Performance Report 2014/15
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1. Introduction

Throughout the year, we monitor our performance against a wide range of indicators, including the measures used by Natural Resources Wales to judge environmental compliance, the key measures of performance used by the Drinking Water Inspectorate to judge drinking water quality compliance, Ofwat’s measures including their Service Incentive Mechanism (SIM) and Serviceability, our cost efficiency and other financial measures of performance. Our performance is summarised in the Executive Review.

An important tool in monitoring performance is our “Performance Scorecard”, reproduced in this document, which highlights our performance for the year ended 31st March 2015. While the Scorecard does not include every single metric, achieving Scorecard targets set by the Board would demonstrate that we are on track to deliver a performance overall that would represent one of the best in the industry.

This report provides a summary of our performance on non-financial metrics in the last year and should be read alongside our Annual Report and Accounts.

We have also commented by exception on the delivery of our outputs against the 2009 Final Determination.

The suite of performance indicators that Ofwat requires all companies to publish is also set out in this report.

Although we are not yet required to report against the Measures of Success contained within the 2014 Final Determination, for illustrative purposes we have included a summary of performance by reference to 2014/15 data.

In Appendix 1, we have summarised the processes followed in preparing this document and, in particular, ensuring that the data upon which we have made judgements is reliable, accurate and complete.

A statement produced by our Reporter, who audited aspects of this Performance Report, is included in Appendix 2.
2. Executive Review

Our vision is to earn the trust of our customers every day by delivering a safe, reliable and high quality supply of drinking water at an affordable price, whilst also safeguarding and enhancing our environment. Against this demanding backdrop, the past year has been an important and successful year for Welsh Water as we have overcome some tough challenges. Overall, our services to customers have improved further although there remain aspects where we are determined to do better in the future.

We need to balance the priorities of our day-to-day operations whilst also preparing to meet additional strategic challenges in the long term. As a company owned on behalf of its customers, they have remained at the heart of everything we do. In shaping our Business Plan for 2015 to 2020 (as the water industry operates on a regulatory five year cycle), we have listened to the views of representatives of the three million people we serve across our supply area - most of Wales, Herefordshire and parts of Deeside - through an unprecedented programme of customer engagement, with a 94% acceptability level of our plans.

Performance

Teams across the company have worked very hard to improve on last year’s record performance. As shown in our Operational Performance Scorecard for 2014-15 (page 9), we can report another year of solid progress as we delivered our best ever performance in some areas, but we remain committed to achieving even higher standards of customer service in the future whilst safeguarding the environment.

We know that providing high quality drinking water is our most important responsibility and our customers have continued to receive a high quality overall service in 2014. We are pleased that we did not record any regulatory bacteriological sample failures at our water treatment works throughout last year and we connected several new water treatment works across Wales to our network as part of a £120 million investment in this area. Alongside water efficiency, managing leakage remains important in terms of maintaining supplies and I am pleased that we have managed to reduce leakage beyond the target this year. Our priorities now are to address aspects of relatively poor performance in our water network, for example interruptions to water supply and the aesthetic quality of drinking water in some of the areas that we serve.

Sustaining and enhancing the environment are crucial to the long-term sustainability of our services, and our wastewater performance improved further in 2014 with our best ever environmental performance. We recorded our lowest ever number of pollution incidents and our wastewater treatment works continued to perform well, reflecting increased investment in recent years.

The area that we serve is home to some of the most beautiful coastal regions of the UK and so tourism is important to the local economy. We have seen a 26% increase in the number of designated bathing waters in Wales since 2010 and, in 2014, our environmental performance helped ensure that all our beaches passed the minimum standard required by the European Bathing Water Directives; with nearly 90% of the beaches passing the higher guideline (Blue Flag) standard, including Llyn Padarn, Wales’ first designated freshwater bathing lake.

Our plans recognise that alone we cannot deliver the scale of required environmental improvement at an acceptable level of cost.

This is why we welcome the Welsh Government’s Water Strategy for Wales that supports our increased focus on catchment activity so that we can improve water quality before it arrives at our treatment works. These plans include initiatives such as innovative catchment monitoring work which seeks to address pesticides in river water at source.
Sustainability

As one of the largest energy users in Wales, we have continued to develop several key renewable energy projects over the past 12 months to help us power our sites more sustainably and to reduce bills for our customers. This includes launching a £24 million Energy Park project at our largest wastewater treatment works in North Wales (Five Fords near Wrexham) which will lead to multiple renewable energy technologies located at this one site. We have also invested £20 million to purchase a number of hydro-electric generation schemes on some of our largest reservoirs. This has enabled us to double our renewable energy generation to over 20% of the energy we use and will play a key part in helping us deliver our long-term aspirations.

With more extreme weather forecast due to climate change, plus the growing pressures from urbanisation and development, we need a long-term strategy to manage the problem of overloaded sewers, in a more sustainable way. Between 2013 and 2015, we invested £15 million in the Llanelli and Gowerton areas on a ground-breaking programme of sustainable drainage projects. Such 'RainScape' projects are designed to manage the flow of surface water entering our sewer network. These schemes are helping to protect communities from sewer flooding and they also protect environmental water quality. We are making excellent progress in reducing the volume of surface water flows in our network. We now plan to invest £60 million in these techniques across our area between 2015 and 2020 so that we can deal with the escalating problem of flooding, resulting from climate change, in a truly sustainable way.

Customer service

In line with our vision to earn the trust of our customers every day, our unwavering focus is to continually improve the services we provide to our customers. We are amongst the industry leaders in terms of customer service and we continue to implement a wide range of initiatives to improve how we can serve and inform our customers; for instance, we launched a new billing system in February 2015 which will enable a wider range of customer service options in the future. We welcomed the Consumer Council for Water’s (CCWater) latest annual findings that we had the second lowest volume of customer complaints for 2013-14 amongst the 10 water and sewerage companies. Its annual tracker research in 2014 confirmed that we scored a record 96% customer satisfaction rate with our water services and 91% with our wastewater services. This was amongst the highest in the industry. Our regular research shows around a 90% satisfaction rate amongst our business customers.
Affordable bills

Our operating area has one of the highest proportions of disadvantaged households in England and Wales. This is why reducing customer bills in real terms whilst also maintaining and improving our services continues to be a key priority for us. Our water and wastewater services currently cost households around £1.20 a day on average. We believe this represents value for money but we plan to do more by delivering a decade of below inflation price increases by 2020. In response to real problems of affordability for our more disadvantaged customers, we will be offering a new social tariff (HelpU) from April 2015 that will aim by 2020 to help more than 100,000 customers who struggle to pay their water and sewerage bills. Our industry-leading approach to social tariffs has been enabled by our non-shareholder owned model. This goes well beyond the support offered by any other water company and was supported by 75% of our customers in independent research.

Innovation and efficiency

Looking to the future, we need to be more innovative in the way we approach business challenges, adopting more dynamic solutions where we can. This is why we have developed a 25 year Innovation Strategy that sets out how we will drive innovation across the company. This will build on the success of current activity such as our approach to catchment management, which is working to the long term benefit of our customers and the environment.

We continue to benchmark ourselves internationally and develop partnerships with other leading international water companies such as Oasen Drinkwater in Holland. We encourage employee exchanges between our two companies so that we can learn from each other and implement best practices. We also arranged our first ever Innovation Conference in October where existing business partners, academia and other companies put forward innovative ideas that will help us provide a better, more sustainable service to our customers in the years to come. Being open to new ideas and thinking has also enabled us to create our new Capital Delivery Alliance, which brings Welsh Water colleagues and our new capital partners into one team at a single location. This new Alliance creates a collaborative working environment to help foster innovation and drive value in the design and delivery processes, so that we can improve our services and reduce overall costs.
Our Financial performance

In 2014-15, our financial performance was good. Total revenue increased by 2.2% to £753 million. The consolidated income statement shows a loss before taxation of £100 million which has been caused by non-cash movements in the market value of derivative financial instruments (2014: profit of £145 million). Our underlying group profit before tax increased to £78 million (2014: £50 million). Our bad debt charge for the year of £30 million (2014: £28 million) represents 3.9% of annual turnover. Our financial reserves now stand at nearly £2 billion, having grown more than ten-fold since Glas Cymru acquired Welsh Water in 2001. Our financial gearing ratio (net borrowings expressed as a percentage of our regulated capital value) is now down to 60% - from 93% in 2001 – and we have the best credit ratings in the utilities sector.

Shaping the future

Our customer-led Business Plan, with its ambitious pricing limits and record levels of investment, presents us with a major challenge for the next five years. Reducing our costs and also achieving stretching performance targets necessitates the reshaping of our core business into three business units (Water, Wastewater and Retail) which will need to work ever more closely to deliver the best joined-up customer service. With the continued commitment of my colleagues, I am confident that we will rise to the challenge of delivering industry-leading levels of financial and operational performance to ensure that we realise our vision of earning the trust of our customers every day.

Our people

We are all committed to delivering the highest levels of service to our customers, with colleagues turning out in all weather conditions to help maintain services to our customers and to protect the environment. The health and safety of our staff is therefore paramount and I am glad that we had the lowest level of reportable accidents in 2014-15. With our internal employee engagement survey this year showing that our employee engagement index remains high at 74% - which is above the private sector average and also achieved during a period of major organisational change for the business. I want to thank everyone for their dedication and continued hard work during the year.

Chris Jones
Chief Executive

15th June 2015
3. Performance Scorecard

We have a set of metrics against which the Board monitor and assess our performance. This takes the form of a performance “Scorecard” based around five groupings monitored each month against targets set by the Board in the annual business plan. The “Scorecard” is designed so that achieving “target” performance would deliver (or maintain) above average sector performance, and achieving a “stretch” target would place us at or near top of the sector.

The Scorecard is used to calculate half of our annual Staff Reward; the other half being based on our performance against operating cost efficiency targets set by the Board. By linking pay to the Scorecard, we align the interests of our customers and our performance on environmental measures with everyone’s remuneration, and we are able to recognise in a direct and tangible way good outcomes for our customers and for the environment we look after on their behalf. This linkage also ensures that everyone in the company knows and understands month by month the key measures that matter.

The 18 measures were chosen because they:

- are high level metrics that are crucial to measuring our success;
- reflect metrics that are important to our regulators (Natural Resources Wales, Drinking Water Inspectorate and Ofwat) and include key serviceability indicators; and
- are meaningful and recognisable to our staff.

As well as these 18 measures, our “Scorecard” also includes four other measures which are equally important and are monitored and reviewed by the board each month but against which it would be wrong to reflect performance in pay. These are:

- self reporting of pollution incidents;
- customer compliments;
- number of reportable injuries; and
- staff engagement levels.

The “Scorecard” is reviewed and reset annually by the Board. Further details of the “Scorecard” metrics are included on the next page.

On page 9 we include bar graphs for those measures which have been part of our “Scorecard” for the whole of the Amp5 period (2010-15). This shows that on a number of measures the targets set by the Board have been progressively challenging as we strive to continually improve performance and become industry leading.
## Safe Drinking Water

<table>
<thead>
<tr>
<th>Metric</th>
<th>2013/14</th>
<th>2014/15</th>
<th>At or better than previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacti failures at Water Treatment Works (c)</td>
<td>99.99%</td>
<td>100%</td>
<td>✔</td>
</tr>
<tr>
<td>Reservoir Integrity Index (c)</td>
<td>99.95%</td>
<td>99.98%</td>
<td>✔</td>
</tr>
<tr>
<td>Compliance with standard for iron at tap (c)</td>
<td>99.54%</td>
<td>99.41%</td>
<td>✗</td>
</tr>
<tr>
<td>Mean Zonal Compliance (c)</td>
<td>99.97%</td>
<td>99.94%</td>
<td>✗</td>
</tr>
<tr>
<td>Process Control Index (c)</td>
<td>99.99%</td>
<td>99.92%</td>
<td>✗</td>
</tr>
<tr>
<td>Disinfection Index (c)</td>
<td>99.99%</td>
<td>100%</td>
<td>✔</td>
</tr>
<tr>
<td>Customer contacts per 1,000 population for Appearance, Taste, Odour and Illnesses (c)</td>
<td>3.36</td>
<td>3.53</td>
<td>✗</td>
</tr>
</tbody>
</table>

## Safe Sanitation

<table>
<thead>
<tr>
<th>Metric</th>
<th>2013/14</th>
<th>2014/15</th>
<th>At or better than previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer flooding - Other Causes &amp; Hydraulic overload</td>
<td>192</td>
<td>151</td>
<td>✔</td>
</tr>
<tr>
<td>Internal Sewer flooding (repeat incidents over 10 years)</td>
<td>82</td>
<td>43</td>
<td>✔</td>
</tr>
</tbody>
</table>

## Protecting the Environment

<table>
<thead>
<tr>
<th>Metric</th>
<th>2013/14</th>
<th>2014/15</th>
<th>At or better than previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leakage (Ml/d)</td>
<td>183.8</td>
<td>179.5</td>
<td>✔</td>
</tr>
<tr>
<td>Number of serious pollution incidents (c)</td>
<td>2</td>
<td>4</td>
<td>✗</td>
</tr>
<tr>
<td>Total number of pollution incidents (c)</td>
<td>124</td>
<td>112</td>
<td>✔</td>
</tr>
<tr>
<td>Population equivalent - WwTWs compliant with consent (c)</td>
<td>99.96%</td>
<td>99.90%</td>
<td>✗</td>
</tr>
<tr>
<td>WwTWs non-compliant with numeric consent (c)</td>
<td>12</td>
<td>5</td>
<td>✔</td>
</tr>
</tbody>
</table>

## Customer Service

<table>
<thead>
<tr>
<th>Metric</th>
<th>2013/14</th>
<th>2014/15</th>
<th>At or better than previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Supply interruptions minutes experienced per property</td>
<td>50.6</td>
<td>23</td>
<td>✔</td>
</tr>
<tr>
<td>Number of written complaints (stage 1 and stage 2)</td>
<td>4,079</td>
<td>3,314</td>
<td>✔</td>
</tr>
<tr>
<td>Number of unwanted telephone calls</td>
<td>131,346</td>
<td>128,120</td>
<td>✔</td>
</tr>
<tr>
<td>Customer Satisfaction (SIM Qualitative)</td>
<td>4.62</td>
<td>4.40</td>
<td>✗</td>
</tr>
</tbody>
</table>

(c) Calendar year metrics
Scorecard target vs performance in AMP5

- **Bacti at WTW**
- **Reservoir integrity index**
- **Iron at customers’ tap**
- **Mean zonal compliance**
- **Process Control Index**
- **Disinfection index**
- **Customer acceptability**
- **Sewer flooding**
- **Internal Sewer flooding**
- **Leakage**
- **Total pollution incidents**
- **Population equivalent served by compliant Treatment works**
- **Water supply interruptions**
- **Treatment works in breach of consents**
- **Written complaints**
- **Unwanted calls**
- **Customer Satisfaction**

**Performance achieved** vs **Scorecard Target**

- **2010**
- **2011**
- **2012**
- **2013**
- **2014**

**Indices and Metrics**

- **Scorecard Target**
- **Performance achieved**
### 4. Dŵr Cymru key performance indicators / Book of Metrics

<table>
<thead>
<tr>
<th>Category</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe drinking water</td>
<td>WTW bacti compliance, SRV bacti compliance, Iron compliance, Turbidity compliance, Enforcements</td>
</tr>
<tr>
<td>DWI</td>
<td>Mean zonal compliance, Process control index, Disinfection index, Reservoir integrity index, Customer contacts, Distribution maintenance index, Reportable events</td>
</tr>
<tr>
<td>EAW/NRW</td>
<td>All pollution incidents, Pollution incidents, % PE in breach of consents, % works in breach numeric con, Self Reporting (Pollution), Sludge disposal</td>
</tr>
<tr>
<td>Environment and sanitation</td>
<td>Security of Supply Index, Leakage, GHG emissions, HO sewer flooding, QC sewer flooding, Repeat Internal sewer Flooding</td>
</tr>
<tr>
<td>Customer Service</td>
<td>Low pressure, Interruptions to supply</td>
</tr>
<tr>
<td>SIM</td>
<td>Unwanted telephone contacts, Written complaints, Escalated written complaints, Quantitative score, Qualitative score, SIM combined, Compliments</td>
</tr>
<tr>
<td>Looking after our assets</td>
<td>Sewer blockages, Sewer collapses, Mains bursts, Unplanned maintenance wastewater, Equipment failures wastewater, Unplanned maintenance water, Health &amp; Safety</td>
</tr>
</tbody>
</table>
Water Treatment Works (WTWs) bacteriological non-compliance is calculated using the number of WTWs with samples containing coliforms, expressed as a percentage of the total number of tests undertaken from water leaving WTWs.

A WTW with more than one sample failure counts only once for Ofwat serviceability whereas the Drinking Water Inspectorate count each failure. This is one of the five indicators used to determine the regulatory assessment of serviceability for water non infrastructure assets. The percentage non compliance figure for 2014 stands at 0.00 (0.015 last year). There were no sample failures out of a total of 7,173 tests performed, compared to 6,634 last year.
SRV bacti non-compliance

At each of our Service Reservoirs (SRVs) we take water samples and test for coliform bacteria. Total coliforms include bacteria that are found in the soil, in water that has been influenced by the surface water and in human or animal waste.

The definition for this serviceability measure includes the number of SRVs where more than 5% of the tests undertaken exceed the maximum concentration required for coliform bacteria, as a percentage of the number of SRVs tested for microbiological parameters. Our performance on this measure has been stable with no sample failures in the last nine years. In 2014, there was a total of 18,127 tests performed.
Iron non-compliance (as 100 minus Mean Zonal Compliance) (%) is the percentage mean zonal non-compliance with the iron parameter measured “at the tap” during the calendar year.

This measure covers the percentage of tests undertaken from our water supply zones which do not comply with the standards for iron during the calendar year.

The 2014 non-compliance figure of 0.59% represents 15 failures for iron in 12 different zones. Last year there were 15 failures (giving an equivalent non-compliance figure of 0.46%).

We have in place a targeted investment programme to address the areas most at risk of iron failures.
**Turbidity non-compliance (number of works)**

This is the number of operational Water Treatment Works (WTWs) and sources where turbidity exceeds a specified threshold. Turbidity is a measure of how much light can pass through water and indicates the condition or ‘cloudiness’ of water. The metric measures the number of WTWs where, for turbidity, 95% of samples measured were greater than or equal to 0.5 Nephelometric Turbidity Units (NTU).

There were no failures for this measure in the year.
Enforcements

This measure is the number of enforcement actions considered by the Drinking Water Inspectorate for a breach of microbiological standards at Water Treatment Works during the calendar year.

There were no enforcement actions in respect of 2014.
Mean zonal compliance

Mean Zonal Compliance (MZC) is the average for all zones of the mean water quality compliance in each zone for 39 key chemical and biological parameters, as measured by the statutory distribution sampling. This is a measure of the overall quality at customers’ taps and supply points.

In terms of performance against the MZC measure, all but 33 of the 44,995 tests met the required quality standard. This equates to 99.94% compliance. Last year’s performance was 99.97% with 29 of the 58,380 tests performed not meeting the required quality standard.

This year’s MZC performance was affected by failures on parameters such as copper and colour, where sampling frequencies are low. Where failures occur on such parameters there will be an adverse impact on the overall MZC compliance figure.

However, the overall compliance, which is a percentage of the total number of tests taken against the total number of failures, increased slightly in 2014 to 99.98%, from 99.97% in 2013. In 2014, 248,810 tests were taken with 50 failures, compared to 261,077 tests and 66 failures in 2013.
Process control index

The Process Control Index is based on a selection of parameters which are, in general terms, controlled by the process in place at Water Treatment Works. Performance against the measure was 99.92% with only one of the 6,502 tests performed failing to meet the required quality standard.

This involved a failure of the colour standard on a rural supply to a single property.
The Disinfection Index is based on a selection of parameters which explain the effectiveness of disinfection and pathogen removal. It is calculated by taking the average of Mean Zonal Compliance figures for coliforms, E.coli and turbidity and measuring it against all tests undertaken at works. Performance against the measure was 100% of tests performed meeting the required quality standard, an improvement on last year's compliance figure of 99.99%.

There were 22,055 tests performed in the year with no test failures.
Reservoir integrity index

Reservoir integrity index is microbiological sampling that takes place at Service Reservoirs (SRVs) as a check on their integrity and general hygienic status. It is calculated by taking the average Mean Zonal Compliance figures for coliforms and E.coli at SRVs.

Performance against the measure is 99.98%, as compared to 99.95% last year.

There were 36,254 tests performed during the year, of which 6 failures occurred compared to 17 of the 37,258 tests performed in 2013 failing to meet the required quality standard.
The "customer contacts rate per 1,000 population" metric is the number of contacts from customers around discoloured water (orange/brown/ black) and is measured by reference to our total population.

For 2014, this figure was 2.34 contacts per 1,000 population compared to 2.02 for 2013. This equates to 7,182 contacts on discoloured water against a population residency figure of 3,068,659. The equivalent figures in 2013 were 5,946 contacts and a population residency of 2,950,608.

Within our scorecard, we have adopted the measure to cover the customer contact rate per 1,000 population (for appearance, taste, odour or reported illness i.e not just discoloured water contacts). Our performance for 2014 for this was 3.53 contacts per 1,000 population compared to 3.36 for 2013.
The Distribution Maintenance Index (%) is based on a selection of parameters mainly reflecting the age, condition and maintenance status of the pipes (mains) and to a lesser extent the reservoirs which comprise the distribution networks of companies. It is calculated by taking the average of mean zonal compliance figures for turbidity, iron and manganese.

Performance against the measure was 99.75% in 2014, compared to 99.80% in 2013. There were 6,398 tests performed during the year and 20 failures, and 5,700 tests with 20 failures in 2013.
The Drinking Water Inspectorate (DWI) classifies notified events into one of five categories:

1. Not significant
2. Minor
3. Significant
4. Serious
5. Major

There were 23 events notified to the DWI in 2014 as against 17 in 2013. Of these, nine were classed as significant or above, which is the same as 2013.

Most of the events were of a short term nature and appropriate action was taken to safeguard water quality and to keep customers and other stakeholders informed.

None of the events in 2014 were classified as serious or major (category 4 or 5) or were considered for prosecution by the DWI.
Pollution Incidents (categories 1, 2 and 3)

This measure is the total number of material pollution incidents associated with the wastewater business which we or members of the public identify and report to Natural Resources Wales (NRW) and the Environment Agency (EA) annually.

Pollution incidents are classified into four categories. We report the highest three categories which are those which materially affect the environment, category 1 being the most serious.

Overall, the total number of pollution incidents during the year has fallen from 124 to 112 our best ever performance.

Pollution incidents caused by private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
Pollution incidents (Serviceability Measure)

This serviceability measure only includes those pollution incidents from foul sewers, combined sewer overflows and rising mains.

Our performance on the measure has improved from last year with the total number of incidents reducing from 88 to 72.

Although performance continues to improve, this remains one of our main business priorities.

Pollution incidents caused by private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
% Population Equivalent served by Waste Water Treatment Works in breach of permits

This serviceability measure covers the Water Resource Act “look-up” compliance element of a Waste Water Treatment Works (WwTW) discharge permit, plus part of the Urban Waste Water Directive Biochemical Oxygenation Demand (BOD) “look-up” compliance and phosphate, as measured on an annual average basis.

Although there were two failures in 2014, performance (99.90%) remains high.
% of Waste Water Treatment Works in breach of permits

This serviceability measure applying to Waste Water Treatment Works (WwTWs) covers the Water Resource Act “look-up” compliance plus compliance with all of the Urban Waste Water Directive parameters.

The non-compliance figure for 2014 was 0.87%, compared to 2.10% last year. In the year, we were in breach of our numeric consents at 5 of the 572 WwTWs compared to 12 last year.
Self Reporting of pollution incidents

Self reporting is when we inform Natural Resources Wales and the Environment Agency that a pollution incident has occurred, e.g. when sewage escapes from our assets and enters a watercourse or is deposited on land. Amongst the details provided are the location of the incident, the work carried out and timescales for resolution of the matter.

For all incidents, we report any environmental information we gather at the site and any root cause analysis that is undertaken. We also provide details of any activities or actions taken to remedy any damage caused.

The percentage of self reported incidents (Category 1-3) was 60% for 2014, up from 48% in 2013.

Pollution incidents caused by private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
This relates to the satisfactory disposal of sludge and is one of the metrics upon which companies are required by Ofwat to report.

In the year, we achieved 100% compliance, the same figure as in the last ten years.
Security of Supply Index

We calculate our ability to maintain water supplies to customers during dry weather through the “Security of Supply Index” or “SOSI”. For both “annual average scenario” and “critical period scenario” a SOSI score of 100 is achieved if all our water resource zones have sufficient water available to meet the equivalent dry year demand.

Last year, our respective “annual average scenario” and “critical period scenario” compliance were both 100%.

We have calculated SOSI using data reported within the Water Resource Management Plan published in April 2014.

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Average</th>
<th>Critical period</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006/07</td>
<td>94</td>
<td>87</td>
</tr>
<tr>
<td>2007/08</td>
<td>95</td>
<td>97</td>
</tr>
<tr>
<td>2008/09</td>
<td>93</td>
<td>95</td>
</tr>
<tr>
<td>2009/10</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>2010/11</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>2011/12</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2012/13</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2013/14</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2014/15</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Leakage is one of the components of the total water lost in a network and comprises of physical losses from pipes, joints and fittings, and also from overflowing service reservoirs. While larger losses are usually from burst pipes, or from the sudden rupture of a joint, smaller losses tend to be from leaking or "weeping" joints, fittings, service pipes and connections.

Total leakage includes distribution system losses plus losses from customer supply pipes, service reservoirs and trunk mains.

In 2014/15, total leakage was 179.5 Mi/d, an improvement on last year’s figure of 183.7 Mi/d and meeting the target set in the 2009 Final Determination.
Green House Gas (GHG) emissions

Net Green House Gas (GHG) emissions come largely from electricity and gas that is brought in from the Grid to run our business, contributing some 79% of the total.

Direct emissions from our sludge processes, transport and heating fuels make up most of the remainder.

Our annual operational GHG emissions was 261 ktCO\textsubscript{2}e, which compares with 243 ktCO\textsubscript{2}e last year.

This is despite the fact that overall electricity consumption fell by some 4GWh during the year and an increase in renewable energy generation from 43 to 46 GWh, the increase in overall CO2 emission is largely attributable to the 11% increase in the UK grid electricity emission factor, a UK wide carbon emission factor, which applies to all industries and companies.

Our emissions from sludge have also declined as a result of more sludge going through our Advanced Anaerobic Digestion plants.
Hydraulic Overload Sewer Flooding

This is the number of properties affected by internal flooding due to overloaded sewers, but excluding severe weather, i.e. storms with a confirmed return period greater than once in 30 years.

Excluding severe weather, a total of 38 properties were subjected to Hydraulic Overload (HO) sewer flooding during the year.

Sewer flooding caused by private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
Other Cause Sewer Flooding

The Other Cause (OC) sewer flooding metric is the total number of properties affected by flooding incidents from equipment failures, blockages or collapses.

The number of properties affected is 113 (140 last year) and this is partly attributable to the ongoing programme of de-silting and our policy of targeting of “hot spots”.

Sewer flooding caused by private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
Repeat internal flooding

This is the total number of incidents of internal sewer flooding for properties that have flooded within the last ten years.

Ofwat defines this calculation as a count of any incident of internal flooding of a property in the year where a flooding incident, either internal or external, has been reported by the property in the previous ten years. All incidents are counted, including those assessed to be severe weather. Multiple incidents at a property in the year are counted separately.

In the year the number reduced from 82 to 43.

Sewer flooding caused by private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
Low pressure

The low pressure measure applies to the number of properties which at the end of the year have or are likely to receive low water pressure. There has been a continued downward trend and our performance in the year improved, with the number of properties experiencing low pressure during the year reducing from 130 to 116.
Interruptions to supply

The Ofwat serviceability metric applies to the number of properties affected by unplanned interruptions lasting more than 12 hours (where no warning has been given).

Inter alia, we also measure supply interruptions in excess of 6 hours and 24 hours. Performance on all three measures are shown on this page.

There were a number of factors which affected our performance during the year, namely the adverse weather, a series of major trunk mains bursts and an increase in demand during the hot weather period.

These included:

- a burst on a 24” strategic trunk main at Morriston in May 2014 which triggered a loss of supply to over 2,000 properties in excess of 18 hours. We were able to mitigate the impact of the event by organising continuous tankering into service reservoirs downstream of the burst main and rezoning;

- in November 2014 a burst on a strategic trunk main near Llechryd WTW interrupted supply and the problem was exacerbated by two subsequent bursts on the same main over a short period of time. This led to a loss of supply to some 2,800 properties for a duration of over 11 hours; and

- A burst 12” trunk main in Mold during August 2014 led to some 1,300 customers being without supply for around 8 hours.

In the year, our performance on customer minutes lost (CML), an Ofwat KPI measure (See page 54), has improved significantly. In 2013/14, the CML was 50.6 minutes and this year the figure has fallen to 23 minutes. This measure is based on all CML in excess of three hours and we believe it to be a more meaningful measure of performance and a better reflection of customer service.
Unwanted telephone contacts

We receive a variety of types of telephone contact. From a customer perspective, some of these can be regarded as “wanted”, for example when the caller wants to pay their bill or is providing or seeking information. Others can be defined as “unwanted”. These are where the customer has experienced some form of aggravation and this has prompted them to make contact with us.

The number of unwanted calls has decreased (by 2.5% from 131,346 to 128,120). This is a reflection of some of the initiatives we have in place such as a proactive mass texting customers who are experiencing supply interruptions, introducing call back processes and improving and promoting our website.

Over the year, we handled a total of 1,140,420 calls of which 901,939 were wanted calls and 128,120 were unwanted calls. The balance of 110,361 ‘excluded calls’ includes, for example, calls from customers who dial the incorrect number or situations where the caller ‘hangs up’.
Written complaints include those made by letter, fax and e-mail and comments written on a piece of company correspondence, for example a bill.

During the year, we responded to 3,314 complaints compared to 4,079 last year. We responded to 98.1% of these written complaints within 10 working days (last year 99.4%).
Escalated complaints

This is defined as a second complaint from a customer relating to the same issue that, in accordance with the company’s approved complaints procedure, is reviewed by a director who has not been involved in providing the response to the customer’s first complaint.

There has been a reduction in the number of escalated complaints from 238 to 213.
The Service Incentive Measure (SIM) comprises quantitative and qualitative indicators.

The quantitative measure combines several elements. Each element is weighted to reflect the increasing impact on consumers and the cost to the company. The table below shows how the quantitative measure is made up and the weighting of the individual elements.

<table>
<thead>
<tr>
<th>Element</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>All lines busy</td>
<td>1</td>
</tr>
<tr>
<td>Calls abandoned</td>
<td>1</td>
</tr>
<tr>
<td>Unwanted telephone contacts</td>
<td>5</td>
</tr>
<tr>
<td>Written complaints</td>
<td>100</td>
</tr>
<tr>
<td>Consumer Council for Water (CCWater) investigations</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Our score is 123 (139 last year), an 8.8% improvement.
The qualitative indicator measures how satisfied customers are with the quality of service they receive and is based on an Ofwat survey of customers who have had direct contact with us during the year.

Our performance on this element of the Service Incentive Mechanism (SIM) was 4.4 out of 5. Although this appears to be a deterioration on last year’s score of 4.62, the scores of all companies in the sector have decreased by 0.24.

This year’s surveys have been undertaken on all customer contacts (as a pilot for SIM 2015) instead of “resolved contacts” as was the case last year. The results from the pilot surveys has shown that the overall score for the sector has dropped. In 2013/14 the overall water industry score was 4.48 and in 2014/15 the score was 4.24. In 2014/15 we were ranked third amongst all companies in the sector and joint second amongst the Water and Sewerage companies.
This is a combination of the Service Incentive Mechanism (SIM) quantitative and SIM qualitative scores. This is the overall score Ofwat use to rank companies’ customer service performance.

By reference to the formula used to calculate the overall score, our SIM combined score for the year is 82, which is slightly below what we achieved last year. The explanation on the previous page (SIM qualitative score) accounts for this change.
Compliments

Over the last 12 months we have recorded the number of letters, email contacts or phone calls where customers express their thanks or acknowledge the good service they have received. These are recorded as 'compliment' contacts. The total received during the year was 2,818 (1,967 last year).

There is no industry comparison data available but we will continue to track performance by recording the number of contacts received where we have been complimented for our service.
Sewer blockages

This is the number of sewage blockages that require clearing. These may be caused by an obstruction in a sewer and give rise to a reportable problem such as flooding or a discharge to a watercourse, unusable sanitation, surcharged sewers or odour problems.

The number of blockages has decreased from 12,209 last year to 9,487 in 2014/15.

Blockages from private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
Sewer collapses

This is the total number of sewer collapses occurring (including collapses of gravity sewers and rising mains).

The number of collapses has decreased from 393 last year to 358 in 2014/15.

Collapses from private sewers and lateral drains that transferred over on 1st October 2011 are not included in these numbers.
Mains bursts

This metric measures the number of mains bursts caused by failure of the type of material used, from shortcomings in pipe laying or changes in ground conditions.

Water mains burst rates have decreased from 3,833 last year to 3,530 in 2014/15.

Whilst the Bursts measure may display a degree of natural volatility and is often affected by shorter-term influences, such as the weather, we have seen steady improvement over many years due to our mains renewal programme with targeted investment and related Pressure Management Optimisation.
Unplanned maintenance wastewater

This is the total number of incidents of unplanned maintenance required as a result of equipment failure or reduced asset performance on the waste water side of the business.

The number of unplanned maintenance incidents has decreased by some 4% from 47,202 last year to 45,547 in 2014/15.

<table>
<thead>
<tr>
<th>Year</th>
<th>Reported</th>
<th>Revised figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006/07</td>
<td>35,494</td>
<td></td>
</tr>
<tr>
<td>2007/08</td>
<td>14,682</td>
<td>-</td>
</tr>
<tr>
<td>2008/09</td>
<td>20,107</td>
<td>26,311</td>
</tr>
<tr>
<td>2009/10</td>
<td>24,827</td>
<td>26,781</td>
</tr>
<tr>
<td>2010/11</td>
<td>28,681</td>
<td>28,204</td>
</tr>
<tr>
<td>2011/12</td>
<td>38,601</td>
<td></td>
</tr>
<tr>
<td>2012/13</td>
<td>43,169</td>
<td></td>
</tr>
<tr>
<td>2013/14</td>
<td>47,202</td>
<td></td>
</tr>
<tr>
<td>2014/15</td>
<td>45,547</td>
<td></td>
</tr>
</tbody>
</table>
Equipment failures wastewater

This is the total number of sewerage equipment failures which are likely to have a detrimental impact on service to customers or to the environment.

The number of equipment failures reported this year is 46 (78 in 2013/14).
Unplanned maintenance water

This is the total number of incidents of unplanned maintenance required as a result of equipment failures or reduced asset performance on the water side of the business.

The number of unplanned maintenance incidents has fallen by some 27% from 10,638 last year to 7,805 in 2014/15.
Health & Safety

This is the total number of injuries reported each year to the Health and Safety Executive under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR).

It includes reports involving our main contract operations and capital partners as well as Dŵr Cymru Customer Services (DCCS). The 2014/15 figure is 20 (23 last year).
5. Exception reporting on the delivery of outputs as against FD09

The delivery of physical outputs at the end of year 5 of the AMP5 period remains broadly in line with what was assumed in the 2009 Final Determination (FD09), after the usual Change Protocol/Application processes. We have delivered the majority of all significant outputs in the FD09 for the 5 year period to 31st March 2015.

The following areas identify current differences to FD09:

**Sewer Rehabilitation**
At the end of 2014/15, we were marginally behind on delivering the full Year 5 target – by 1.9 km. We have carried out rehabilitation on 137.1km of sewer (as against a FD09 target of 139km) at the end of the AMP5 period.

**Meters**

**Optant meters**
The 5 year FD09 target is 98,820. The actual number of new meter installations was 72,989. However, it should be recognised that installations are entirely dependent on customer demand.

**Customer Meter Maintenance**
In preparing for FD09, we anticipated that there would be 90,550 meters renewed during AMP5. The actual number of meter renewals was 58,709. This is as a result of a change to the proactive metering programme which was cut back after we introduced a new Quality Assurance process for meter installations and also as a consequence of procuring meters that are more resistant to particulate damage.

**Wastewater Quality Improvement Programme**
We have delivered the Wastewater Quality Programme broadly in line with the National Environment Programme (NEP). However, the programme outlined in FD09 was changed following discussion with National Resources Wales (NRW).

The only delayed schemes of particular note at the end of AMP5 were:-
— Abbeycwmhir WwTW - agreed as a delayed scheme with NRW due to third party planning issues beyond our control. The output date within the NEP has been changed to 31/03/2016;
— One of the three Habitats Directive fish screen schemes scheduled for completion before the end of Year 5 is now forecast to be completed by December 2015.

**Water Quality Improvement Programme**
We have delivered all schemes that were subject to Drinking Water Inspectorate (DWI) Notices with the exception of the following:
— Vowchurch. The borehole has been delayed due to land acquisition issues at the preferred location. Completion of the borehole is forecast for the August 2015; and
— Cwmstradllyn Water Treatment Works has been delayed as a consequence of the need to extend the scope of the construction work. The work is forecast to be completed in August 2015.
6. Ofwat key performance indicators

To support Ofwat’s risk based approach, water and sewerage companies are required to publish a common suite of key indicators which reflect a balanced view of companies’ performance. Although we have included details of performance in other parts of this report, e.g. our own performance “Scorecard” (Section 3), for ease of reference we have reproduced the Ofwat suite of indicators in this section.

Recognising that stakeholders may wish to understand how performance compares with earlier years, we have included the equivalent figures/assessments for last five years.
# Ofwat key performance indicators

<table>
<thead>
<tr>
<th>Customer experience</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>Score</th>
<th>No of incidents of internal sewer flooding at properties that have suffered repeat flooding within the last 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service incentive mechanism (SIM)</td>
<td>71</td>
<td>78</td>
<td>84</td>
<td>84</td>
<td>82</td>
<td>Score</td>
<td>No of incidents of internal sewer flooding at properties that have suffered repeat flooding within the last 10 years</td>
</tr>
<tr>
<td>Internal Sewer flooding Not including Private Sewer Transferred</td>
<td>83</td>
<td>47</td>
<td>103</td>
<td>82</td>
<td>43</td>
<td>Hours per property</td>
<td>No of incidents of internal sewer flooding at properties that have suffered repeat flooding within the last 10 years</td>
</tr>
<tr>
<td>Water Supply interruptions</td>
<td>0.29 (17 minutes)</td>
<td>0.72 (43 minutes)</td>
<td>0.88 (53 minutes)</td>
<td>0.84 (50.6 minutes)</td>
<td>0.38 (23 minutes)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Reliability and availability

<table>
<thead>
<tr>
<th>Serviceability water non-infrastructure</th>
<th>Stable</th>
<th>Stable</th>
<th>Stable</th>
<th>Stable</th>
<th>Stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serviceability water infrastructure</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>Serviceability sewerage non-infrastructure</td>
<td>Stable</td>
<td>Marginal</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>Serviceability sewerage infrastructure</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>Leakage</td>
<td>199.3</td>
<td>185</td>
<td>185</td>
<td>183.8</td>
<td>180</td>
</tr>
<tr>
<td>Security of supply (SoSI)</td>
<td>99</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

## Environmental impact

<table>
<thead>
<tr>
<th>Greenhouse gas (GHG) emissions</th>
<th>287</th>
<th>252</th>
<th>256</th>
<th>242.6</th>
<th>261.1</th>
<th>ktCO₂e</th>
<th>Category 1–3 incidents per 10,000 km of sewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution incidents (sewerage)</td>
<td>139</td>
<td>132</td>
<td>108.3</td>
<td>66.41</td>
<td>58.79</td>
<td>Category 1 &amp; 2 incidents per 10,000 km of sewer</td>
<td></td>
</tr>
<tr>
<td>Serious Pollution incidents (sewerage)</td>
<td>4</td>
<td>2.2</td>
<td>3.3</td>
<td>1.09</td>
<td>2.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discharge permit compliance</td>
<td>96.6</td>
<td>96.3</td>
<td>98.6</td>
<td>97.9</td>
<td>99.1</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Satisfactory sludge disposal</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>%</td>
<td></td>
</tr>
</tbody>
</table>

## Financial

| Post-tax return on capital | 5.6 | 5.6 | 5.2 | 5.0 | 4.7 | % |
| Gearing | 65.0 | 67.0 | 63.0 | 63.1 | 60 | % |
| Interest cover | 2.4 | 1.8 | 2.1 | 2.1 | 1.9 | Ratio (post infrastructure maintenance expenditure) |
Ofwat key performance indicators – definitions

Customer Service

Service Incentive Mechanism (SIM)
This is a combination of the SIM quantitative and qualitative scores and measures the level of customer concern with the service provided and how well companies deal with such concerns.

Internal Sewer Flooding
This measure records the number of incidents of internal sewer flooding during the year where the properties affected have been subjected to either internal or external flooding on at least one occasion during the last ten years. This includes flooding incidents arising from severe weather.

Water Supply Interruptions
This measure records the number of hours lost per property where such properties have experienced supply interruptions of 3 hours or longer, irrespective of whether it was planned, unplanned or caused by a third party. By contrast, the DG3 measure is set out within the Book of Metrics section.

Reliability and Availability

Serviceability assessments
These are the assessments of the recent historical trend in serviceability to customers, as measured by movements in service and asset performance indicators. There are four separate sub-services, i.e. water infrastructure, water non-infrastructure, sewerage infrastructure and sewerage non-infrastructure. Companies make a judgement about the overall serviceability in each sub-service as one of the following:

- Improving
- Stable
- Marginal
- Deteriorating

Our assessment of serviceability for 2014/15 is discussed on pages 60-61.
Leakage
Total leakage measures the sum of distribution losses and supply pipe losses in megalitres per day (Ml/d). It includes any uncontrolled losses between the treatment works and the customer’s stop tap. It does not include internal plumbing losses.

Security of supply index (SOSI)
This measure is an indication of whether a company has concerns regarding its ability to maintain water supplies to customers during dry weather.

Environmental Impact

Greenhouse gas (GHG) emissions
This records the annual operational GHG emissions and is a measurement of how companies can effectively manage their business so as to deliver their core services in a low-carbon way and play a part in reducing national GHG emissions where it is economic to do so and in customers’ interests.

Pollution incidents (sewerage)
This measure is the total number of pollution incidents (categories 1 to 3) emanating from a discharge or escape of a contaminant from a sewerage asset per 10,000 km of sewer length.

Serious pollution incidents (sewerage)
This measure is the total number of pollution incidents (categories 1 and 2) emanating from a discharge or escape of a contaminant from a sewerage asset per 10,000 km of sewer length.
Discharge permit compliance
This measures the performance of sewerage assets to treat and dispose of sewerage in line with the discharge permit conditions imposed on Waste Water Treatment Works.

Satisfactory Sludge disposal
This measures the satisfactory disposal of sludge (bio solids produced from the waste water treatment process) by reference, inter alia, to the Safe Sludge Matrix while complying with any legal obligations.

Financial

Post-tax return on capital
This is the current cost operating profit less tax as a return on regulatory capital value.

Credit Rating
This is a company’s ability to comply with its licence requirement to maintain an investment grade credit rating.

Gearing
This is net debt as a percentage of the total regulatory capital value at the financial year end.

Interest Cover
This is the covenanted interest cover ratio, post infrastructure maintenance expenditure.
Measures of Success for 2015–2020 (Final Determination December 2014)

We have, following engagement with customers and other stakeholders, agreed with Ofwat a suite of Measures of Success for the five years, 2015–2020. The targets for the measures are shown on page 59 and for illustrative purposes only we have included the indicative results for 2014/15.
## 2015–20 MOS performance indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1a Safety of Drinking Water</td>
<td>99.98</td>
<td>99.98</td>
<td>99.98</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>A1b Safety of Drinking Water</td>
<td>99.94</td>
<td>99.98</td>
<td>99.98</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>A2 Customer acceptability (contacts per 1,000 population)</td>
<td>3.53</td>
<td>2.54</td>
<td>1.89</td>
<td>1.23</td>
<td>1.23</td>
<td>1.23</td>
</tr>
<tr>
<td>A3 Reliability of Supply</td>
<td>23</td>
<td>36</td>
<td>24</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>B1 Abstraction for water for use</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>B2 Treating wastewater</td>
<td>99.13</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>B3a Preventing pollutions</td>
<td>122</td>
<td>161</td>
<td>154</td>
<td>131</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>B3b Preventing pollutions</td>
<td>117</td>
<td>161</td>
<td>154</td>
<td>131</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>C1 Responding to climate change</td>
<td>1,247</td>
<td>1,000</td>
<td>10,000</td>
<td>15,000</td>
<td>20,000</td>
<td>25,000</td>
</tr>
<tr>
<td>C2 Carbon footprint</td>
<td>60</td>
<td>40</td>
<td>55</td>
<td>70</td>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td>D1 SIM</td>
<td>82</td>
<td>top quartile</td>
<td>top quartile</td>
<td>top quartile</td>
<td>top quartile</td>
<td>top quartile</td>
</tr>
<tr>
<td>D2 At Risk Customer Service</td>
<td>702</td>
<td>850</td>
<td>750</td>
<td>650</td>
<td>550</td>
<td>425</td>
</tr>
<tr>
<td>D3 Properties flooded in the year</td>
<td>265</td>
<td>310</td>
<td>300</td>
<td>292</td>
<td>282</td>
<td>269</td>
</tr>
<tr>
<td>D4a Non Household Customer Satisfaction</td>
<td>91</td>
<td>90</td>
<td>92</td>
<td>93</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>D4b Non Household Customer Satisfaction</td>
<td>4.47</td>
<td>4.4</td>
<td>4.4</td>
<td>4.45</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>D5 Earning the Trust of Customers</td>
<td>79</td>
<td>63</td>
<td>66</td>
<td>68</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>E1 Affordable Bills</td>
<td>1% below inflation</td>
<td>1% below inflation</td>
<td>1% below inflation</td>
<td>1% below inflation</td>
<td>1% below inflation</td>
<td>1% below inflation</td>
</tr>
<tr>
<td>E2 Help for Disadvantaged customers</td>
<td>55,318</td>
<td>52,000</td>
<td>65,000</td>
<td>75,000</td>
<td>85,000</td>
<td>100,000</td>
</tr>
<tr>
<td>F1 Asset Serviceability</td>
<td>stable</td>
<td>stable</td>
<td>stable</td>
<td>stable</td>
<td>stable</td>
<td>stable</td>
</tr>
<tr>
<td>F2 Leakage</td>
<td>180</td>
<td>181</td>
<td>177</td>
<td>173</td>
<td>171</td>
<td>169</td>
</tr>
<tr>
<td>F3 Asset Resilience [water / wastewater]</td>
<td>83.6/74.8</td>
<td>80/71</td>
<td>81/72</td>
<td>83/74</td>
<td>85/76</td>
<td>87/78</td>
</tr>
</tbody>
</table>
7. Judgements and serviceability assessments

This section covers the following:

— serviceability assessments for sub services; and
— other material judgements.

**Serviceability assessments for sub-services**

We are required to make an assessment of the serviceability of the four asset sub-services and include the assessments in the suite of performance indicators that Ofwat requires to be published.

The four sub-services are water infrastructure (WI), water non-infrastructure (WNI), sewerage infrastructure (SI) and sewerage non-infrastructure (SNI). The serviceability assessment involves reviewing the recent historical trends in a defined suite of asset performance indicators. At the 2009 Price Review, a reference level and control limits were set for each indicator. An indicator is regarded as stable when its performance remains within the control limits and oscillates around the reference level year on year. The suite of indicators have been reviewed for each sub-service and our conclusions are as follows:

**Water infrastructure** - Our assessment of serviceability is “Stable”. Details of our performance on the six individual indicators comprising this sub service are included in Section 4 (“Dŵr Cymru key performance indicators/Book of Metrics) and marked “S”.

Of the six indicators the only one where we are outside the Control Limit set at the 2009 Price Review (FD09) is on the number of properties affected by “unplanned supply interruptions of more than 12 hours duration”. The reasons for this are set out in the “Other Material Judgements/Observations” section of this report on Page 62.

On four of the five remaining indicators we are below the reference levels set and only on “iron non-compliance” are we above the reference level (but below the Upper Control Limit).

On balance, and having regard to the circumstances surrounding performance on the “supply interruptions” indicator, the substantial improvement on performance in respect of customer minutes lost from supply interruptions and ongoing plans to further improve the position, we believe that the underlying position is that we are “stable” on this sub-service.

**Water non-infrastructure** - Our assessment of serviceability is “Stable”. Details of our performance on the five individual indicators comprising this sub service are included in Section 4 (“Dŵr Cymru key performance indicators/Book of Metrics) and marked “S”.

**Sewerage infrastructure** – Our assessment of serviceability is “Stable”. Details of our performance on the six individual indicators comprising this sub service are included in Section 4 (“Dŵr Cymru key performance indicators /Book of Metrics) and marked “S”.

**Sewerage non-infrastructure** – Details of our performance on the three individual indicators comprising this sub service are included in Section 4 (“Dŵr Cymru key performance indicators /Book of Metrics) and marked “S”.

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*60*
Judgements and serviceability assessments continued

There are three asset performance indicators for this sub service, namely:

— Waste water treatment works (WwTWs) failing numeric consents (measured as a % of total works);
— WwTWs Look-up table consents (measured as a % of population equivalent served); and
— Unplanned maintenance.

On the first two of these indicators, performance is either in line with or below the relevant reference levels (see pages 26 and 27 for details). Notwithstanding performance on unplanned maintenance (described in the next paragraph), we assess ourselves as “Stable” on this sub service.

There continues to be increased recording of unplanned work as a result of our Leading Edge Assets and People (LEAP) programme, which has contributed to an increase in the number of all jobs recorded by operators and maintenance craftsmen. We believe that the upward trend up until 2013/14 was largely related to the way that jobs were categorised. We have established that all maintenance jobs are being recorded on the system. However, a large proportion of these have been assigned as unplanned which is a result of our capture system not adequately allowing operators to assign work to a planned job easily and maintenance craftsmen have therefore defaulted to unplanned status.

As we are generally undertaking more planned maintenance (a circa 20% increase from last year), there is a commensurate increase in the number of jobs recorded. Other factors which have exacerbated the problem include:

— Additional operator routines being captured as unplanned work;
— An in-sourcing exercise in April 2013 which, inter alia, meant that some 400 sewage pumping stations were added to the asset data base. We estimate that this equates to some 5,000 jobs; and
— The ongoing drive for increased productivity generating an increase in the number of jobs per day.

Despite continuing to take steps to remedy the position by making system changes we do not believe that this is symptomatic of an underlying deterioration in asset performance. We are not seeing an increase in the number of asset breakdowns and other related performance indicators are improving. In 2012, we were judged by the Environmental Agency (EA) as the company who had improved most and we went from a poor performer to an “above average” one. This was reinforced again in 2013 and 2014 with “above average” performance. Once the position has stabilised and our systems have been updated to allow operators to classify work correctly, this indicator will be a more useful measure of our performance.

Other material judgements / observations

Private sewers and lateral drains

Private sewers and lateral drains transferred to companies on 1st October 2011. We estimate that this may have doubled the length of our network, much of which is in a poor condition. As was the case in the 2011/12, 2012/13 and 2014/15 reports, we have excluded data involving private sewer and lateral drain assets but are recording these separately. From 2015/16 onwards data involving private sewer and lateral drain assets will be incorporated in our assessment of performance.
Judgements and serviceability assessments continued

Water Supply Interruptions (DG3s)

Although our performance on interruptions to customers’ supply remain above the upper control limit for this water infrastructure serviceability indicator, our overall customer minutes lost performance has improved significantly (reducing from 53 to 23 customer minutes lost). Supplies lost above 12 hours has been influenced by a number of random unforeseen events. Our improvement measures have firstly focused on reaffirming the importance of accurate and timely recording of reporting information and this is highlighted in our new Code of Conduct (“We are Welsh Water”). Secondly, we have enhanced our capability to deal with bursts and maintain supplies and this has included revising our approach to operational standby to improve jeopardy and out of hours escalation processes, greater use of non-interruptive repair techniques and improved capability in creating temporary supplies. These have all contributed to the improvement in performance and we believe that this trend will continue as these processes are further embedded into the business. With further investment planned in pressure monitoring (to reduce the “awareness time” of bursts and provide more accurate reporting), emergency equipment (to provide temporary supplies) and valve operation training (to prevent secondary bursts) planned in 2015, we are expecting this to improve even further.

There were a number of factors which affected our performance during the year namely a series of large diameter trunk mains bursts these included:

- a burst on a 24” strategic trunk main at Morriston in May 2014 which triggered a loss of supply to over 2,000 properties in excess of 18 hours. We were able to mitigate the impact of the event by organising continuous tankering into service reservoirs downstream of the burst main and rezoning; and
- in November 2014 a burst on a strategic trunk main near Llechryd WTW interrupted supply and the problem was exacerbated by two subsequent bursts on the same main over a short period of time and dangerous ground conditions. This led to a loss of supply to some 2,800 properties for a duration of over 11 hours.

The average minutes lost as measured against the Ofwat Key Performance Indicator (planned, unplanned and third party interruptions in excess of 3 hours) in 2014/15 was 22.98 (0.383 house per property) compared to 50.6 minutes (0.844 hours per property) in 2013/14.

In terms of performance against the 2009 Final Determination (FD09), we have not achieved the stipulated DG3 Service level output.

Greenhouse Gas Emissions

Net Green House Gas (GHG) emissions come largely from electricity and gas that is brought in from the Grid to run our business, contributing some 79% of the total. Direct emissions from our sludge processes, transport and heating fuels make up most of the remainder. Measurement of GHG emissions is one of the Ofwat KPIs (see page 54).

Our annual operational GHG emissions was 261 ktCO₂e, which compares with 243 ktCO₂e last year. This is despite the fact that overall electricity consumption fell by some 4GWh during the year and an increase in renewable energy generation from 43 to 46 GWh, the increase in overall CO₂ emission is largely attributable to the 11% increase in the UK grid electricity emission factor, a UK wide carbon emission factor, which applies to all industries and companies.

Our emissions from sludge have also declined as a result of more sludge going through our Advanced Anaerobic Digestion plants.
Appendix 1. Processes adopted in preparing this report

The company has established appropriate processes and systems of control that provide the necessary assurance in respect of the information contained within and underpinning this report. Regulatory reporting is part of the company’s ISO9001:2008 accreditation.

The following paragraphs summarise the processes and systems of control in place.

Policies and Procedures

— We have documented key processes and controls and have assessed the quality of systems and processes used for generating regulatory information. These processes have been followed to produce this year’s Performance Report. Although we are no longer required to produce a June Return we have used the same processes as in previous years and retained the concept of ‘table ownership’.

— As part of due diligence, each Dŵr Cymru table owner was required to confirm that they had completed the table in accordance with the process maps and procedure notes and to highlight whether any updates were required. Any changes to the procedures are kept up to date and are published on the Dŵr Cymru Infozone.

— We have a policy document which outlines the formal process to be undertaken and, inter alia, the roles and responsibilities of key people including table owners, the Regulation Department, Dŵr Cymru Executive (collectively and individually), the Audit Committee and the Board.

— A ‘Code of Conduct’ policy document, detailing the behavioural framework required around regulatory data and whistle-blowing was issued in 2014.

— Ownership and responsibility for each regulatory table have been clearly defined. Each individual is responsible for adhering to all appropriate guidance in the compilation of the data and associated commentary. This also involved formal ‘sign off’ by the individual, verifying that the figures in each line had been obtained from a recognised data source and have been accurately compiled. In addition, confirmation was required that any material judgements or assumptions had been highlighted and documented, ensuring an accurate audit trail, with a review of confidence grades where applicable. Where material is within an individual’s personal knowledge, he or she was required to confirm that it is true or, where it was not within their personal knowledge, that appropriate enquiry has been made.

— Allocation of overall responsibility for individual tables and associated commentaries was assigned to the appropriate member of the Dŵr Cymru Executive. Each was responsible for the review and ‘sign off’ of their own tables.

— ISO9001:2008 accreditation was the subject of an internal audit in February 2015 There were no major or minor non-conformities recorded within our quality management system during their assessment. This endorsement recognises the structured processes that we have in place.
Processes adopted in preparing this Report (continued)

Implementation and Internal Review

— Production of ‘table packs’ by the Regulation Department ensured that all table owners had a single point of reference for all information necessary to undertake their specific responsibilities. These ‘Packs’ included the latest Reporting Requirements for each table, information on confidence grades and the Reporter’s report on each individual table.

— All the information included within the table packs (described above) was made available on the InfoZone.

— One to one training sessions for table owners were held in February and March 2015, where the processes were fully explained, the importance of regulatory data being reliable, accurate and complete highlighted and a ‘table pack’, comprising key documents, was distributed.

— Regular communication between the Regulation Department and all table owners was undertaken prior to and during the preparation of this report.

— There was regular reporting of key performance indicators to the Board, the Quality and Environment Committee (QEC) and the Dŵr Cymru Executive Team throughout the year.

— A rigorous process of internal due diligence meetings was undertaken by the Regulation Department between the 5th and 22nd May 2015, to challenge information, judgements and assumptions made and to ensure compliance with the relevant guidance.

— A review was undertaken by the Regulation team to ensure consistency between the Performance Report and the individual tables and the relevant commentaries.

— The ‘sign off’ forms were endorsed by each table owner and the responsible member of the Dŵr Cymru Executive Team before the publication of the Performance Report. The ‘sign off’ form also included confirmation from table owners that the process maps had been followed.

— A process review meeting of all Ofwat KPIs, involving the Dŵr Cymru Executive Directors, took place on 26th May 2015. This was also attended by the Reporter, a Business Assurance team member and table owners. A summary of table owner and reporter issues along with associated reported data was produced for review and formed the basis of the discussions. Material issues were highlighted and discussed.
Processes adopted in preparing this Report (continued)

External Review and Board Engagement

— The Reporter carried out a formal review and certification of all non-financial Ofwat prescribed Key Performance Indicators and provided a detailed report commenting on compliance with procedures, reporting requirements and highlighted any issues with the reported figures.

— As part of the external review of data, the Reporter also reviewed ongoing actions highlighted against risks associated with Ofwat KPI data. The Reporter also attended the Dŵr Cymru Executive meeting on the 26th May 2015 and the Audit Committee and Board meetings on 5th June 2015.

— A high level audit and evaluation of the systems in place within Dŵr Cymru was also undertaken by the Business Assurance team department. This took place between the 13th and 26th of May 2015 and the report concluded that there is a robust and effective system of risk management, control and governance, with an overall rating of “Full Assurance”.

— On 5th February 2015 the Audit Committee received a paper detailing the processes in place ahead of the submission of the Board discussion and submission of the Performance Report to Ofwat.

— Regulatory reporting is part of the company’s ISO9001:2008 accreditation.

— The Board meeting on 5th June 2015 reviewed the overall process, the operation of the systems of internal and external controls and review the key judgements required in compiling the Performance Report.
Our Ref: Project 121776-1500

DCWW,
Pentwyn Road,
Nelson,
Treharris,
Mid Glamorgan,

Your Ref: JR15 – Performance Report

5th June 2015

Reporter’s Statement on DCWW’s Performance Report 2014-5

Including Measures of Success

Ofwat no longer requires formal commentary from Reporters on companies’ annual data returns. However, to provide its own assurance and governance, Dwr Cymru Welsh Water (DCWW) has appointed its Reporter to continue the work previously undertaken by him on certain aspects of the company’s 2014-5 submission to Ofwat, as described below.

Mr. Stephen Bentley, a Senior Associate of Black & Veatch, is the Ofwat-appointed Independent Reporter for DCWW. Data used for the calculation of Performance Indicators and Measures of Success in the company’s 2014-5 Performance Report to Ofwat have been audited by a Reporter’s team under Mr Bentley’s direction, composed of senior staff and associates of Black & Veatch.

The team studied the Performance Report prepared by DCWW for the 14 non-financial Performance Indicators and 20 non-financial Measures of Success listed on the next page and followed a number of audit trails to establish the sources of the information contained within the report and assess their adequacy and accuracy.

Although Ofwat no longer requires the submission of the detailed June Return tables, the company has continued to compile these for its own use. As instructed by DCWW, the audit was confined to June Return tables and lines selected by the company for their relevance to the calculation of the Performance Indicators and nominated Measures of Success. The audit also covered a review of correspondence with CCWater, together with company and Natural Resources Wales data on sewerage pollution incidents.

Data in the company Scorecard or Book of Metrics included in the company’s Performance Report were audited only to the extent that data in these tables duplicate the non-financial Performance Indicators and Measures of Success which are detailed on the next page. The audit did not cover financial Performance Indicators, which were audited by others.

During the audit we audited the base data used in the calculation of the Performance Indicators and Measures of Success. Where these were taken directly from lines in the internal June Return we confirmed that the values used were consistent with those tables. Where an element of calculation was required to derive the reported Performance Indicator or Measure of Success from June Return tables or other data we checked that calculation.

The Reporter’s team received willing co-operation from DCWW and was given free access to the company’s staff, systems and data.
Following our checks we confirm that we have substantiated the reported performance for the following 2014-5 Performance Indicators and Measures of Success. We also reviewed the Red/Amber/Green status allocated by the company to the 2014-5 values for Performance Indicators and confirmed that it appears reasonable.

In addition we have reviewed the indicative numbers associated with the Measures of Success and the processes for gathering the data and we are satisfied that the numbers are reasonable.

<table>
<thead>
<tr>
<th>Performance Indicator</th>
<th>Measure of Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Incentive Mechanism (SIM)</td>
<td>D1 - Service Incentive Mechanism (SIM) (quantitative element and overall calculation only)</td>
</tr>
<tr>
<td>(quantitative element and overall calculation only)</td>
<td></td>
</tr>
<tr>
<td>Internal Sewer Flooding</td>
<td>D3 – Properties Flooded</td>
</tr>
<tr>
<td>Water Supply Interruptions</td>
<td>A3 – Reliability of Supply</td>
</tr>
<tr>
<td>Serviceability - Water Non-infrastructure</td>
<td>F1 – Asset Serviceability</td>
</tr>
<tr>
<td>Serviceability - Water Infrastructure</td>
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<tr>
<td>Serviceability - Sewerage Non-infrastructure</td>
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</tr>
<tr>
<td>Serviceability - Sewerage Infrastructure</td>
<td></td>
</tr>
<tr>
<td>Leakage</td>
<td>F2 - Leakage</td>
</tr>
<tr>
<td>Security of Supply Index</td>
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</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>C2 – Carbon Footprint</td>
</tr>
<tr>
<td>Pollution Incidents – Sewerage</td>
<td>B3a – Preventing Pollution (Category 1,2 and 3 Incidents)</td>
</tr>
<tr>
<td>Serious Pollution Incidents – Sewerage</td>
<td>B3b – Preventing Pollution (Category 3 Incidents)</td>
</tr>
<tr>
<td>Discharge Permit Compliance</td>
<td>B2 – Treating Wastewater</td>
</tr>
<tr>
<td>Satisfactory Sludge Disposal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A2 - Customer Acceptability</td>
</tr>
<tr>
<td></td>
<td>B1 – Abstraction of Water for Use</td>
</tr>
<tr>
<td></td>
<td>C1 – Responding to Climate Change</td>
</tr>
<tr>
<td></td>
<td>D2 – At-risk Customer Service</td>
</tr>
<tr>
<td></td>
<td>E2 – Help for Disadvantaged Customers</td>
</tr>
<tr>
<td></td>
<td>F3 – Asset Resilience</td>
</tr>
</tbody>
</table>

We did not review the following Measures of Success, but confirmed that the values quoted corresponded with figures reported within the company or by a relevant external body:

A1 – Safety of Drinking Water (A1a - % Sample Compliance, A1b - % Mean Zonal Compliance)
D4 - Non-household Customer Service (D4a - % Satisfaction, D4b – Satisfaction Score)
D5 – Earning the Trust of Customers
The following points should be noted:

**Internal Sewer Flooding**

The Ofwat-defined Internal Sewer Flooding Performance Indicator excludes flooding originating from former private sewers transferred to the company in 2011, while the company-defined Properties Flooded D3 Measure of Success includes flooding originating from these sewers.

**Interruptions to Supply**

Measures have been taken to improve performance following the discovery in earlier years of the mis-recording of interruptions in the company’s systems. This has resulted in a significant improvement in this measure, from 0.84 hours (50.6 minutes) at JR14 to 0.38 hours (23 minutes) for JR15. We have audited and substantiated this figure, which corresponds to a performance assessment of Green. We have concluded from our audits that as a result of action taken following the investigation of mis-recording, DCWW now has very robust and effective procedures for recording its interruptions to supply, which meet Ofwat’s requirements.

**Water Non-infrastructure Serviceability**

Processes used to assess the number of unplanned maintenance jobs have been reviewed and improved, resulting in the removal of duplication and reducing the number of unplanned maintenance jobs reported, which is now well below the lower control limit. Performance is assessed as Stable.

**Serviceability – Water Infrastructure**

One of the six measures making up the measure for this sub-service is reported performance on supply interruptions. The investigation into the recording of interruptions data calls into question the JR09 value that was used as a basis for setting Reference Levels for 2010-5 and hence the Reference Level itself. We agree that the previously defined Reference Levels should be ignored for assessing this indicator and that all other considerations indicate a Stable position.

**Serviceability – Sewerage Non-infrastructure**

Reported numbers of unplanned maintenance jobs rose for a number of years up to 2013-4. Processes used to assess numbers have been reviewed and improved and reported 2014-5 performance indicates that the rising trend may be at an end, although numbers remain higher than the Ofwat upper performance bound. However this is a secondary indicator, since a failure may not directly affect works performance and the environment and the primary indicators (sewage works compliance and the percentage of population equivalent served by compliant sewage works) are stable, with performance close to or better than the lower control limit. We therefore support the company’s overall assessment of Stable serviceability.

**Greenhouse Gas Emissions and Carbon Footprint**

Although emissions from the company’s processes reduced during the year, this was offset by an 11% increase in the UK grid electricity emission factor, an issue which affects the whole industry. As a result, calculated total emissions, quoted in the Ofwat-defined Greenhouse Gas Emissions Performance Indicator rose, compared with JR14.

The figure quoted for the company-defined C2 Carbon Footprint Measure of Success is 60 GWh. This figure includes 14 GWh of hydro-generation capacity acquired by the company, but the Renewable Energy Guarantees of Origin for to this capacity will not transfer to the company until 2015-6.
Pollution Incidents
The Ofwat-defined Pollution Incident Indicators exclude flooding originating from former private sewers transferred to the company in 2011, while the company-defined B3 Preventing Pollution Measure of Success includes flooding originating from these sewers.

Customer Acceptability of Water
Population figures used in the calculation of the A2 Customer Acceptability Measure of Success figure correspond to those reported to DWI on a zone-by-zone basis and not to the overall population calculated for the Annual Return tables.

Asset Resilience
The F3 Asset Resilience Measure of Success covers only above-ground assets at present. The company intends to extend coverage to below-ground assets in due course.

Yours faithfully,

Stephen Bentley – Reporter