

South East Water 2013-14 Annual Review



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Introduction

This report, along with its accompanying data table, presents South East Water's annual review of water resources performance compared with the forecasts contained in our Water Resources Management Plan (WRMP) during the 2013-14 regulatory year (from April 2013 to March 2014).

The regulatory year 2013-14 was the fourth and penultimate year of the Water Industry's fifth Asset Management Period (AMP5). This five year period was covered by the WRMP09 which will be superseded by WRMP14 in 2015-16 as the industry embarks upon AMP6.

As our WRMP14 has been approved by the Secretary of State ahead of AMP6 and contains more recent assumptions and analysis than WRMP09, we have decided to review our 2013-14 performance against both sets of forecasts.

The tables presented in this annual review are consistent with the WRMP09 and WRMP14 and are, in addition, consistent with the AMP5 Final Business Plan (FBP).

It is a statutory requirement as part of the WRMP process for us, along with all other water companies, to produce an annual review and submit this to the Environment Agency and Defra. We have sought to comply with the relevant guidance. This commentary is structured to cover the content required by the guidance and the data table includes annual average out-turns for all the eight resource zones in the reporting period. We have had our data verified by an independent auditor as part of our quality assurance process.

Although there is no legal requirement for annual review statement to be published, an independent review group has recommended that annual reviews should be made available to the public. We have decided to publish our review on our website¹.

1 www.southeastwater.co.uk/about-us/our-plans/water-resources-management-plan/wrmp-library



1. Overview of the 2013-14 Year

Winter 2013-14 was the wettest winter in the South East of England since official records began in 1910. The MET Office looked further back into its archives (EWP series) and concluded that the winter was in fact the wettest since 1766, nearly 250 years. This extreme weather caused unwelcome flooding and power outages for our customers and communities, and also posed a challenge for our Operational teams.

In addition to being wet, it was warmer and we experienced around 12% more sunshine hours from the beginning of December to the end of February than we do on average. The temperature for winter 2013-14 was on average 1.5 degrees warmer than an average winter making it the fifth warmest winter since records began in 1910 and the warmest since 2007.

Figure 1 below shows the profile of monthly rainfall compared to the long term average (LTA). The graph shows the relatively dry spring and summer period of last year and then the exceptionally high rainfall over the winter. January and February each received around two and half times the expected monthly rainfall.

The heavy rain over the winter led to supressed customer demand during the winter months. This followed a peak in customer demand for water in July due to some warm dry weather.

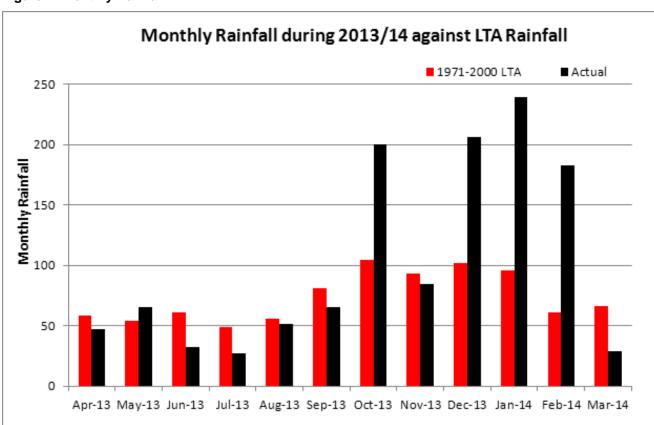


Figure 1: Monthly Rainfall



Average demand for the year was 523.3 Ml/d which was similar to last year's demands with the continued influence of the metering programme and the impact of the warmer and drier weather over the summer in 2013 balancing against the suppressed winter demand. Peak demand over a week in July reached 657.3 Ml/d.

- Household per person demand for water was 2% lower for metered customers and 1% lower for unmetered customers compared with the previous regulatory year (2012-13).
- Commercial customers increased their water use by around 3% compared with previous year's consumption levels. This reflects the drier summer weather conditions.

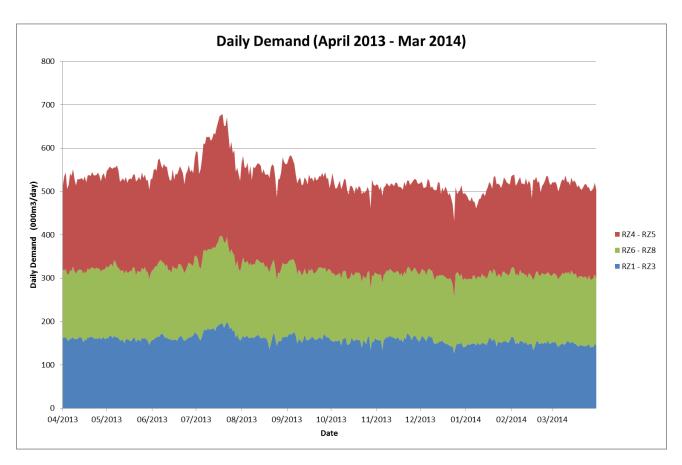


Figure 2: Average daily demand for water

Total leakage was 92.6 Ml/d for the regulatory year 2013-14. This is below the leakage target of 94 Ml/d, and a reduction from last year's total leakage figure of 93.2 Ml/d.

The Company has produced a Water Balance in line with the approach applied in previous years' figures, and this has been independently audited in line with previous years.



Although the balance between supply and demand in a dry year is tight across several of our water resources supply zones, the reduced demands recorded during the past year resulted in a surplus of available headroom in all zones. The Company met the Security of Supply Index of 100% on average and peak using both WRMP09 and WRMP14 demand and supply assumptions as planned.

2. Out-turn data for 2013-14 Reporting Year

a) Water Resource Zones

The Company operates eight Resource Zones within two separate Regions (the Eastern Region and the Western Region) as agreed with the Environment Agency and reported in the WRMP09 and WRMP14. There have been no adjustments to resource zone boundaries during the reporting year. The locations of these zones are displayed in figure 3 below.

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Figure 3: South East Water's Resource Zones

b) Levels of Service

There has been no change to the Company's declared Level of Service adopted in the WRMP09. This has been maintained consistently in WRMP14 and so remains at

- 1 in 10 years for Temporary Use Ban
- 1 in 40 years for Non Essential Use Restrictions

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1 in 50 years for Deployable Output

The reduced demands recorded during the year have resulted in a surplus of available headroom in all zones. The Company has met the Security of Supply Index of 100% on average and peak using both WRMP09 and WRMP14 demand and supply assumptions as planned, whilst recognising that the balance between supply and demand in a dry year is tight across several of our water resources supply zones.

c) Deployable Output

Additional schemes to deliver increased Deployable Output at Groombridge and Saint's Hill have been completed during the year. Deployable Output at Groombridge has increased by 0.5Ml/d for both average and peak conditions and at Saints Hill it has increased by 1.48 Ml/d on average and 1.3 Ml/d on peak. These increases take the total Deployable Outputs at Groombridge and Saints Hill to 2.5 Ml/d and 7.0 Ml/d respectively.

As reported in previous year's, a decision taken by the Company in 2010 to bring a number of schemes forward from AMP6 into AMP5, at Tonbridge, Crowhurst and Pembury, will deliver additional resilience to the security of our supply. All three schemes are in progress with Tonbridge and Crowhurst due to deliver over the coming months and all schemes by the end of AMP5.

The Deployable Outputs of our sources have been reviewed as part of the work to support the WRMP14 and this is documented in the WRMP14 Appendix 3.

d) Outage

The actual reported outage during the 12 month period was 27.67 Ml/d, which is higher than the 19.0 Ml/d in the WRMP09. This partially reflects the extreme storms and flooding experienced over the winter period. Outage was reviewed for WRMP14 and the revised figure of 27.4 is much closer to the actual reported outage figure for the year.

The outage used in the calculations stems from operational sites only where genuine events have occurred which have interrupted output, either as planned or unplanned events. These include major power failures, treatment and quality failures, control and process failures, and other emergency situations. The control room logs provide information to understand these events, and also allow for the company to improve the management and control of such occurrences. The company considers that the controls in place through the control room protocols have demonstrated an improvement in our systems to manage and reduce these events. The level of outage being recorded is a reasonable reflection of the normal operational condition of our supply system.

e) Bulk Supplies

There have been no changes to the bulk supply agreements with neighbouring companies.

There are new bulk supplies planned for the future and documented in our WRMP14 Section 9.

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f) Sustainability Reductions

There have been no alterations to the AMP5sustainability reductions declared in the WRMP09.

Progress on NEP scheme investigations has been made during the year in close cooperation with the Environment Agency and these are summarised below.

- Our investigations have concluded that our abstraction at Greywell is environmentally damaging (on designated SSSI features) and that abstraction should cease at this source when this does not present an undue risk to security of supply. This will be achieved through the WRMP Process via new source development and network improvements, (included in WRMP14). Delivery of the WRMP14 will remove the source output of 6.82MI/d away from the Greywell site during the period 2020-2025.
- Investigations at Poynings and on the Maidenhead Ditch have demonstrated that abstraction is creating a degree of surface water impact. At this stage options are available to that offset this impact without the need to reduce our deployable outputs. The investigation of those options will occur during AMP6.
- The Trosley Group abstraction licence (Leybourne and Bourne scheme), and licences at The Bourne, Boxalls Lane and Tongham (Farnham Bourne scheme) have been found to be environmentally sustainable at current conditions and levels of output.
- The Farnham Bourne suite of abstraction investigations were signed off as complete by the Environment Agency in autumn 2011. The study found the Farnham Bourne geomorphology appeared to be unaffected by South East Water abstractions and was more significantly impacted by urban development.
- The Little Stour scheme was scoped with costs by Southern Water for PR09, who absorbed all the project management costs. The total AMP5 investigation and options appraisal costs were then apportioned on the basis of total Deployable Output across Affinity, South East Water and Southern Water. This associated reduction was not included in the WRMP14 at the request of the Environment Agency.

g) Demands and per capita consumptions

Overall demands, as discussed in the introduction and displayed in figure 2, were impacted by a peak use period in July and a very wet storm winter. Overall average day demand of 523.33 Ml/d compared with a dry year WRMP09 forecast of 563.49 Ml/d. Measured per capita consumption (147.28 l/hd/d), and unmeasured per capita consumption (164.81 l/hd/d) were both below the WRMP09 and WRMP14 forecast for a dry year. As the year was not on the whole 'dry' you would expect actual demand to be lower than the dry year forecast.

With the unusually wet weather during the report year, it is not considered necessary to review and modify the demand forecasts presented in WRMP09 or WRMP14 as there is no additional dry year data which would suggest that the forecasts are inappropriate.

Work on revisions to the demand forecast has been carried out as part of the WRMP14 process and can be found on our website in the WRMP14 Appendix 4.



h) Metering

The reported figure for total meter penetration at year-end is 60.4% with 547,500 measured properties at the mid-point of the year, lower than the 593,500 in the WRMP09 but slightly above the 533,500 in the WRMP14. This lower figure from the WRMP09 is due to the delayed start of the universal compulsory metering programme (CMP). However the forecasts within the WRMP14 have this taken into account and we are on track to install the agreed number of meters to household customers by the end of the AMP5 period.

We have reviewed the actual savings associated with metering and found them to be in line with the assumptions made in both the WRMP09 and WRMP14. A summary of this review and its findings can be found in the WRMP14 Appendix 4E on our website.

i) Leakage

The "Bottom-up", or raw estimate of leakage is 90.8 Ml/d, slightly above the previous years' figure of 90.7 Ml/d for the combined Company. The final estimate after adjustments, which is the reported level of leakage for the 12 months to the end of March 2014, is 92.6 (down from last year's total leakage figure of 93.2 Ml/d), meeting and exceeding the leakage target of 94 Ml/d.

The company considers that it is on track to deliver both the baseline and final planned leakage reduction targets set in the current AMP.

j) Water Efficiency

We have achieved our annual water efficiency target of 0.84 Ml/d for the fourth year in a row. We are carrying over 0.88 Ml/d into the 2014-15 reporting year and so have now exceeded our 5 year target for AMP5 of 4.17 Ml/d of assumed savings. The total assumed savings for the year 2013-14 is 1.21 Ml/d. This is slightly lower than last year's figure, possibly due to the wet weather and flooding experienced, but similar to previous years and shows our continued efforts on water efficiency and the support from our customers. There may have been some continued impact from the drought communications and temporary use bans in 2012/13 where water efficiency was much more widely promoted at a national level.

We continue to offer devices and promote water efficiency advice to all our customers via our website, at events, through our contact centre and as part of our enhanced metering programme.

Customer requests for devices and visits to our website pages have been similar to previous years. Despite the heavy rain, Water butt sales and requests for devices were highest during February and March, in line with our main billing period. We also saw a huge increase in the number of customers completing the online water and energy calculator in January 2014 after it was updated to be compatible with Apple devices.

We provide water efficiency packs to all our newly metered customers on the optant and compulsory metering programmes. Every customer is sent a pack including a leaflet with more information on their new meter including how to read it, checking for leakage and water efficiency





tips. We also provide them with a 4 minute shower timer and a Hippo bag for their toilet to encourage them to reduce water wastage and in turn save money.

We carried out telephone surveys with around 200 customers on the compulsory metering programme (CMP) in December 2013 to provide feedback on a number of factors around the programme including, communications, meter installs, surveys and if they intend to use the water efficiency devices provided.

The results have shown that around 30% of customers use one or both of the free devices provided in the pack. However, this is based on a very small sample of just 200 customers; compared to over 42,000 CMP meter installs. We have therefore continued to use the 50% assumed installation rate for this year. We are preparing to trial a new process for our customers who have a water meter installed in 2014/15. We are planning on changing the process in 2014-15 to allow customers to request online from a wider range of free devices to encourage them to save water and energy. If the trial is successful we will roll this out mire widely to all domestic customers in AMP6.

We have taken part in the schools programme Aqua innovation this year. The programme is aimed at engaging secondary school students to become involved in saving water and improving the sustainability of their school. It tasks students to design a product, service or campaign that will reduce the water wastage. Two secondary schools have taken part this year, reaching over 1,000 pupils and we hope to continue this exciting programme next year with at least 2 new schools.

k) Climate Change impacts on supply

Minor reductions in the deployable outputs have been included in the annual assessment. These are in line with the final WRMP09. No additional reductions have been included.

Further work on revisions to the impact of climate change on Deployable Output have been modelled as part of the work to support the WRMP14 using the latest UKCP09 data. This is detailed in Appendix 3 of our WRMP14 and is available on our website.

I) Target Headroom

The target headroom from the WRMP09 for the year of 30.30 Ml/d has been retained unchanged for this annual review period.

Further work on revisions to the target headroom was been modelled as part of the WRMP14 process and is documented in Appendix 5 of the WRMP14 available on our website. Target headroom for the year 2013-14 in the WRMP14 is 12.55 Ml/d. This lower figure represents the reduced uncertainty associated with a year that is five years closer in time to the base year than it was for the WRMP09 forecasts.

m) Option review

As reported in previous year's, a decision taken by the Company in 2010 to bring a number of schemes forward from AMP6 into AMP5, at Tonbridge, Crowhurst and Pembury, will deliver additional resilience to the security of our supply. All three schemes are in progress with Tonbridge and Crowhurst due to deliver over the coming months and all schemes by the end of AMP5. With these exceptions, no other changes to the selected options have been made.





A full review of alternative options was carried out as part of the WRMP14 process and is documented in Appendix 7 of the WRMP14 available on our website.

3. Changes to the Company's Water Resource Plan

We undertook a substantive review of all the components of the water resource plan to support the development of our WRMP14. The Plan, along with its appendices and tables, is published on our website with the permission of the Secretary of State².

² www.southeastwater.co.uk/about-us/our-plans/water-resources-management-plan