



South Staffs Water



Cambridge Water



To help create a world where essential services and infrastructure deliver for customers, clients and our planet



# Annual performance report 2024/25

South Staffordshire Water PLC  
Supplementary information appendix

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# Confirmation of common methodology compliance

The table below confirms RAG status against common methodologies for the relevant PCs.

Performance commitment	RAG status
Leakage SST	Green – fully compliant
Leakage CAM	Green – compliant in all areas except for data availability
Per capita consumption SST	Green – fully compliant
Per capita consumption CAM	Green – fully compliant
Unplanned outage	Green – fully compliant
Supply interruptions	Green – fully compliant
Mains repairs	Green – fully compliant

For leakage, our data availability in our Cambridge region was 89%, marginally short of the 90% target. This did not impact targeting because our analysts could still view telemetry data and therefore daily targeting, and reactive work continued. As we have infilled the missing data in Waternet and validated it against expectations, the issue is not material to the final water balance figures, and our technical auditors agree with this conclusion.

On unplanned outage the guidance for PWPC capacity testing states that sites must be tested once per five year period. In our case, PWPC capacity for all but one site (out of 42 sites) has been validated through normal operations i.e. in the past five years we have observed above 95% of the PWPC value during normal site operation. Only one site has not met this criteria, but this site has still achieved 81% of its stated PWPC and is a small site which is not material to the overall PWPC value, at just 0.2% of our PWPC value in total. Overall therefore we consider we are compliant on this aspect. As we have previously stated, pushing sites to their absolute maximums simply for confirming PWPC values is a significant operational risk, for both the site itself and the upstream network in terms of pressure increase which could lead to bursts, and sediment disturbances which could lead to water quality issues for customers. We will consider on a case-by-case basis whether any specific site can be tested, and at what level it can be tested to, if any site does not run at sufficient capacity in any five year rolling period to demonstrate its PWPC. We will report any deviations to Ofwat in our future APRs if this is the case.

# Compliance Risk Index (CRI) restatement of 2023/24 reported value

In our 2023/24 APR table 3A we reported the CRI score of 10.90 from which an underperformance penalty of £1.816m was incurred. This was based on the draft internal calculations of CRI score using our best available data at that time, as is the case every year before we receive agreed DWI scoring.

Prior to APR publication DWI released final scores which were amended from our draft value; however, this was overlooked and therefore our table 3A value was not updated. We did not detect this error until recently whilst preparing this year's APR submission.

The correct value for 2023/24 is 8.40, resulting in an underperformance penalty of £1.709m. This is a reduction in penalty of £0.107m.

We have included this figure as a correction in the ODI in-period adjustments model for 2024/25, by adding £0.107m into line IPD04\_CO\_IN\_32 (Other bespoke adjustments, water network plus).

# Visible leak repair time

When defining our business plan our customers told us we should repair bursts quicker, to do our bit to minimise the wastage of water from our network. We agreed and set ourselves targets to significantly improve our performance in this area. During the business plan process we realised that the definition of the measure had been taken to include reinstatement time, which was not intended. We attempted to correct this with Ofwat post draft determination and post final determination. In a letter post final determination, Ofwat acknowledged that the definition should be amended however asked us to report the measure both with and without reinstatement time for the duration of the price control.

We have reported the value without reinstatement time, as originally intended, in table 3A. This is 90% of visible leaks repaired within 5 days, which meets our performance commitment. Including reinstatement, 90% of jobs are completed within 10 days.

# Low pressure data request

We regret that we are unable to provide this data request for the APR25 deadline as requested.

The pressure logger data collected from all DMAs within our network is extensive, but we do not currently have an automated means of evaluating it against the pressure threshold and time criteria required for the format of this data request, and we need to develop new reporting functionality to undertake this task. Our reporting is set up to evaluate against the historic DG2 criteria which is not the same as this new request.

There is too much data to manually complete the exercise in any meaningful way, given the number of loggers operating with 15 minute raw data, and the property mappings that would be required. Not all DMAs have a critical point pressure logger, so we have work to do on improving this over time and attributing proxies where possible in the current/historical data. There are also out-of-DMA properties that we need to consider how to include.

Over the past two months we have been discussing the potential options for this reporting internally, and our preferred solution is to build new reporting functionality into our existing 'Waternet' software which is proprietary software licenced from RPS. We already utilise this software for various aspects of DMA management and leakage reporting, and it holds the raw 15 minute logger data that we need for this exercise, so is the ideal tool on which to build the new functionality. We have approached RPS and begun the process of specification of how this new functionality will work.

We believe at this stage that the development work and testing will take a further 3 months to complete, and we will then be able to provide up to 5 years of data for all of our critical point logger coverage. We cannot reliably go further back than this as the data becomes more sporadic (considering how the Waternet software has matured over time and the data history it holds) and so would not be as comparable as more recent data.

We therefore propose that we will be able to provide up to 5 years data (depending on data quality), as of approximately end of October (allowing time for development of the new functionality, testing and implementation). Crucially, this will create a solution that can be used for continued automated reporting going forward. We recognise that this does not meet the current deadline however we feel it is a more permanent and robust solution and so is the right approach to take.

# Carbon accounting – line commentary

It should be noted that the following key information relates to table 11A reporting lines.

## Lines 29-32

The industrial Carbon Accounting Workbook automatically produces the output for table 11A including these lines; however, there appears to be a discrepancy in the total for these lines compared to the total for scope 3. We will continue to engage with the CAW working group on this issue and advocate for the correction to be implemented in the next version.

## Line 42, normalisation of emissions

Note that in APR24 we raised the issue in our commentary that Ofwat's automatic calculation for this line takes our total carbon emissions and normalises by our DI, but that as our carbon emissions are gross of our significant export at Hampton Loade treatment works, taking our DI value as the normaliser will mean our emissions per Ml of water are overstated. Due to this, we again advise caution on using this field for any industry benchmarking.

# Carbon accounting – SWOT analysis

## Strengths

SSC has continued its strong focus and commitment to sustainability throughout the year as it continues its journey towards Net zero.

The final phases of the EV infrastructure project are now complete with charging stations fitted at 4 key sites across both regions and 14 electric vans are now in operation. In December 2024, we activated a payment process app, this allows employees with company vehicles to charge their vehicles for private use at company sites. Importantly, tariff rates were designed to ensure that all energy and operating costs associated with private vehicle charging are fully recovered from our employees using the service and no costs are passed on to our customers. By expanding EV infrastructure, we are actively reducing operational emissions associated with fleet transport, supporting a lower-carbon future.

We have also continued to procure our electricity through zero carbon sources throughout the year and have extended our current contract out to 2026 where we intend to tender for new electricity and gas supplies for the remainder of the AMP period.

The water company is part of South Staffordshire Plc, and to ensure methodological accuracy in carbon reporting requirements across all group companies, we have implemented carbon accounting software, Position Green. This software aligns with the GHG Protocol and utilises comprehensive and regularly updated emission factor systems such as Defra or Exiobase. By standardising reporting methods across the group, it not only enhances accuracy but also reduces resource demands, as data is now collected more frequently throughout the year.

In addition to adopting Position Green for carbon reporting, the group is committing to the Science-Based Targets initiative (SBTi), further reinforcing its dedication to sustainability and emissions reduction. To support this transition, the group partnered with consultants Future Leap, who have provided expert guidance throughout. Previously, South Staffs Water did not have robust methodologies for measuring Scope 3 emissions; however, with Future Leap's support, an accredited and globally recognised methodology (GHG) has been followed in line with the SBTi framework.

The initial report and reduction targets for the group have now been confirmed and are currently awaiting board approval in June. This methodology, alongside Position Green reporting, will enable more precise monitoring of emissions as the group progresses towards its net-zero targets.

## Weaknesses

Post the Pandemic SSC saw notable increases in daily pumping volumes required to service our customer base, this increased demand has remained and when combined with the higher-than-average pumping head due to the region's topography means that the majority of our energy use is through the pumping of water around our network. SSC's largest treatment works operates a CHP engine generating around 5.2 MW of power for the site. This engine runs on natural gas and results in SSC having higher scope 1 emission when compared to the sector.

Enhanced funding was sought through the PR24 process to invest £6.2M in ground mounted Photovoltaic (PV) electricity generating assets located at 4 sites, one of which was the large treatment works with the CHP plant.

Unfortunately, this funding was not available and now other routes to financing these developments are being explored.

Through our collaboration with Future Leap, we have gained a much deeper understanding of our Scope 3 emissions, which have been independently verified as part of our SBTi targets. To establish a baseline, we opted for a spend-based methodology—while this approach provided valuable insights, it is recognised as the least accurate of the accepted methodologies.

We are now using Position Green reporting software to track our emissions and for our embedded carbon calculations our finance team provided us with data extracts of goods and services procured throughout the year. These purchases had to be categorised by SIC code for upload into the software. We have had to match these purchases to appropriate sic codes however they do not necessarily match the companies house SIC codes as Position Green matches them to European databases. This introduces a potential source of error if purchases are not assigned correctly.

Further conversations with Position Green have also shown that for spend based methodologies the emissions factors are now dated. This is because they believe that post pandemic there has been volatility in the emissions factors linked to spend and have opted to use 2019 factors to control this. Position Green were also not adjusting spends back to the emissions year and this process had to be completed manually.

Additionally, we are manually removing invoices in the purchased goods and services process where inclusion would result in double counting in other areas. These invoices must be identified manually by supplier name and although best endeavours have been made to do this it is not always obvious what an invoice is for so there is a possibility some of the smaller spends are still being double counted, but we do not expect this to be material.

Looking ahead, we are committed to refining our approach by transitioning towards more precise calculation methods, such as supplier-specific data or activity-based methodologies, which offer greater accuracy and reliability. This will not only enhance the credibility of our emissions reporting but also provide clearer insights into where we can make the most impactful reductions.

As a water only company SSC has less opportunity for energy regeneration from bio- mass and waste products that Water and Sewerage companies do however options for energy from waste are being explored.

## Opportunities

Although we were unable to secure enhanced funding for our Solar PV projects as part of SSC's Net-Zero journey, we are still exploring behind the meter enhancements. At a wider group level SSPLC has setup a ESG working group aimed at achieving our Net Zero 2030 and 2050 targets. We have also secured funding to install a heat recover system at one of our Cambridge sites and this along with several other sites are currently being assessed for viability. In addition to Photovoltaics, an energy from waste facility is currently being explored with Standard Gas Ltd capable of producing up to 5MW of power. If viable this is a carbon negative technology and would replace the carbon intensive natural gas used in our CHP plant, considerably reducing our Scope 1 emissions.

For the last 6 years SSC has procured Zero-Carbon grid electricity from its electricity supplier however for 2026 onwards we are also exploring the use of Corporate Power Purchase Agreements (CPPAs) with a number of companies to enable us to directly purchase the energy generated from renewable assets. We currently have estimates for 5-, 10- and 15-year products and will build these requirements into our energy tender process for the remainder of AMP8.

In addition to zero carbon energy sources a critical part of SSC's net zero journey is demand reduction. The Pumping Efficiency Program (PEP) identifies inefficient assets across our water production sites and provides the justification that enables either refurbishment or replacement of these assets. Further investment in this program planned for will provide clear benchmarks for these assets and drive carbon reductions through efficiency gains. As well as the PEP program further investment in efficiency schemes within our buildings (BMS, lighting, replacing fossil fuel boilers with heat pumps etc.) will also drive a reduction in energy demand. These efficiencies are identified by our ESOS auditing obligations and findings are presented at board level.

Throughout the last three years we have been installing a ceramic filtration plant at our biggest water treatment site. This is the largest install of its kind in the UK and is now operational. We expect that the new plant will enable circa 1200 tonnes of carbon savings annually compared to the previous process.

Scope 3 emissions. Through our collaboration with Future Leap and the new Position Green software, we now have a much stronger understanding of our Scope 3 emissions. However, while the spend-based methodology has provided an initial framework, we recognise the need for a more precise and reliable tracking system. There is an opportunity to further enhance the software by automatically adjusting volumes for Inflation and Position Green are working on this for the future.

Transitioning away from spend-based tracking will require active collaboration with suppliers to improve data availability and reporting consistency and there are opportunities to work with our procurement teams and suppliers to provide verified emissions data and align with best practices. This will be essential in strengthening our Scope 3 calculations over time.

## Threats

Climate Change and Global Warming effects pose a clear threat to SSC's operations. Droughts and water scarcity can mean assets have to be pushed harder or used in inefficient ways. Unpredictable customer demand caused by extreme weather or changing socioeconomic conditions can make optimal planning for the use of our assets, or the outages required for refurbishment, difficult and subsequently drive energy inefficiencies.

Volatile macroeconomic conditions can have a direct impact on global energy prices as well as the availability of certain technologies, making it difficult to plan and procure energy sources and develop longer-term business cases for large investments.

In addition to this, IT security remains a critical concern, with the ever-increasing risk of cyberattacks posing a significant threat to business operations, data integrity, and supply chain security. As cyber threats continue to evolve in complexity and frequency, maintaining robust cybersecurity measures can cause challenges for data orientated businesses. Much of our reporting data is collected directly from our SCADA systems and can be impacted by new IT policies.

Maintaining water quality while reducing use of chemicals in treatment also is a challenge for SSC often the alternative water treatment technologies, for example UV or ceramics are more energy intensive and can be counter to the efficiency gains on sites achieved through other means.

As we enhance our ability to report carbon emissions for frameworks such as ESG and SBTi, the financial resources required to support this process continue to grow. Investment in both consultants and specialised software packages is essential, but it comes with increasing costs. While dedicated software streamlines data collection and analysis, it does not eliminate the growing need for additional personnel within the department to capture, manage, and monitor emissions data effectively.

As our understanding of Scope 3 emissions deepens, new strategies are needed to identify and implement meaningful reductions. Some downstream processes are significant contributors to emissions, yet our ability to influence them remains limited without substantial investment. Overcoming this challenge will require innovative solutions, stronger collaboration across our supply chain, and a long-term commitment to driving emissions reductions beyond our immediate operational control.

# Carbon accounting – embedded carbon RAG assessment

We have reported cradle to build embedded emissions in this APR. This is the second time we have report these emissions having previously done so using the emissions from one project at a major treatment works as a guide.

For 2024/25 as part of our SBTi and ESG reporting we have introduced third party reporting software from Position Green. For the embedded carbon reporting we have obtained financial procurements reports detailing all our capital spends across the year and have uploaded them into the Position Green software. By using a spend based approach and recognised emission factors we have been able to further build on the embedded carbon numbers previously reported and now have both Capital projects and purchased goods and services included.

Against the RAG assessment criteria contained within RAG4.13, we have assessed that we are 'green', defined as meeting at least five of the criteria, as follows.

Category	Embedded emissions reporting criteria	SSC comments
Green	Provision of embedded emissions data as it relates to capital projects (cradle-to gate or cradle-to-build).	We have used a spend based methodology to provide an estimate of cradle to build emissions data based on a finance/procurement extract of all capital spend data across the reporting period and then used GHG compliant third-party software provided by Position Green to calculate the emissions.
Green	Clear evidence of external verification by an appropriately qualified party as it relates to the use of standards and frameworks, and quality of data.	We have used audited procurement data from our finance departments and uploaded this into third party software provided by Position Green who are using recognised GHG reporting methodologies to calculate our emissions. The process was then externally audited and all comments addressed prior to submission.
Green	Engagement with one recognised standard, framework, or approach for managing and reporting on embedded emissions.	Position Green is using GHG protocols and recognised sources for emissions such as Defra and Exiobase to calculate our emissions which are separately reported through our SBTi and own ESG processes. Group level figures were also validated by the consultants Future Leap as part of creating our SBTs
Green	Provision of embedded emissions data as it relates to purchased goods and services.	We have used financial spend data provided by our finance team which are adjusted to remove any categories which cause double counting in the other scope 3 areas of table 11a. This data has then been exported to our position green software and emissions calculated.

Category	Embedded emissions reporting criteria	SSC comments
Green	Complete and detailed SWOT analysis referring to embedded emissions.	Our SWOT analysis includes embedded emissions and recognises our developing processes in this area including the weaknesses associated with spend based methodologies.



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