmeasured non-household - population	Input end of reporting year data	000's	3dp	Required			1.952	1.952
39FP	51AR	Measured household - population	Input end of reporting year data	000's	3dp	Required			281.144	281.144
40FP	52AR	Unmeasured household population	Input end of reporting year data	000's	3dp	Required			444.576	444.576
41FP	53AR	Total resource zone population	Input end of reporting year data: Unmeasured and measured household population + Unmeasured and measured non-household population	000's	3dp	Required	Section 3.2.3	Calc	742.801	742.801
		Metering								
44FP	57AR	Total measured household metering penetration (incl. voids)	Input outturn data: Measured household properties exc. voids / (measured household properties exc. voids + unmeasured household properties exc. voids + measured and unmeasured household void properties)	%	1dp	Required	Appendix C	Calc	37.8	37.8
		SUPPLY-DEMAND BALANCE								
50FP	18AR	Observed supply-demand balance (in reporting year)	Total water into supply - DI	Ml/d	2dp	Required	Section 5.1	Calc	0.00	0.00

DYAA Adjusted Data – Annual Average

WRMP ANNUAL REVIEW DATA TEMPLATE - WATER BALANCE COMPONENTS

Required scenario and submission information	
Water company:	Portsmouth Water
Year of data submission:	2024-25
Reporting against WRMP:	WRMP24
WRMP pathway reporting against:	Preferred plan (Situation 4)
Scenario:	DYAA Adjusted

									Water company totals	RZ1
WRMP24 FP data tables row reference	**Annual Review row reference**	**Component**	**Derivation and type of data**	**Units**	**DP**	**Data requirement**	**Page or section reference in AR narrative or report**	**Notes on data provided**	**Portsmouth Water**	
		SUPPLY								
		Resources								
1FP	1AR	Raw water abstracted	Not required	Ml/d	2dp					
N/A	2.1AR	Internal raw water imported (in the reporting year)	Input outturn data (DYAA adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	3.1AR	Internal potable water imported (in the reporting year)	Input outturn data (DYAA adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	5.2AR	Internal raw water exported (in the reporting year)	Input outturn data (DYAA adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	6.1AR	Internal potable water exported (in the reporting year)	Input outturn data (DYAA adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	2.2AR	External raw water imported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required		n/a		
N/A	3.2AR	External potable water imported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required		n/a		
N/A	5.3AR	External raw water exported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required		n/a		
N/A	6.2AR	External potable water exported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required	Section 2.6	Full WRMP24 Planning Assumption used	32.09	32.09
1.1FP	5.1AR	Non potable water supplied	Input outturn data (DYAA adjusted observed transfer volumes)	Ml/d	2dp	If applicable				
6.1FP	7AR	WRMP24 Deployable Output (DYAAFP)	Input dry year DYAAFP figure set out in 6.1FP, that includes the benefit of options delivered and any levels of service adjustment	Ml/d	2dp	Required	Section 2.3	WRMP24 WRZ DO minus DO reductions from long term outages & scheme delays	218.84	218.84
7.2BL + 7.3BL	7.4BLARDY	DO loss from sustainability reductions implemented in the reporting year	Estimated volume of DYAA DO loss from delivery of WINEP/ED abstraction reductions set out in 7.2BL + 7.3BL (please enter negative values)	Ml/d	2dp	Required		No reductions in 2024-25	0.00	0.00
10FP	12AR	Water Available For Use (Own sources)	(Deployable Output + changes to DO) - (DYAA adjusted raw water losses, treatment works losses and operational use + DYAA adjusted outage experienced).	Ml/d	2dp	Required			210.78	210.78
11FP	13AR	Total Water Available For Use	WAFU (own sources) + (total water imported) - (total water exported) Total WAFU is based on external transfers reported as maximum contractual volumes as stated in WRMP24 and internal transfers reported as DYAA adjusted outturn volumes.	Ml/d	2dp	Required	Section 2.1		178.69	178.69
		Process Losses								
8FP	9AR	Raw water losses, treatment works losses and operational use	Input outturn data (DYAA adjusted observed volumes)	Ml/d	2dp	Required	Section 2.5	No uplift applied. AR outturn data template assumed to be representative of a 1 in 200 year Dry Year scenario.	3.60	3.60
9FP	10AR	Total outage experienced	Input outturn data (DYAA adjusted observed volumes)	Ml/d	2dp	Required	Section 2.4	Accounts only for outages that would have happened in a 1:200 year drought scenario	4.46	4.46
N/A	10.1AR	Unplanned outage	Not required	Ml/d	2dp					
N/A	10.2AR	Planned outage	Not required	Ml/d	2dp					
		DEMAND								
45FP	11AR	Distribution input (in reporting year)	Input outturn data (DYAA uplifted observed volumes): Total household and non-household consumption + water taken unbilled + distribution system operational losses + total leakage	Ml/d	2dp	Required	Section 3.1		185.96	185.96
12.1FP	11.1AR	Non potable water demand/consumption	Not required	Ml/d	2dp					
		Consumption								
12FP - 23FP	23AR	Measured non-household - consumption	Input outturn data (DYAA uplifted observed volumes)	Ml/d	2dp	Required	Section 3.3	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	30.99	30.99
13FP - 24FP	24AR	Unmeasured non-household - consumption	Input outturn data (DYAA uplifted observed volumes)	Ml/d	2dp	Required	Section 3.3	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	0.58	0.58
14FP - 25FP	25AR	Measured household - consumption	Input outturn data (DYAA uplifted observed volumes)	Ml/d	2dp	Required	Section 3.2	Uplifted by factor of 1.042 following the Revised WRMP19 and WRMP24 uplift methodology. Uplifted to 1 in 20 year DYAA scenario.	39.44	39.44
15FP - 26FP	26AR	Unmeasured household - consumption	Input outturn data (DYAA uplifted observed volumes)	Ml/d	2dp	Required	Section 3.2	Uplifted by factor of 1.063 following the Revised WRMP19 and WRMP24 uplift methodology. Uplifted to 1 in 20 year DYAA scenario.	83.21	83.21
18FP	29AR	Measured household - PCC	Input DYAA adjusted outturn data: (Measured household consumption * 1,000,000) / (measured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3		140.3	
19FP	30AR	Unmeasured household - PCC	Input DYAA adjusted outturn data: (Unmeasured household consumption * 1,000,000) / (Unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3		187.2	
20FP	31AR	Average household - PCC	Input DYAA adjusted outturn data: (Measured and unmeasured household consumption * 1,000,000) / (measured and unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3		169.0	
21FP	32AR	Water taken unbilled	Input outturn data (DYAA adjusted observed volumes)	Ml/d	2dp	Required	Section 3.5	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	2.28	2.28
22FP	33AR	Distribution system operational use	Input outturn data (DYAA adjusted observed volumes)	Ml/d	2dp	Required	Section 3.5	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	1.35	1.35
		Leakage								
23FP	34AR	Measured non-household - USPL	Not required	Ml/d	2dp					
24FP	35AR	Unmeasured non-household - USPL	Not required	Ml/d	2dp					
25FP	36AR	Measured household - USPL	Not required	Ml/d	2dp					
26FP	37AR	Unmeasured household - USPL	Not required	Ml/d	2dp					
27FP	38AR	Void properties - USPL	Not required	Ml/d	2dp					
28FP	39AR	Distribution losses	Input outturn data (DYAA adjusted observed volumes)	Ml/d	2dp	Required		No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	13.05	13.05
29FP	40AR	Total leakage	Input DYAA adjusted outturn data: Total USPL + distribution losses	Ml/d	2dp	Required	Section 3.4	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	28.10	28.10
		CUSTOMERS								
		Properties								
31FP	42AR	Measured non-household - properties	Duplicate of outturn data	000's	3dp				11.908	11.908
32FP	43AR	Unmeasured non-household - properties	Duplicate of outturn data	000's	3dp				1.536	1.536
33FP	44AR	Void non-households - properties	Duplicate of outturn data	000's	3dp				2.086	2.086
34FP	45AR	Measured household - properties (excl. voids)	Duplicate of outturn data	000's	3dp				117.759	117.759
34.7FP	45.7AR	Measured household void properties	Duplicate of outturn data	000's	3dp				3.679	3.679
35FP	46AR	Unmeasured household - properties (excl. voids)	Duplicate of outturn data	000's	3dp				186.214	186.214
35.1FP	47AR	Unmeasured household void properties	Duplicate of outturn data	000's	3dp				3.542	3.542
36FP	48AR	Total resource zone properties (inc voids)	Duplicate of outturn data : Total non-household properties + total void non-household properties + total household properties + total void household properties	000's	3dp				326.724	326.724
		Population								
37FP	49AR	Measured non-household - population	Duplicate of outturn data	000's	3dp				15.129	15.129
38FP	50AR	Unmeasured non-household - population	Duplicate of outturn data	000's	3dp				1.952	1.952
39FP	51AR	Measured household - population	Duplicate of outturn data	000's	3dp				281.144	281.144
40FP	52AR	Unmeasured household population	Duplicate of outturn data	000's	3dp				444.576	444.576
41FP	53AR	Total resource zone population	Duplicate of outturn data: Unmeasured and measured household population + Unmeasured and measured non-household population	000's	3dp		Section 3.2.3		742.801	742.801
		Metering								
44FP	57AR	Total measured household metering penetration (incl. voids)	Duplicate of outturn data: Measured household properties exc. voids / (measured household properties exc. voids + unmeasured household properties exc. voids + measured and unmeasured household void properties)	%	1dp		Appendix C		37.8	37.8
		SUPPLY-DEMAND BALANCE								
48FP	16AR	Target headroom	Input adjusted reporting year figure or DYAA WRMP value	Ml/d	2dp	Required	Section 4		4.96	**4.96**
50FP	18AR	Observed supply-demand balance (in reporting year)	(Total WAFU - DI) - target headroom	Ml/d	2dp	Required	Section 5.2		-12.22	-12.22

DYCP Adjusted Data – Critical Period

WRMP ANNUAL REVIEW DATA TEMPLATE - WATER BALANCE COMPONENTS

Required scenario and submission information	
Water company:	
Year of data submission:	(please enter the year in 20XX/XX format)
Reporting against WRMP:	WRMP24
WRMP pathway reporting against:	Preferred plan or named adaptive pathway
Scenario:	DYCP Adjusted

									Water company totals	RZ1
WRMP24 FP data tables row reference	**Annual Review row reference**	**Component**	**Derivation and type of data**	**Units**	**DP**	**Data requirement**	**Page or section reference in AR narrative or report**	**Notes on data provided**	**Portsmouth Water**	
		SUPPLY								
		Resources								
1FP	1AR	Raw water abstracted	Not required	Ml/d	2dp					
N/A	2.1AR	Internal raw water imported (in the reporting year)	Input outturn data (DYCP adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	3.1AR	Internal potable water imported (in the reporting year)	Input outturn data (DYCP adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	5.2AR	Internal raw water exported (in the reporting year)	Input outturn data (DYCP adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	6.1AR	Internal potable water exported (in the reporting year)	Input outturn data (DYCP adjusted observed transfer volumes)	Ml/d	2dp	Required		n/a		
N/A	2.2AR	External raw water imported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required		n/a		
N/A	3.2AR	External potable water imported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required		n/a		
N/A	5.3AR	External raw water exported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required		n/a		
N/A	6.2AR	External potable water exported (in the reporting year)	Input most challenging contractual volumes	Ml/d	2dp	Required	Section 2.6	Same as Adjusted DYAA	32.09	32.09
1.1FP	5.1AR	Non potable water supplied	Input outturn data (DYCP adjusted observed transfer volumes)	Ml/d	2dp	If applicable				
6.1FP	7AR	WRMP24 Deployable Output (DYAAFP)	Input dry year DYCPFP figure set out in 6.1FP, that includes the benefit of options delivered and any levels of service adjustment	Ml/d	2dp	Required	Section 2.3	WRMP24 WRZ DO minus DO reductions from long term outages & scheme delays	267.05	267.05
7.2BL + 7.3BL	7.4BLARDY	DO loss from sustainability reductions implemented in the reporting year	Estimated volume of DYCP DO loss from delivery of WINEP/ED abstraction reductions set out in 7.2BL + 7.3BL	Ml/d	2dp	Required		No reductions in 2024-25	0.00	0.00
10FP	12AR	Water Available For Use (own sources)	(Deployable Output + changes to DO) - (DYCP adjusted raw water losses, treatment works losses and operational use + DYCP adjusted outage experienced).	Ml/d	2dp	Required			262.20	262.20
11FP	13AR	Total Water Available For Use	WAFU own sources + (total water imported) - (total water exported). Total WAFU is based on external transfers reported as maximum contractual volumes as stated in WRMP24 and internal transfers reported as DYCP adjusted outturn volumes.	Ml/d	2dp	Required	Section 2.1		230.11	230.11
		Process Losses								
8FP	9AR	Raw water losses, treatment works losses and operational use	Input outturn data (DYCP adjusted observed volumes)	Ml/d	2dp	Required	Section 2.5	No uplift applied. AR outturn data template assumed to be representative of a 1 in 200 year Dry Year scenario.	3.60	3.60
9FP	10AR	Total outage experienced	Input outturn data (DYCP adjusted observed volumes)	Ml/d	2dp	Required	Section 2.4	Accounts only for outages that would have happened in a 1:200 year drought scenario **during the critical period**	1.25	1.25
N/A	10.1AR	Unplanned outage	Not required	Ml/d	2dp					
N/A	10.2AR	Planned outage	Not required	Ml/d	2dp					
		DEMAND								
45FP	11AR	Distribution input (in reporting year)	Input outturn data (DYCP uplifted observed volumes): Total household and non-household consumption + water taken unbilled + distribution system operational losses + total leakage	Ml/d	2dp	Required	Section 3.1		227.80	227.80
12.1FP	11.1AR	Non potable water demand/consumption	Not required	Ml/d	2dp					
		Consumption								
12FP - 23FP	23AR	Measured non household - consumption	Input outturn data (DYCP uplifted observed volumes)	Ml/d	2dp	Required	Section 3.3	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	30.99	30.99
13FP - 24FP	24AR	Unmeasured non household - consumption	Input outturn data (DYCP uplifted observed volumes)	Ml/d	2dp	Required	Section 3.3	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	0.58	0.58
14FP - 25FP	25AR	Measured household - consumption	Input outturn data (DYCP uplifted observed volumes)	Ml/d	2dp	Required	Section 3.2	Uplifted by factor of 1.312 following the Revised WRMP19 and WRMP24 uplift methodology. Uplifted to 1 in 20 year DYCP scenario.	49.66	49.66
15FP - 26FP	26AR	Unmeasured household - consumption	Input outturn data (DYCP uplifted observed volumes)	Ml/d	2dp	Required	Section 3.2	Uplifted by factor of 1.467 following the Revised WRMP19 and WRMP24 uplift methodology. Uplifted to 1 in 20 year DYCP scenario.	114.84	114.84
18FP	29AR	Measured household - pcc	Input DYCP adjusted outturn data: (Measured household consumption * 1,000,000) / (measured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3		176.6	
19FP	30AR	Unmeasured household - pcc	Input DYCP adjusted outturn data: (Unmeasured household consumption * 1,000,000) / (Unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3		258.3	
20FP	31AR	Average household - pcc	Input DYCP adjusted outturn data: (Measured and unmeasured household consumption * 1,000,000) / (measured and unmeasured household population * 1,000)	l/h/d	1dp	Required	Section 3.2.3		226.7	
21FP	32AR	Water taken unbilled	Input outturn data (DYCP uplifted observed volumes)	Ml/d	2dp	Required	Section 3.5	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	2.28	2.28
22FP	33AR	Distribution system operational use	Input outturn data (DYCP uplifted observed volumes)	Ml/d	2dp	Required	Section 3.5	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	1.35	1.35
		Leakage								
23FP	34AR	Measured non household - uspl	Not required	Ml/d	2dp					
24FP	35AR	Unmeasured non-household - uspl	Not required	Ml/d	2dp					
25FP	36AR	Measured household - uspl	Not required	Ml/d	2dp					
26FP	37AR	Unmeasured household - uspl	Not required	Ml/d	2dp					
27FP	38AR	Void properties - uspl	Not required	Ml/d	2dp					
28FP	39AR	Distribution Losses	Input outturn data (DYCP adjusted observed volumes)	Ml/d	2dp	Required		No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	13.05	13.05
29FP	40AR	Total leakage	Input DYCP adjusted outturn data: Total USPL + distribution losses	Ml/d	2dp	Required	Section 3.4	No uplift applied as per the Revised WRMP19 and WRMP24 methodology.	28.10	28.10
		CUSTOMERS								
		Properties								
31FP	42AR	Measured non-household - properties	Duplicate of outturn data	000's	3dp				11.908	11.908
32FP	43AR	Unmeasured non-household - properties	Duplicate of outturn data	000's	3dp				1.536	1.536
33FP	44AR	Void non households - properties	Duplicate of outturn data	000's	3dp				2.086	2.086
34FP	45AR	Measured household - properties (excl. voids)	Duplicate of outturn data	000's	3dp				117.759	117.759
34.7FP	45.7AR	Measured household void properties	Duplicate of outturn data	000's	3dp				3.679	3.679
35FP	46AR	Unmeasured household - properties (excl. voids)	Duplicate of outturn data	000's	3dp				186.214	186.214
35.1FP	47AR	Unmeasured household void properties	Duplicate of outturn data	000's	3dp				3.542	3.542
36FP	48AR	Total resource zone properties (inc voids)	Duplicate of outturn data : Total non-household properties + total void non-household properties + total household properties + total void household properties	000's	3dp				326.724	326.724
		Population								
37FP	49AR	Measured non-household - population	Duplicate of outturn data	000's	3dp				15.129	15.129
38FP	50AR	Unmeasured non-household - population	Duplicate of outturn data	000's	3dp				1.952	1.952
39FP	51AR	Measured household - population	Duplicate of outturn data	000's	3dp				281.144	281.144
40FP	52AR	Unmeasured household population	Duplicate of outturn data	000's	3dp				444.576	444.576
41FP	53AR	Total resource zone population	Duplicate of outturn data: Unmeasured and measured household population + Unmeasured and measured non-household population	000's	3dp		Section 3.2.3		742.801	742.801
		Metering								
44FP	57AR	Total measured household metering penetration (incl. voids)	Duplicate of outturn data: Measured household properties exc. voids / (measured household properties exc. voids + unmeasured household properties exc. voids + measured and unmeasured household void properties)	%	1dp		Appendix C		37.8	37.8
		SUPPLY-DEMAND BALANCE								
48FP	16AR	Target headroom	Input adjusted reporting year figure or DYCP WRMP value	Ml/d	2dp	Required	Section 4		5.80	**5.80**
50FP	18AR	Observed supply-demand balance (in reporting year)	(Total WAFU - DI) - target headroom	Ml/d	2dp	Required	Section 5.2		-3.49	-3.49

Appendix B: WRMP24 Monitoring Plan Reporting

Our WRMP24 monitoring plan

Our published Water Resources Management Plan 2024 (WRMP24) Monitoring Plan[10] sets out the thresholds, triggers, actions and timelines that apply at both our company level and Regional level, necessary to understand our progress through our adaptive planning scenarios.

The preferred supply and demand options in our WRMP24 mean that our key adaptive trigger point is the year 2039-40. Up to that point, our preferred options are chosen in all scenarios, effectively giving us a single plan. However, in addition to the Environment Agency's AR25 guidance and in accordance with our WRMP24 Monitoring Plan, this AR25 appendix also provides an update on:

1. Whether we will be required to implement our drought permit in 2025,
2. Consistency with SWS's WRMP24 (which is on a different publication timeline to ours),
3. Review of SWS demand management progress,
4. Progress made on the regional schemes linked to our future decisions.
5. Management of short-term Water Framework Directive (WFD) 'no deterioration' related risks,
6. Time Limited Licence variation assessments,
7. Our outturn headroom assessment.

The output of our AR25 will be provided to WRSE to support the regional plan monitoring.

Our need for a Drought Permit at Source S in 2025

In June 2025 we submitted our latest drought prospects report to the Environment Agency, which provides a forward look on the likelihood of implementing our Drought Plan across the coming summer. Modelling has indicated that we only anticipate dropping below our first trigger in mid-October 2025 in the 60% long-term average rainfall scenario. At the time of writing, we are therefore forecasting a low probability of implementing our drought plan during Summer 2025 and this means we are not expecting to require the Source S drought permit in 2025.

Whilst there is a lack of need for the drought permit, there are on-going workstreams that will impact how and when we use the permit:

- We are currently developing our draft Drought Plan 2027, which will be available for public consultation in October 2025. In preparation for this, we will be undertaking work to make sure we are 'Application Ready' for the drought permit, should it be required in 2026. This will include an update of our Environmental Assessment Report (EAR) which will include a monitoring plan, as well as a plan for a pumping test at the site.

- We have also included Source S as part of a joint Water Industry National Environment Programme (WINEP) investigation scheme with Southern Water, contributing to the restoration of the Arundel Park SSSI to 'favourable' condition. Natural England have noted that there is currently insufficient evidence to exclude a hydrogeological link between the SSSI and the chalk groundwater abstractions and therefore they are unable to determine whether they are having an impact on the designated features. The investigation seeks to provide that evidence.

These workstreams will help to inform our next WRMP (WRMP 2029, referred to as 'WRMP29').

Consistency with SWS's WRMP24 and Future Bulk Supply Arrangements

When the current contractual arrangements are due for renewal, our intention is to negotiate any future arrangements to reflect our company's respective WRMP24 plans. In the preparation of those plans we wrote

[10] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/10/10A-fWRMP24-App-Monitoring-Plan_published_final.pdf

a joint appendix setting out our common understandings around the future use of bulk supplies, which is appended to both company plans. It can be found on our website as part of our published WRMP24[11].

Our WRMP24 monitoring plan (Appendix 10A of the WRMP) identified the need to monitor consistency between our WRMP24 and Southern Water's WRMP24. Following our review of Southern Water's updated plan, which was consulted on during Autumn 2024, we identified a non-material discrepancy associated with future bulk supply information. We have resolved this with Southern Water via its statement of response process in Spring 2025 and the bulk supply assumptions remain aligned.

Going forward, Portsmouth Water and Southern Water will continue to work with other Water Resources South East (WRSE) member companies to develop WRMP29. A key part of this work will be to develop new options which will include the review and refinement of bulk supply assumptions, options and opportunities.

Southern Water demand management

Our WRMP24 describes our first adaptive option in 2039-40 – a new import from Southern Water. This is used in six of the nine adaptive planning pathways and therefore has a relatively high probability of being required in the future. Our WRMP24 monitoring plan requires a review of Southern Water progress with demand reductions, which will help to unlock the potential future import. This will be completed for WRMP29 and again for WRMP34 and so is not required for Annual Reviews, but we continue to work closely with Southern Water due to the interlinked nature of our plans.

Regional Scheme Updates

Our WRMP24 is intricately linked with other WRMPs across the WRSE region, particularly Southern Water's WRMP, due to our shared infrastructure, planned exports, and the role we play in supporting their environmental ambitions. We have documented these interdependencies in greater detail within:

- **Appendix 1C of our WRMP24**: outlining the full programme of planned and baseline imports and exports between our companies over the planning period.

- **Section 7.8 and Appendix 7F of our WRMP24**: which provide further technical detail on the **Hampshire Water Transfer and Water Recycling Project** — a major Southern Water scheme that links directly into our network. This project involves the introduction of highly treated recycled water into Havant Thicket Reservoir, ultimately supporting additional bulk transfers from our network to Southern Water's supply area.

We continue to work closely with Southern Water and our regional planning body, WRSE, to ensure that our plans align, and that shared schemes are delivered in a coordinated, efficient, and sustainable manner.

We have committed in the WRMP24 Monitoring Plan to providing updates on WRMP regional schemes – specifically the Havant Thicket Winter Storage Reservoir, South East Strategic Reservoir Option (SESRO), Thames to Southern transfer (T2ST) and Hampshire Water Transfer and Water Recycling Project (HWTWRP). We have provided these below.

Havant Thicket Winter Storage Reservoir

The WRMP19 Havant Thicket Reservoir scheme will store surplus winter spring flows for subsequent use in periods of prolonged dry weather, enabling us to supply more water to Southern Water for their Hampshire supply zone. In turn, this supports Southern Water being able to reduce their current levels of abstraction from sensitive chalk sources, benefiting the environment. The project also delivers a biodiversity net gain and will become a valuable community leisure asset.

Included in the baseline of WRMP24, the reservoir is due for completion in 2031–32. Once operational, it will support a bulk supply of 21 Ml/d (annual average) and 18.1 Ml/d (critical period) to Southern Water in dry year scenarios.

[11] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/10/1C-fWRMP24-App-SWS-PRT-common_published_final.pdf

We officially broke ground in September 2024, and major earthworks began in March 2025. Construction of the culvert, the tunnel that will house the outlet pipe as it passes through the reservoir's retaining walls, is also progressing well.

The reservoir also facilitates the consideration of new water security options for the future, such as water recycling, helping to meet challenges like reduced chalk abstraction and improved resilience to 1 in 500 year droughts.

As well as constructing the actual reservoir, work is progressing on delivering the infrastructure necessary to fill and draw down water from it. We received outline planning permission for the original pipeline connecting the reservoir with its source water and associated treatment facility in 2021. With the introduction of the concept of using the reservoir in association with a water recycling plant, the plans for the pipeline have subsequently been refined.

The new plan includes two pipelines which will largely be tunnelled to minimise disruption to local communities and the environment. The updated pipeline design has been approved by Havant Borough Council in May 2025 and will improve operational resilience.

We are also pleased to share findings from a new economic impact study, which forecasts multi-million-pound benefits for the South East economy, including 84 new construction jobs and up to 20 apprenticeships coming from the construction of the new reservoir.

'South East Strategic Reservoir Option' and 'Thames to Southern Transfer' update

On 7th January 2025, Thames Water issued a Periodic Indicative Notice (PIN) to inform potential suppliers and investors about the next stage of its market engagement programme which will support the development of the new reservoir in Oxfordshire[12]. The announcement states that:

> "The reservoir is expected to be operational by 2040 and will support Thames Water, Southern Water and Affinity Water in delivering a safe and secure supply of water during periods of drought. It will also help to meet the increasing pressures of climate change and demands of a growing population."

A timeline for SESRO is provided in the latest Thames Water project update[13] and the timeline for the associated T2ST is given on the Southern Water website[14]. The planned 2040 implementation year aligns with the assumptions in our published WRMP24. We will consider any future adjustments to the programme during the development of our WRMP29.

Hampshire Water Transfer and Water Recycling Project update

Southern Water has completed its Spring 2025 Consultation on the HWTWRP, which ran from 5th March to 4th April 2025[15]. This focused on the possible water quality impacts of the scheme on the Havant Thicket

[12] https://www.thameswater.co.uk/news/next-stage-of-market-engagement-announced-to-support-development-of-new-reservoir
[13] https://thames-sro.co.uk/media/l0dj1ntx/sesro-spring-2025-project-update.pdf
[14] https://www.southernwater.co.uk/about-us/our-plans/water-for-life-hampshire/water-transfers/thames-to-southern-transfer-project/
[15] https://www.hampshirewtwrp.co.uk/consultation.html

Reservoir, connected downstream water bodies, and the Solent, and how they could be mitigated. It also set out proposed refinements to the design of the Project that consider feedback from the Summer 2024 Consultation and on-going project development and stakeholder engagement.

Southern Water's WRMP24[16] identifies that the scheme is planned for implementation in 2034, which aligns with the assumptions in our published WRMP24. Any future adjustments to the programme will be considered during the development of our WRMP29.

Time Limited Licences

We have five time-limited licence variations which expire on 31st March 2028. Within our WRMP24 baseline we have assumed these are renewed. There is an interdependency with the findings of our WINEP catchment investigations, as these would be key in providing evidence to support the renewal applications.

Non-renewal of the licence conditions has the potential to impact our Supply Demand Balance which will be assessed through the updates of our WINEP investigations and eventual outcomes.

Water Framework Directive (WFD) risks

We have provided information in Appendix 5B of our WRMP24 to describe how we will manage short term Water Framework Directive (WFD) 'no deterioration' related risks. This includes monitoring our levels of abstraction from the Meon catchment and the QRST Group licence group prior to the conclusion of WINEP investigations in AMP8.

In our undertaking to monitor and manage no deterioration risks we would reiterate the caveats we have included in WRMP24. Namely:

- Our recent levels of abstraction are compliant with limits on our abstraction licences.
- We need to maintain flexibility in our abstraction operations to ensure we are able to carry out the necessary maintenance works at our sites, to maintain safe treatment ability and operational resilience. This means abstraction rates from catchments will vary over the short-term and risks must be considered in the context of longer-term trends and in the context of the scale of natural flow variations caused by the weather.

Our monitoring has shown that abstraction levels in the Meon catchment and at the QRST Group are marginally higher than the levels defined by the Environment Agency as 'recent actual abstraction' (the average annual abstraction between 2010 and 2015), which they consider to be a trigger to consider the risk of WFD water body deterioration.

If our monitoring shows this temporary situation persisting to a point it will materially impact on 5-year abstraction averages, we will proactively raise the issue with the Environment Agency and Southern Water to discuss potential options to reduce the need. These discussions, if needed, will benefit from the conclusions arrived at within our WINEP investigation programme later this reporting year.

QRST Group abstraction monitoring

The combined abstraction from the QRST Group (sources 'QRST') over the last 5 years is shown on Figure 11. The dark blue line represents the running average for total water abstracted. The golden line ('low destination – normal year') represents 'recent actual' average abstraction (2010-2015), which is a key focus for understanding WFD 'no deterioration' risks.

As shown on Figure 11, in 2024-25 we abstracted at a rate that was approximately 2.5 Ml/d higher than the 2010-2015 average. During AMP7 (2020-2025), on average we abstracted approximately 2 Ml/d (about 10 %) above the 2010-2015 average. However, we note the average is skewed by higher abstraction in the dry year of 2022.

[16] https://www.southernwater.co.uk/about-us/our-plans/water-resources-management-plan/

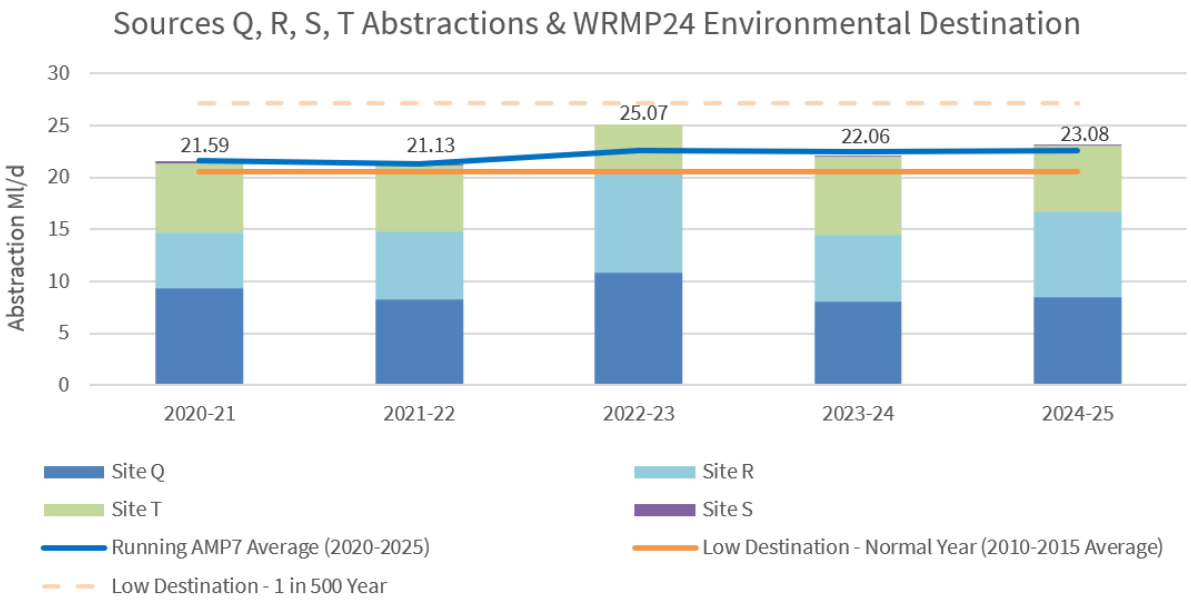


Figure 11: QRST Group abstractions during AMP7 compared to the Low Environmental Destination

In part, the increased abstraction reflects an increase in the transfer of potable water to Southern Water, which in turn supports Southern Water's resilience and provides them with more time to react to issues experienced at their sites.

Long term planned and unplanned outages at our Source O during AMP7 also increased the need for water from the QRST Group. However, this source is now back into supply following the delivery of the AMP7 groundwater scheme and further water treatment works upgrades.

We note that future licence assumptions for the QRST Group will be reviewed again for WRMP29 to reflect the outcome of AMP8 WINEP investigations and options appraisals. We are also implementing significant demand reductions over AMP8 and AMP9 which will reduce abstraction and therefore reduce the risk of deterioration of WFD water bodies.

Meon abstraction monitoring

The combined abstraction from Source F and Source H over the last 5 years is shown on Figure 12. The dark blue line represents the running average for total water abstracted. The golden line ('low destination – normal year') represents 'recent actual' average abstraction (2010-2015), which is a key focus for understanding WFD 'no deterioration' risks.

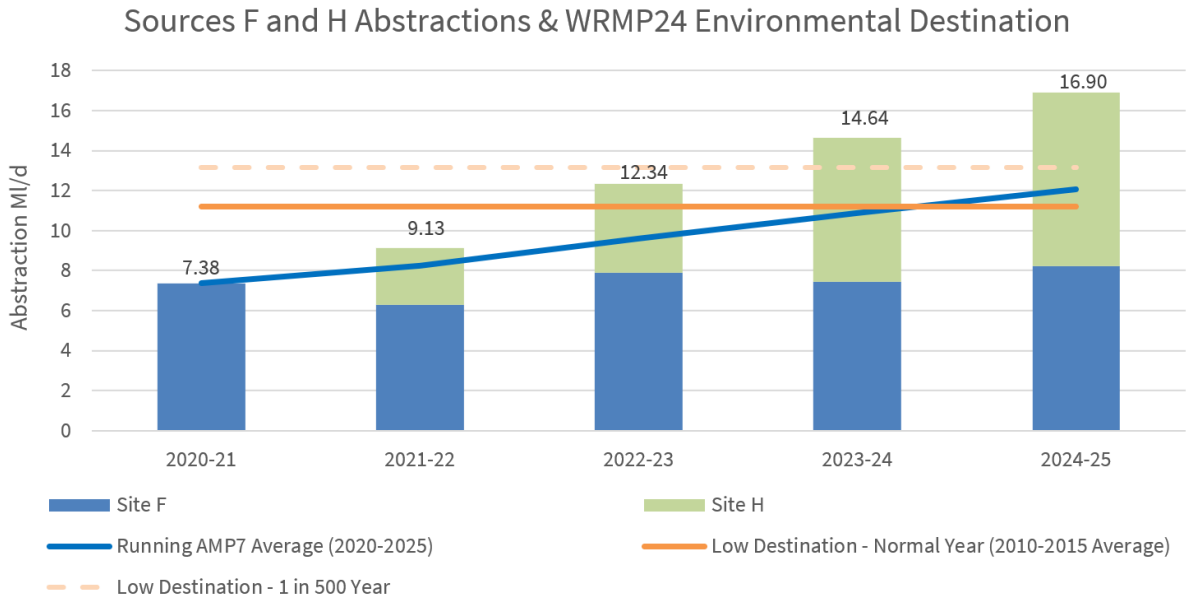


Figure 12: Sources F and H abstractions during AMP7 compared to Environmental Destination scenarios

As shown on Figure 12, in 2024-25 we abstracted at a rate that was approximately 5.7 Ml/d higher than the 2010-2015 average. During AMP7 (2020-2025), on average we abstracted approximately 0.9 Ml/d (about 8 %) above the 2010-2015 average.

In part, the increased abstraction reflects the return to service of Site H following the AMP7 groundwater scheme. Abstractions have also been higher in 2024-25 to support planned and unplanned outage events at other sources within the western part of our supply area.

We note that future licence assumptions for Source F and Source H will be reviewed again for WRMP29 to reflect the outcome of AMP8 WINEP investigations and options appraisals. We are also implementing significant demand reductions over AMP8 and AMP9 which will reduce abstraction and therefore reduce the risk of deterioration of WFD water bodies.

Our outturn headroom assessment

Our Annual Review 2025 has set out and reported on the key components of our supply demand balance, including Distribution Input (DI) and Total Water Available for Use (WAFU). These are not reproduced within this Appendix, although we provide the key conclusions below.

Our adjusted outturn supply demand balances suggest that if 2024-25 had experienced a prolonged period of dry weather equivalent to a 1 in 200 year event, it would have been more challenging to supply the maximum volume of bulk supplies to our neighbours (if they had requested it). This can be explored further by considering the true SDB deficits i.e. those that exist once the buffer for uncertainty (headroom allowance) is removed.

The charts in Figure 9 and Figure 10 of the Annual Review show that if we remove the headroom allowance, our true deficit for 2024-25 was 7.26 Ml/d for the annual average condition. For the critical period conditions there would have been a small surplus. This implies that for the shorter critical period (peak summer demand), we estimate that we would have been able to provide the full 30 Ml/d to SWS. However, had SWS requested 30 Ml/d every day of the year, we consider that we would have only been able to provide around 22 Ml/d on average.

We have improved our position since last year, with the implementation of WRMP24, but recognise that we have further improvements to make to get back to our forecast WRMP24 balance over AMP8. We have

provided action plans for each of the key components of our Supply Demand Balance within the Annual Review.

We expect that we will be largely re-aligned with our WRMP24 by the end of March 2027. However, we do not operate in a static world, and we will continue to refine our plans with the latest data and experiences and deliver our action plans without complacency.

WRMP24 is our most ambitious and collaborative plan yet. Through this plan, we will become more resilient to increasingly severe drought events, at the same time as reducing our reliance and impact upon the precious chalk-based environment that characterises our supply area. We are acutely aware of the need to mitigate against any risks to our security of supply and will continue to work closely with all relevant stakeholders to ensure that we reduce our Supply Demand Benefit deficit in a robust and achievable way as we progress into AMP8.

Appendix C: Action Plan Updates

Introduction

Following the submission of our Annual Review 2024 (AR24), we received feedback from the Joint Regulators (Defra, Environment Agency and Ofwat) expressing their concerns with our reported security of supply, and their perceived risk to the environment resulting from that performance. The five key topics highlighted in that feedback were leakage, PCC, metering, supply side scheme delivery and overall supply demand balance (SDB).

We provided a response document in November 2024 which detailed our action plans to improve both our SDB and our alignment with our WRMP24[17]. Furthermore, we met with the Joint Regulators in February 2025 to update them on progress with these action plans. These meetings will continue every six months with the next meeting scheduled for July 2025.

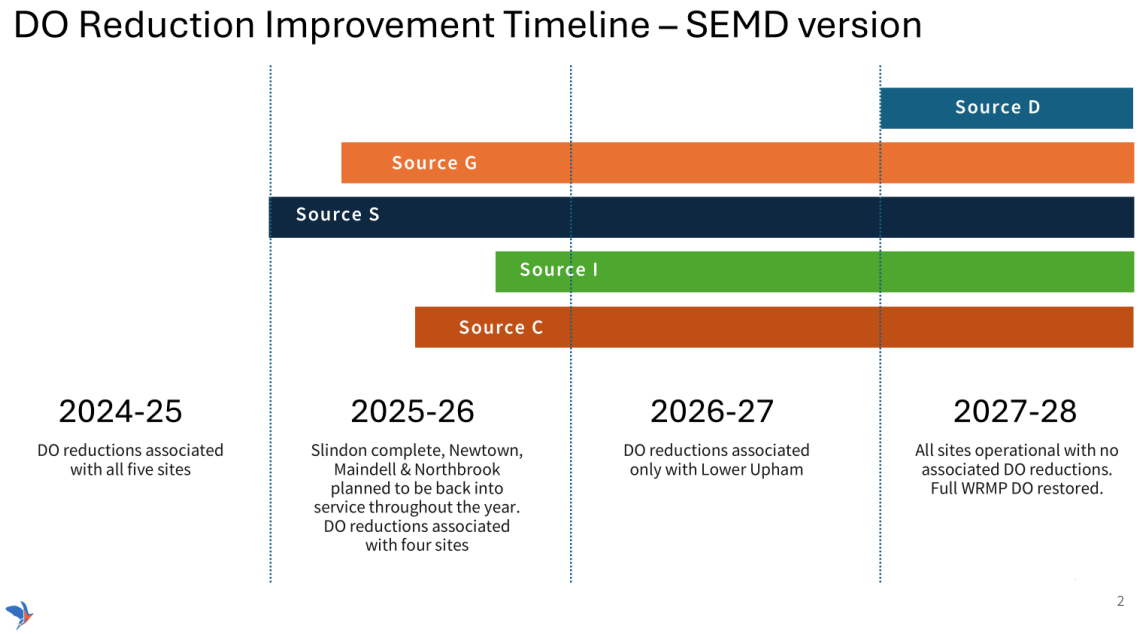
This appendix presents further updates on our action plans originally presented in November 2024, including a summary table of actions and dates.

Supply-side – Action Plan Updates

Deployable Output Reductions – Action Plan Update

We have active plans in place to bring our long-term outage sites back online and to complete the work at Source C by October 2025. The diagram below illustrates these plans against future reporting periods.

We will not benefit from the full DO from Source D, Source G, Source I and Source C in the 2025-26 reporting period, but we will for all future reporting periods. Following the reinstatement of Source D, we expect to have restored full DO and align with our WRMP24 by 2027-28, year three of AMP8.



[17] https://www.portsmouthwater.co.uk/wp-content/uploads/2024/11/2024-11-29-PRT-WRMP-AR24-Defra-Letter-Response.pdf

Outage – Action Plan Update

Outage was not one of the key concerns for the joint regulators, but we did receive feedback from the Environment Agency separately about this matter in September 2024 as our reported outturn outage value was above our WRMP19 forecast in 2023-24. We addressed their concerns in our response in November 2024 and provided reassurance that our shadow reported 'uplifted' outage was below our WRMP19 forecast.

We continue to refine our AMP8 outage programme, which is mostly driven by our ambitious asset maintenance and water quality standard commitments. The plan will require us to efficiently carry out Capital Maintenance, Enhancement, Refurbishment and Reinforcement schemes at thirteen of our twenty-one sites within AMP8. The work will require some level of shutdown at each of these sites over the course of the AMP. The long-term benefits of this programme will be an increase in the operational resilience of our sites, leading to a reduction in unplanned outage going forwards.

We will continue to report our adjusted outage in our future Annual Reviews and will be reviewing and updating the outage allowance for our WRMP29.

System Monitoring Strategy – Action Plan Update

System Monitoring Strategy - We last shared a detailed update on our System Monitoring Strategy in our November 2024 report to the Joint Regulators, and an update in February 2025.

Since then, we have completed a review of the findings and developed a set of recommendations to improve how we monitor and track losses from source to tap. These recommendations have now been integrated into a wider company project looking at monitoring needs across all our water treatment works estate. This means the recommendations will be considered as part of our routine capital delivery planning, helping to make sure we invest in the right solutions. Overall, we are on track with our system monitoring strategy action plan and continue to build on what we've learned so far.

Hydraulic Modelling - The System Monitoring Strategy work is also feeding into our project to update the hydraulic model of our network. We have now completed the recalibration of 60% of the model and have a plan in place to finish the remainder by January 2026. Once complete, the model will give us improved insight into how our assets are working and how we can measure losses more accurately.

At this stage, we have not assigned a specific Mega litre per day (Ml/d) saving to this work, but both the monitoring strategy and the model will help us identify and assess the best options for reducing losses during 2025–26 and beyond.

Demand-side – Action Plan Updates

Unmeasured household PCC - Action Plan Update

Ahead of the legal start of our Smart Metering programme in April 2025, we focused on three key routes to reduce unmeasured household consumption:

- Driving water efficiency through behavioural engagement.
- Promoting meter optants.
- Installing meters during the 'change of occupier' process.

Driving Water Efficiency

Our GetWaterFit platform, delivered by Save Water Save Money, remains our core engagement tool for promoting household water efficiency. In the 12 months of 2024–25:

- 1,198 new households signed up to the platform.
- 1,004 households received free water-saving devices following the completion of a short water use survey.

We ran seasonal marketing campaigns to drive uptake, supported by a significantly strengthened in-house marketing and comms team. This has enabled:

- Improved brand consistency and messaging
- Active promotion through social media, paid ads, local press, and community events
- Over 20% growth in social media followers, now totalling 15,683

In parallel, we've upgraded our customer management IT systems to the award-winning Kraken platform, known for being the system driving innovative consumer engagement in the energy sector of Octopus Energy. The adoption of Kraken lays the foundation for personalised water efficiency engagement in AMP8. These upgrades enhance the customer experience and build a stronger two-way dialogue which is critical to long-term behaviour change.

Supporting Education and Awareness

We have continued to embed water efficiency messaging in local education, through the Science, Technology, Engineering and Math (STEM) curriculum. Our new "Putting Saving Water at the Heart" campaign was launched at the South Coast STEM Fair and received strong feedback, supporting our ambition to influence the next generation.

We committed to delivering 1,000 targeted water efficiency home visits by March 2025, focused on high-usage unmeasured households. While the programme started later than planned, launching in June 2025, it is now well underway.

The revised approach has allowed us to improve the targeting and customer experience, aligning the visits with our enhanced Customer Relationship Management (CRM) system and updated demand reduction strategy. Each visit includes tailored water-saving advice, free retrofit devices, and basic leakage checks, helping customers take practical steps to reduce usage and prepare for metered billing.

This refined delivery model is already showing early signs of positive engagement and provides a strong foundation for scaling in-home support as part of our AMP8 smart metering roll-out.

Installing meters

Table 12 below shows how many meters we installed during 2024-25 for each of the categories compared to our forecasts within WRMP24.

Table 12: Meter installations in 2024-25

Meter Installation Category	WRMP24 Forecast	Outturn	Variance to rdWRMP24 (No.'s)
Optants	1,494	1,534	40
COO	2,302	1,867	-435
Total COO and Optants ("in-charge")	**3,796**	**3,401**	**-395**
Meter Penetration %	**38.4%**	**37.8%**	-0.6%
Voids	0	451	451
Total meter installs	**3,796**	**3,852**	**56**

Although we fell 10% short of our combined Optant and Change of Occupier (COO) metering targets, we are within a single percentage point (37.8%) of achieving our overall WRMP24 meter penetration target of 38.4%, and we installed 56 meters over target when considering void metering (which are automatically brought into charge once the void property becomes occupied).

A major enabler of future progress has been our Not-For-Revenue (NFR) meter programme, through which we installed in excess of 20,000 meters in boundary boxes during our mains renewal programme. This work has demonstrated our ability to scale installations and gives us a critical early cohort of customers who can be transitioned to measured charging under our compulsory metering programme from 2025.

All 20,000+ meters have now been successfully integrated into our Kraken CRM platform, a key AMP7 milestone that was achieved by March 2025. Initial customer communications began in April 2025, marking the start of our first full unmetered-to-metered customer transition.

To support this change, we are working with behavioural and marketing specialists to ensure customers are fully informed and supported. The transition package includes:

- Targeted water efficiency advice and free retrofit devices
- The offer of home visits for high-use households, offering tailored advice and minor repairs
- A proposed 'lowest bill guarantee' to provide reassurance during the billing transition
- Introduction of transition tariffs, giving customers early visibility of how metered charges compare to current bills

Kraken plays a central role in delivering this experience, enabling clear, transparent billing information and improving trust through regular customer updates and insights.

We are also continuing to promote meter optants through behaviourally informed campaigns. We see that Southern Water's wastewater charges are becoming a strong motivator for customers to switch, and we will continue to monitor this trend and align our messaging accordingly. We are already undergoing joint marketing activity (for example in Southern Water newsletters) to promote the advantages to having a meter.

Where possible, customers opting for a meter will be connected directly to our Smart network. For those initially outside the network footprint, smart meters will be installed in a non-connected mode and upgraded as network coverage expands, ensuring all customers are smart-enabled as part of our long-term vision.

Measured Household PCC - Action Plan Update

Once metered, a property is considered 'measured'. As discussed, our PCC action plans are predominantly targeted towards those who have not yet had a meter installed. However, customers with a meter will also benefit from and be influenced by our engagement and communications plans to promote water efficiency.

At the heart of our WRMP24 plan is our universal smart metering programme, which will run over a 10-year period beginning in 2025-26. All existing analogue meters will be upgraded or replaced with smart meters, and by 2035 we expect 94.7% of households to be metered - up from 38.4% in 2024–25. Wherever practicable, these will be smart-enabled to support real-time data capture and more personalised engagement.

In 2024–25, we successfully delivered our first smart water network pilot, marking a significant milestone in our demand reduction programme. The trial carried out in the outskirts of Portsmouth, involved replacing 518 active customer analogue meters with new AMI (Advanced Metering Infrastructure) smart meters in order to test our technology stack and full data integration through our new Kraken CRM system.

Our objectives were to:

- Confirm our ability to receive, process and act on smart data
- Trial customer communications and engagement
- Evaluate smart metering's role in identifying leakage and consumption anomalies

To support the pilot, we proactively engaged the local community via letters, in-person events, social media, and direct mail. Customer response was positive, with minimal negative contact, reinforcing the importance of clear, early communications in future rollouts.

The pilot successfully demonstrated:

- Accurate, real-time data transfer through Kraken
- Early detection of 45 customer-side leaks, with 19 resolved within 22 days

- Identification of high-usage households, which triggered direct outreach and support

These results validate our smart metering model and provide a strong foundation as we scale the rollout from 2025–26. It also demonstrates how smart data can empower customers to manage their consumption and help us deliver targeted water efficiency advice - key to reducing measured PCC over AMP8 and beyond.

Non-Household - Action Plan Update

Following our June 2024 annual review, the Environment Agency requested a targeted action plan to address the 2.85 Ml/d gap between our outturn and (upcoming at the time) WRMP24 forecast for non-household demand.

During 2024-25 we targeted the top 1% of water users to collectively reduce their water consumption. We obtained consumption data for each of the logged users in that cohort and were able to identify whether the property had any potential increase in night line which could be attributed to leakage.

The illustration in Figure 13: Illustration of non-household consumption data (an anonymised real-life consumption record) shows two of the trends we were looking for: the trend of base flow (i.e. the minimum flow) from the site which is otherwise known as the 'nightline' and the volume of water used 24/7 on a site. Both could be possible indicators of leakage or unintentional water loss or could indicate a 24hr operation taking place on the site.

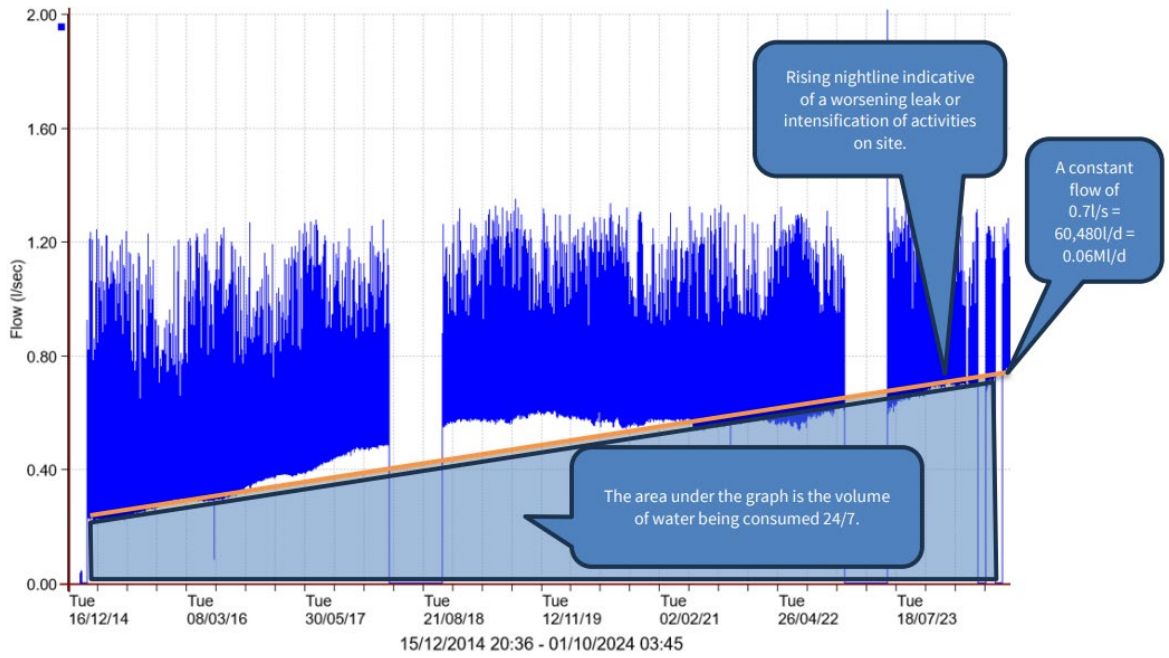


Figure 13: Illustration of non-household consumption data

We subsequently engaged with the business via their Water Retailer, providing information on how much this continuous water usage is costing them (water and wastewater charge) and encouraging them to investigate the reasons.

With WRMP24 now implemented, we are progressing at pace with our universal Smart Metering rollout, which includes dedicated support for retailers and non-household customers as we install smart meters to NHH properties. This shift marks the move from limited influence in AMP7 to direct delivery and structured intervention in AMP8.

We are already seeing a rise in water resource awareness among many business customers, driven by increased visibility of usage and rising energy costs. We expect this trend to continue, particularly as smart

data empowers customers to make more informed choices. In parallel, we are delivering a targeted suite of AMP8 activities to reinforce behavioural change and support further reductions:

- Tailored advice and support underpinned by real-time smart meter data
- Launch of online engagement tools for SMEs (similar to GetWaterFit), where that is not already offered by their retailer
- At least 20 water efficiency visits each year, focused on the top 10% of users, including leak detection and efficiency checks
- At least 20 school visits annually, supporting water education through on-site audits and teaching materials
- Ongoing collaboration with the agricultural sector via catchment programmes, helping reduce abstraction and demand

These measures reflect a step-change in our ability to influence NHH consumption. Smart metering is the critical enabler, giving us and our customers the data and confidence to reduce usage without compromising service or operations.

Leakage Reduction - Action Plan Update

In February 2025 we met with the Joint Regulators and reported that we were on track to complete the actions for 2024-25 and estimated at the time that our Annual Average end of year value would be approximately 26.7 Ml/d. We did not reach this figure at the end of the year, however it is our intention to get back on track with our Ofwat regulatory target by year three of AMP8 (2027-28).

Key activities that we have undertaken in 2024-25 include:

- **Prevent:** 12.1km of mains replacement, major service of almost half of our PRVs, network calming through delivery of our pressure management plans
- **Aware:** creation of additional DMAs to enable more effective leakage detection and targeting (ongoing into AMP8), engagement with global suppliers of innovative network management solutions.
- **Locate:** We have continued our use of satellite detection, and have completed a successful trial of detection dogs, which we are now looking to bring in for 2 days a week on a three-year contract starting in 2025. We have also increased our use of in-pipe camera surveys using an innovative supplier solution to find leaks which will provide significant benefit in terms of our mend costs. In 2024-25 we expanded our leakage analysis team and continue to expand our direct labour leakage detection team and technicians, preparation for the procurement of a new leak detection contract to support our in-house resources, to be in place by the early 2026.
- **Mend:** completed the procurement process for refreshed Network Repair and Maintenance Contract with the new contract arrangement planned to be in place for August 2025. We are also reviewing innovative techniques for no-dig and low-dig repair options.
- **Report:** employed specialist consultants to review and update our reporting methodologies and have engaged with regulators regarding our approach for AMP8. The methodology update section below provides some further detail on this.

<u>AMP 8 Future focus</u>

Whilst the delivery of our previously articulated action plan has continued into Year 1 of AMP8, we are reviewing our leakage and wider networks strategy to ensure we deliver all the objectives and targets set out in our agreed PR24 business plan. Returning our leakage performance to the ODI profile continues to be a strategic objective for the business. The key areas of focus are the recruitment of additional resources into the team, the continued growth of our DMA coverage, the renewal and expansion of our smart networks technology, leveraging the rollout our customer smart metering programme to reduce customer side leakage, improving our understanding of trunk main leakage and exploring innovative technology and approaches to managing our distribution systems.

We will be formally reporting progress with the Joint Regulators twice a year in addition to the regular communications we will have throughout AMP8.

Leakage Reporting Methodology Update

Leakage is a key issue for our customers and consistent and accurate reporting over time is critical. Over the last two years we have been working to enhance our leakage reporting accuracy for AMP8. Whilst regulatory reporting guidance remains little changed, industry interpretation and best practice approaches continue to evolve. In line with the rest of the industry we are committed to increasing the proportion of data-led leakage calculation and the collection of new datasets and subsequently reduce our reliance on assumption and estimation.

We are continuing to work with industry experts to ensure the post MLE gap – the difference between bottom up and top-down leakage assessments – remains within regulatory accepted levels. We remain confident that the work we have undertaken into the numerous components that support this approach will ensure our ongoing compliance. We remain in consultation with Ofwat as we increase the quality of regulatory reporting as material changes to methodologies may trigger the need for data back-cast and rebase.

It is equally important that we improve our insight to the balance between network leakage, customer side leakage and consumption; the continued roll-out of our new domestic and non-household metering programmes will drive this awareness. It is therefore possible that the balance between leakage and consumption will similarly evolve. Such insights will drive efficiencies in our operational find activities, as well as open the door to appropriate conversations with our customers to both reduce wastage and usage.

In early 2025 Ofwat has also announced a review of its current leakage reporting methodology and has commenced a review with the industry and wider stakeholders to consider a new reporting methodology for the next AMP period commencing in 2030. Subject to publication of a methodology it is anticipated that shadow reporting against any new approach could commence in 2027/28.

Action Plan Summary Table

The table below provides a summary of our actions, timescales and estimated benefits.

Supply demand balance delivery actions	Original Target date (Dec '24)	Updated Target Date (June '25)	Status	WRMP24 estimated benefit (annual average)
Actions towards limiting future DO reductions				
Source G: Complete water quality sampling and bring this source back into supply.	April 2025	September 2025	On-going	1.52 Ml/d
Source S: Following the completion of maintenance works, bring this source back into supply for 2025-26.	April 2025	n/a	Complete	1.93 Ml/d
Source O: Following the completion of a water quality improvement scheme, bring this source back into supply for 2025-26.	April 2025	n/a	Complete	2.84 Ml/d
Sources I: Continue to explore options to bring this source back into supply.	Early AMP8	March 2026	On-going	1.41 Ml/d
Source D: Lower priority for return to supply. Consider need via drought forecasting.	During AMP8	During AMP8	On-going	0.81 Ml/d
Actions towards limiting future water losses				
System monitoring strategy project: Complete review of our most complex sites.	January 2025	n/a	Complete	-
Hydraulic modelling: Full update (100%) of hydraulic models.	January 2026	January 2026	On-going	-
System monitoring strategy project & hydraulic modelling: Identification of best value options to reduce water losses.	March 2027	March 2027	On-going	TBC
Actions towards limiting future outage				
Outturn outage for 2024-25: We are currently forecasting that we will outperform the forecast outage allowance (i.e. on track). Provide an update for the Joint Regulators meeting.	January 2025	n/a – 2024-25 outage lower than forecast	Complete	Up to 3
Reporting unplanned outage in AMP8: Discuss with the Environment Agency a pragmatic approach around how to report outage in future annual reviews.	March 2025	n/a – change in guidance for AR25	Complete	-
Actions to explore risks to, and availability of, bulk supplies				

Continue to work with Southern Water to explore bulk supply related risks via our next annual review, AR25, and through the development of our next drought plan and WRMP.	2024-25 and during AMP8	During AMP8 (for Drought Plan) For AR25 maximum export assumed	On-going	-
Review, with the Environment Agency and Southern Water, how the bulk supplies should be represented within our AR25 and in the calculation of the Supply Demand Balance Index (SDBI)	April 2025	n/a – maximum volume assumed (30Ml/d)	Complete	Potentially > 10 Ml/d (not realised)
Actions towards reducing leakage				
PALM model activities (2024-25): Continue with our existing suite of successful activities and overall approach to leakage reduction until the end of 2024-25, with a spot value target of 24 Ml/d at the end of the year, representing a 4 Ml/d improvement on the 2023-24 annual average value.	March 2025	n/a – activities have been continued but expected benefit not seen. Updated action plan to be discussed within AMP8 programme	Complete / superseded	4 Ml/d (not realised)
Re-basing leakage: Continue to communicate our progress to Ofwat on our intention to re-base leakage in Year 1.	March 2025	Communications ongoing – prepare for next annual review. March 2026	On-going	-
PALM model activities (AMP8): Continue with our AMP8 strategy as outlined in this response document.	During AMP8	July 2025: Updated action plan to be discussed	On-going	Annual target In line with WRMP24
Actions towards reducing non-household consumption				
Engagement with non-households: Target the top 1% of water users to collectively reduce their water consumption.	April 2025	n/a	Complete	2.85 Ml/d (1.05 Ml/d realised)
Actions towards reducing Per Capita Consumption (PCC)				
Engagement platform & broadcast communications: Target an additional 900 registrations by the end of this reporting year	End of March 2025	n/a	Complete	15.1//h/d for participating households
Smart meter trials: Install 500 meters, install 100 flow control devices, engage with customers, and where identified, incentivise the repair of leaks.	End of March 2025	n/a	Complete	Between 15 and 30 l/h/d for participating households
Home visits: Complete 1,000 water efficiency home visits	End of March 2025	July 2025: Updated action plan to be confirmed	On-going	60l per day for participating households

Future PCC reductions (AMP8): Deliver our water efficiency strategy as set out in our Final WRMP24.	During AMP8	During AMP8	-	Annual target In line with WRMP24 to achieve 147.1 l/h/d by the end of AMP8
Actions towards increasing metering				
COO, Optant and void metering: Continue with our metering programme to achieve at least 4,341 'in-charge' meter installs during 2024-25.	End of March 2025	n/a – superseded by Smart Meter Rollout	Complete	+ 1.2 % meter penetration
COO, Optant and void metering: Continue sharing the water scarcity message on our social media platforms and direct customers to our water efficiency page, where they can opt in for a meter.	End of March 2025	n/a – superseded by Smart Meter Rollout	Complete	-
Not-for-revenue meter conversion: Move 20,000 meters into our CRM system	End of March 2025	n/a	Complete	-
Not-for-revenue meter conversion: Initiate customer communications and begin reading the meters depending on where they fall in the 6 monthly read routes.	From April 2025	From April 2025	On-going	
Not-for-revenue meter conversion: Transition 20,000 customers to metered charges by June 2026	By June 2026	By June 2026	On-going	+ 3.9 % meter penetration
Actions towards supply scheme delivery				
Source C: Maintain existing outputs owing to the avoid the risk of supply issues during summer 2023 and to support Southern Water with bulk supplies in autumn 2023.	June to October 2024	n/a	Completed	-
Source C: Commission two new Variable Speed Drives (VSDs) and pumps following the resolution of issues experienced in early 2024.	November 2024	October 2025	On-going	-
Source C: Test Source C to demonstrate that the WRMP target rate of 28 Ml/d can be achieved without water quality issues and put into supply.	December 2024 to March 2025	October 2025	On-going	5.5 (DYCP)
Source S drought permit: Continue to monitor and forecast our water resources permission. If there is a risk of triggering our Drought Plan in 2025-26, begin enhanced engagement with the Environment Agency regarding the Source S drought permit and 'More Before 4' options.	January 2025 to March 2025	n/a – not forecasting to use Source S Drought Permit or More Before 4 options in 2025-26	On-going Monitoring of situation	-
Source S drought permit: Further develop the 'More Before 4' options for the next Drought Plan, which will be consulted upon in Autumn 2025	By Autumn 2025	By Autumn 2025	Planned	To be confirmed

Havant Thicket Reservoir: As the construction of the scheme progresses, continue to monitor the forecast implementation year with Southern Water. Ensure that the most up-to-date assumptions are incorporated within the development of the next WRMP.	During AMP8	During AMP8	On-going	0

Appendix D: rWRMP19 supply demand balance components

Adjusted Supply Demand Balance against our rWRMP19

Although we have been reporting our progress against WRMP24 throughout the Annual Review 2025, it is also important to identify how we have performed against the final year of our rWRMP19. The table below shows that we ended rWRMP19 in deficit against the rWRMP19.

Supply Demand Balance	Annual Average (Ml/d)			Critical Period (Ml/d)		
	Adjusted Outturn	rWRMP19	Variance	Adjusted Outturn	rWRMP19	Variance
Total Water Available for Use	175.12	178.65	-3.53	223.77	226.80	-3.03
Distribution Input	185.96	173.50	12.46	227.80	214.61	13.19
Target Headroom	4.95	4.95	0.00	5.74	5.74	0.00
Supply Demand Balance	**-15.78**	**0.21**	**-15.99**	**-9.76**	**6.45**	**-16.21**

The comparable SDB in 2023-24 (shadow reported as the 'uplift' SDB) was a deficit of -21.21 Ml/d (annual average) and -14.8 Ml/d (critical period). **We have therefore improved our position by 7.97 Ml/d and 5.04 Ml/d respectively from last year.**

The table below provides details on how each of the components for the SDB were calculated.

The improvements we made in 2024-25 which influenced the annual average SDB:

- DO Reductions reduced as we could claim full DO benefit of Source O in 2024-25
- The DO benefit of the Source J scheme (8.4 Ml/d) is less than the associated Bulk Supply to SWS (9Ml/d) so removal of both in the calculations leaves a net benefit to our customers of 0.6 Ml/d
- Outage has reduced by 2 Ml/d
- Losses have reduced by just over 1.2 Ml/d
- Household consumption has reduced by 0.4 Ml/d
- Non-household consumption has reduced by just over 1 Ml/d

Components of the rWRMP19 Supply Demand Balance (Annual Average)

Component	rWRMP19 value	Adjusted Outturn 2024-25	Assumptions
rWRMP19 DO	226.75	226.75	Value includes the Source J scheme for 2024-25 (see AR24)
DO Reductions	0	11.59	As per AR25 DO reductions but using rWRMP19 DO values to calculate impact. Plus, cancellation of Source J scheme.
Losses	2.4	3.6	As per AR25 adjusted losses values
Bulk Supplies	39	32.09	Note, rWRMP19 value includes the bulk supply associated with the Source J scheme, which has now been cancelled. The rWRMP19 also does not include NAVs. Adjusted rWRMP19 2024-25 value is same as reported 2024-25 value i.e. includes NAVs.
Outage	6.7	4.34*	As per AR25 outages but using rWRMP19 DO values to calculate impact.
Total WAFU	**178.65**	**175.12**	**Calculated as rWRMP19 DO – DO Reductions – Losses – Bulk supplies - Outage**
Household Consumption	114.81	122.65	As per AR25 adjusted consumption values
Non-Household Consumption	31.71	31.57	As per AR25 adjusted consumption values
Leakage	24.05	28.10	As per AR25 adjusted leakage values
Water Taken Unbilled	2.45	2.28	As per AR25 adjusted water taken unbilled values
Distribution system operational use	0.48	1.35	As per AR25 adjusted DSOU values
Distribution Input	**173.50**	**185.96**	**Calculated as HH consumption + NHH consumption + Leakage + Water Taken Unbilled + DSOU**
Target headroom	4.95	4.95	As per rWRMP19 value
Supply Demand Balance	**0.21**	**-15.78**	**Calculated as Total WAFU – DI – Target Headroom**

*Outturn outage was 8.59 Ml/d (3.88 Ml/d unplanned and 4.71 Ml/d planned). This has been used for the calculation of our Supply Demand Balance Index (SDBI). Please see appendix C for our actions plans.

Components of the rWRMP19 Supply Demand Balance (Critical Period)

Component	rWRMP19 value	Adjusted Outturn 2024-25	Assumptions
rWRMP19 DO	274.60	274.60	Value includes the Source J scheme for 2024-25 (see AR24)
DO Reductions	0	13.9	As per AR25 DO reductions but using rWRMP19 DO values to calculate impact. Plus, cancellation of Source J scheme.
Losses	2.40	3.60	As per AR25 adjusted losses values
Bulk Supplies	39	32.09	Note, rWRMP19 value includes the bulk supply associated with the Source J scheme, which has now been cancelled. The rWRMP19 also does not include NAVs. Adjusted rWRMP19 2024-25 value is same as reported 2024-25 value i.e. includes NAVs.
Outage	6.40	1.23*	As per AR25 outages but using rWRMP19 DO values to calculate impact.
Total WAFU	**226.80**	**223.77**	**Calculated as rWRMP19 DO – DO Reductions – Losses – Bulk supplies - Outage**
Household Consumption	155.92	164.49	As per AR25 adjusted consumption values
Non-Household Consumption	31.71	31.57	As per AR25 adjusted consumption values
Leakage	24.05	28.10	As per AR25 adjusted leakage values
Water Taken Unbilled	2.45	2.28	As per AR25 adjusted water taken unbilled values
Distribution system operational use	0.48	1.35	As per AR25 adjusted DSOU values
Distribution Input	**214.61**	**227.80**	**Calculated as HH consumption + NHH consumption + Leakage + Water Taken Unbilled + DSOU**
Target headroom	5.74	5.74	As per rWRMP19 value
Supply Demand Balance	**6.45**	**-9.76**	**Calculated as Total WAFU – DI – Target Headroom**

*Outturn outage was 9.70 Ml/d (5.57 Ml/d unplanned and 4.12 Ml/d planned). This has been used for the calculation of our Supply Demand Balance Index (SDBI). Please see appendix C for our actions plans.

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