Dŵr Cymru
Welsh Water

Annual Performance Report 2018/19

Part 3 - Performance Summary

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1. Introduction

Throughout the year, we monitor our performance against a wide range of indicators, including the following:

- the Measures of Success contained within Ofwat's 2014 Final Determination (FD);
- a small number of Measures of Success which were an integral part of our PR14 Business Plan but were nevertheless excluded from the FD. As these were part of the package that received overwhelming support from our customers, we have continued to monitor performance and have included them in this report;
- key measures of performance used by Natural Resources Wales (NRW) to judge environmental compliance;
- key measures of performance used by the Drinking Water Inspectorate (DWI) to judge drinking water quality compliance;
- measures contained within our "Performance Scorecard". This is an important tool which helps monitor performance and, whilst the scorecard does not include every single metric measured, achieving Scorecard targets set by the Board demonstrates that we are on track to deliver a performance overall that would represent one of the best in the industry; and
- financial measures such as gearing, credit ratings, post-tax return on capital and interest cover.

In this part of the Annual Performance Report we set out how we have performed against the non-financial measures. Performance against the key financial measures is contained within the Annual Report and Accounts and the regulatory accounts (Parts 1 and 2 of this Annual Performance Report). In Part 4 of this Annual Performance Report we include additional regulatory information.

In terms of presentation, we have grouped these together by reference to the six Customer-led Success Initiatives, (see section 2.1). These are:

- clean safe water for all;
- safeguard the environment for future generations;
- a personal service that's right for you;
- put things right if they go wrong;
- fair bills for everyone; and
- a more sustainable and prosperous future for our communities.

A summary of overall performance on key measures is contained within section 2.2. In section 2.3 we set out the FD Measures of Success (colour coded by reference to the outcomes contained within the FD) and also showing to which part of the business they relate. In section 2.4 we set out the outcome delivery incentive reward or penalty payments for each performance commitment across each year between 2015/16 to 2019/20.

Performance against each individual metric is set out in section 2.5. Where we can, we have included details of historical performance and how our performance compares with other companies in the sector. Where we are behind our FD targets, we have provided a brief commentary explaining why this is the case and we also highlight the steps we are taking to improve. In addition, our performance is recorded on a website called Discover Water (www.discoverwater.co.uk). This is an industry dashboard, providing customers with the latest information about the water utility sector in England & Wales and how we are performing against other sector companies.

Some of the individual Measures of Success have associated rewards or penalties for over or under performance. Where this is the case, we provide an update and show on the appropriate graph actual performance against target and, where this places us in terms of earning a reward or incurring a penalty.

Table 3A and 3B, in section 3, contain information required by Ofwat on how we are performing against the Measures of Success targets contained within the FD. Table 3D provides a breakdown of the qualitative and quantitative elements of Service Incentive Mechanism (SIM). It should be noted that Table 3C (Abstraction Incentive Mechanism-AIM) does not apply to companies operating wholly or mainly in Wales.

In section 4, we have set out the assurance processes followed in preparing this document and, in particular, ensuring that the information we have provided is accurate and complete.

A statement provided by our Reporter, who audited aspects of this Annual Performance Report, is included in Appendix 1.

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2.1 Performance Measures– by reference to Customer Led Success (CLS) Promises

Customer Led Success	Final Determination Measures of Success	Key Performance Indicators
Clean safe water for all	A1 Mean Zonal Compliance / A2 Customer Acceptability / A3 Reliability of Supply	A1a % Sample Compliance / A2a Customer Acceptability (excl private contacts) / Process Control Index / Disinfection Index / Reservoir Integrity index
A more sustainable and prosperous future for our communities / Safeguard the Environment for future generations	B1 Water Abstractions / C1 Responding to Climate Change / C2 Carbon Footprint / F1 Serviceability / F2 Leakage / F3 Asset Resilience / B2 Treating wastewater / B3 Pollution incidents	**Serviceability-Water Infrastructure.** Mains Bursts – Low Pressure – Iron non compliance – Interruptions to supply > 12hrs – Distribution Index – Customer contacts (discolouration) / **Serviceability-Water Non-Infrastructure.** WTW Bacti non compliance – Enforcements – Service Reservoir Bacti non compliance – Turbidity non compliance – Unplanned maintenance / **Serviceability-Wastewater Infrastructure.** Sewer Collapses – Sewer Blockages – Equipment Failures – Pollution incidents – Properties flooded (OC) – Properties flooded (HO) / **Serviceability-Wastewater Non-Infrastructure** Unplanned Maintenance – % PE in breach of consent – %WWTWs in breach of numeric consents
Personal service that's right for you	D3 Properties flooded / D4 Business Customer Satisfaction / D5 Earning the trust of customers	Net Promoter Score / UKCSI score / G2 Competency of Staff
Put things right if they go wrong	D1 SIM combined / D2 At risk customer service	Unwanted calls / G1 H & S RIDDOR Incidents / Complaints
Fair Bills for everyone	E1 Affordable Bills / E2 Help for Disadvantaged Customers	Bad Debt / H2 Financing Efficiency

Outcomes

Safe Drinking Water | Climate Control | Best In Class Customer Service

Protecting the Environment | Affordable bills | Asset Stewardship

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2.2 Summary of Overall Performance

2018/19 Annual Performance ((c) Calendar year measure - all others are financial year measures)	2018/19 Outturn	2017/18 Outturn	2018/19 Vs Previous Year	FD Target (Final Determination)	2018/19 Vs FD Target (Final Determination)	RAG Vs Sector	Page
A1(a): % Sample Compliance (c)	99.98%	99.98%	✓	n/a	n/a	🟢	10
A1(b): Mean Zonal Compliance (c)	99.97%	99.96%	✓	100%	X	🟢	11
A2(a): Customer Acceptability (c) (excluding private contacts)	2.98	2.79	X	n/a	n/a	n/a	12
A2(b): Customer Acceptability (c)	3.28 *1	3.19 *1	X	1.23	X	🔴	13
A3: Reliability of Supply	16.0 mins	43.3 mins	✓	12 mins	X	🟠	14
B1: Abstraction for water	100%	100%	✓	100%	✓	🟢	15
B2: Treating used water (c)	99.64%	98.21%	✓	100%	X	🟢	16
B3: Pollution Incidents (c)	118	112	X	131	✓	🟠 *2	17
C1: Responding to Climate Change	15,967	15,097	✓	20,000	X	n/a	18
C2: Carbon Footprint-Water	32.59 GWh	42.38 GWh	X	15.11 GWh	✓	n/a	19
C2: Carbon Footprint-Wastewater	52.43 GWh	55.51 GWh	X	69.89 GWh	X	n/a	19
D1: SIM	87	85	✓	Top Quartile	*3	🟢 *4	20
D2: At Risk - Customer Service	641	613	X	550	X	n/a	21
D3: Properties flooded in the year	221	221	✓	282	✓	🟢	22
D4: Business Customer Satisfaction	88%	87%	✓	90%	X	n/a	23
D5: Earning the Trust of Customers	85%	84%	✓	71%	✓	n/a	24

*1 This figure includes customer contacts relating to issues arising from customers' own private plumbing. If contacts resulting from issues with the customer's own internal pipes are excluded, the 2018 number is 2.98 contacts per 1,000 customers (2017: 2.79).

* 2 Performance for Wastewater is upper quartile when taking into account the total number of assets.

* 3 Performance against FD target (i.e. upper quartile) will not be known until all companies publish their Annual Performance Reports in July 2019.

* 4 In terms of the RAG comparison against the sector, the green assessment is based on the qualitative element of SIM only.

| Red/Amber/Green (RAG) * Industry comparison against the other water and sewerage companies | | 🟢 | Upper quartile Performance | 🟠 | Average Performance | 🔴 | Lower quartile Performance |

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2.2 Summary of Overall Performance

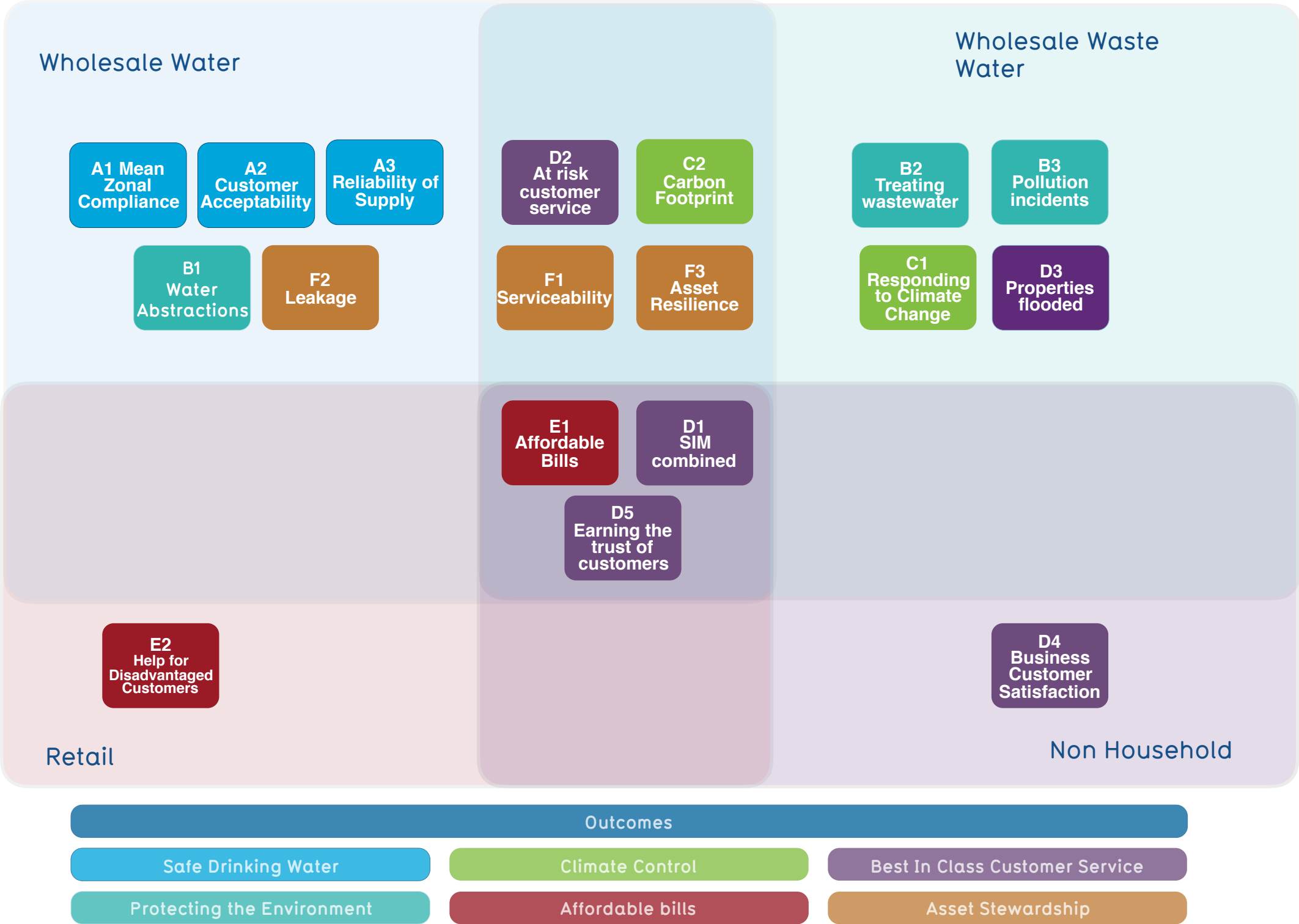| 2018/19 Annual Performance ((c) Calendar year measure - all others are financial year measures)	2018/19 Outturn	2017/18 Outturn	2018/19 Vs Previous Year	FD Target (Final Determination)	2018/19 Vs FD Target (Final Determination)	RAG Vs Sector	Page
E1: Affordable Bills	-2%	-2%	✓	-1%	✓	n/a	25
E2: Help for Disadvantaged Customers	120,783 *5	100,999	✓	85,000	✓	n/a	26
F1: Asset Serviceability	Stable x 4	Stable x 4	✓	Stable x 4	✓	n/a	27
F2: Leakage Ml/d	169.54	172.85	✓	171	✓	🟢	32
F3: Asset Resilience - Water	90.2% *6	90.4% *6	X	85%	✓	n/a	33
F3: Asset Resilience - Wastewater	79.0% *6	77.5% *6	✓	76%	✓	n/a	34
G1: Health & Safety	8	14	✓	n/a	n/a	n/a	35
G2: Competency for role	88%	82%	✓	n/a	n/a	n/a	36
H2: Financing Efficiency	A Neg/ A2 Neg/ A	A/ A2/ A	X	n/a	n/a	🟢	37
Net Promoter Score	61.2	63.0	X	n/a	n/a	n/a	38
Written Complaints	3,491	3,862	✓	n/a	n/a	🟢	39
Bad Debt	£21.0m	£22.1m	✓	n/a	n/a	n/a	40
UKCSI	77.9	76.8	✓	n/a	n/a	n/a	41
Unwanted Calls	128,603	138,193	✓	n/a	n/a	n/a	42
Process Control Index	99.99%	99.99%	✓	n/a	n/a	🟢	43
Disinfection Index	99.99%	99.99%	✓	n/a	n/a	🟢	44
Reservoir Integrity Index	99.99%	99.99%	✓	n/a	n/a	🟢	45

* 5 Both 2017/18 and 2018/19 outturn figure exclude those customers who benefit from our 'Water Collect' scheme. If 'Water Collect' customers benefitting from a social tariff/means of assistance are included, the 2018/19 number is 125,152.

* 6 Both 2017/18 and 2018/19 outturn figures are based on the strategically important assets listed at the time of the 2014 FD. In addition, to reporting against this FD measure, we assess performance against the most up to date list of strategically important assets. On pages 31 and 32 we set out details of performance against both measures.

Red/Amber/Green (RAG) * Industry comparison against the other water and sewerage companies	🟢	Upper quartile Performance	🟠	Average Performance	🔴	Lower quartile Performance

2.3 Performance Measures – by reference to Outcomes and PR14 Price controls

Wholesale Water

Wholesale Waste Water

A1 Mean Zonal Compliance

A2 Customer Acceptability

A3 Reliability of Supply

B1 Water Abstractions

F2 Leakage

D2 At risk customer service

C2 Carbon Footprint

F1 Serviceability

F3 Asset Resilience

B2 Treating wastewater

B3 Pollution incidents

C1 Responding to Climate Change

D3 Properties flooded

E1 Affordable Bills

D1 SIM combined

D5 Earning the trust of customers

E2 Help for Disadvantaged Customers

D4 Business Customer Satisfaction

Retail

Non Household

Outcomes

Safe Drinking Water

Climate Control

Best In Class Customer Service

Protecting the Environment

Affordable bills

Asset Stewardship

2.4 Performance Commitments – Outcome Delivery Incentives

On 1 April 2015 our Outcome Delivery Incentive Scheme (ODIS) came into effect. The scheme was introduced to provide a comprehensive suite of measures, both financial and non-financial, designed to stiffen the pressure on us to meet the expectations of our customers first time, every time. The scheme was also designed to ensure that our customers are recompensed when our service falls short of their expectations.

We offer a comprehensive set of compensatory payments to customers in relation to a wide range of types of performance failures. This incorporates the statutory "Guaranteed Standards Scheme" payments we are obliged to make under the provisions of the 1991 Water Industry Act. Full details of the payments we make can be found in our publication For You Not For Profit 2019-20.

The ODIs has both reputational and financial incentives and we have reported on all of the measures shown in the table overleaf in our Annual Performance Report since 1 April 2015. We will continue to report on these measures in their existing format until 31 March 2020.

We calculate whether a penalty or reward is to be applied to any of our financial measures on an annual basis. The rewards or penalties calculated for the five year period from 1 April 2015 will be applied as a price control adjustment by Ofwat at the end of the current reporting period on 31 March 2020.

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2.4 Performance Commitments – Outcome Delivery Incentives

2018/19 Annual Performance

Performance commitment	Wholesale Water	Wholesale Wastewater	Retail	Non Household	ODI Incentive Penalty or Reward					
					2015/16 (£m)	2016/17 (£m)	2017/18 (£m)	2018/19 (£m)	Predicted 2019/20 (£m)	Total Predicted ODI Incentive (2015/16 to 2019/20) (£m)
A1: Mean Zonal Compliance	✓				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
A2: Customer Acceptability	✓				0.0000	0.0000	−1.8600	−1.8600	−1.8600	−5.5800
A3: Reliability of Supply	✓				0.0000	0.0000	−3.9000	−0.7800	0.0000	−4.6800
B1: Water Abstractions	✓									Reputational
B2: Treating Wastewater		✓								Reputational
B3: Pollutions incidents		✓			0.9870	0.9400	0.8930	0.611	0.893	4.3240
C1: Responding to Climate Change		✓			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
C2: Carbon Footprint	✓	✓								Reputational
D1: SIM	✓	✓	✓	✓						Reputational
D2: At risk customer service	✓	✓								Reputational
D3: Properties flooded in the year		✓			0.0000	1.8600	1.4880	1.6740	0.9920	6.0140
D4: Business Customer Satisfaction				✓	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
D5: Earning the trust of customers	✓	✓	✓	✓						Reputational
E1: Affordable Bills	✓	✓	✓	✓						Reputational
E2: Help for disadvantaged customers			✓							Reputational
F1: Asset Serviceability	✓	✓			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
F2: Leakage	✓				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
F3: Asset Resilience	✓	✓			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.9870	2.8000	−3.3790	−0.3550	0.0250	0.0780

Outcomes

Safe Drinking Water	Climate Control	Best In Class Customer Service
Protecting the Environment	Affordable bills	Asset Stewardship

2.5 – Safety of Drinking Water – % Sample Compliance

Key Performance Indicator

2011	2012	2013	2014	2015	2016	2017	2018
99.98	99.981	99.975	99.98	99.98	99.99	99.98	99.98

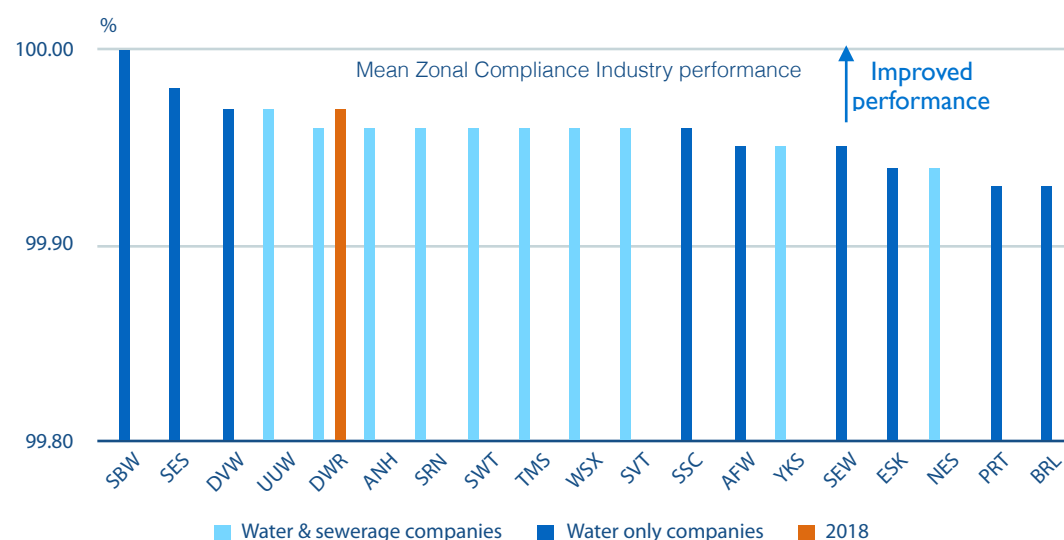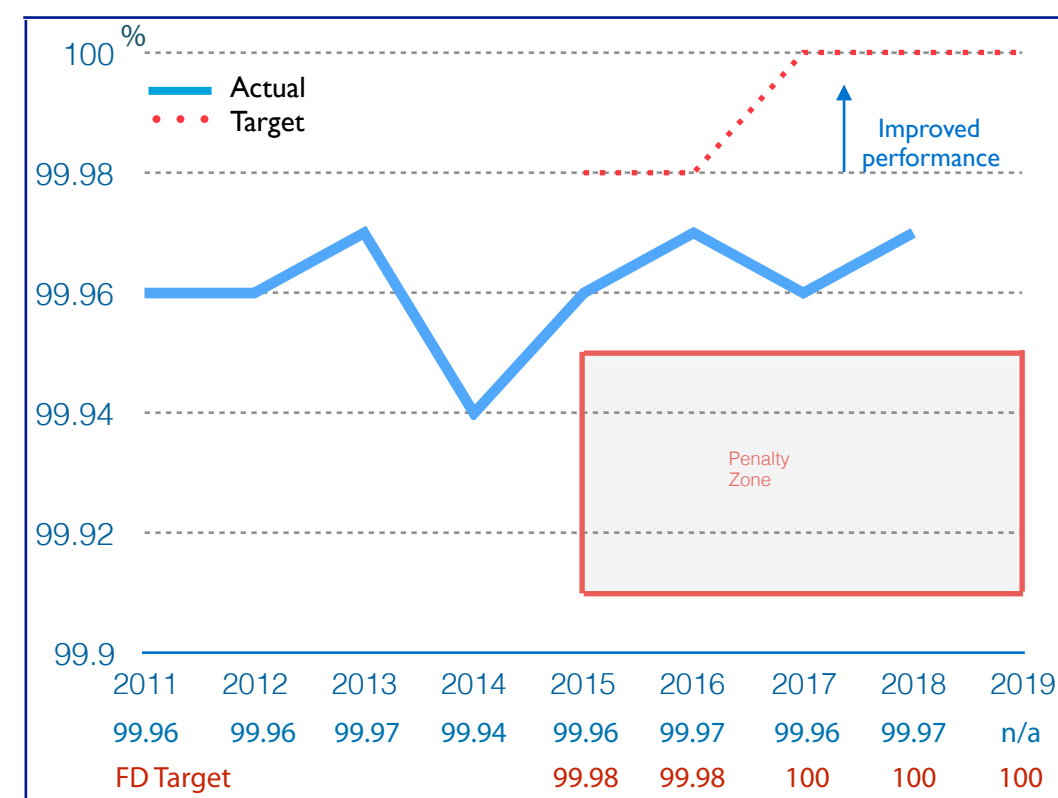|	
Summary Performance:	The overall compliance of 99.98%, is a percentage of the total number of failures taken against the total number of tests. In 2018, there were 45 failures out of 247,528 total tests taken, compared to 46 failures in 2017 (224,032 tests).
Customer Compensation	Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.
Definition:	This measure (included within our scorecard) is the percentage of compliant samples taken at Water Treatments Works, Service Reservoirs and customer taps. This measure takes into account all the tests analysed as a percentage of those that have failed against European and National Standards and additional monitoring requirements as reported in DWI published data. This measure is much less volatile than the Mean Zonal Compliance (MZC) measure. This measure is reported on a calendar year basis.

Safety of Drinking Water Industry data

Water & sewerage companies | Water only companies | 2018
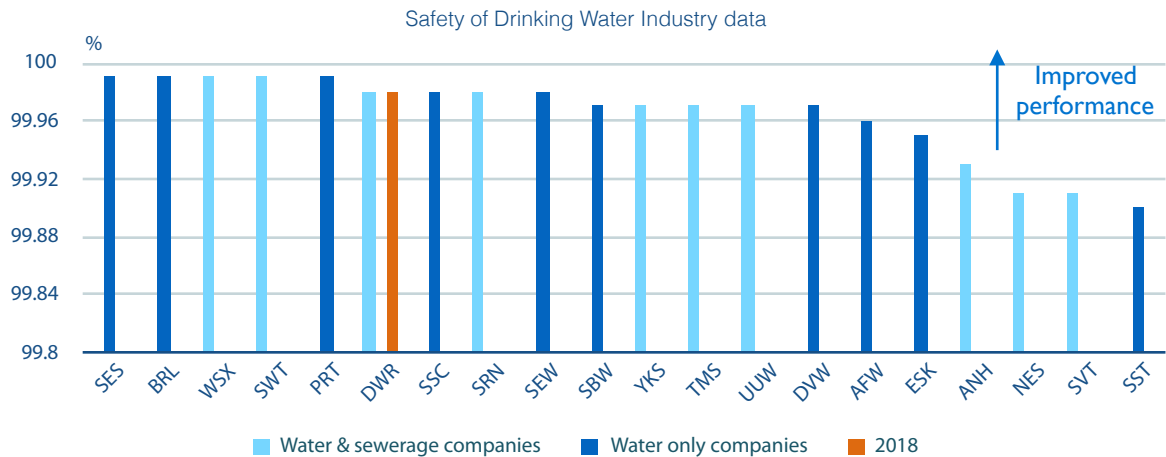
Source: Drinking Water Inspectorate - Annual Report 2017

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2.5 – MOS A1b – Safety of Drinking Water Mean Zonal Compliance (%) (MZC)

Applicable to Price Control: WHOLESALE WATER

OFWAT MOS Penalty Only

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Actual	99.96	99.96	99.97	99.94	99.96	99.97	99.96	99.97	n/a
FD Target					99.98	99.98	100	100	100

Mean Zonal Compliance Industry performance

Improved performance

Water & sewerage companies   Water only companies   2018

Summary Performance: In 2018 our performance level was 99.97%. There were 33 failures out of 58,667 tests taken compared to 32 failures in 2017.

The highest number of failures was on the 'Iron' parameter. (14 out of 33 failures).

Achieving 100% compliance target is challenging as a failure in zones serving very small populations will distort the overall picture. We nevertheless, continue to work towards achieving the FD Target through planned investment and improved operating procedures.

Planned Improvements: Amongst the many initiatives aimed at driving improvement in performance are the following:

- zonal studies which target investment into cleansing and replacing those pipes that give rise to discolouration contacts, chiefly cast iron mains;

- operational strategy for Water Treatment Works (WTWs), in particular the taste and odour management strategy for the treatment of Geosmin and Methylisoborneol (MIB) that will reduce the risk of taste and odour compliance failures;

- lead strategy, including the replacement of both communication pipes and customer owned service pipes which in the long term will lead to a steady reduction in the risk of lead compliance failures;

- our disinfection strategy at WTWs and our three year cleansing and maintenance programme at our service reservoirs will improve the bacteriological quality of water supplied to customers;

- we are working with the Water Regulations Advisory Scheme (WRAS) to help address issues that arise from work carried out by non-approved plumbers and the use of non-approved plumbing materials, which help eliminate future nickel failures; and

- we are finalising our investment programme to deliver further improvements over the next five year period.

Customer Compensation Our performance on this measure has not led us to make any direct payments of compensation to customers in the financial year 2018/19.

Definition: MZC is published annually in the Chief Inspector's Report and is the primary measure used by DWI to compare overall water quality performance between water companies and regions of England and Wales. It comprises the average of the MZC % figures for 39 key chemical and biological parameters that are tested to establish the quality of water as received by customers.

There are regulatory standards for sampling frequency set for each of the 39 parameters depending on the size of the population being served from the water quality zone. We have 82 water quality zones with some serving very small populations.
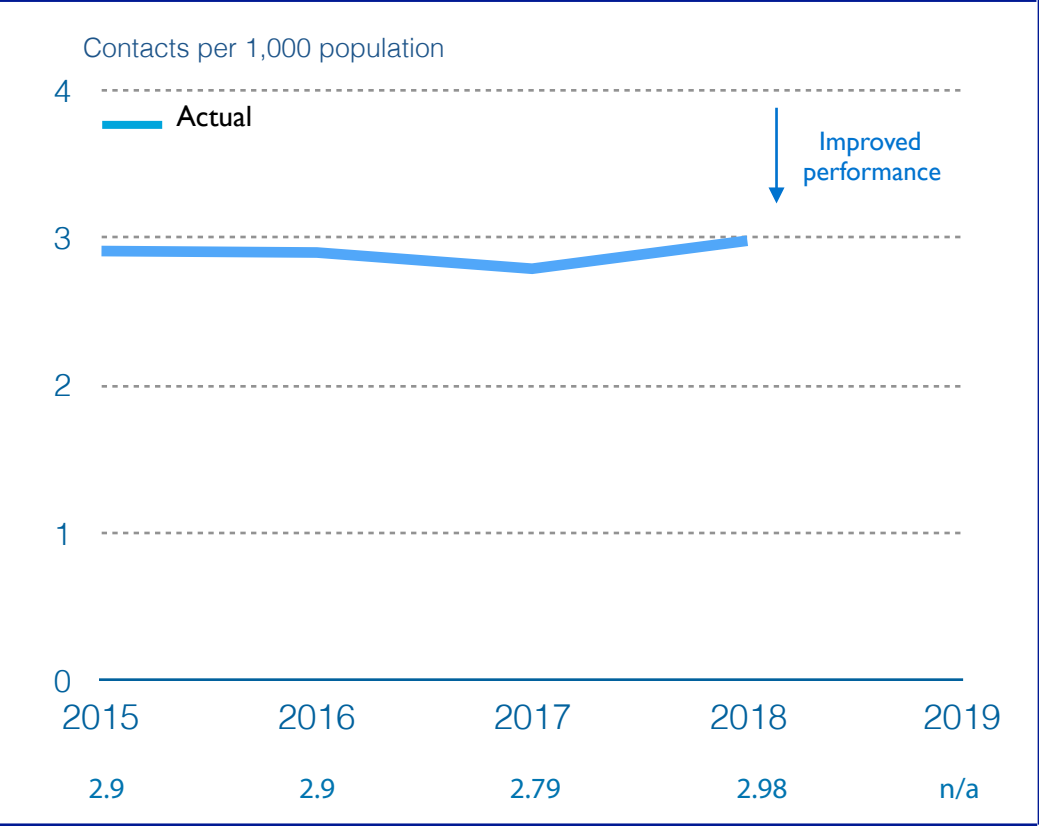
This measure is reported on a calendar year basis.

2.5 – MOS A2(a). Customer Acceptability
(excluding contacts arising from issues with the customers own internal pipes)

Key Performance Indicator

Contacts per 1,000 population

— Actual

Improved performance

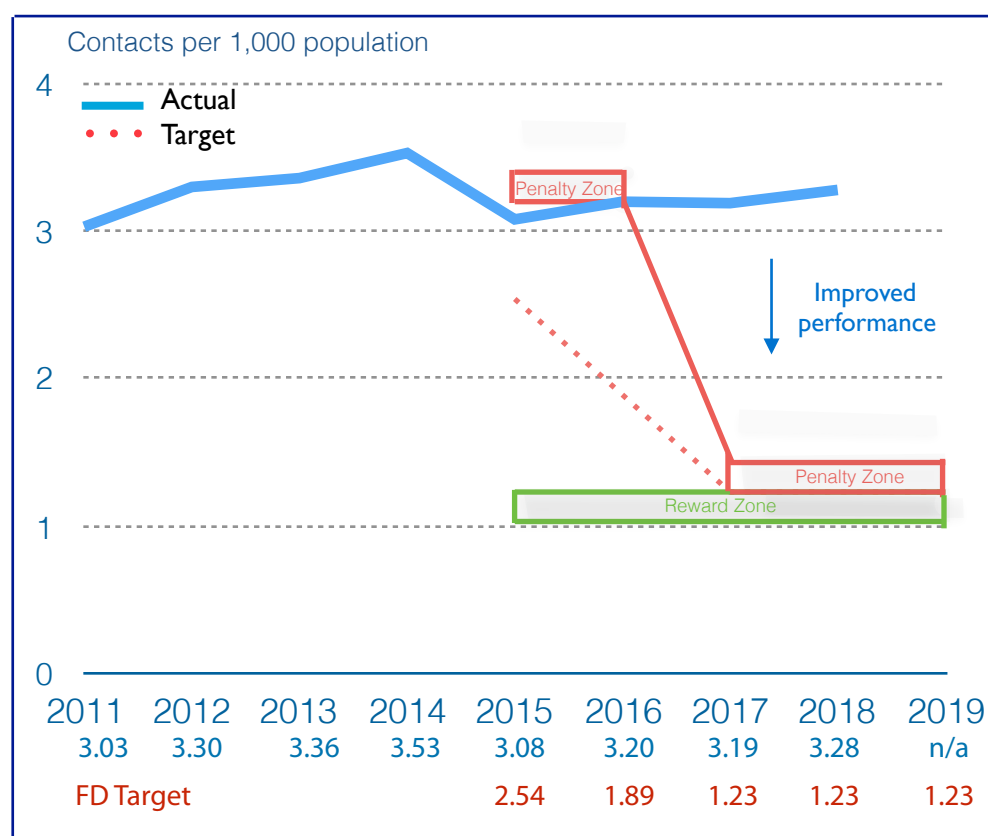| 2015	2016	2017	2018	2019
2.9	2.9	2.79	2.98	n/a

Summary Performance: Internally, we monitor and report those customer contacts that arise from problems associated with our assets, i.e. not including contacts which are linked to customers' own plumbing.

There were around 935 customer contacts that arose from issues with private plumbing in 2018. Adopting this approach and excluding the private plumbing contacts, our performance is 2.98 contacts per 1,000 population, compared to 2.79 per 1,000 population in 2017.

Customer Compensation: Payments on Customer Acceptability are reported on page 13.

Definition: When customers are dissatisfied with the quality of their drinking water they may contact their water company. A record of the numbers of contacts received by water companies is sent to the DWI each year and published in the Chief Inspector's report.

This measure is the number of contacts received from customers in the calendar year regarding the appearance, taste or odour of drinking water expressed as a rate per 1,000 population served, but excluding contacts from issues with the customer's own internal pipes.

Since 2015, any contacts about illness have not been included within this measure.

This measure is reported on a calendar year basis.

2.5 – MOS A2(b). Customer Acceptability

Applicable to Price Control: WHOLESALE WATER

OFWAT MOS Reward & Penalty

Contacts per 1,000 population

- Actual
- Target

Penalty Zone

Improved performance

Penalty Zone

Reward Zone

	2011	2012	2013	2014	2015	2016	2017	2018	2019
	3.03	3.30	3.36	3.53	3.08	3.20	3.19	3.28	n/a
FD Target					2.54	1.89	1.23	1.23	1.23

Customer Contacts (Acceptability) rate per 1,000 population Industry performance

Improved performance

PRT SES TMS ESK AFW SBW SSC ANH SRN YKS BRL WSX SVT NES SEW DVW UUW SWT DWR

- Water & sewerage companies
- Water companies
- 2018

Source: Drinking Water Inspectorate - Annual Reports (2017 performance - includes Customer contacts relating to illness).

Summary Performance: Our 2018 performance on this measure is 3.28 contacts per 1,000 population. This is an increase on last year's figure of 3.19 contacts per 1,000 population.

We are reporting all customer contacts (including those where the contacts from customers arose from customers own private plumbing) in line with data submitted to the DWI. We have used the latest available population figures and the 2018 population figure is used as the denominator in calculating this years performance.

Internally, we monitor and report those customer contacts that arise from problems associated with our assets, i.e. not including contacts which are linked to customers' own plumbing. There were around 935 customer contacts that arose from issues with private plumbing in 2018. (see page 12)

The targets set for the later years of this AMP period are very challenging. Whilst significant investment is planned, and management attention is focused on this key measure, we will struggle to achieve these targets. This year we have incurred a penalty of £1.86m.

Planned Improvements: Amongst the many initiatives aimed at driving improvement in performance are the following:

- zonal studies which target investment into cleansing and replacing those pipes that give rise to discolouration contacts, chiefly cast iron mains;

- proactively tackling the impact of third parties' interference. This includes initiatives such as locking down hydrants and replacing warning signs on this apparatus, where appropriate;

- adopting innovative solutions - there are currently a number of innovation projects in place targeting improvements; and

- developing a Manganese Strategy comprising catchment management and process improvements, aimed at reducing the level of manganese from works, both in the short and long term.

As the Industry Performance graph on this page illustrates, we are an outlier in performance. Although we are taking steps to improve the position, there are underlying circumstances which are beyond our control, such as the quality of raw water, which affect this measure. We believe that the root cause of discolouration contacts being higher in Wales is related to the prevalent type of source water, which are typically soft and high in manganese.
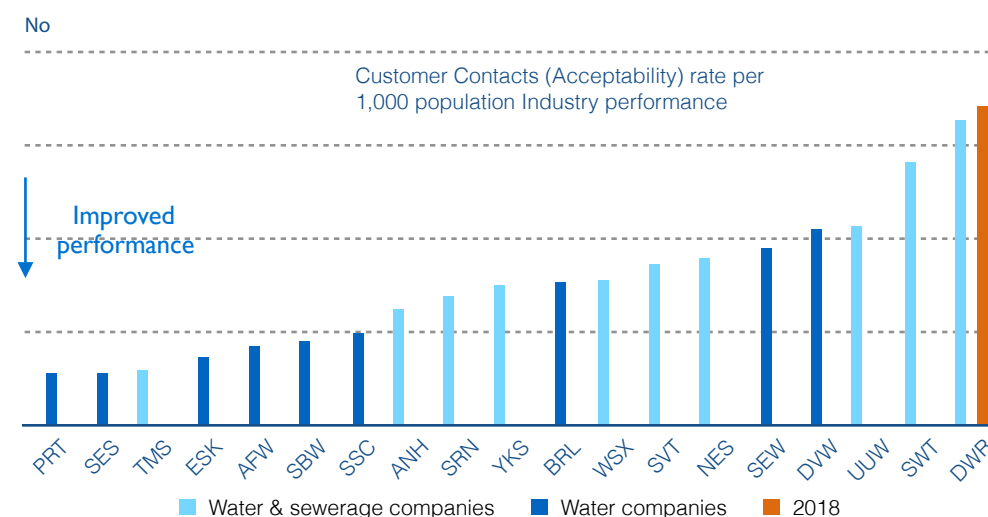
Customer Compensation Our performance on this measure has led us to making a total of 227 payments to the value of £13,761 by way of direct payments of compensation to customers in the financial year 2018/19.

Definition: When customers are dissatisfied with the quality of their drinking water they may contact their water company. A record of the numbers of contacts received by water companies is sent to the DWI each year and published in the Chief Inspector's report.

This measure is the number of contacts received from customers in the calendar year regarding the appearance, taste or odour of drinking water expressed as a rate per 1,000 population served. Since 2015, any contacts about illness have not been included within this MOS.
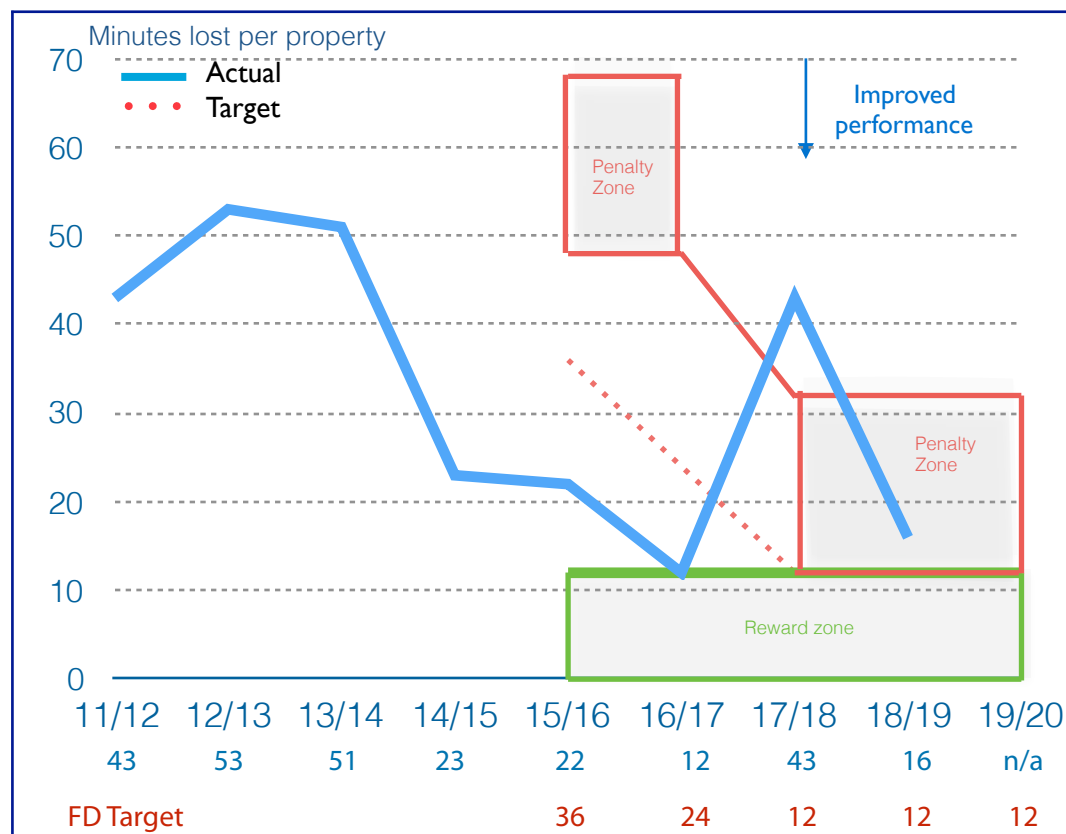
This measure is reported on a calendar year basis.

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2.5 – MOS A3. Reliability of Supply

OFWAT MOS Reward & Penalty

Applicable to Price Control: WHOLESALE WATER

Minutes lost per property

- Actual
- Target

Penalty Zone

Improved performance

Penalty Zone

Reward zone

	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	43	53	51	23	22	12	43	16	n/a
FD Target					36	24	12	12	12

No

Customer Minutes Lost (Interruptions to supply) Industry performance

Improved performance

No. of minutes lost

SBW SES DVW PRT NES/ESK YKS ANH SSC WSX TMS UUW SRN SWT SVT DWR SEW BRL

- Water & sewerage companies
- Water only companies
- 2018/19

Source: Discover Water - 2017-18 (mins: sec)

Summary Performance: In the year our performance, which measures customer minutes lost (CML) is 16 minutes, compared to 43.3 minutes in 2017/18.

A number of higher impacting burst mains were experienced during 2018/19. Such as, during June in the Maesteg area a burst occurred on a 12 inch Cast Iron main which affected almost 3,000 households. We did undertake tankering activities to mitigate the impact to customers.

This year we have incurred a penalty of £0.78m.

Planned Improvements: We continue to focus attention on improving performance and amongst the steps in place are:

- improved planning and delivery of work through the use of non-disruptive techniques;
- increasing the knowledge and awareness of staff through training;
- utilisation of and the increased use of the emergency planning fleet and equipment to help maintain supplies during operational incidents;
- the implementation of post incident reviews on all significant bursts to prevent recurrence;
- delivery of water mains repairs through a new Network Maintenance Alliance contract which will be in place by Autumn 2018. This will facilitate an innovative and collaborative approach aimed at minimising disruptions to customers and reducing customer minutes lost;
- strengthening the response capabilities of both our in house teams and our contracting partners; and
- implementing a Zonal study investment programme to address the high burst frequency on our mains, ensuring that the investment is targeted in those areas where the risk of interruptions is greatest.

Customer Compensation Our performance on this measure has led to us making a total of 23,655 payments to the value of £765,934 by way of direct payments of compensation to customers in the financial year 2018/19. Of these, 15,383 payments to the value of £405,255 have been made under the Guaranteed Service Standards (GSS) to which all companies must adhere.

Definition: Interruptions to supply cause loss and inconvenience to individual customers and communities. They also cost money to manage and fix.

This measure reports the average minutes of supply interruption per property within our supply area (including both planned and unplanned interruptions).

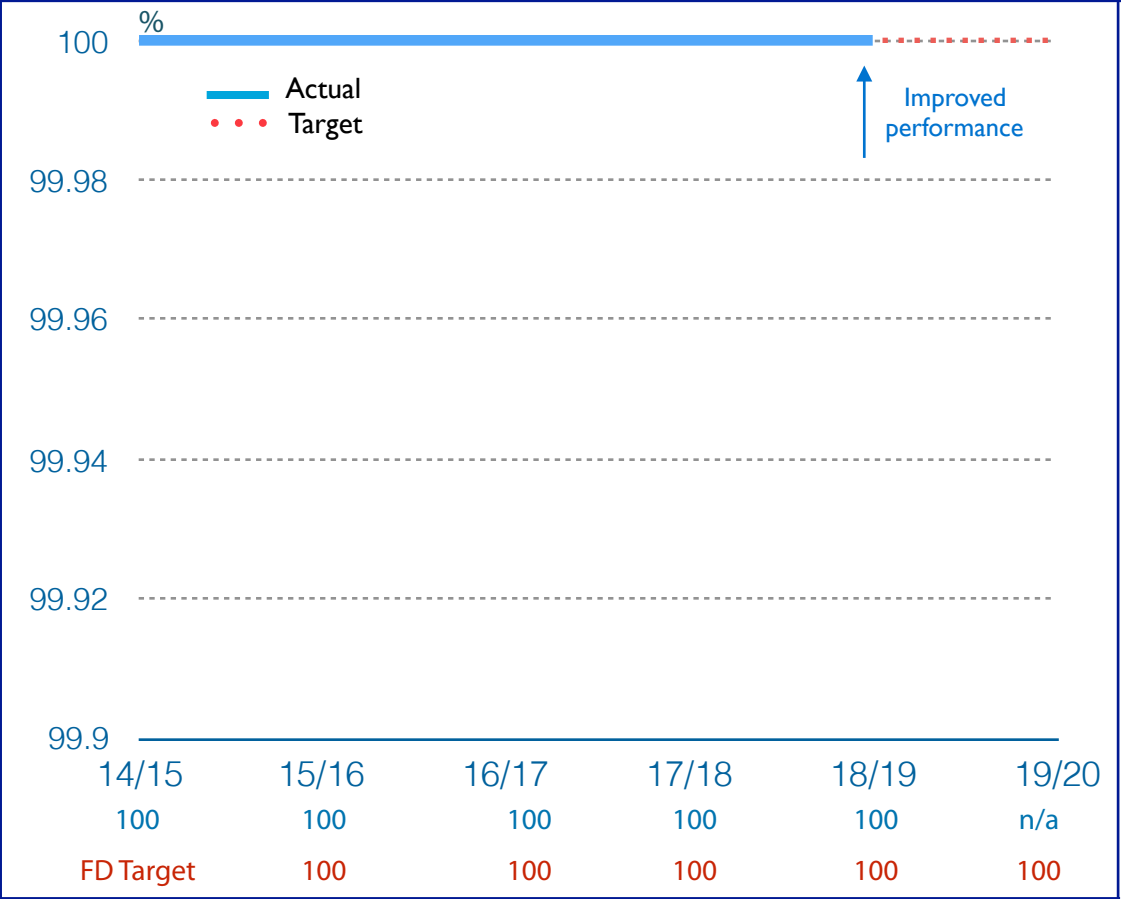This measure is reported on a financial year basis.

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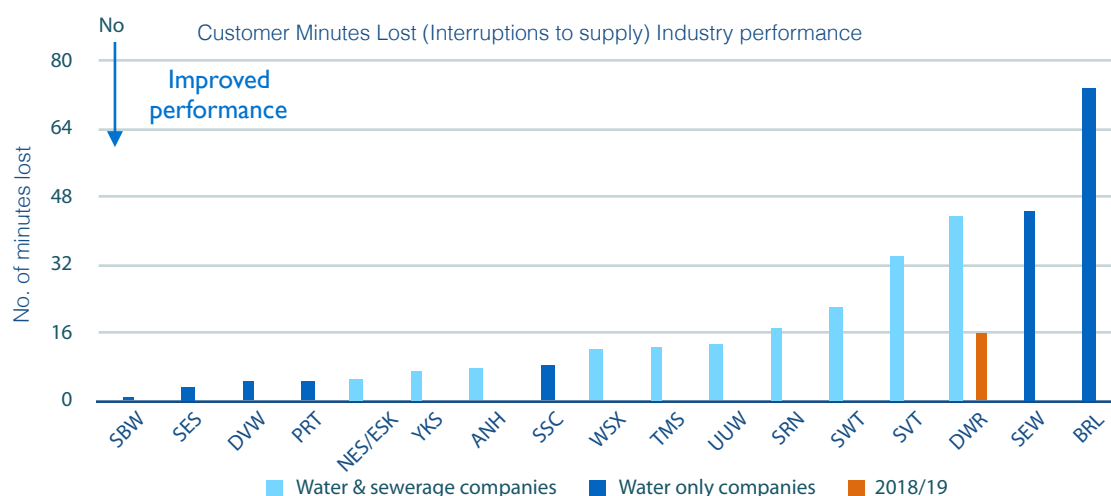
2.5 – MOS B1. Water Abstractions

Applicable to Price Control: WHOLESALE WATER

OFWAT MOS Reputational

	14/15	15/16	16/17	17/18	18/19	19/20
	100	100	100	100	100	n/a
FD Target	100	100	100	100	100	100

Summary Performance:

For 2018/19 we are reporting a total percentage compliance of 99.984%. (rounded to 100%).

We have self-reported six non-compliances of which NRW have confirmed five as category 3 incidents. A category 3 incident is one where a non-compliance could have a minor environmental effect.

We currently have a 'suspended' category 3 incident from NRW at our Prioress Mill abstraction site. From January 2019, the new abstraction licence conditions mean that we need to have appropriate fish screening in place at the intake. We are in the process of building a new intake from the River Usk at Prioress Mill, which will become operational later this year and we will then be fully compliant with the terms of our abstraction licence. We have worked closely with NRW to agree appropriate fish screening mitigation at our existing Prioress Mill intake and have installed a Bubble Screen as an alternative means of preventing the risk of fish entrainment. We have therefore not included the potential non-compliance in this years performance as NRW have not confirmed their position. If NRW were to find us non-compliant between 1 January and 31 March, the effects of a 90 day Category 3 incident would reduce our performance to 99.833% for 2018/19 (rounded to 100%).

The details of the incidents are shown in the table below:

Site	Nature of non-compliance
Llyn Cefni	2 days under release of compensation water
Llyn Alaw	1 day under release of compensation water
Llyn Cwn Dulyn	2 days under release of compensation water
Llyn Ffynnon Llugwy	2 days under release of compensation water
Cilcain Reservoir	3 days under release of compensation water
Prioress Mill	Fish Screening

Comparative information is not available.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.
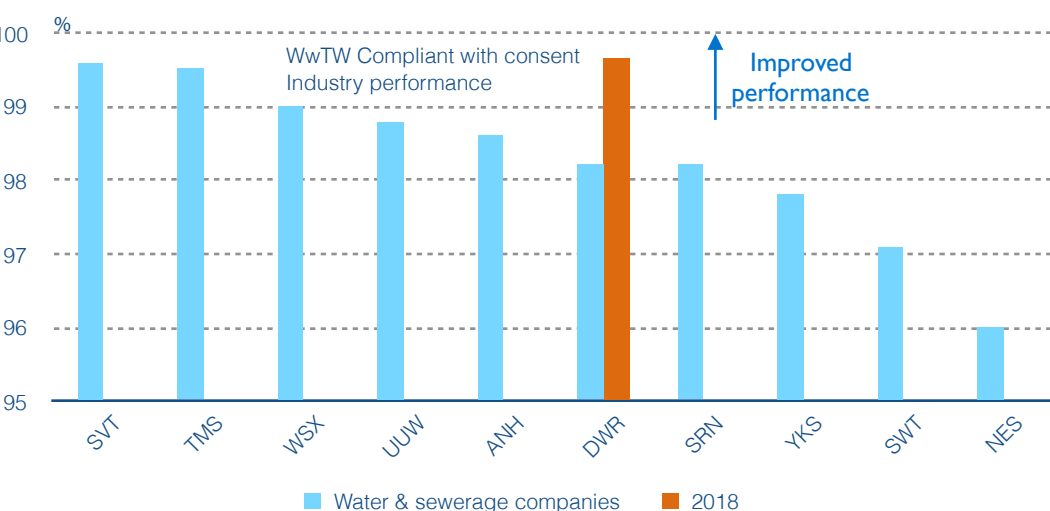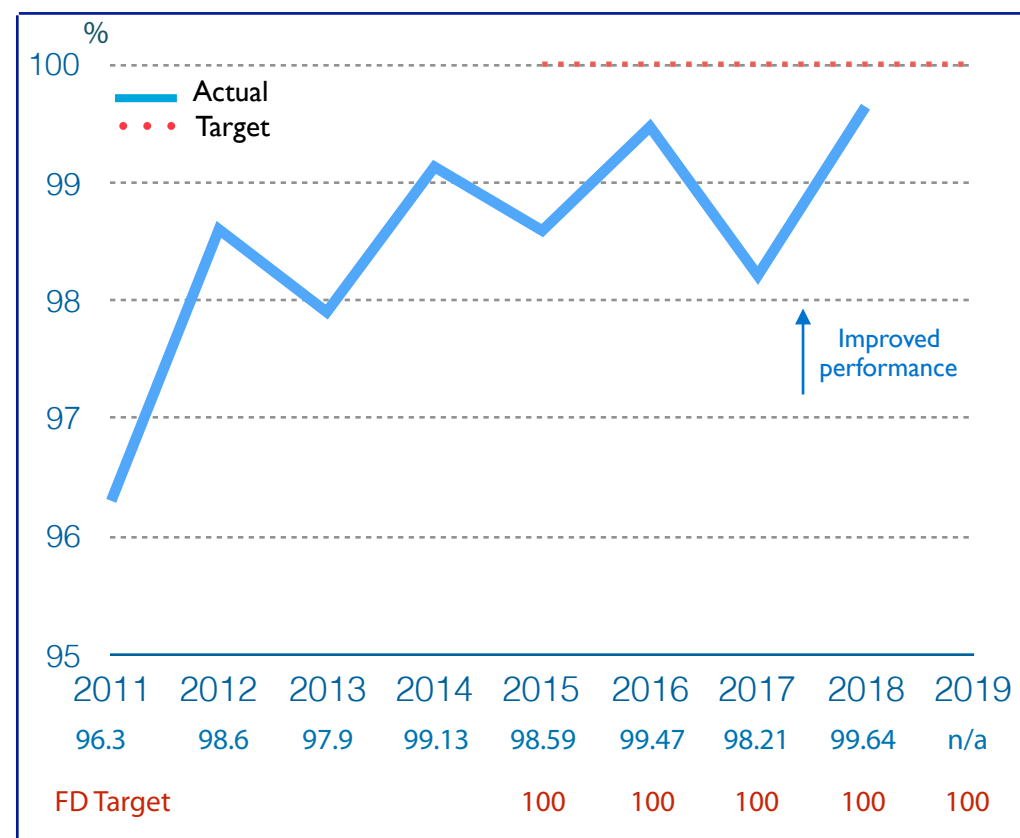
Definition:

Compliance with abstraction licences is an essential part of environmental protection. We target (and generally achieve) 100% compliance with the substantive requirements of our abstraction licences. The methodology for abstractions performance has been agreed with NRW.

This measure is reported on a financial year basis.

Index	Introduction	Performance Measures	Ofwat Summary Performance	Assurance	Appendix

2.5 – MOS B2. Treating Waste Water

Applicable to Price Control: **WHOLESALE WASTE WATER**

OFWAT MOS Reputational

2011	2012	2013	2014	2015	2016	2017	2018	2019
96.3	98.6	97.9	99.13	98.59	99.47	98.21	99.64	n/a
FD Target				100	100	100	100	100

WwTW Compliant with consent Industry performance

Improved performance

SVT, TMS, WSX, UUW, ANH, DWR, SRN, YKS, SWT, NES

Water & sewerage companies   2018

Source: Environment Agency - companies performance 2017

Summary Performance: Our performance for 2018 is 99.64% compared to 98.21% in 2017. This is based on two Waste Water Treatment Works (WwTWs) failing, out of a total of 559 WwTWs with numeric permits. Our performance in 2018 was the best ever achieved.

Planned Improvements: To improve further and to work towards achieving our 100% target we will implement the following:

Asset investment
- further investment is targeted at a number of WwTWs for planned improvements in areas such as control system upgrades, phosphorus removal schemes and capacity increase schemes to reduce the risk of compliance failures.

Data analytics
- better use of our operational and maintenance data to inform future capital investments and operations interventions.

Strategies and Operational changes
- implementing our WwTW final effluent compliance strategy with clear action plans to deliver sustained 100% compliance; and
- updating our compliance strategy to take account of AMP7 MoS.

Systems and processes
- ensure that our Incident Management System (IMS) procedures are fully understood and embedded within operational, maintenance and management teams via use of Masterclasses;
- further improvements in the escalation process for early investigation, operational and asset intervention to reduce the risk of sample exceedances; and
- early reviews and lessons learnt are identified post sample exceedances with better sharing of best practise across operational areas.

People
- continue with the training of colleagues in our Leading Edge Assets and people (LEAN) programme in order to realise efficiencies in our operational activities.

Work Management
- more effective mobile working for front line teams, improved planning and scheduling of work, improved productivity and agility to respond to creative failures.

Customer Compensation: Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition: For each of our WwTWs there is a permit which regulates the quality of wastewater the company is allowed to discharge into rivers and coastal waters. This is regulated by NRW. The measure is the percentage compliance against the discharge permits.

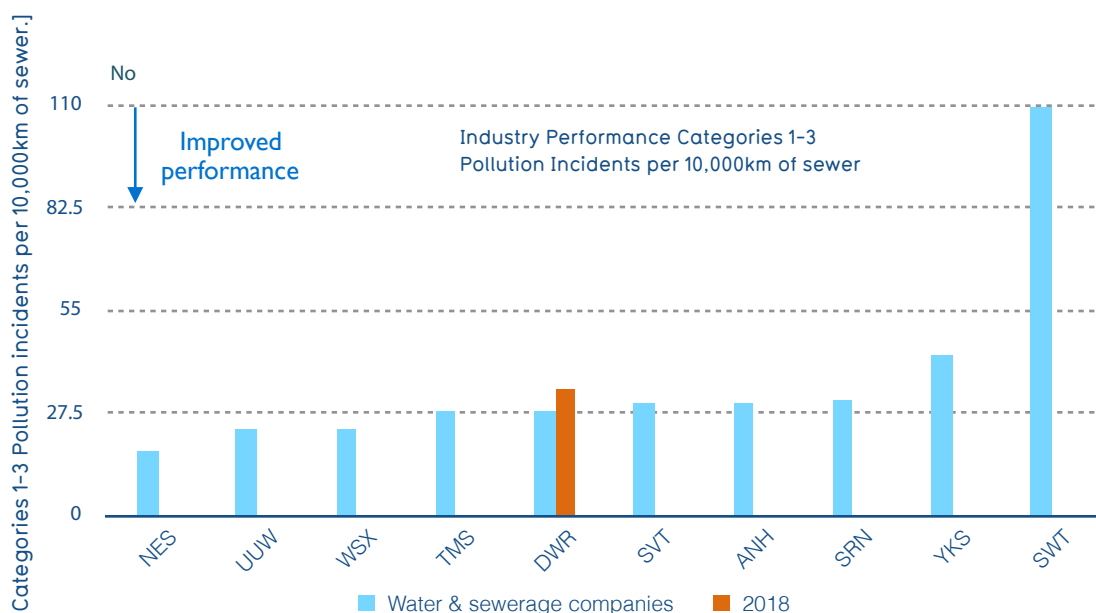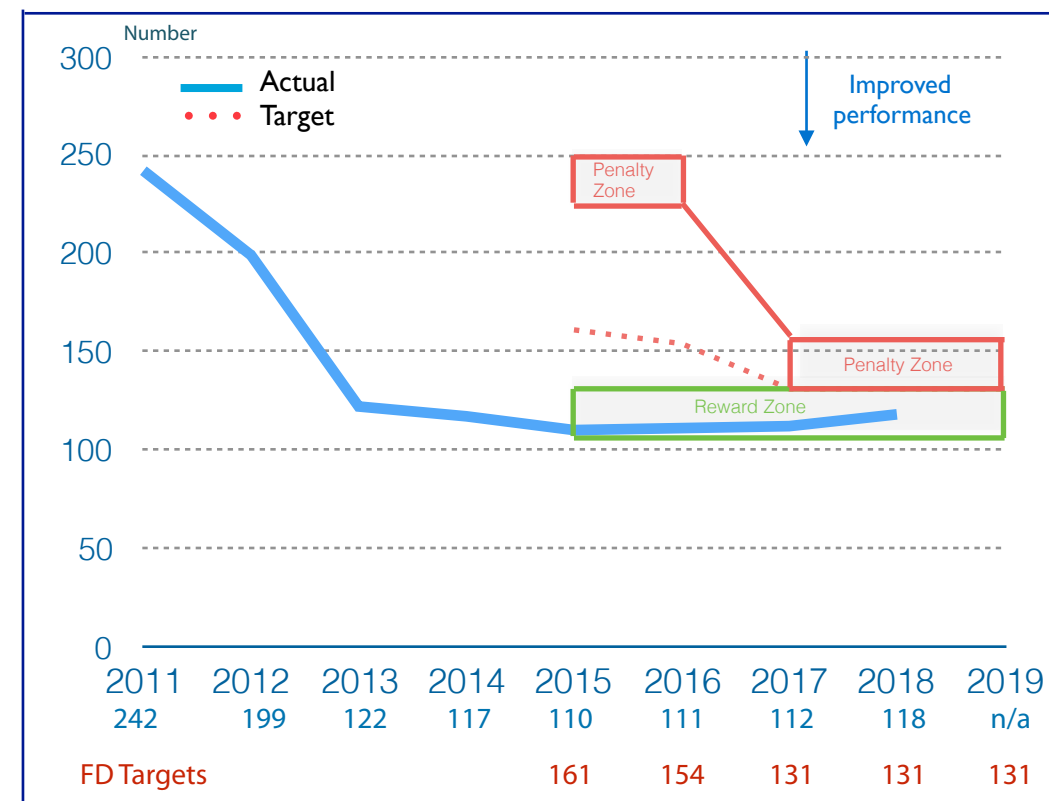The total number of WwTWs is taken from the NRW's 'Discharge Environmental Permit Compliance' report.

This measure is reported on a calendar year basis.

2.5 – MOS B3 Pollution Incidents (Category 3)

OFWAT MOS Reward & Penalty

Applicable to Price Control: WHOLESALE WASTE WATER

Number

	2011	2012	2013	2014	2015	2016	2017	2018	2019
	242	199	122	117	110	111	112	118	n/a
FD Targets					161	154	131	131	131

[Categories 1-3 Pollution incidents per 10,000km of sewer.]

Industry Performance Categories 1-3
Pollution Incidents per 10,000km of sewer

Water & sewerage companies   2018

Source: Discover Water - 2017

Summary Performance:

Overall, the total number of category 3 pollution incidents (low impact) during the year was 118 (last year 112).

In addition, there were four category 2 incidents in the year and one category 1 incident. The category 1 incident was the result of a spill occurring during a planned shutdown at Five Fords WwTWs in September 2018.

On 1 April 2017, NRW introduced a new incident Categorisation Guidance (which classifies incident by reference to their impact). We have reported to NRW on this basis. High Level incidents (major and significant) equate to what were regarded as Serious Incidents (categories 1 and 2 respectively). Low Level incidents are equivalent to category 3.

Performance for wastewater is upper quartile when taking into account the total number of assets.

Our performance in the year has resulted in us earning a notional reward of £611k. In 2015/16, 2016/17 and 2017/18 the respective rewards earned were £987k, £940k and £893k. The cumulative reward for the first four years of the AMP6 (2015 - 2018) period is £3.431m.

Planned Improvements:

We have in place a number of initiatives to help reduce the risk of pollution, including:

- the implementation of an Event Duration Monitoring Project, ensuring that all intermittent assets will have some form of telemetry and allowing us to respond swiftly to operational incidents and take preventative measures;
- a pollution working group has been established and is attended by representatives from across the business. The group aims to tackle a range of issues to reduce pollution, including the re-launch of the pollution awareness campaign in early 2019;
- pressure and condition monitoring to provide early warning of rising mains bursts, allowing us to rapidly respond and mitigate any impacts;
- raising public awareness around the risks associated with sewer blockages including television and radio campaigns, open days at Waste Water Treatment Works and other local initiatives;
- utilisation of the Smarthub telemetry and control team to support alarm management and ensure that we respond swiftly to potential issues; and
- adoption of industry best practices to improve our understanding of asset performance.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customer in the financial year 2018/19.

Definition:

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

This measure is the total number of category 3 pollution incidents associated with the water and wastewater business which we or members of the public identify and report to NRW annually.
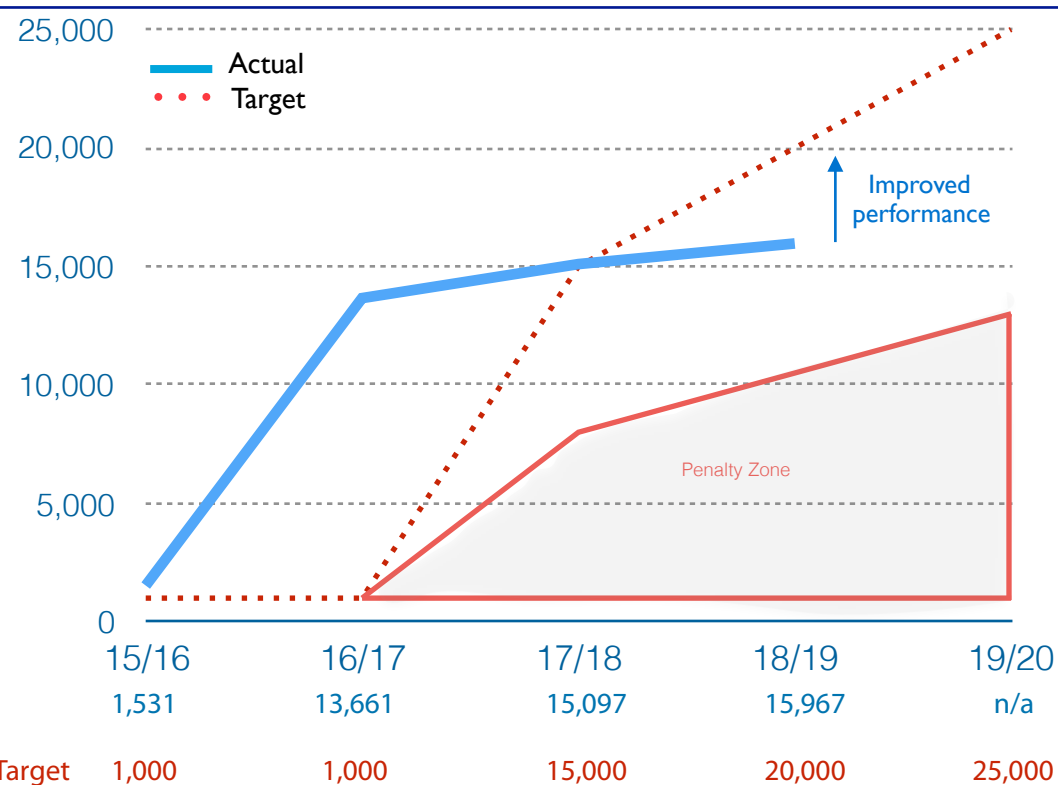
This measure is reported on a calendar year basis.

2.5 – MOS C1 Responding to Climate Change

Applicable to Price Control: WHOLESALE WASTE WATER

OFWAT MOS Penalty

	15/16	16/17	17/18	18/19	19/20
	1,531	13,661	15,097	15,967	n/a
FD Target	1,000	1,000	15,000	20,000	25,000

Summary Performance: During 2018/19, we delivered seven RainScape schemes to remove surface water from our combined sewer systems, equivalent to 870 rooftops. The cumulative total for the period 2015/16 to 2018/19 is 15,967 rooftops and is below our cumulative target for the year.

One of those schemes at Llanelli (Northumberland) was surface water from highways and roofs entering the combined sewer and was redirected to the new Station Road tunnel discharging into Delta Lakes. This accounted for 292 roof equivalents.

In making this calculation, there is inevitably an element of judgement and subjectivity. However, we believe that the basis of assessment is fundamentally sound. It was made whilst weather conditions were normal (i.e. not during a storm or drought period) and is therefore representative.

Planned Improvements: We have a programme of investment, with identified schemes which will be delivered in 2019/20. This will contribute to achieving our target of removing the equivalent of water escaping from 25,000 roof tops by March 2020.

Comparative information is not available.

Customer Compensation Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition: This measure reflects the completion of schemes to reduce the amount of surface water entering the company's systems. The measure is the volume of surface water removed from the system, expressed in the number of properties' equivalent, i.e. what runs off the roofs of properties. The 'property equivalent' volume is 100m³ p.a.
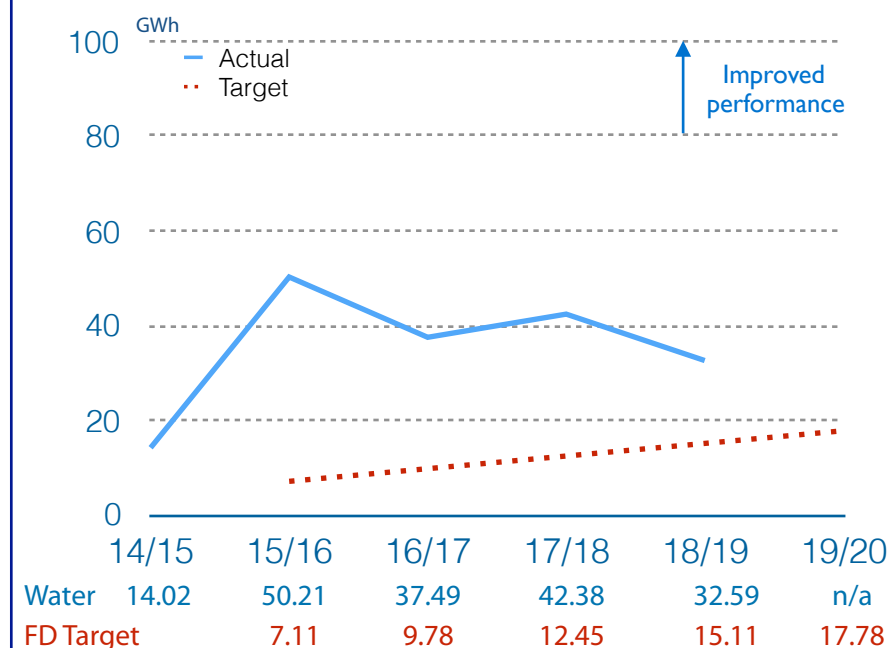
Our performance on this measure was reset to zero from the start of AMP6 and is then measured and reported on a cumulative basis.

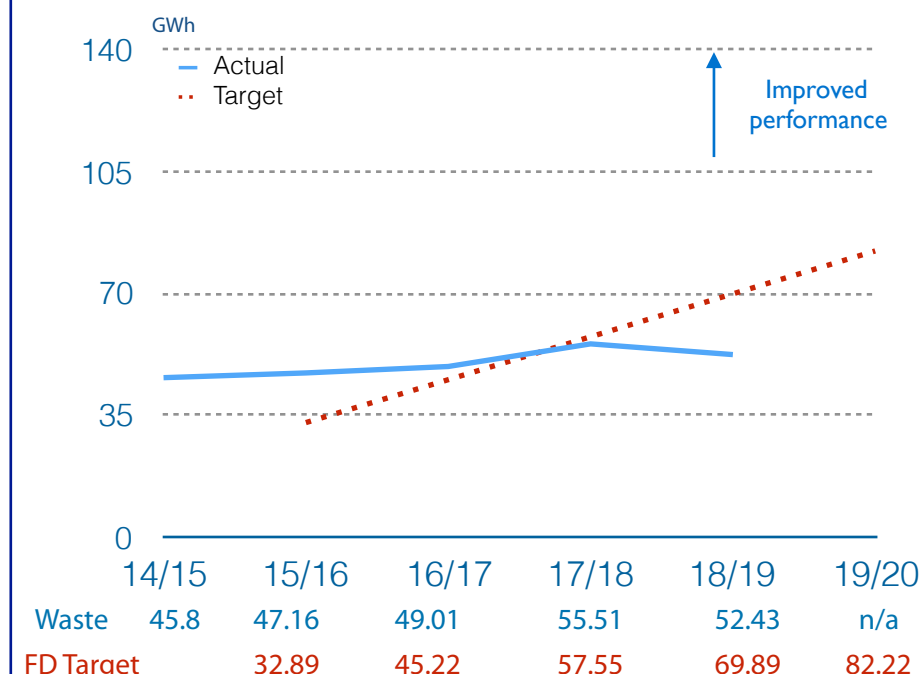This measure is reported on a financial year basis.

2.5 – MOS C2 Carbon Footprint

Water

	14/15	15/16	16/17	17/18	18/19	19/20
Water	14.02	50.21	37.49	42.38	32.59	n/a
FD Target		7.11	9.78	12.45	15.11	17.78

Wastewater

	14/15	15/16	16/17	17/18	18/19	19/20
Waste	45.8	47.16	49.01	55.51	52.43	n/a
FD Target		32.89	45.22	57.55	69.89	82.22

Applicable to Price Control:

WHOLESALE WATER   WHOLESALE WASTE WATER

OFWAT MOS Reputational

Summary Performance: Our performance on this measure is 85 GWh of renewable energy generated (98 GWh in 2017/18), as against a combined target of 85 GWh.

The reduction in renewable generation in 2018/19 from the previous year is mostly driven by the drought conditions during the summer when reduced water levels in reservoirs negatively impacted our hydro-electric generation from large sites.

On the Wastewater carbon footprint the construction and commissioning of Five Fords advanced digestion combined heat and power and the gas to grid plant led to an eight month shut down on site causing a 15 GWh reduction from target.

Planned Improvements: Amongst the initiatives for 2019/20 are:

- an Advanced Anaerobic Digestion scheme at Five Fords WwTW, Wrexham. This is in the course of construction and will be in use in 2019; and
- a further phase of solar Photovoltaics installations which will more than double our installed solar capacity.

Comparative information is not readily available.

Customer Compensation Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.
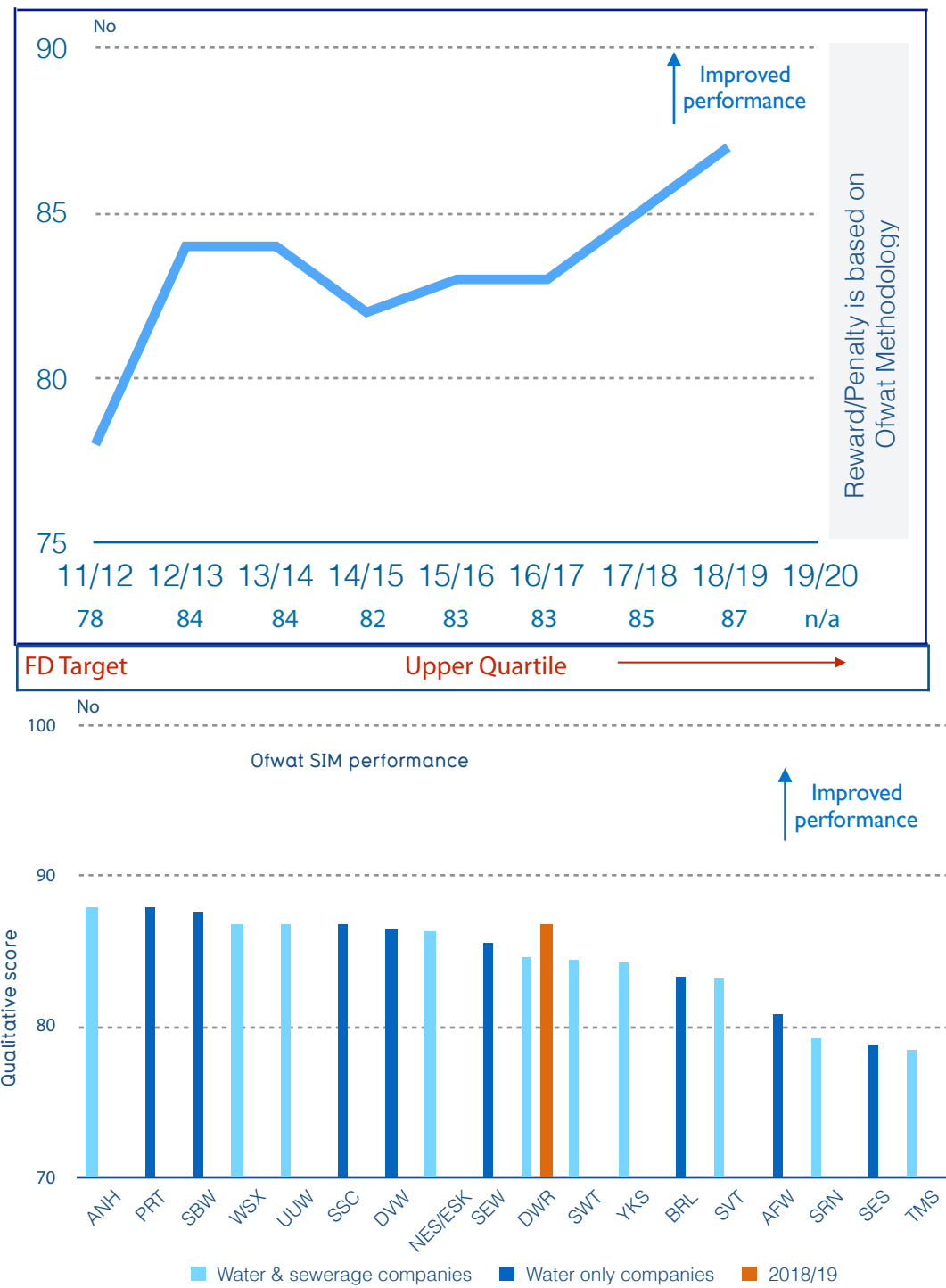
Definition: The total GWh of renewable energy generated within the year.

This measure is reported on a financial year basis.
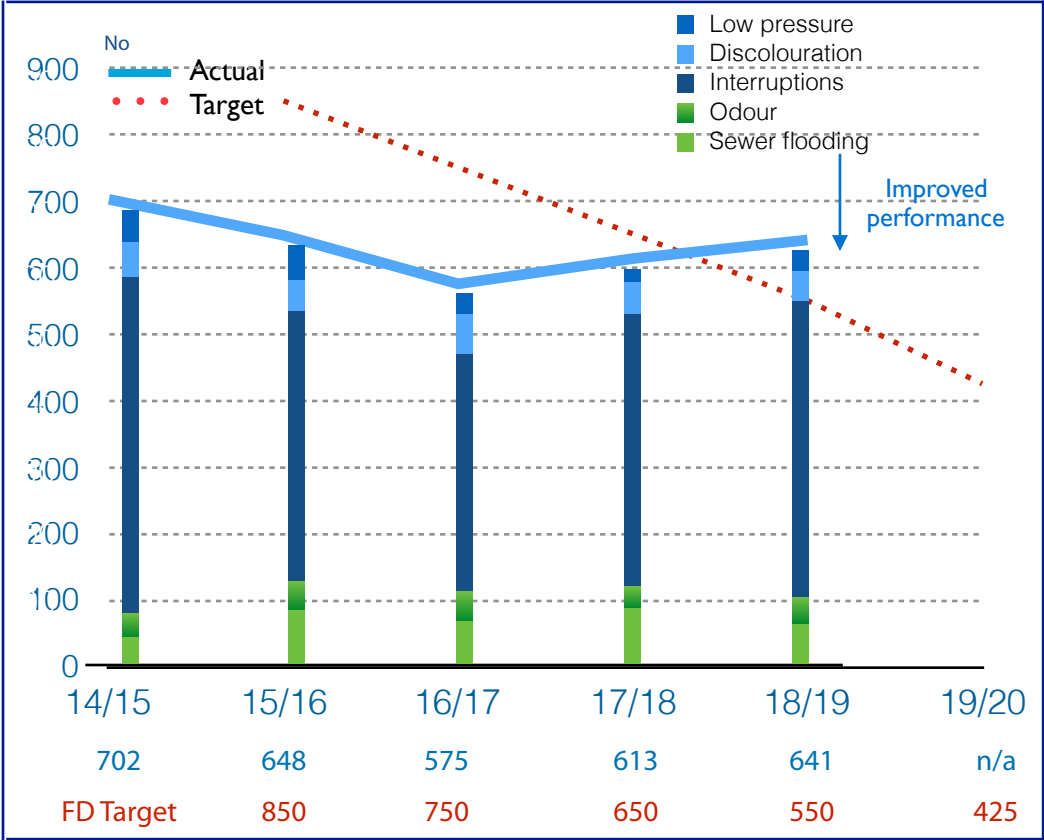
2.5 – MOS D1 – Service Incentive Mechanism (SIM)

Applicable to Price Control:

WHOLESALE WATER	WHOLESALE WASTE WATER
RETAIL	NON-HOUSEHOLD

OFWAT MOS Reward & Penalty

Reward/Penalty is based on Ofwat Methodology

11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
78	84	84	82	83	83	85	87	n/a

FD Target — Upper Quartile

Ofwat SIM performance

Qualitative score

Legend: ■ Water & sewerage companies ■ Water only companies ■ 2018/19

Source:: Ofwat Service and Delivery report January 2018

Summary Performance:

Household SIM (This measure only applies to Household customers.)
By reference to the formula used to calculate the overall score, our SIM combined score for the year is 87, which is better than last year's score of 85. On the qualitative element of the assessment, we were ranked third out of the eleven Water and Sewerage companies.
The comparative analysis on this page applies to 2017/18 performance as we will not know our position for 2018/19 until such time as other companies publish their results. For 2017/18 we finished fifth out of the ten water and sewerage companies.

Non-Household SIM (This measure only applies to Non-Household customers.)
A separate non household SIM applies to companies operating wholly or mainly in Wales. We will not know the comparative position for 2018/19 until such time as other companies publish their results. For 2017/18 in the CCWater Non-Household Complaints report, we were placed in 16th position of the 24 other retailers (including new market entrants). The report is based on the complaints reported over 10,000 supply points and we are well under the average.
The number of complaints from Non household customers has decreased from 574 to 559 in 2018/19.
We anticipate that this improvement in performance will have a significant effect on our ranking when comparative information becomes available later this year.

Planned Improvements:

With a view to reducing the volume of complaints we are:
- continue with our Customer Led Success training programme. This is about empowering our colleagues to make the right decision for our customers;
- continuing with our 'Own it, Sort it' culture to ensure colleagues fully resolve queries on the first contact, where possible;
- we will continue to expand our new coaching framework that aligns with the themes coming out of quality monitoring, coaching and customer sentiment feedback; and
- extend our training programme "Being great at investigating and resolving complaints", across more business areas, focussing on investigating and resolving customers queries.

Customer Compensation

Our performance on this measure has led us to making a total of 7,333 payments to the value of £443,449 by way of direct payments of compensation to customers in the financial year 2018/19. Of these, 4,731 payments to the value of £102,270 have been made under the Guaranteed Service Standards (GSS) to which all companies must adhere.

Definition:

This is the combination of the SIM quantitative and SIM qualitative scores and is the overall score Ofwat uses to rank companies' service performance. The quantitative measures combines several elements, and each element is weighted to reflect the increasing impact on customers. It includes unwanted telephone calls, written complaints and CCWater investigations.

The qualitative indicator measures how satisfied customers are with the quality of the service they receive and is based on quarterly Ofwat surveys of a sample of customers who have had direct contact with companies during the year.

A revision to the Ofwat methodology has changed the respective weighting to 75% qualitative and 25% quantitative assessment.

This measure is reported on a financial year basis.

The non household SIM measure is derived from a comparative assessment of the volume of non household written complaints, escalated complaints and CCWater investigations received.

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2.5 – MOS D2 At Risk Customer Service

Applicable to Price Control:

WHOLESALE WATER	WHOLESALE WASTE WATER

OFWAT MOS Reputational

	14/15	15/16	16/17	17/18	18/19	19/20
	702	648	575	613	641	n/a
FD Target	850	750	650	550	425	

Summary Performance: We had 641 customers on our 'At Risk Register' at the end of the year. (613 in 2017/18)

Our performance on two of the five sub areas has improved this year.

Interruptions to supply have increased from 419 to 458 in the course of the year and the increase was largely due to the effects of the increased temperatures during the months of June, July and August with demand related interruptions.

Planned Improvements: Interruptions - We will continue to plan work to remove any risk of interrupting our customers' water supply through the use of our growing database of hydraulic models linked to real time pressure data. We use our intelligence of how water networks perform from hydraulic models to run scenarios and better prepare from potential outages. We will also continue to train colleagues required to operate the water networks at our two training centres to prevent our activities from causing pressure transients, which can result in burst mains.

Sewer Flooding - Investment has removed the risk of flooding for four 'At Risk Customers' in the year, with a further 16 scheduled to be resolved through schemes in 2019/20.

Comparative information for this measure is not available.

Customer Compensation Any compensation to customers will have been made under MOS, A3, D1 and D3.

Definition: This is a measure aimed at reducing the number of 'repeat' contacts in a number of key areas and is the number of customers who are on our "At Risk Register" at the end of the financial year.

Customers are deemed to be at risk if their service has repeatedly fallen short in one of the following five areas:

- discolouration of water;
- interruptions to supply;
- low pressure;
- odour from wastewater assets; or
- sewer flooding.

On the sewer flooding element of this measure any incidents that arise from transferred private pumping stations are not included.

This measure is reported on a financial year basis.

2.5 – MOS D3 Properties flooded in the year

	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	186	219	306	265	223	242	221	221	n/a
FD Target					310	300	292	282	269

No

Improved performance

2017/18 Industry Performance.
No of Properties flooded with Sewage

■ Water & sewerage companies ■ 2018/19
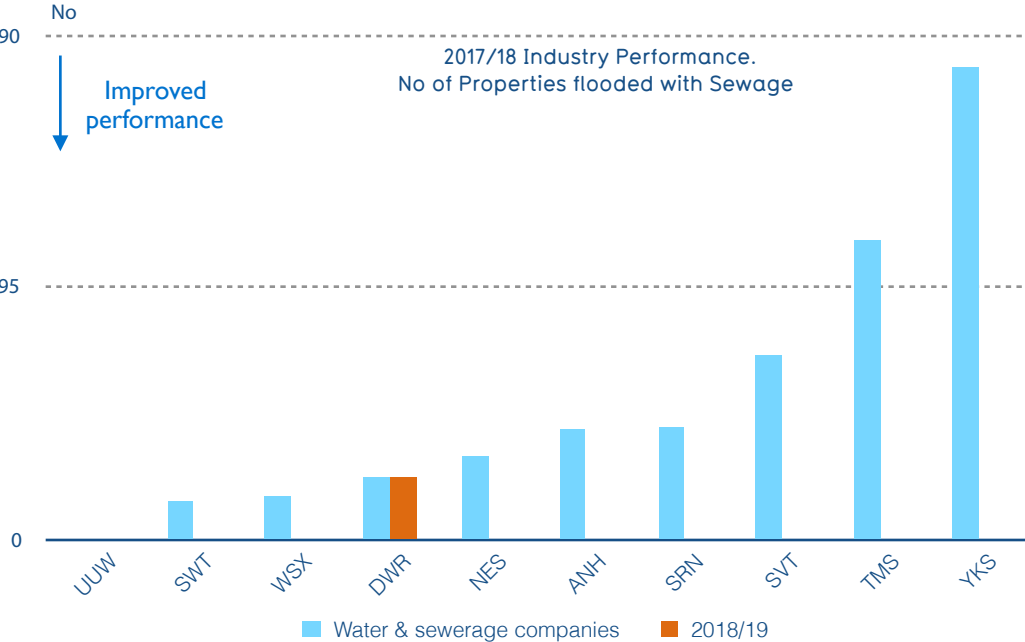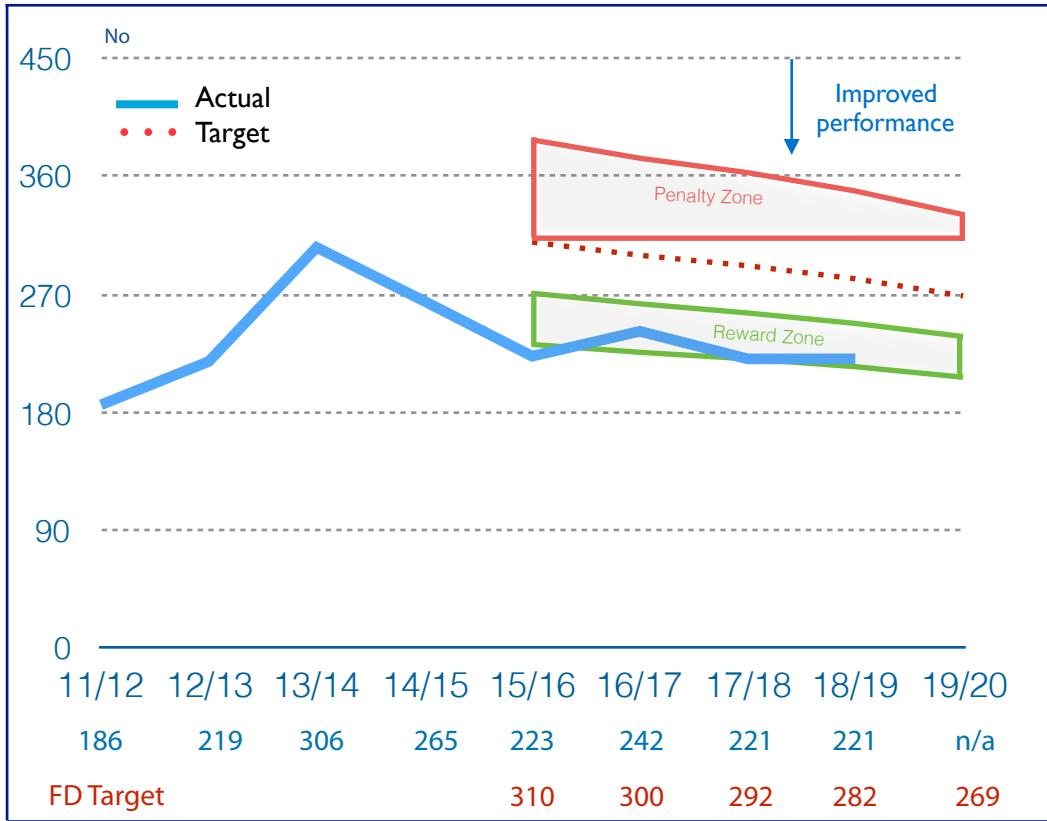
Source: - CCWater and Water Uk (Discover Water)

Applicable to Price Control: WHOLESALE WASTE WATER

OFWAT MOS Reward & Penalty

Summary Performance: Our performance in the year has remained the same as 2017/18 with 221 properties affected by sewer flooding.

Our performance over the last two years means that we have earned a notional reward of £1.674 m.

Planned Improvements: Amongst the initiatives aimed at tackling blockages, collapses and equipment failures and driving good performance are:

- ongoing capital investment, focusing on resolving problems where the risk of flooding is highest. By 2020 we will have spent some £37m across the sewer flooding programme;
- continuation of 'Project Resilience', improving the condition and reliability of our Sewage Pumping Stations;
- our 'Let's Stop the Block' communications campaign, increasing awareness of the role customers can play in helping reduce sewer blockages, flooding and pollution; and
- refurbishment of around 18km of gravity sewers, with a focus on preventing sewer flooding.

The comparative performance assessment on this page is measured by reference to sewer flooding incidents per 1,000km of sewer.

Customer Compensation Our performance on this measure has led us to making a total of 833 payments to the value of £264,166 by way of direct payment of compensation to customers in the financial year 2018/19, who have experienced flooding. Of these, 482 payments to the value of £101,664 have been made under the Guaranteed Service Standards (GSS) to which all companies must adhere.
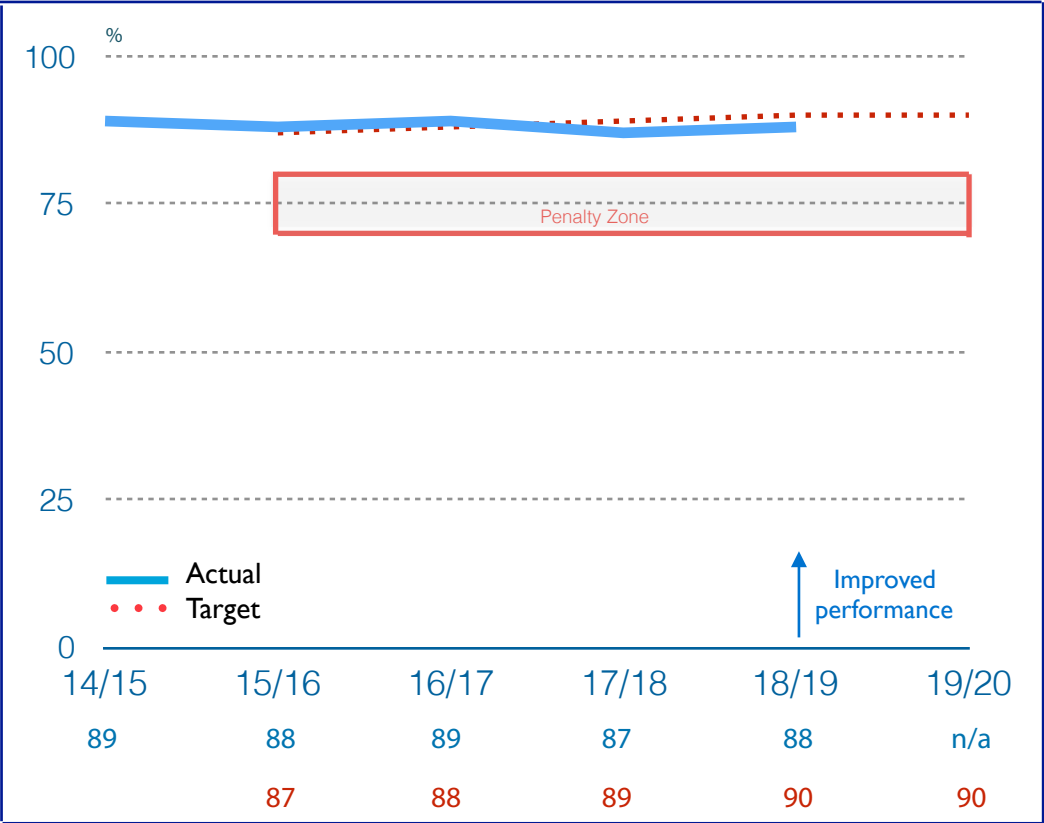
Definition: The number of properties suffering internal sewer flooding per year due to 'hydraulic overload' (HO) and 'other causes' (OC). The HO performance excludes flooding due to severe weather i.e. storms with a confirmed return period of 1 in 20 years or greater. The OC flooding incidents generally arise from blockages, but can also result from collapses and equipment failures.

Any properties affected by sewer flooding and attributable to the private sewers that transferred to the company in October 2011 are now included within this measure. Any sewer flooding incidents arising from transferred pumping stations are not included within this measure.

This measure is reported on a financial year basis.

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2.5 – MOS D4 Business Customer Satisfaction

Applicable to Price Control: NON-HOUSEHOLD

OFWAT MOS Penalty

	14/15	15/16	16/17	17/18	18/19	19/20
Actual	89	88	89	87	88	n/a
Target		87	88	89	90	90

Summary Performance:

Our performance of 88% on this MOS, is below the target of 90%.

Accent undertake a random sample of 500 satisfaction surveys for our non-household (NHH) customers every six months. The first survey took place in July 2018 and the second survey was in January 2019. The scores from these surveys were 4.36 and 4.45 respectively giving us a combined score of 4.41. The score for the year has been calculated by taking the average of the two surveys and then dividing by the maximum score of 5 to provide the satisfaction percentage for the year.

We recognise that there are likely to be fluctuations in customer satisfaction views and we have seen this with the surveys undertaken in July 2018 and January 2019.

Although falling slightly short of the target, a score of 88% (average of 88% over the last five years) demonstrates a high degree of customer satisfaction and is well above the penalty zone.

Planned Improvements:

Our focus is to continue to improve customer service and some planned improvements are:

- we have formalised and added to our range of value added services for our non-household customers. The recent additions have been the provision of private network mapping and private leak repair service, both of which have been well received by non-household customers and external retailers;
- the range of services will continue to be extended in 2019/20; and
- the business services team will continue to attend business exhibitions and trade events in order to engage with our non-household customers and promote the services we offer.

Comparative information for this measure is not available.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition:

Our non-household customers are surveyed every 6 months and rate their satisfaction on a 1 (very dissatisfied) to 5 (very satisfied) scale. The survey question asks customers "Taking everything into account, how satisfied or dissatisfied are you with the way that Welsh Water handles your account?"

The average of these 1 to 5 scores provides the score out of 5. The average customer score (out of 5) is then converted into a percentage.

This is not the same as the non-household SIM measure.

This measure is reported on a financial year basis.

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2.5 – MOS D5 Earning the Trust of Customers

Applicable to Price Control:

WHOLESALE WATER	WHOLESALE WASTE WATER	**OFWAT MOS Reputational**
RETAIL	NON-HOUSEHOLD	

%

Improved performance

	14/15	15/16	16/17	17/18	18/19	19/20
Actual	79	81.9	85	84	85	n/a
FD Target		63	66	68	71	75
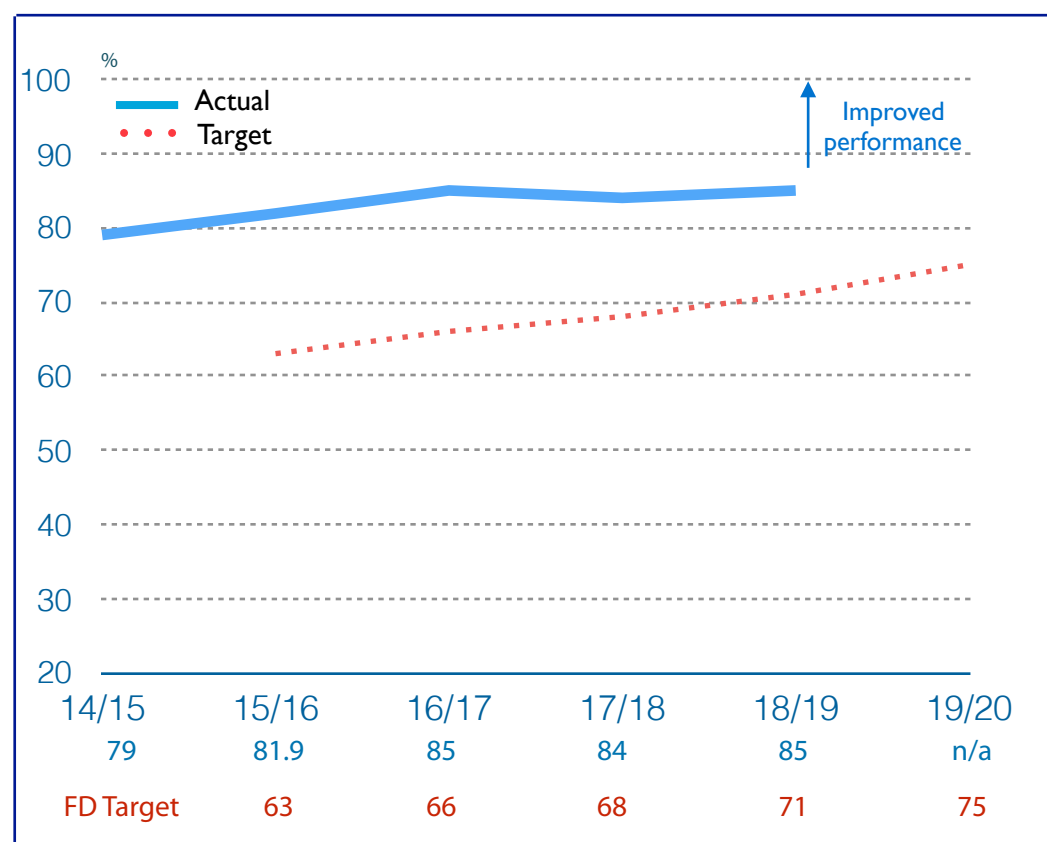
Summary Performance:

To understand the levels of trust of our customers, we have, during the year, undertaken a programme of research to survey both household and non-household customers.

The research is undertaken through computer assisted telephone interviewing, conducted by Accent. Customers are asked a series of questions about Welsh Water and the services it provides - including a question asking customers if they "trust Welsh Water to do the right thing" which is used as the basis for this measure.

Our performance of 85% (84% last year) is based on surveys undertaken in the year.

Planned Improvements:

Amongst the initiatives aimed at securing the trust of customers:

- further embedding 'Customer Led Success' within the culture, strategic thinking and operational work of the company;
- delivering our Customer Service Strategy to improve our customer experience;
- raising our profile through targeted media campaigns, including TV and radio advertising; and
- developing our 'Online community' to engage more effectively with customers.

Comparative information for this measure is not available.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition:

The vision of the company is to "Earn the trust of customers every day". Measuring the level of customer trust in the company provides an overall perception of both customer service received and the reputation of the company.

This measure is derived from the output of two surveys of our customers during the year. The measure is the average percentage of customers who confirm that they trust us.

The measure will be derived from the results of an annual survey. The annual survey is comprised of a number of surveys carried out over the year.

This measure is reported on a financial year basis.
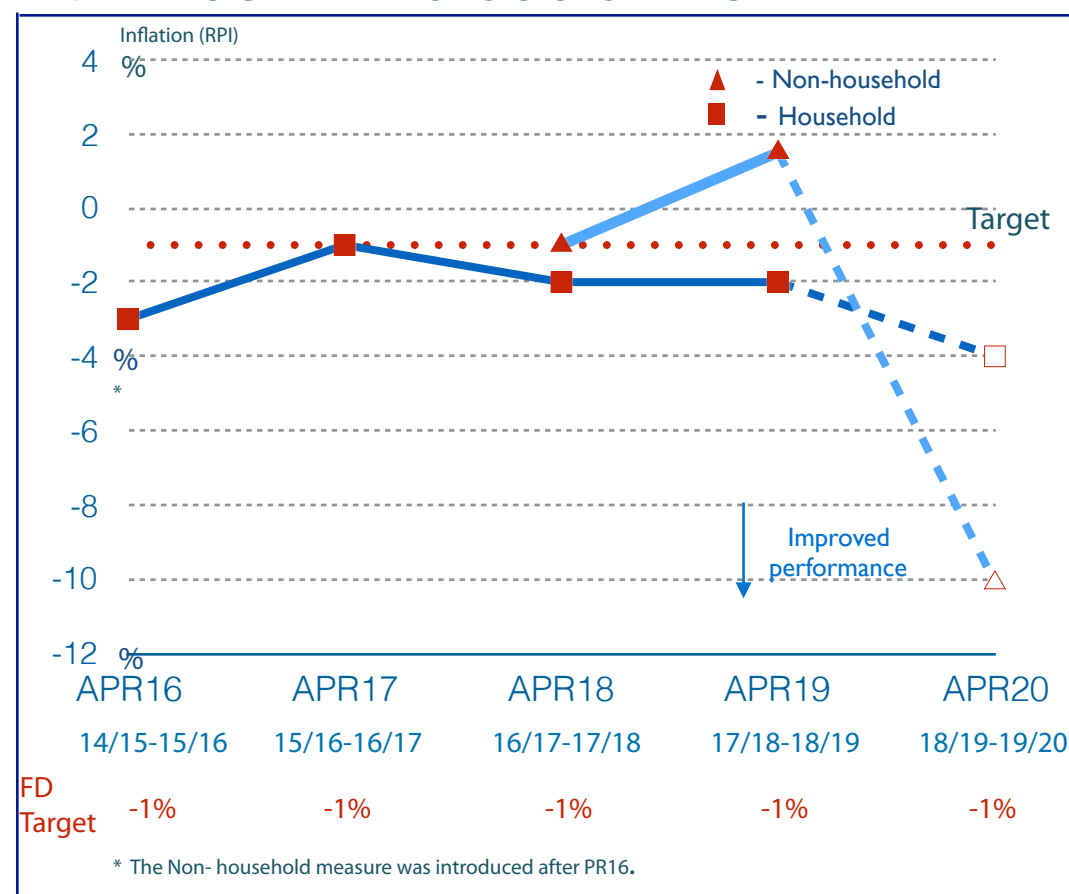
2.5 – MOS E1 Affordable Bills

* The Non- household measure was introduced after PR16.

Table 1 - Price Controls covered by each Performance Commitment

Price control:	Wholesale			Retail			Performance Commitment
	Water	Wastewater	Household	Business (Customer Group 1)		Business (Customer Group 2)	
				Water <50Ml	Wastewater	Water >50Ml	
Household Customers	✔	✔	✔				E1 (HH)
Business							
Non-Household (non-contestable) customers	✔	✔		✔	✔		E1 (NHH)
Contestable customers	✔					✔	N/A [1]

1 In addition to the competitive pressure of Open Water on bills for contestable customers, further protection is provided through the retail business price control by the gross margin and the supplementary cap mechanism and through the wholesale water revenue control by early stakeholder engagement for significant changes to wholesale water charges and publication of indicative wholesale water charges both mandated by the wholesale charging rules for contestable customers.

Applicable to Price Control:

| WHOLESALE WATER | WHOLESALE WASTE WATER |
| RETAIL | NON-HOUSEHOLD |

OFWAT MOS Reputational

Summary Performance: This measure is set at a company-wide basis and applies to the all four price controls. (see table 1).
The change in average household bill set for the period covered by this report was 2.1% below inflation.
The change in average non-household bill set for the period covered by this report was 1.5% above inflation. This measure has missed the target set, which is due to a forecast reduction in business consumption. However, it is noted that the performance for 2019/20 shows a considerable real reduction in this measure such that the performance commitment over the price control period will have been achieved.

Customer Compensation Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition: The extent to which the Company will continue to make average customer bills more affordable. Our target is to keep increases in the average bill for customers not eligible to benefit from Open Water to 1% below the rate of inflation calculated from the change in November RPI. This will be measured by two performance metrics where the average bill is defined as revenue divided by number of customers. The real change in average bill relates to the charges set for the reporting year.

E1 (HH) Average Household Bill - Performance will be measured at the time that charges are set by reference to the percentage change from the provisional average household bill for the current year to the forecast average household bill expected to be recovered from the charges being set for the next charging year. The calculated change is compared to the rate of inflation determined by the percentage change in November RPI, the value used for charge setting purposes.
For the purposes of MoS E1 (HH) the average household bill is the sum of the average bill for unmeasured and measured supplies for water services and the average bill for unmeasured and measured supplies for sewerage services.
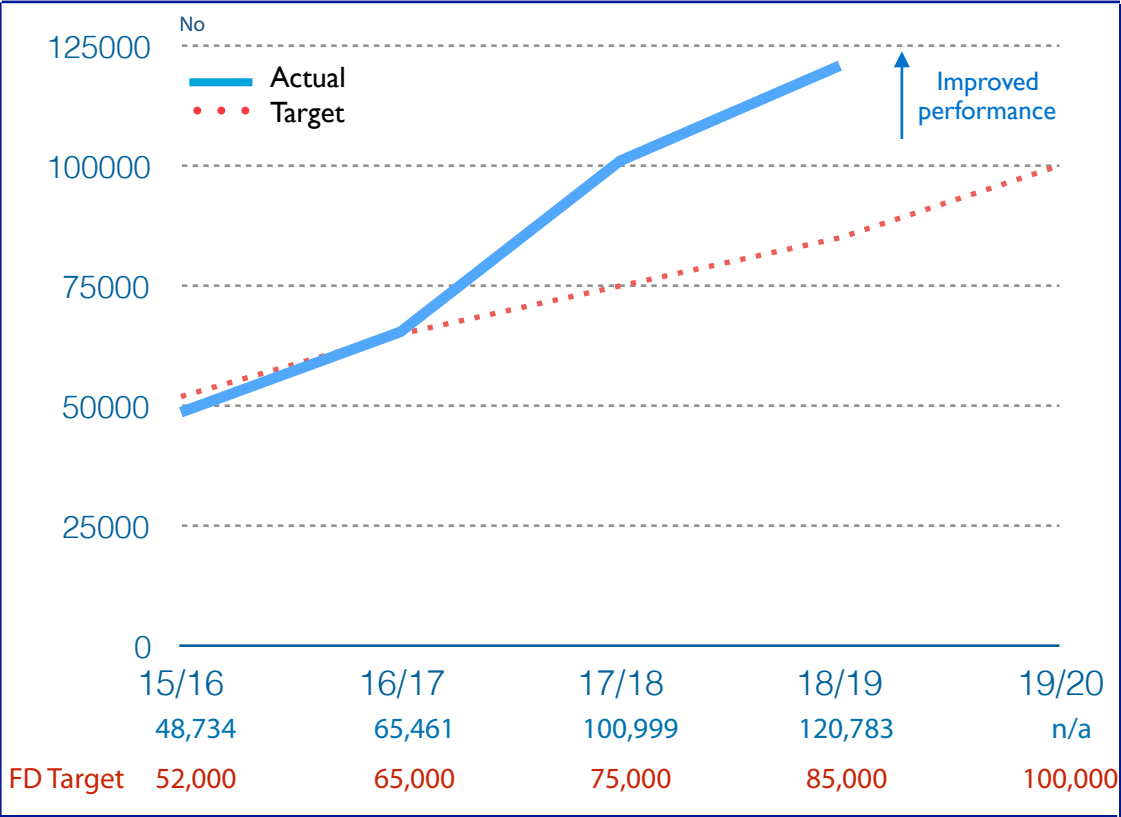
E1a (NHH) Average Non-household Bill - Performance will be measured by the same methodology to that used to calculate the average Household Bill. The measure will be calculated from the change in the average bill for business customers within the "customer group 1" classification for the Final Determination of business retail price controls made in December 2016. E1a (NHH) will be measured at the time that charges are set by reference to the percentage change from the provisional average customer group 1 bill for the current year to the forecast average customer group 1 bill expected to be recovered from the charges being set for the next charging year. The calculated change is compared to the rate of inflation determined by the percentage change in November RPI, the value used for charge setting purposes.
For the purposes of MoS E1 (NHH) the average customer group 1 bill is the sum of the average bill for unmeasured and measured supplies to the "<50 Ml Water" customer type and the average bill for unmeasured and measured supplies to the "Sewerage" customer type. The measure is reported on a financial year basis.

2.5 – MOS E2 Help for Disadvantaged Customers

Applicable to Price Control: RETAIL

OFWAT MOS Reputational

	15/16	16/17	17/18	18/19	19/20
	48,734	65,461	100,999	120,783	n/a
FD Target	52,000	65,000	75,000	85,000	100,000

Summary Performance:

Our 2018/19 performance is 120,783 as against a target of 85,000. This is an improvement on last year, when the figure was 100,999.

The 2014 FD target includes four of the five 'social tariffs/means of assistance'. Customers who benefit from 'Water Collect' are not included in the 2018/19 figure of 120,783.

If 'Water Collect' customers were added to the 120,783 the total number of customers benefitting from social tariffs/means of assistance would be 125,152.

The breakdown as between the different social tariffs/means of assistance is as follows:

	Total number of customers/schemes
HelpU	78,438
WaterSure Wales*	31,713
Water Direct	12,775
Customer Assistance fund	4,533
Water Collect	8,159
Total	135,618

*Welsh Water Assist and WaterSure Wales have now been combined.

Some customers benefit from more than one affordable tariff/means of assistance which explains why the figure of 125,152 differs from the 135,618 reported in the table above.

Comparative information for this measure is not available.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition:

The number of customers benefitting from social tariffs. The measure embraces all social tariffs and means of assistance and includes HelpU, WaterSure Wales, Water Direct, and the Customer Assistance Fund (but not Water Collect).

This measure is reported on a financial year basis.

2.5 – MOS F1 – Serviceability

Applicable to Price Control:

| WHOLESALE WATER | WHOLESALE WASTE WATER |

OFWAT MOS Penalty

F1 Asset Serviceability	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Actual Water - Infra	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
Actual Water - Non Infra	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
Actual Wastewater - Infra	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
Actual Wastewater - Non Infra	Marginal	Stable	Stable	Stable	Stable	Stable	Stable	Stable
FD Target				Stable				

Summary Performance: The suite of indicators have been reviewed for each sub service and our conclusions are as follows:

Water Infrastructure - Stable
Water Non Infrastructure - Stable
Wastewater Infrastructure - Stable
Wastewater Non Infrastructure - Stable

Further details can be found on the next four pages.

Comparative information for this measure is not available.

Customer Compensation Our performance on this measure has not led us to making any direct payments of compensation to customers or any voluntary payments in the financial year 2018/19.

Definition: 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, wastewater infrastructure and wastewater non-infrastructure. We make a judgement about the overall serviceability in each sub-service as one of the following:
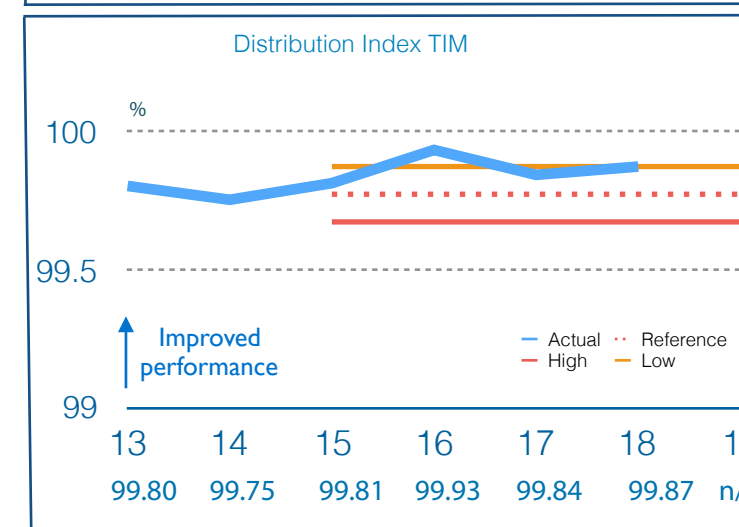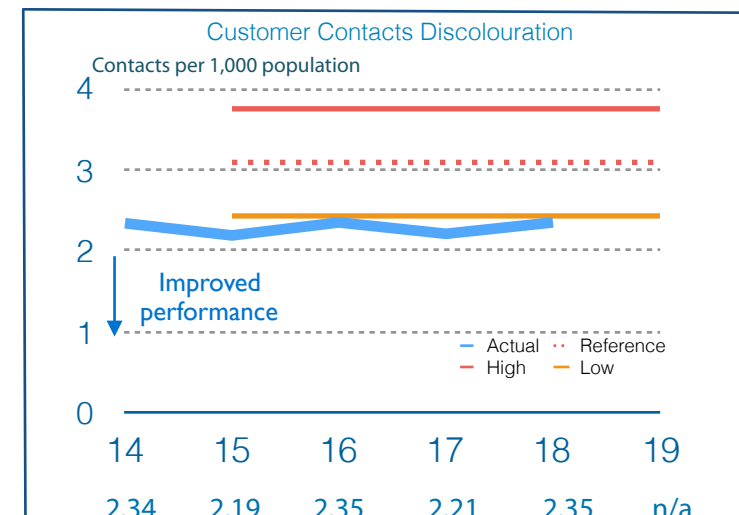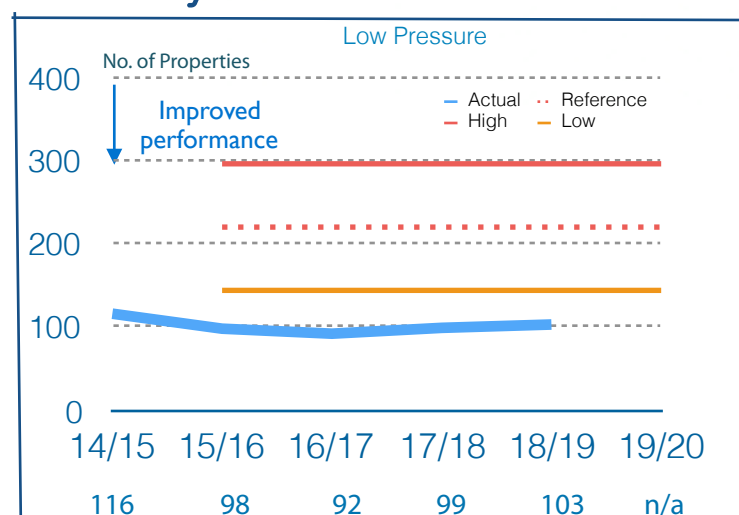- Improving
- Stable
- Marginal
- Deteriorating

The serviceability assessment involves reviewing recent historical trends in a defined suite of asset performance indicators. Reference levels and control limits have been 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.

This measure is reported on a financial year basis.

2.5 – Water Infrastructure Serviceability

Mains bursts

No.

Improved performance

— Actual ·· Reference
— High   — Low

14/15	15/16	16/17	17/18	18/19	19/20
3,530	3,012	3,679	4,181	4,270	n/a

Interruptions to supply >12h

No. of Properties

Improved performance

— Actual — Reference
— High   — Low

14/15	15/16	16/17	17/18	18/19	19/20
2,375	5,023	986	19,699	4,446	n/a

Iron Non-compliance

%

Improved performance

— Actual ·· Reference
— High   — Low

14	15	16	17	18	19
0.59	0.57	0.19	0.34	0.34	n/a

Low Pressure

No. of Properties

Improved performance

— Actual ·· Reference
— High   — Low

14/15	15/16	16/17	17/18	18/19	19/20
116	98	92	99	103	n/a

Customer Contacts Discolouration

Contacts per 1,000 population

Improved performance

— Actual ·· Reference
— High   — Low

14	15	16	17	18	19
2.34	2.19	2.35	2.21	2.35	n/a

Distribution Index TIM

%

Improved performance

— Actual ·· Reference
— High   — Low

13	14	15	16	17	18	19
99.80	99.75	99.81	99.93	99.84	99.87	n/a

Summary Performance:

Water Infrastructure - Our assessment of serviceability is "Stable".

Of the six indicators, the only one in which we are above the upper control limit is on the number of properties affected by supply interruptions of >12 hours duration.

The figure for supply losses >12 hours in duration is a volatile measure that can be heavily influenced by single one-off events that are difficult to predict, e.g. 1,346 properties were affected for >12 hours during the Maesteg burst main event in June 2018, 489 properties were affected for >12 hours during Alwen burst main in December 2018 and 400 properties were affected by >12 hours during the Cwmtillery interruption event in February 2019.

This year, of the 4,446 properties that experienced an interruption to supply of >12 hours, 2,245 were during the 'drought' period between June and August.

As we have indicated previously, we do not believe that the reference level set for this indicator is realistic, as it was based on performance in 2009, a year when there were only 40 customer properties affected by interruptions of >12 hours.

On two of the other indicators, discolouration contacts and properties on the low pressure register, our performance is below the lower control limit.
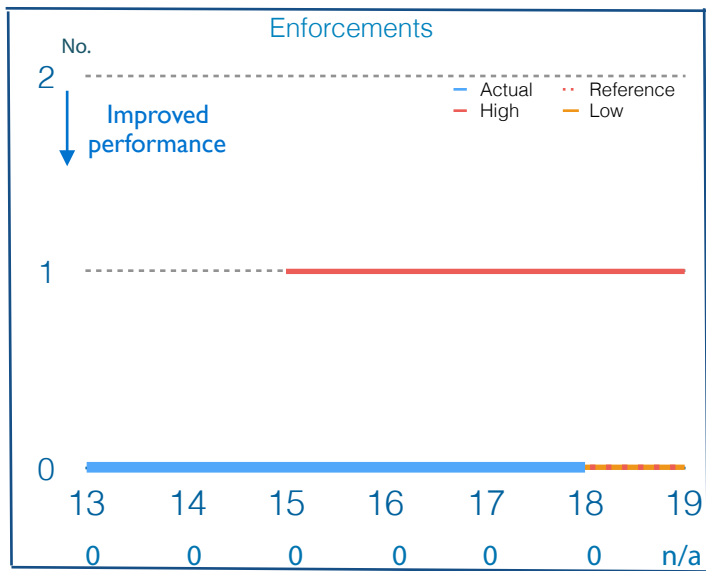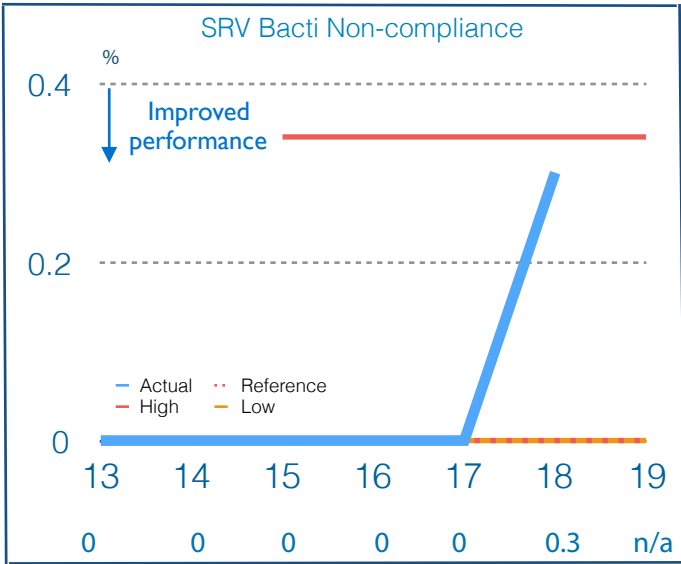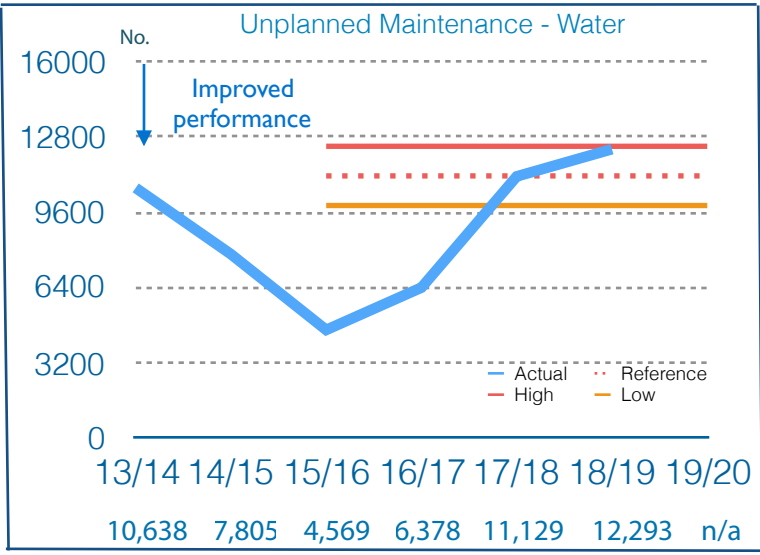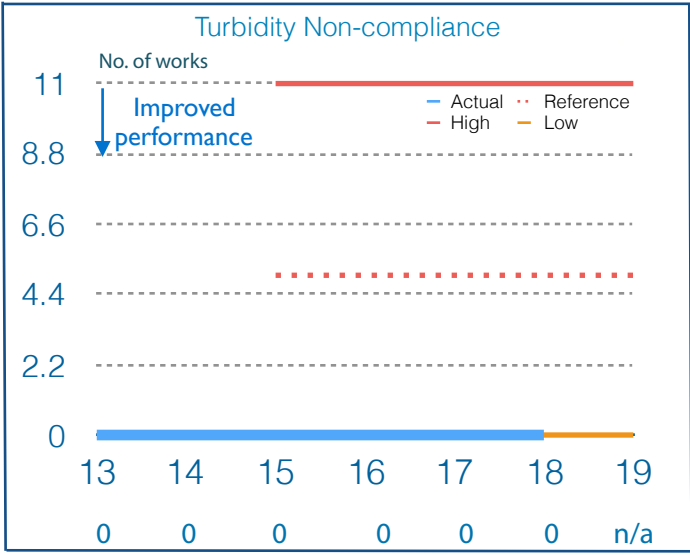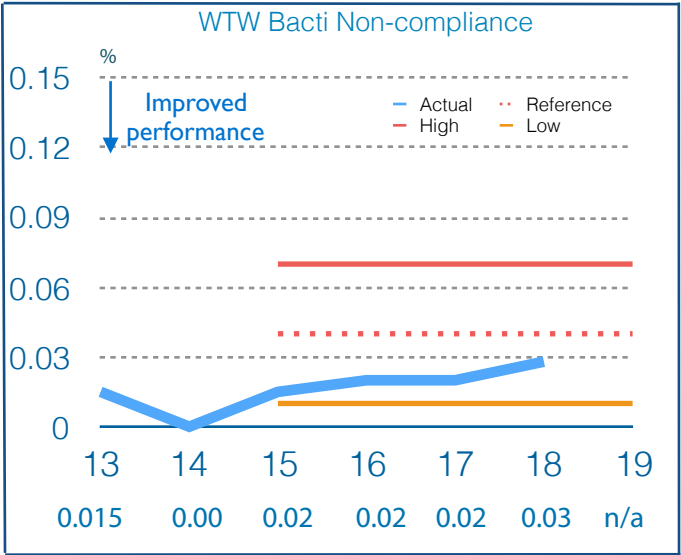
On bursts (which we regard as the primary indicator), Iron non-compliance and TIM non-compliance it can be seen that we are within the control limits.

Although the burst indicator remains below the reference level, there has been a slight increase in the numbers of bursts this year, but we believe that this is within the boundaries of natural volatility. However, we are continuing to target renewal activity and optimise pressure management activities to help achieve good performance on this indicator.

Comparative information is not available on all measures.

2.5 – Water Non-Infrastructure Serviceability

WTW Bacti Non-compliance

%

Improved performance

Actual · · Reference
High — Low

13	14	15	16	17	18	19
0.015	0.00	0.02	0.02	0.02	0.03	n/a

Turbidity Non-compliance

No. of works

Improved performance

Actual · · Reference
High — Low

13	14	15	16	17	18	19
0	0	0	0	0	0	n/a

Unplanned Maintenance - Water

No.

Improved performance

Actual · · Reference
High — Low

13/14	14/15	15/16	16/17	17/18	18/19	19/20
10,638	7,805	4,569	6,378	11,129	12,293	n/a

SRV Bacti Non-compliance

%

Improved performance

Actual · · Reference
High — Low

13	14	15	16	17	18	19
0	0	0	0	0	0.3	n/a

Enforcements

No.

Improved performance

Actual · · Reference
High — Low

13	14	15	16	17	18	19
0	0	0	0	0	0	n/a

Summary Performance:

Water Non-Infrastructure - Our assessment of serviceability is "Stable".

All of the indicators are within or below the control limits.

In 2016/17, we reported that in assessing the number of Unplanned Maintenance jobs we would (from 1 April 2017) be using an automated process to assess maintenance jobs which are unplanned. In doing so, we are removing an element of judgement in the way that these jobs are classified and the change will make the process more robust.
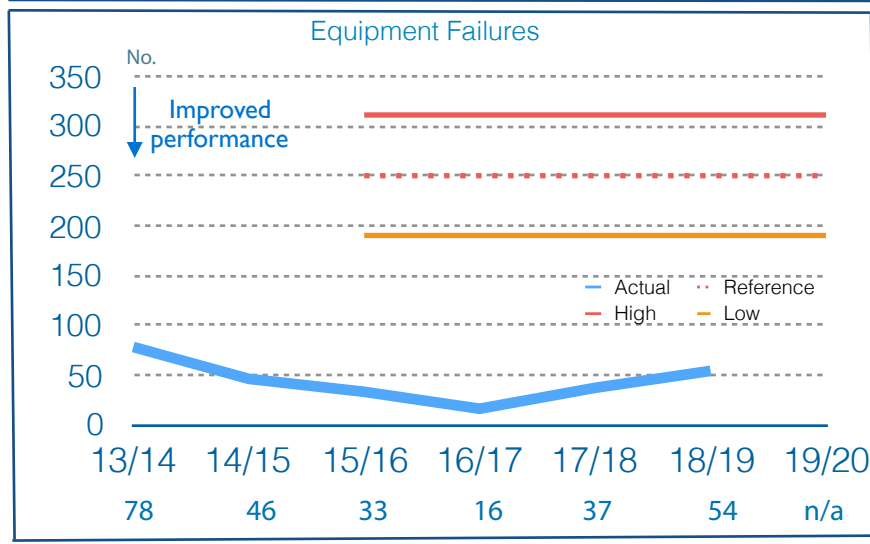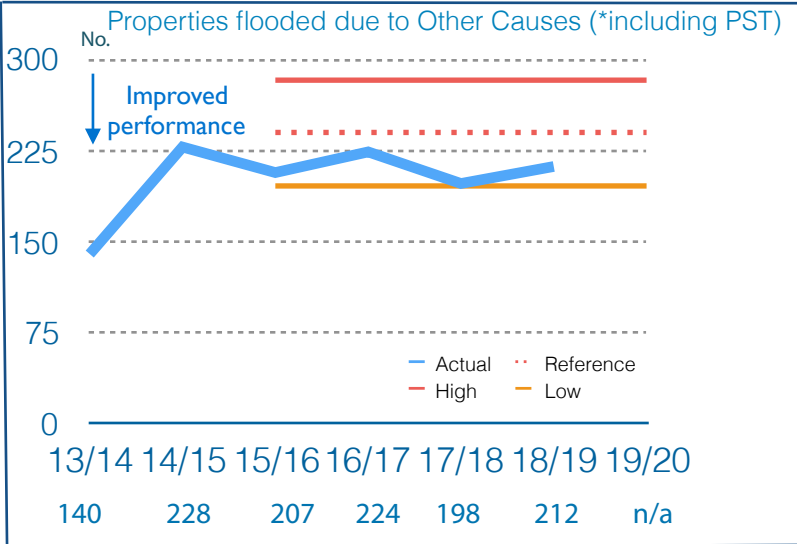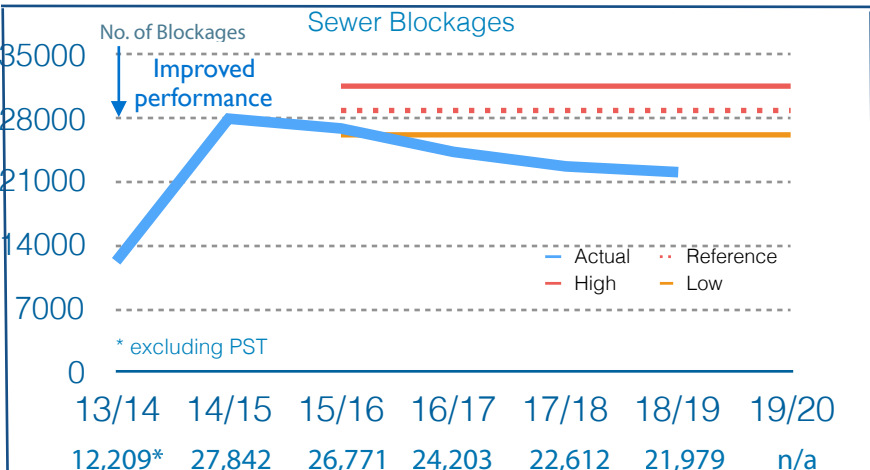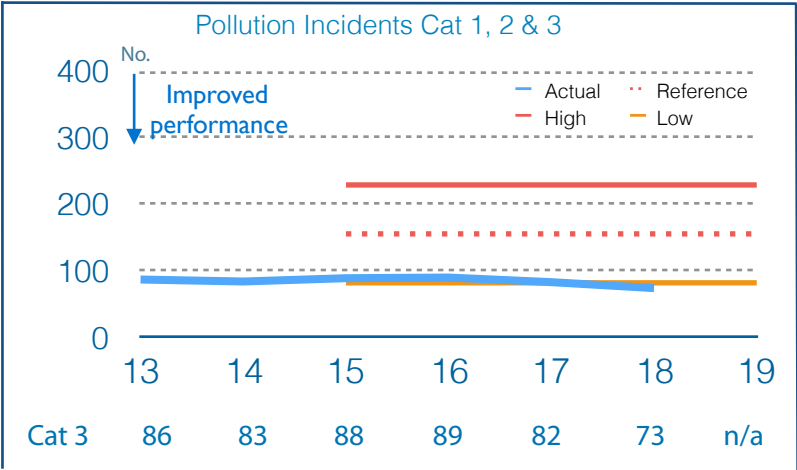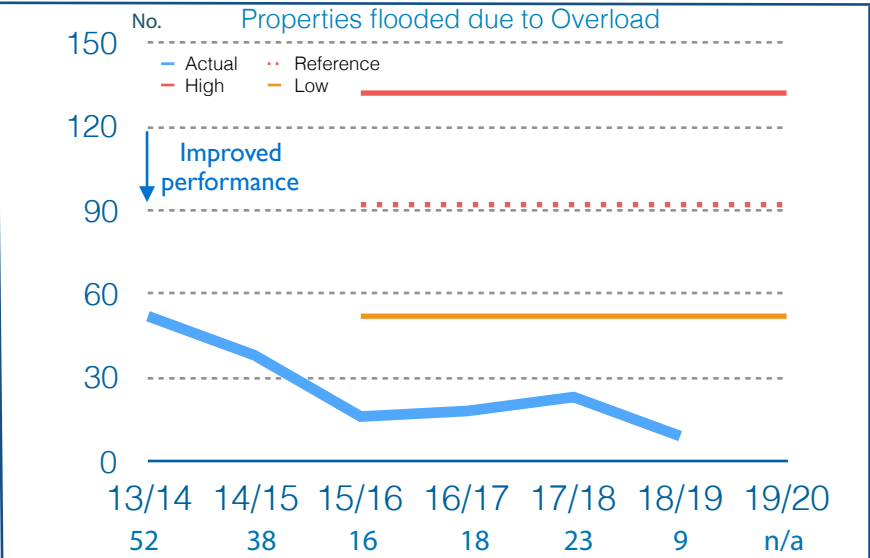
The increase in numbers was to be expected and our objective is to use the enhanced reporting tool as a means of driving improved performance. This is now in line with the process followed for reporting Unplanned Maintenance Wastewater.

The enhanced reporting of jobs will help improve our understanding of unplanned events and allow us to target positive intervention on critical assets in advance of equipment or asset failure.

Comparative information is not available on all measures.

29

2.5 – Wastewater Infrastructure Serviceability

Sewer Collapses (*including PST)

	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	393	796	862	836	712	659	n/a

Properties flooded due to Overload

	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	52	38	16	18	23	9	n/a

Pollution Incidents Cat 1, 2 & 3

	13	14	15	16	17	18	19
Cat 3	86	83	88	89	82	73	n/a

Sewer Blockages

* excluding PST

	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	12,209*	27,842	26,771	24,203	22,612	21,979	n/a

Properties flooded due to Other Causes (*including PST)

	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	140	228	207	224	198	212	n/a

Equipment Failures

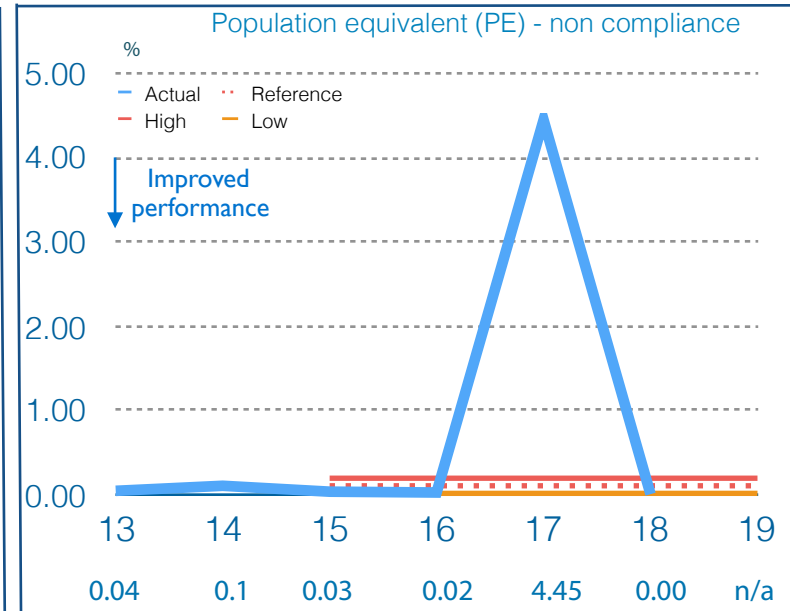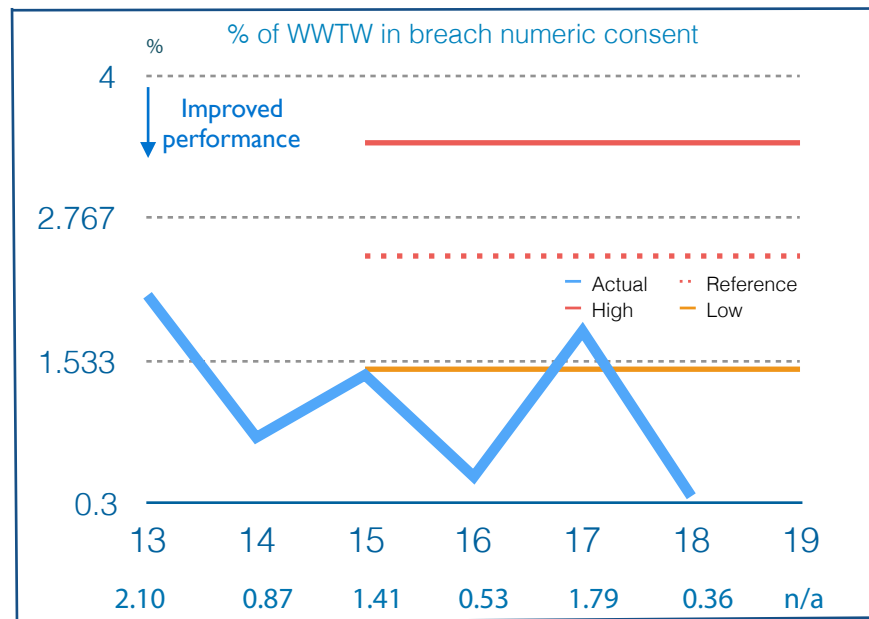|	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	78	46	33	16	37	54	n/a

Summary Performance:

Wastewater Infrastructure - Our assessment of serviceability is "Stable".

On all six measures we are within or below the control limits.

Comparative information is not available on all measures.

30

2.5 – Wastewater Non–Infrastructure Serviceability

% of WWTW in breach numeric consent

13	14	15	16	17	18	19
2.10	0.87	1.41	0.53	1.79	0.36	n/a

Population equivalent (PE) - non compliance

13	14	15	16	17	18	19
0.04	0.1	0.03	0.02	4.45	0.00	n/a

Unplanned Maintenance - Wastewater

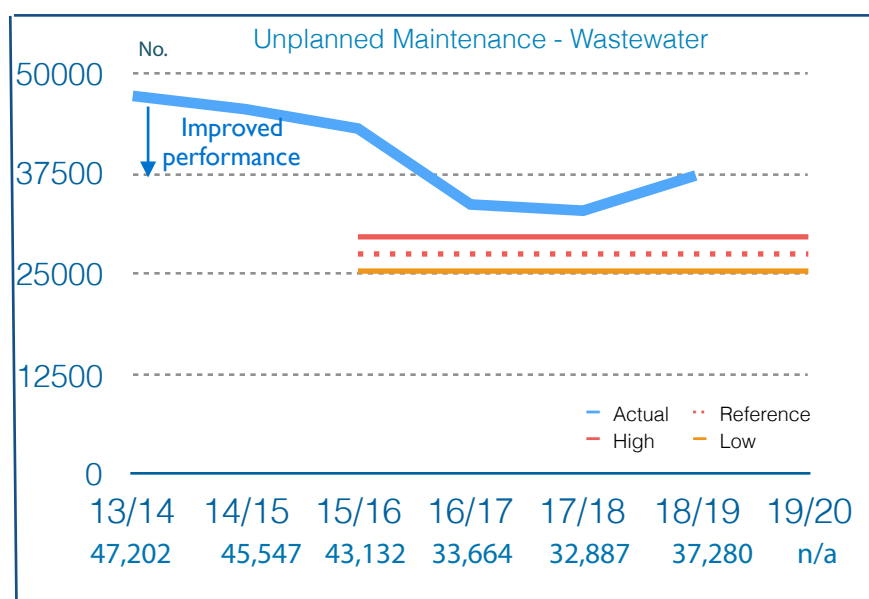| 13/14	14/15	15/16	16/17	17/18	18/19	19/20
47,202	45,547	43,132	33,664	32,887	37,280	n/a

Summary Performance:

Wastewater Non-Infrastructure - Our assessment of serviceability is "Stable".

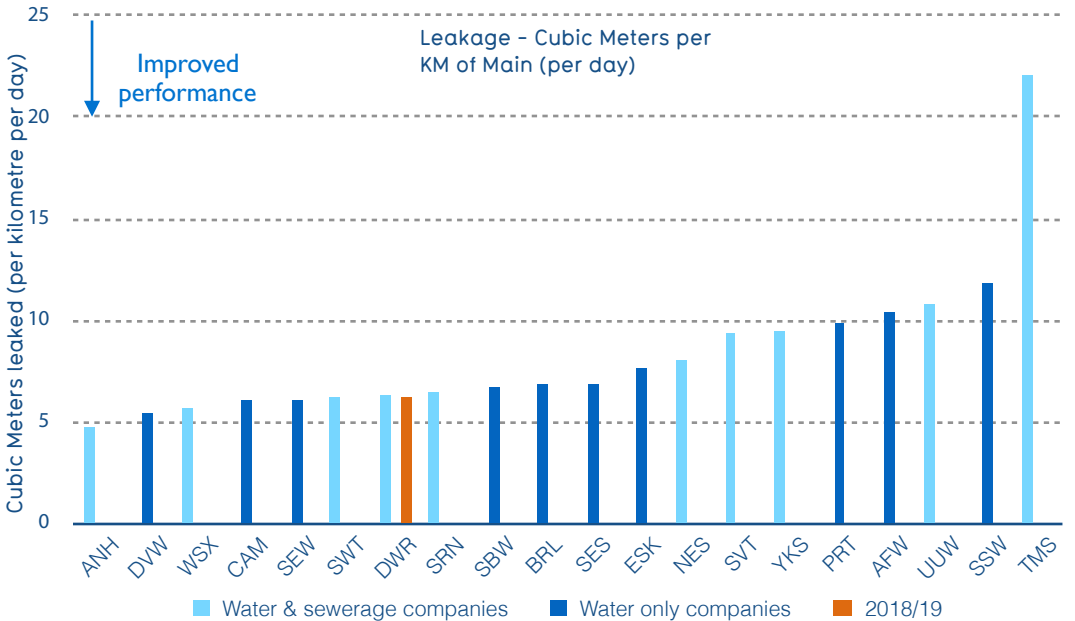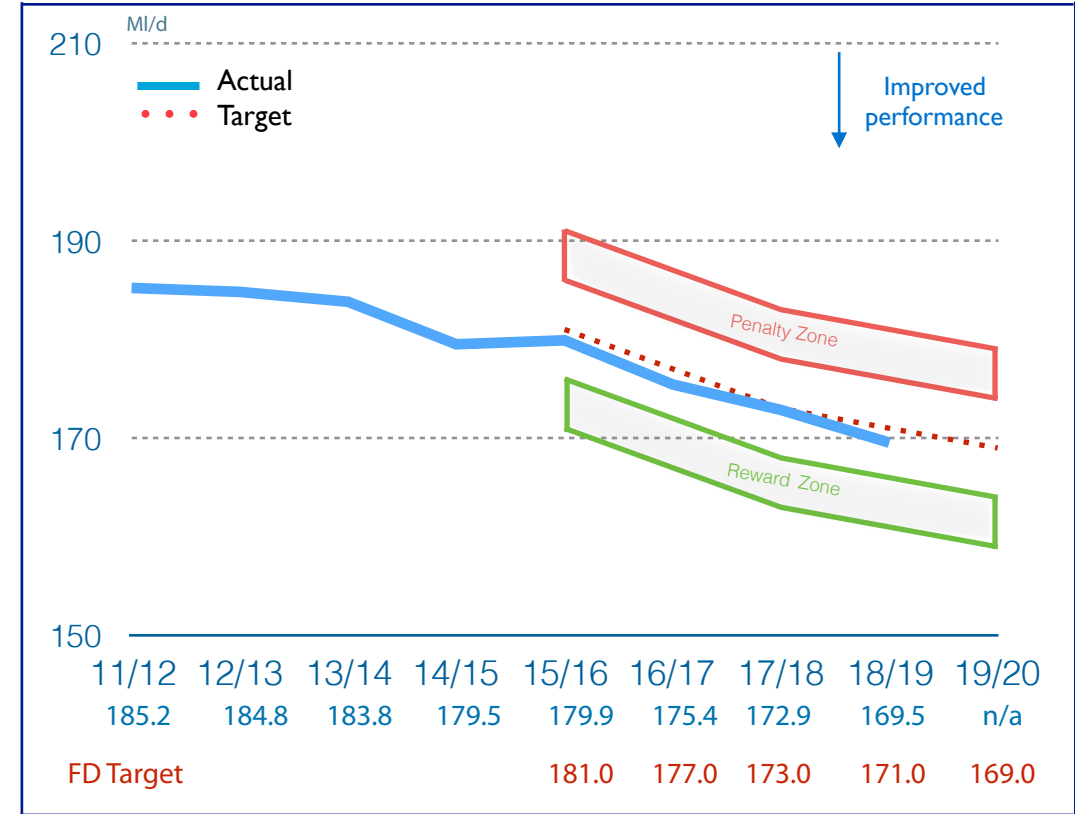On two of the measures we are below the control limits.

Our performance on unplanned maintenance continues to be above the upper control limit, with the number of unplanned jobs rising to 37,280 in the year. We have not seen an increase in the number of asset breakdowns and do not believe that being above the upper control limit is symptomatic of an underlying deterioration in asset performance.

Comparative information is not available on all measures.

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2.5 – MOS F2 Leakage

	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	185.2	184.8	183.8	179.5	179.9	175.4	172.9	169.5	n/a
FD Target					181.0	177.0	173.0	171.0	169.0

Leakage – Cubic Meters per KM of Main (per day)

Improved performance

Cubic Meters leaked (per kilometre per day)

ANH, DVW, WSX, CAM, SEW, SWT, DWR, SRN, SBW, BRL, SES, ESK, NES, SVT, YKS, PRT, AFW, UUW, SSW, TMS

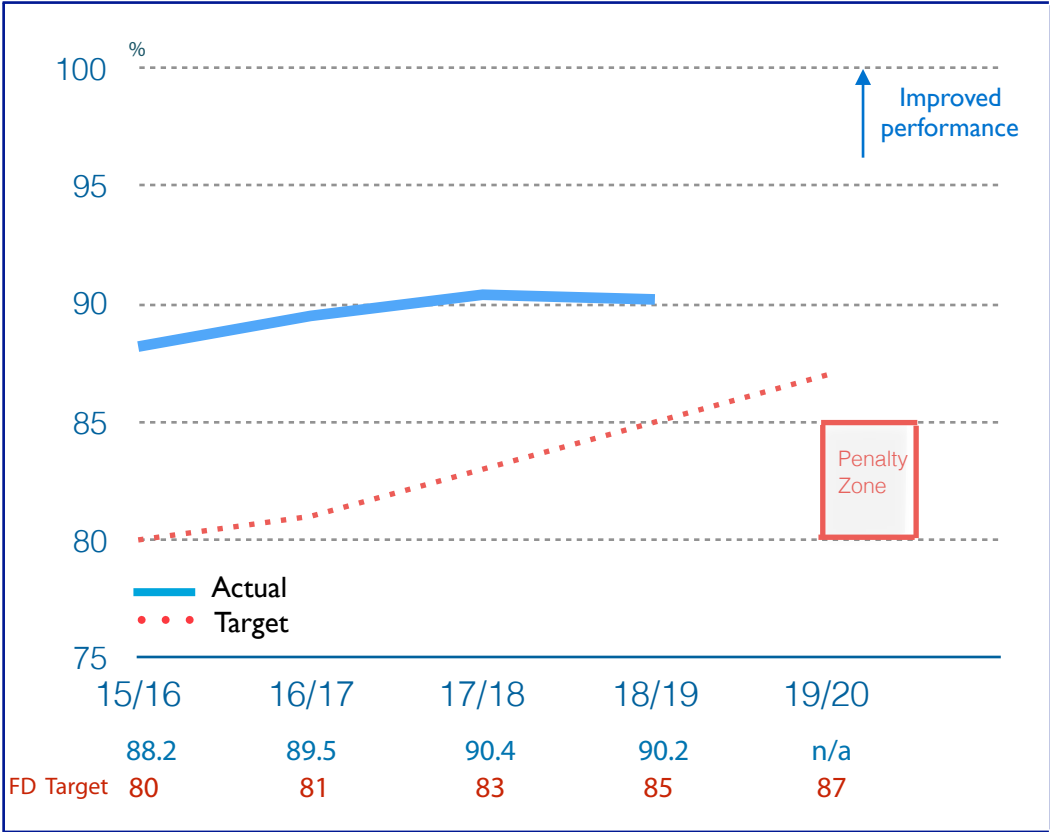■ Water & sewerage companies ■ Water only companies ■ 2018/19

Applicable to Price Control: WHOLESALE WATER

OFWAT MOS Reward & Penalty

Summary Performance:

Total Leakage has reduced in line with the AMP6 Business Plan target to deliver performance of 169.5 Ml/d during 2018/19.

The performance of 169.5Ml/d has delivered below the 2018/19 target of 171Ml/d and is in line with the achievement of the overall AMP6 Sustained Economic Level of Leakage (SELL) glide path target reduction.

Although we have included industry performance in 2017/18 (principally to show how we have performed against other water and sewerage companies), this is not an accurate comparator as the figures for leakage are based on a company's economic level of leakage, an assessment which is specific to each company.

Customer Compensation

Our performance on this measure has led us to making 106 payment to the value of £33,929 by way of direct payment of compensation to customers in the financial year 2018/19. These payments have been made to assist customers with the cost of private leakage repair.

Definition:

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 Water Treatment Works and the customer's stop tap. It does not include internal plumbing losses.

This measure is reported on a financial year basis.

2.5 – MOS F3 Asset Resilience – Water

Applicable to Price Control: WHOLESALE WATER

OFWAT MOS Penalty

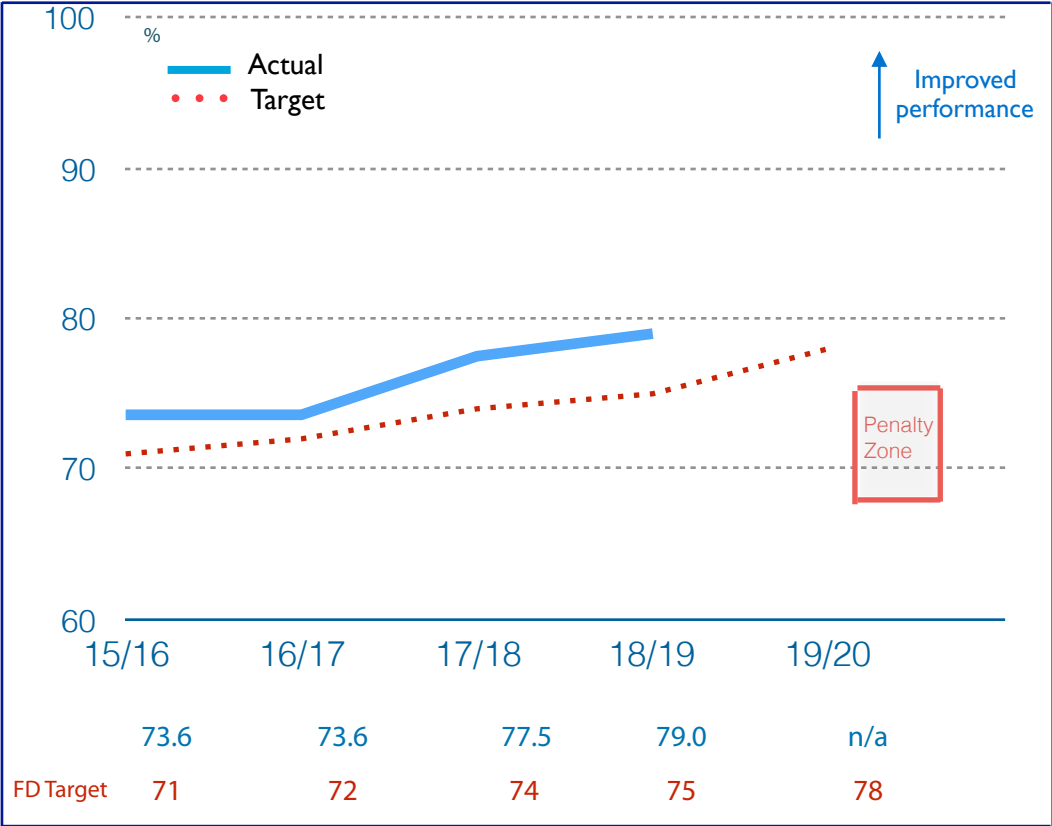|	15/16	16/17	17/18	18/19	19/20
	88.2	89.5	90.4	90.2	n/a
FD Target	80	81	83	85	87

Summary Performance:

Our performance of 90.2% has fallen slightly in the year, although we are ahead of the target for the year which was 85%.

This performance is based upon the list of critical assets included in our PR14 Business Plan which informed the 2014 FD.

In addition, we monitor and report internally on the updated list of critical assets, recognising that new and improved data is available to inform the definition of a critical asset. By way of illustration, the PR14 Business Plan included 91 assets. The current list of critical assets is now 111. The internally reported performance is 89.0% as against 88.7% last year.

Comparative information for this measure is not available.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition:

The percentage of critical assets that are resilient against a set of criteria. Critical assets are those where failure would have a major impact on service to customers or on the environment.

The list of critical assets is determined by reference to an agreed set of criteria. A resilience scorecard is used to assess critical designed to measure resilience against the following:

- Security and Emergency Measures Directive (SEMD) risk;
- Flood Risk;
- Coastal Erosion Risk;
- Loss of Power Risk;
- Loss of Remote Control ability
- Loss of any part of the treatment process;
- Loss of water or wastewater supply capacity; or
- Loss of access to the asset.

This measure is reported on a financial year basis.

2.5 – MOS F3 Asset Resilience – WasteWater

Applicable to Price Control: WHOLESALE WASTE WATER

OFWAT MOS Penalty

Chart legend: Actual, Target, Improved performance, Penalty Zone

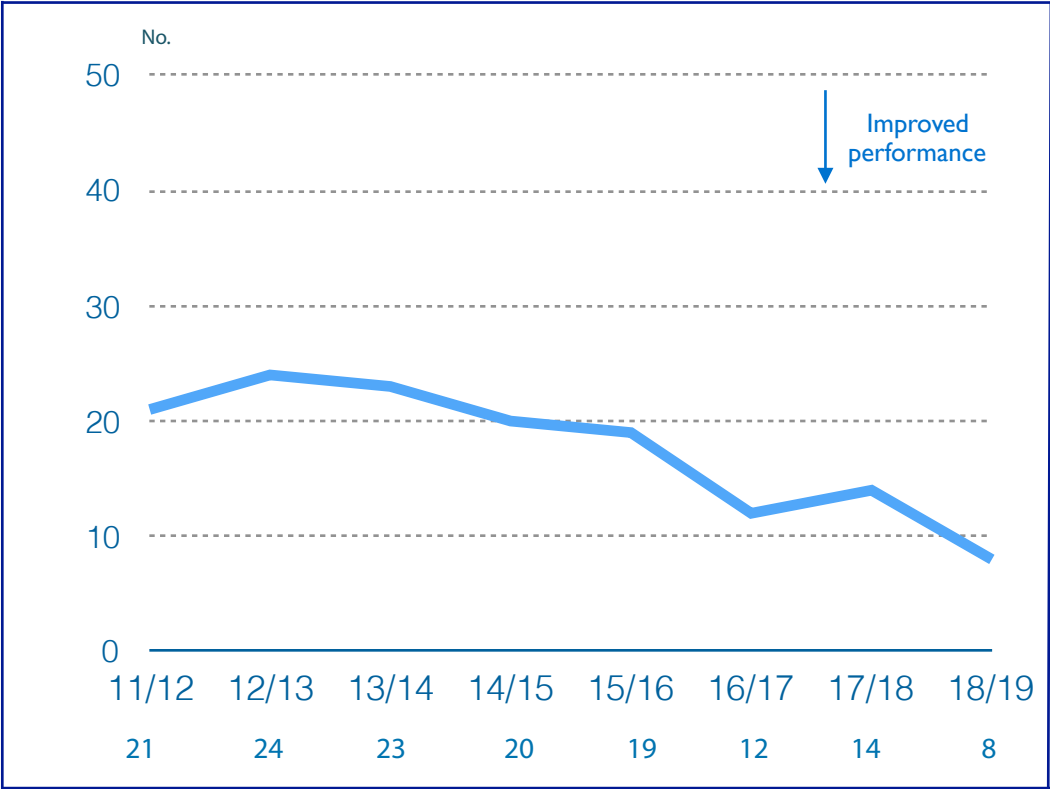|	15/16	16/17	17/18	18/19	19/20
	73.6	73.6	77.5	79.0	n/a
FD Target	71	72	74	75	78

Summary Performance:

The score for resilience of wastewater assets is 79.0% and ahead of the target for the year which was 75%.

This performance is based upon the list of critical assets included in our PR14 Business Plan which informed the 2014 FD.

In addition we monitor and report internally on the updated list of critical assets, recognising that new and improved data is available to inform the definition of a critical asset. By way of illustration, the PR14 Business Plan included 35 assets. The current list of critical assets is now 48. The internally reported performance is 81.0% as against 78.3% last year.

Comparative information for this measure is not available.

Customer Compensation

Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition:

The percentage of critical assets that are resilient against a set of criteria. Critical assets are those where failure would have a major impact on service to customers or on the environment.

The list of critical assets is determined by reference to an agreed set of criteria. A resilience scorecard is used to assess critical assets against criteria designed to measure resilience against the following:

- Security and Emergency Measures Directive (SEMD) risk;
- Flood Risk;
- Coastal Erosion Risk;
- Loss of Power Risk;
- Loss of Remote Control ability
- Loss of any part of the treatment process;
- Loss of water or wastewater supply capacity; or
- Loss of access to the asset.

This measure is reported on a financial year basis.

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2.5 – G1 Health and Safety – RIDDOR

Key Performance Indicator

Summary Performance:	The number of RIDDOR incidents in the year was 8, our best ever performance.
	The analysis of the number of RIDDOR incidents against other companies is not a good comparator, as the number of colleagues will vary and not all employers include within their reported figures incidents involving colleagues of contractor organisations.
Planned Improvements:	These include: • continuing to build a culture where health and safety is paramount for every job we do; • organising regular 'safety days' throughout the year to review best practice and improve health and safety procedures; and • operating a 'Safety Takes Every Person' ('STEP') and 'Take 5' approach (take 5 minutes) to assessing the safety of each job.
Customer Compensation	Not Applicable.
Definition:	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 injuries that occur across the wholesale and retail businesses as well as those involving our main contractors and capital partners. This measure is reported on a financial year basis.

2.5 – G2 Competence for Role

Key Performance Indicator

	14/15	15/16	16/17	17/18	18/19
	87.6	88.1	87	82	88*
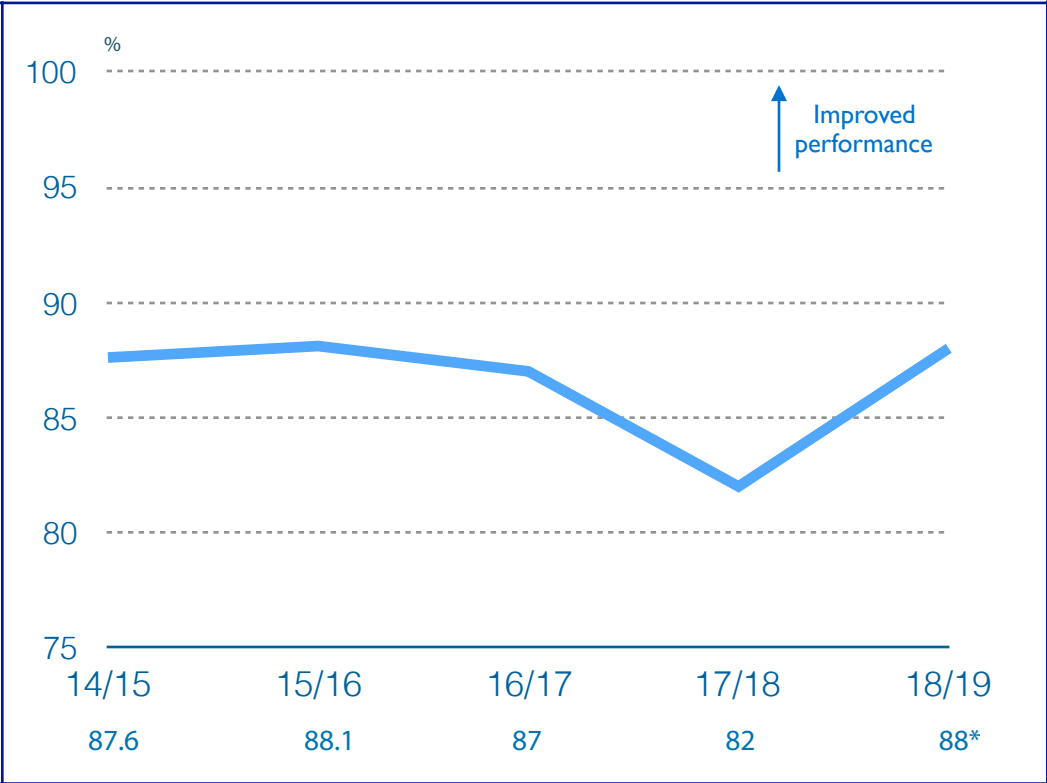
*Note: In our Annual Reports and Accounts we reported 85%, which was a slightly earlier performance figure.

Summary Performance: Our objective is to have 95% of colleagues with outlined key roles fully competent for the particular role they fulfil by 2020. Our performance of 88% is higher than last year's figure of 82%.

As there will always be turnover of colleagues, we assess the optimal figure for colleague competence as being 95% at any one time.

Planned Improvements: We regularly carry out reviews across the business to see whether the teams have the right skills to meet the challenges they will face. We are also committed to helping all of our people grow and thrive in their careers.

Customer Compensation Not Applicable.

Definition: We have a "Knowledge and skills framework" and have established clear role profiles that define key criteria which we can now use to assess and measure individuals' knowledge, skills and competence to undertake their respective roles.

Our objective is that by 2020 (and beyond) 95% of colleagues performing the outlined key roles will be deemed competent (with the remainder being new starters in training or colleagues on long term absence from their role, for example seconded to another role, on maternity leave or long term sickness etc).

This is in respect of the wholesale business only and the inclusion of the retail business in this measure is under review.

This measure is reported on a financial year basis.

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2.5 – H2 Financing Efficiency

Key Performance Indicator

As at 31 March 2018

H2 Financing	2014/15	2015/16	2016/17	2017/18	2018/19
Actual	A/A3/A	A/A3/A	A/A2/A	A/A2/A	A Neg/A2 Neg/A

S&P / Moody's / Fitch

Summary Performance: At year end (31 March 2019) we were rated A Neg/A2 Neg/A by S&P, Moody's and Fitch and are the highest rated company in the sector.

Customer Compensation: Not Applicable.

Definition: The rating ascribed by the three main rating agencies, S&P, Moody's and Fitch.

Company	Standard & Poor's	Moody's	Fitch
Anglian	A - Neg*	A3 Neg	A
DCWW	A Neg*	A2 Neg	A
Northumbrian	BBB+ Neg	Baa1 Neg	Not Rated
Severn Trent	BBB+	A3 Neg	Not Rated
Southern	A- Neg*	Baa1 Neg	BBB+
South West	Not Rated	Not Rated	Not Rated
Thames	BBB+ Neg*	A3 Neg	Not Rated
United Utilities	A-	A3	A-
Wessex	BBB+ Neg*	A3 Neg	A-
Yorkshire	A-	Baa1 Neg	A

Source: Bloomberg as of 31 May 2019
Note: Rating of senior bonds only.
*Source: Standard & Poor's

Notes:
(1) Northumberland - neg with S&P from 13/3/19
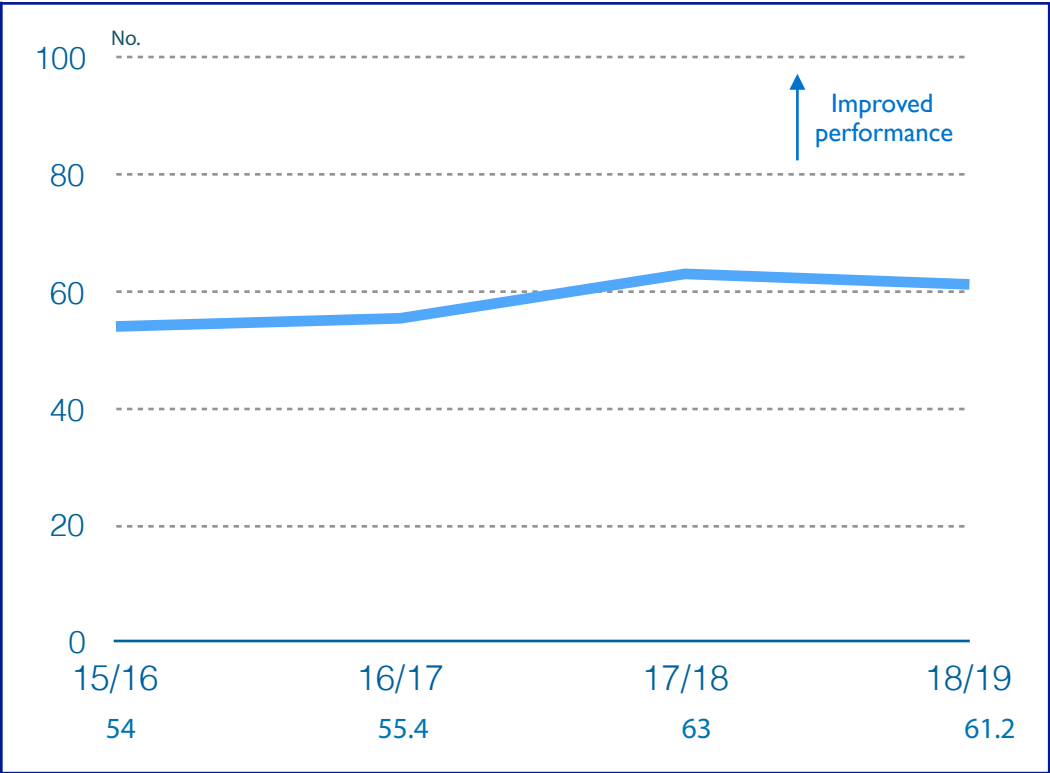(2) Southern - neg with S&P from 13/3/19
(3) Thames - neg with S&P from 23/7/2018
(4) Wessex - neg with S&P from 29/11/18

2.5 – Net Promoter Score (NPS)

Key Performance Indicator

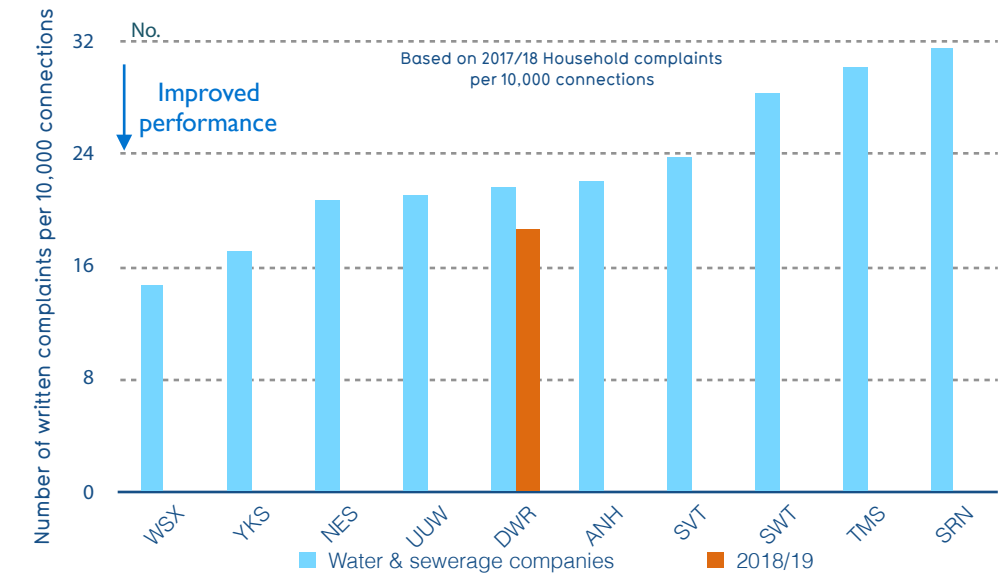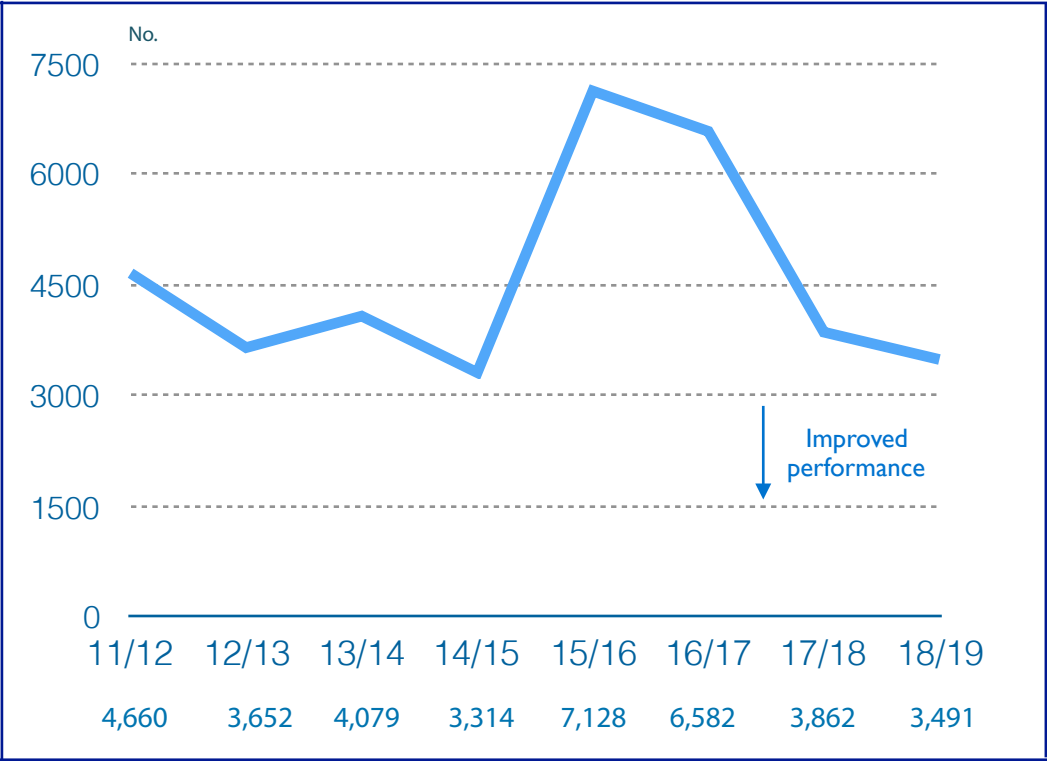|				
	15/16	16/17	17/18	18/19
	54	55.4	63	61.2

Summary Performance: The Net Promoter Score has decreased slightly from 63 in 2017/18 to 61.2 in 2018/19.

Comparator NPS data for other water companies is not currently available.

Customer Compensation Not Applicable.

Definition: The NPS calculation is based on the assumption that customers can be divided into three categories: "Promoters"; "Passives"; "Detractors". The NPS is calculated from the percentage of promoters (i.e. those scoring 9 and10) minus the percentage of detractors (0-6).

The question answered is as follows:

"Based on your experience with us, how likely are you to recommend us to family and friends, Where 0 = very unlikely, 10 = very likely".

Customers are asked to go online to complete a survey that leads to the NPS.

This measure is reported on a financial year basis.

2.5 – Written Complaints

11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
4,660	3,652	4,079	3,314	7,128	6,582	3,862	3,491

Based on 2017/18 Household complaints per 10,000 connections

■ Water & sewerage companies ■ 2018/19

Note: The Industry comparison graph shows data for ten water and sewerage companies; Written complaints on the wastewater business would not be applicable to water only companies and are not shown in the comparison. Further details are available on the Discover Water website, which includes all companies.
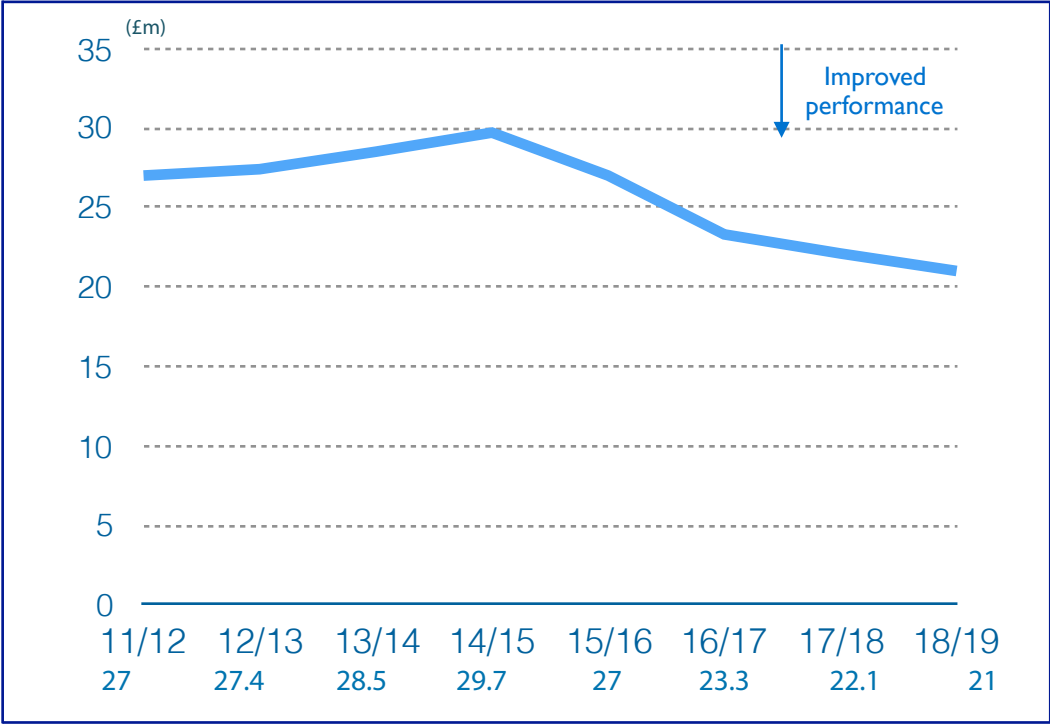
Source: CCWater Household complaints to water companies in England and Wales 2017-18

Summary Performance: The number of complaints received decreased during the year to 3,491 (3,862 last year).

Planned Improvements: We continue to review the reasons for complaints and have improvement plans in place. These include:

- on a daily basis our management team reviews a sample of complaints. Managers are responsible for identifying the reason for customer complaints and implementing changes to improve the service customers receive;
- reviewing "customer journeys" to identify those that are difficult when customers contact us via any channel. We will then identify the changes needed to improve the experience from the customers point of view;
- continuing with our 'Own it, Sort it' culture to ensure colleagues fully review queries on the first contact where possible; and
- delivery of our training programme "Being great at investigating and resolving complaints". This training focuses on improving our colleagues ability to investigate and resolve customers queries and complaints.

Customer Compensation: See measure on D1 (SIM) on page 20.

Definition: The number of written complaints (stage 1 & stage 2 (escalated) complaints). Written complaints include those made by letter, fax and e-mail and comments written on a piece of company correspondence, for example a bill.

This measure is reported on a financial year basis.
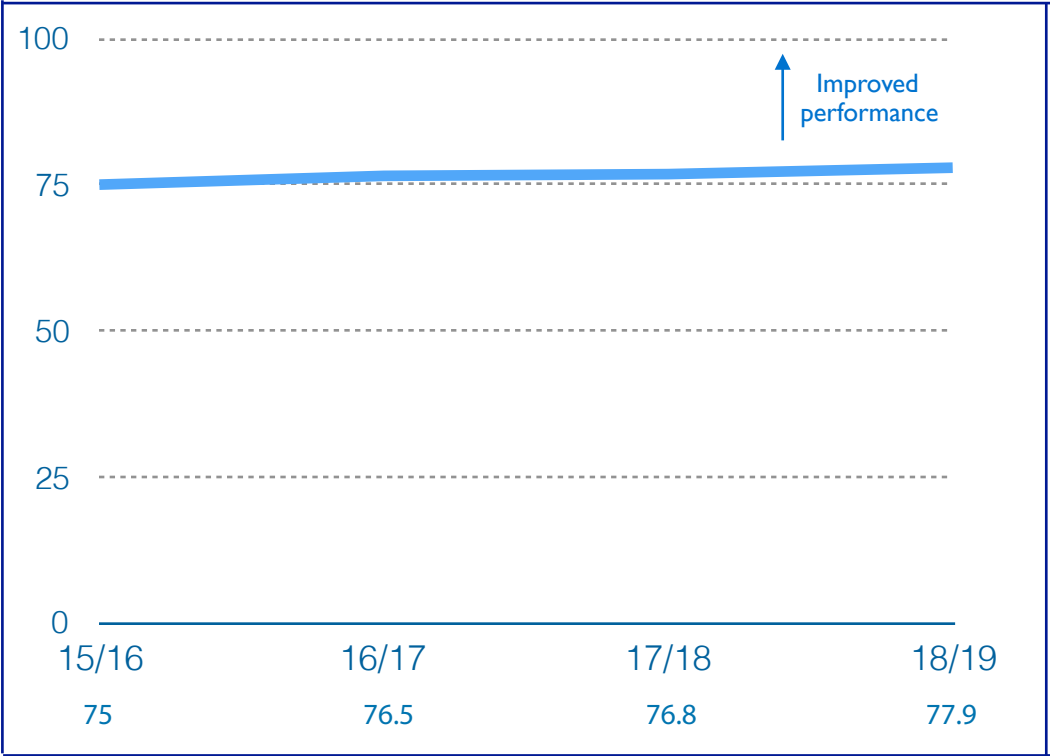
2.5 – Bad Debt

Key Performance Indicator

11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
27	27.4	28.5	29.7	27	23.3	22.1	21

Summary Performance: The Bad Debt charge for the year ended 31 March 2019 totalled £21m (2017/18: £22.1m).

Planned Improvements: The improvement in collection rates and recovery of aged debt has been driven by a programme of initiatives which include:

- informing credit reference agencies of all late or non-paying customers;
- improving our recovery system, Tallyman, to improve the effectiveness of our collection strategies;
- enforcing the regulations introduced by the Welsh Government in 2015 requiring landlords to disclose the identity of their tenants;
- expanding the financial support provided to low income households through our social tariffs;
- targeting customers who won't pay their bills as opposed to those who can't pay; and
- securing charging orders where appropriate. The 6,000 orders obtained have secured some £11m of customers debt.

Comparative information for this measure is not available.

Customer Compensation Not applicable.

Definition: The charge for bad and doubtful debts for all types of customers.

It includes the bad debt element of third party collection charges.

This measure is reported on a financial year basis.

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2.5 – UKCSI Satisfaction Score

Key Performance Indicator

15/16	16/17	17/18	18/19
75	76.5	76.8	77.9

Summary Performance:

Generally, there are two UK Customer Satisfaction Index (UKCSI) surveys undertaken in a year (published in January and July). They cover a number of sectors and measure customer satisfaction of their individual experiences with companies within the particular sector.

Our performance over the last year has improved with a score of 77.9 (76.8 last year).The respective scores were 76.8 (in July 2018) and 79 (in January 2019). Our score in January placed us in top position compared to the other water companies.

Customer Compensation

Not applicable.

Definition:

UKCSI survey a sample of 10,000 consumers in the UK twice per year, with reports published in January and July. Consumers are asked a range of questions relating to all companies in the survey (UKCSI members) that they have had an interaction within the past 3 months. A minimum of 35 respondents must be achieved to appear in the UKSCI report and the score published is an average of the past two surveys. This gives us a direct comparison against other companies both within the Utility sector and across a range of other sectors (Retail, Manufacturing, Healthcare etc), but it should be noted that the company sample size may be very small.

We have no influence with the methodology for this measure to address the number of respondents who participate in the survey.

This measure is reported on a financial year basis.

UKCSI

OVO Energy, Utility Warehouse and M & S Energy are the highest rated organisations for customer satisfaction.
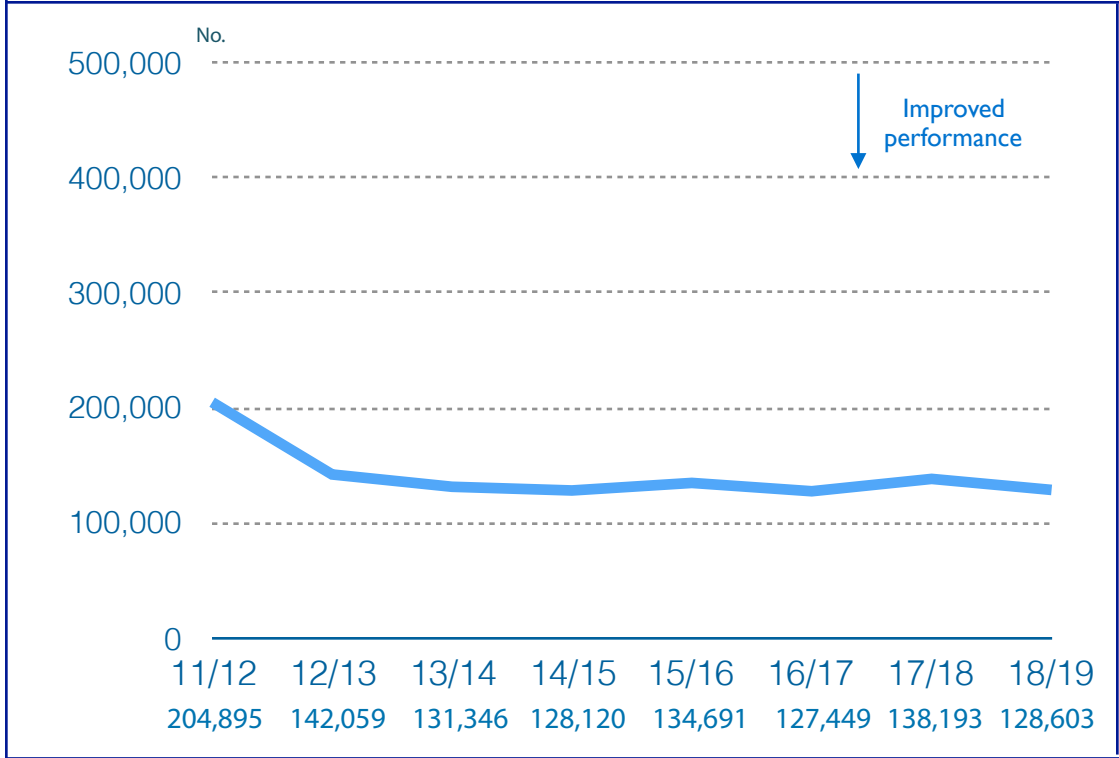

UK all-sector average	77.7
Utilities	73.8
OVO Energy	79.9
Utility Warehouse	79.4
M & S Energy	79.1
Dwr Cymru (Welsh Water)	79.0

Full results **P15**

2.5 – Unwanted calls

Key Performance Indicator

No.

500,000
400,000
300,000
200,000
100,000
0

Improved performance

| 11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
204,895	142,059	131,346	128,120	134,691	127,449	138,193	128,603

Summary Performance: The number of unwanted calls (household and non-household) has decreased by some 7% from 138,193 in 2017/18 to 128,603 in 2018/19.

Comparative information on this measure is not available.

Planned Improvements: See measure on D1 (SIM) on page 20.

Customer Compensation: Our performance on this measure has not led us to making any direct payments of compensation to customers in the financial year 2018/19.

Definition: 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 service failure and this has prompted them to make contact with us.

The volume of unwanted calls from household customers contribute to the overall SIM.

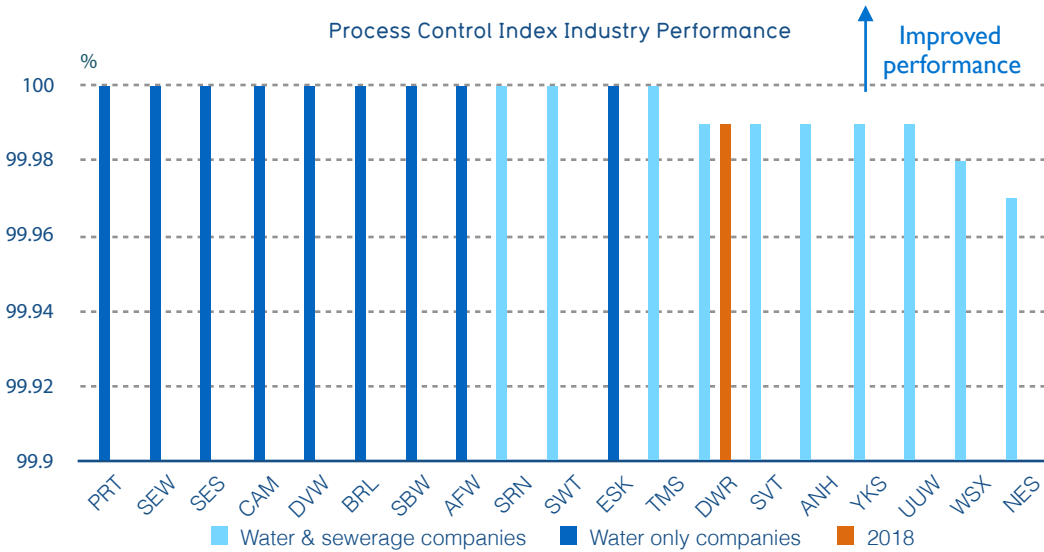This measure is reported on a financial year basis.

2.5 – Process Control Index

Key Performance Indicator

	2012	2013	2014	2015	2016	2017	2018
	100	99.99	99.92	100	100	99.998	99.99
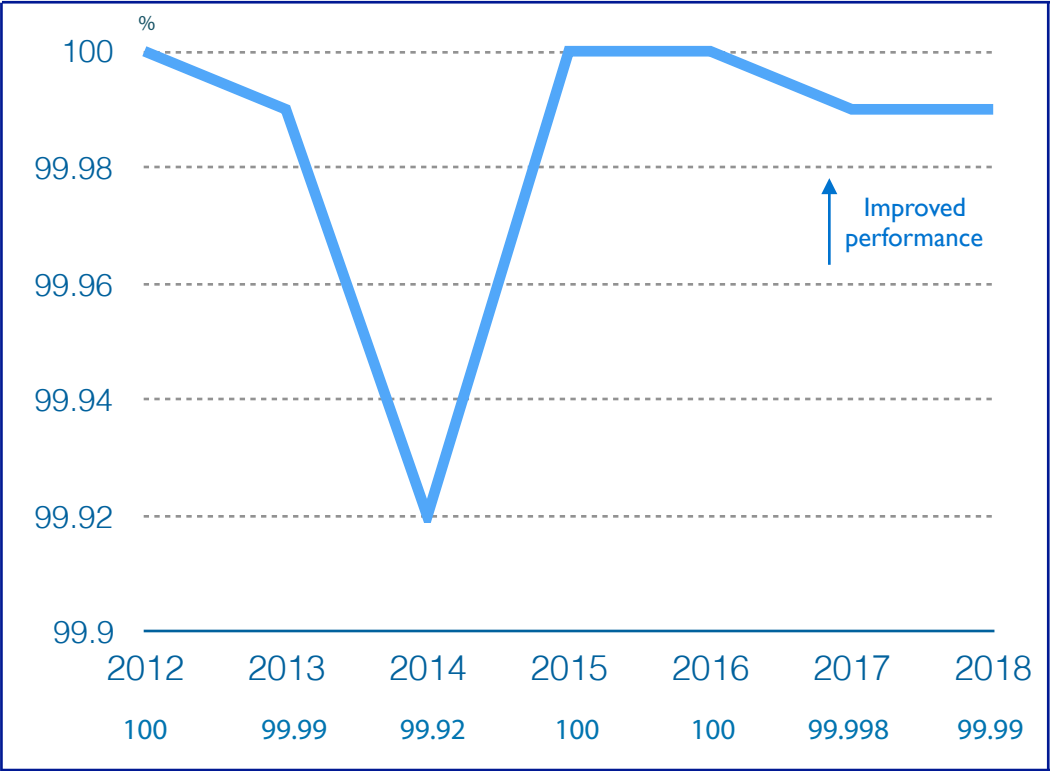
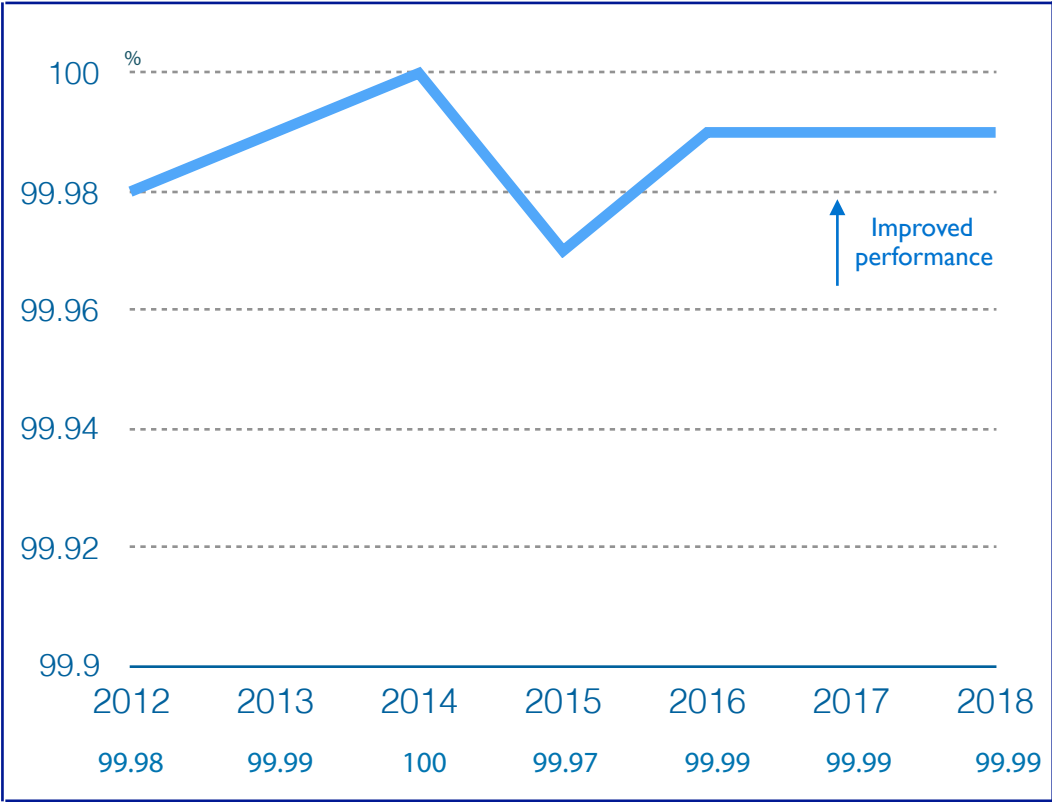| **Summary Performance:**	Performance against the measure was 99.99%, with only one sample (out of 11,751) failing to meet the required quality standard.
Customer Compensation	See measure on A1b (MZC) on page 11.
Definition:	The Process Control Index is based on a selection of parameters which are, in general terms, controlled by the process in place at Water Treatment Works. This measure is reported on a calendar year basis.

Process Control Index Industry Performance

Water & sewerage companies   Water only companies   2018

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2.5 – Disinfection Index

Key Performance Indicator

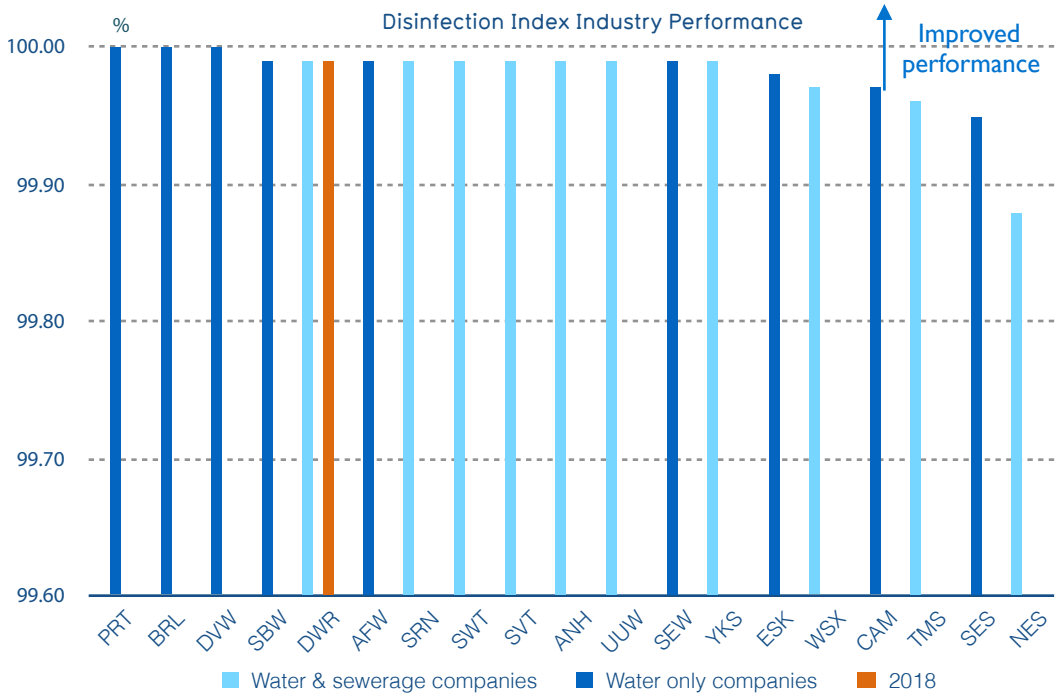| 2012	2013	2014	2015	2016	2017	2018
99.98	99.99	100	99.97	99.99	99.99	99.99

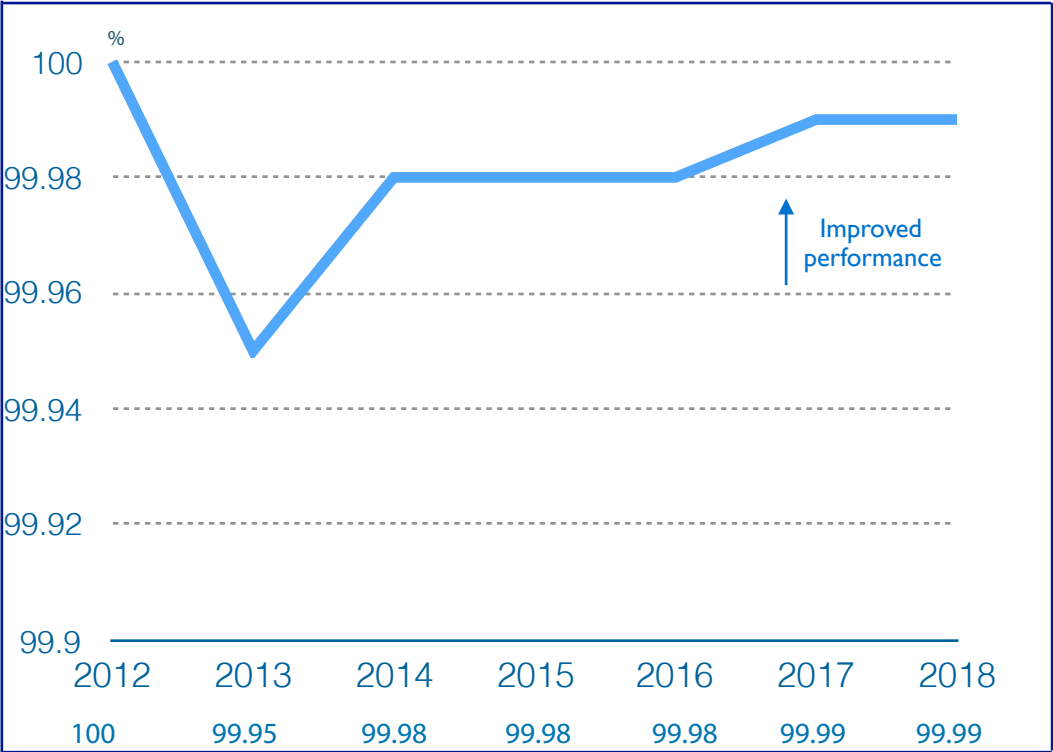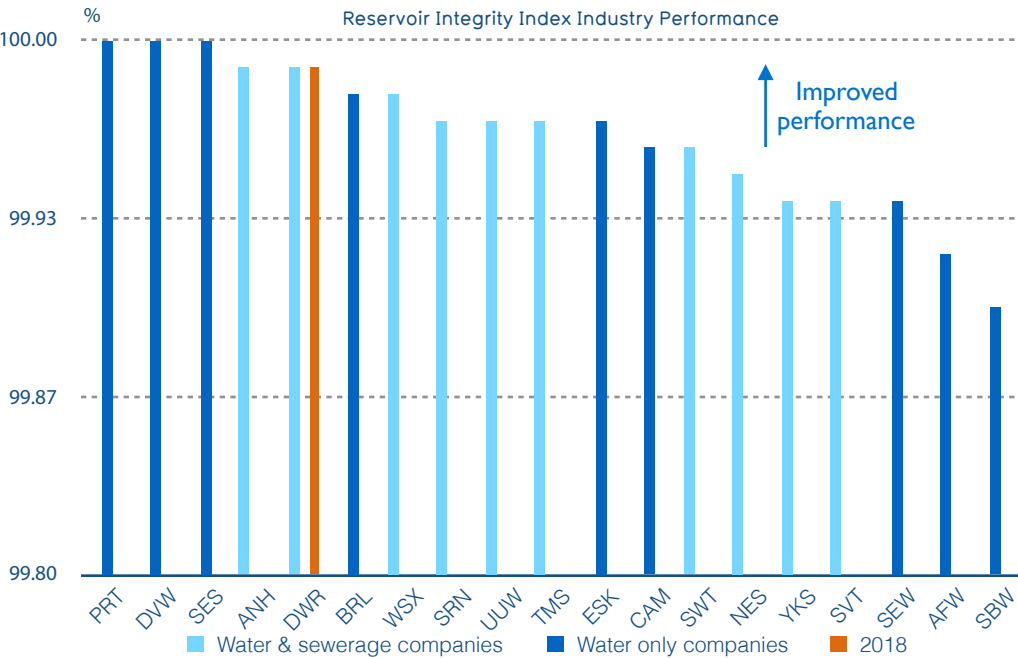| **Summary Performance:**	Performance against the measure was 99.99% of tests meeting the required quality standard. Last year's performance was 99.99%. There were 31,931 tests performed in the year with three test failures.
Customer Compensation	Not Applicable.
Definition:	The Disinfection Index is 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 coliform, E.coli and turbidity and measuring it against all test undertaken at works. This measure is reported on a calendar year basis.

Disinfection Index Industry Performance

Improved performance

■ Water & sewerage companies   ■ Water only companies   ■ 2018

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Source: Drinking Water Inspectorate - Annual Reports 2017

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2.5 – Reservoir Integrity Index

Key Performance Indicator

2012	2013	2014	2015	2016	2017	2018
100	99.95	99.98	99.98	99.98	99.99	99.99

Summary Performance:	Performance against the measure is 99.99%.
	There were 33,958 tests performed during the year, and there were three failures at three sites. Last year there were two failures at two sites.
Customer Compensation	Not Applicable.
Definition:	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.
	This measure is reported on a calendar year basis.

Reservoir Integrity Index Industry Performance

Water & sewerage companies · Water only companies · 2018

Source: Drinking Water Inspectorate - Annual Reports 2017

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3. Ofwat Summary Performance

Ofwat PR14 Outcome Performance Commitment and Outcome Delivery Incentive Base Data (Table 3A)

Wholesale Water	2017–18 Performance level – actual	2018–19 Performance level – actual	2018–19 PCL met?	2018–19 Outperformance payment or Underperformance payment – ODIs payable at the end of AMP6 (Indicator)	2018–19 Outperformance payment or underperformance payment – ODIs payable at the end of AMP6 (£mi to 4 dp)	31 March 2020 forecast total AMP6 Outperformance payment or underperformance payment (Indicator)	31 March 2020 forecast total AMP6 Outperformance payment or underperformance payment (£m to 4 dp)
A1b Safety of Drinking Water	99.96	99.97	No	Underperformance payment dead band		Underperformance payment deadband	
A2 Customer Acceptability	3.19	3.28	No	Underperformance payment	–1.8600	Underperformance payment	–5.5800
A3 Reliability of Supply	43.3	16.0	No	Underperformance payment	–0.7800	Underperformance payment	–4.6800
B1 Water Abstractions	100	100	Yes				
C2 Carbon Footprint (Water)	42.38	32.59	Yes				
D1 Service Incentive Mechanism	84.64	86.88	-				
D2 'At Risk' Customer Service	613	641	No				
D5 Earning the Trust of Customers	84	85	Yes				
E1 Affordable Bills	–2%	–2%	Yes				
F1 Asset Serviceability	Stable	Stable	Yes				
F2 Leakage	173	170	Yes				
F3 Asset Resilience (Water)	90	90	Yes				

3. Ofwat Summary Performance

Ofwat PR14 Outcome Performance Commitment and Outcome Delivery Incentive Base Data (Table 3A)

Wholesale Waste Water	2017–18 Performance level – actual	2018–19 Performance level – actual	2018–19 PCL met?	2018–19 Outperformance payment or Underperformance payment ODIs payable at the end of AMP6 (Indicator)	2018–19 Outperformance payment or underperformance payment – ODIs payable at the end of AMP6 (£mi to 4 dp)	31 March 2020 forecast total AMP6 Outperformance payment or underperformance payment (Indicator)	31 March 2020 forecast total AMP6 Outperformance payment or underperformance payment (£m to 4 dp)
B2 Treating used water	98.2	99.6	No				
B3 Preventing Pollution	112	118	Yes	Outperformance payment	0.6110	Outperformance payment	4.3240
C1 Adapting to Climate Change	15,097	15,967	No	underperformance payment deadband			
C2 Carbon Footprint (Wastewater)	55.51	52.43	No				
D1 Service Incentive Mechanism	84.64	86.88	-				
D2 'At Risk' Customer Service	613	641	No				
D3 Properties flooded within the year	221	221	Yes	Outperformance payment	1.6740	Outperformance payment	6.0140
D5 Earning the Trust of Customers	84	85	Yes				
E1 Affordable Bills	–2%	–2%	Yes				
F1 Asset Serviceability	Stable	Stable	Yes				
F3 Asset Resilience (Wastewater)	78	79	Yes				

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3. Ofwat Summary Performance

Ofwat PR14 Outcome Performance Commitment and Outcome Delivery Incentive Base Data (Table 3A)

	2017–18 Performance level – actual	2018–19 Performance level – actual	2018–19 PCL met?	2018–19 Outperformance payment or Underperformance payment ODIs payable at the end of AMP6 (Indicator)	2018–19 Outperformance payment or underperformance payment – ODIs payable at the end of AMP6 (£mi to 4 dp)	31 March 2020 forecast total AMP6 Outperformance payment or underperformance payment (Indicator)	31 March 2020 forecast total AMP6 Outperformance payment or underperformance payment (£m to 4 dp)
Household Retail							
D1 Service Incentive Mechanism	84.64	86.88	-				
D5 Earning the Trust of Customers	84	85	Yes				
E1 Affordable Bills	-2	-2	Yes				
E2 Help for Disadvantaged Customers	100,999	120,783	Yes				
Non-Household Retail							
D1 Service Incentive Mechanism	574*	559*	-				
D4 Business Customer Satisfaction	87	88	No	Underperformance payment deadband			
D5 Earning the Trust of Customers	84	85	Yes				
E1 Affordable Bills	–1%	1%	No				

* This is the number of non-household complaints received and not the overall SIM score, (as was reported in 2017-18 and 2018-19).

3B. Sub Measure Performance Table

PC/Sub-measure	Unit	Decimal Places	2017–18 Performance level – actual	2018–19 Performance level – actual	2018–19 PCL* met?
F1: Asset Serviceability – Water	category	na	Stable	Stable	Yes
Total Bursts	nr	0	4181	4270	Yes
Interruptions >12h	nr	0	19699	4446	No
Iron Non-Compliance (as 100 Mean Zonal Compliance)	%	2	0.34	0.34	Yes
DG2 Pressure	nr	0	99	103	Yes
Customer Contacts – Discolouration	nr	2	2.21	2.35	Yes
Distribution Index TIM (as 100 Mean Zonal Compliance)	%	2	99.84	99.87	Yes
Water Treatment Works Coliforms Non-Compliance	%	2	0.02	0.03	Yes
Service Reservoir Coliforms Non-Compliance	%	2	0.00	0.30	Yes
Turbidity	nr	0	0	0	Yes
Enforcement	nr	0	0	0	Yes
Unplanned Maintenance	nr	0	11129	12293	Yes

* PCL - Performance Committed Level

3B. Sub Measure Performance Table

PC/sub-measure	Unit	Decimal Places	2017–18 Performance level – actual	2018–19 Performance level – actual	2018–19 PCL* met?
F1: Asset Serviceability Wastewater	category	na	Stable	Stable	Yes
Sewer Collapses	nr	0	712	659	Yes
Pollution Incidents Category 1,2, & 3	nr	0	82	73	Yes
Properties Flooded due to Other Causes	nr	0	198	212	Yes
Properties Flooded due to Overload Sewers – ex severe weather	nr	0	23	9	Yes
Sewer Blockages	nr	0	22612	21979	Yes
Equipment Failures	nr	0	37	54	Yes
Sewage Treatment Works (STW) Non-Compliance	%	2	1.79	0.36	Yes
Population Equivalent (PE) Non-Compliance	%	2	4.45	0.00	Yes
Unplanned Maintenance	nr	0	32887	37280	No

* PCL - Performance Committed Level

3D. SIM Table

Qualitative Performance	Units	Decimal places	Score
1st Survey Score	nr	2	4.54
2nd Survey Score	nr	2	4.41
3rd Survey Score	nr	2	4.55
4th Survey Score	nr	2	4.71
Qualitative SIM Score (out of 75)	nr	2	66.61
Total Contact Score	nr	2	94.52
Quantitative SIM Score	nr	2	20.27
Total Annual SIM Score	nr	2	86.88

4. Assurance

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

Policies and Procedures

- Key processes and systems of control are documented and the quality of systems used for generating regulatory information are continually assessed. These processes have been followed to produce this Part 3 of the Annual 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 'data ownership'.
- Methodology Statements are in place for key measures reported in this part of the Annual Performance Report and these have been subjected to internal review within the year and assessment by the Reporter in previous years.
- As part of targeted due diligence, each Dŵr Cymru data owner was required to confirm that they had completed the relevant table in accordance with the relevant Methodology Statement. Any changes to the procedures are kept up to date and are published on the Dŵr Cymru intranet, Infozone.
- We have in place a policy document which outlines the formal process to be undertaken and, inter alia, the roles and responsibilities of key people including data owners, the Regulation Department, Dŵr Cymru Executive Directors (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 relevant data item has been clearly defined. Each individual was responsible for adhering to all appropriate guidance in the compilation of the data and providing associated commentary. This also involved formal 'sign off' by the individual, verifying that the data had been obtained from a recognised data source and had 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 was within an individual's personal knowledge, he or she was required to confirm that it was true or, where it was not within their personal knowledge, that appropriate enquiry had been made.
- Allocation of overall responsibility for individual data items and associated commentaries was assigned to the appropriate member of the Dŵr Cymru Executive Directors. Each was responsible for the review and 'sign off' of their own data items.
- A large proportion of the data processing is covered by our Internal Management System which has accreditation to various ISO standards.

Implementation and Internal Review

- Production of 'data item packs' by the Regulation Department ensured that all data owners had a single point of reference for all information necessary to undertake their specific responsibilities. These 'packs' included guidance on how to process the relevant data and populate tables, information on confidence grades and details of where to locate previous Reporter's reports. Methodology statements and training material were also included.
- All of the information included within the data packs (described above) was made available on the Infozone.
- Training sessions for data owners were held in March and April 2019, where the processes were fully explained, the importance of regulatory data being reliable and accurate highlighted.
- Regular communication between the Regulation Department and all data 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 Directors throughout the year.

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Assurance – (continued)

- A rigorous process of internal due diligence meetings was undertaken by the Regulation Department between the 8 April 2019 and the 15 May 2019, 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 Annual Performance Report and the individual data items and the relevant commentaries.
- The 'sign off' forms were endorsed by each data owner, the Leadership Team members (where relevant) and the responsible member of the Dŵr Cymru Executive Directors before the publication of the Annual Performance Report.
- A management review meeting of non-financial measures reported in the Annual Performance Report, involving the Dŵr Cymru Executive Directors, took place on 28 May 2019. This was also attended by the Reporter, a Business Assurance team member and data owners, where relevant. For each measure, a summary containing current year's performance, historical performance and data owner and reporter issues was produced and formed the basis of the discussions. Material issues were highlighted and discussed.

External Review and Board Engagement

- The Reporter carried out a formal review and certification of all non–financial measures and provided a detailed report commenting on compliance with reporting requirements and highlighted any issues with the reported figures.
- On 22 January 2019, the Dŵr Cymru Executive Directors gave delegated authority to the Director of Strategy and Regulation, to approve the publication of the Final Assurance Plan. Approval was given and the Final Assurance Plan was published in March 2019.
- The Audit Committee also received papers to meetings on the 8 November 2018 and the 30 January 2019 detailing the processes in place. Further progress updates were provided to the Audit Committee meetings on the 5 June 2019 (ahead of the full Board review on the 4 July 2019).
- As part of the external review of data, the Reporter also reviewed performance against the PR14 Final Determination Outcomes and Measures of Success. The Reporter also attended the Dŵr Cymru Executive Directors meeting on the 28 May 2019, the Audit Committee meeting on the 5 June 2019 (where they provided verbal updates) and the Board meeting on 4 July 2019.
- 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 in May 2019 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".
- The Board meeting on 4 July 2019 reviewed the overall process, the operation of the systems of internal and external controls and reviewed the key judgements required in compiling the Annual Performance Report.
- Some of our key stakeholders (e.g. Natural Resources Wales, the Drinking Water Inspectorate and CCWater) also carry out audits and scrutiny of our data.

25 June 2019

Attention: The Board
DCWW
Pentwyn Road
Nelson
Treharris
Mid Glamorgan
CF46 6LY

Project Name: Dŵr Cymru Welsh Water (DCWW) non-financial assurance
Project Number: B2271301

Subject: 2018-19 Annual Performance Report - assurance letter

To the Board

DCWW has been promoted to self-assured status by Ofwat through its recent Company Monitoring Framework assessment. We are pleased your good work on assurance has been recognised and earned you this promotion. We look forward to continuing to work with you to retain the trust and confidence of your customers and stakeholders and to maintain and further enhance your assurance status.

For the period 2015-20 (AMP6) Ofwat requires companies to complete an Annual Performance Report (APR). Through IN 19/03, Ofwat expanded the scope of the APR (as it has throughout AMP6) to incorporate additional cost and non-cost data in section 4 and Common PCs in APR table 3S.

As your technical assurance partner, you asked us to undertake a risk-based review of the following:

- **Measures of Success (MoS) –** We reviewed the 2018-19 full year reported performance for the MoS set out in your Final Determination (FD). We also reviewed your internal key performance indicators (KPIs) that do not form part of your FD, your Guaranteed Standards Scheme (GSS) payments and information provided to Discover Water and CCWater.

- **APR section 4 cost assessment tables –** We reviewed the 2018-19 data your teams proposed to report in Section 4 of the APR. Where available we checked consistency of your teams' internal commentaries with the data we saw and checked whether they contained any obviously misleading or false statements.

In addition to the annual activities summarised above, we also completed a review of:

- common PC shadow reporting;
- the process and controls used to produce your Risk and Compliance statement;
- the Bioresources market information submission tables; and
- the PR14 reconciliation.

As requested for these four areas we have provided our observations in separate letters.

We note you did not ask us to review any reporting documentation or processes (stages 1-2 of our 3-stage approach) in relation to 2018-19 reporting but did ask us to undertake early engagement on:

- Leakage;
- the four areas where we identified material data concerns during 2017-18; and
- reporting processes for your proposed PR19 MoS.

We note that when reviewing your performance figures, we took a risk-based approach (via sampling) to the completeness, reliability and accuracy of the source data that the MoS, KPI or APR Section 4 CAT line draws on, the robustness of the reported performance figure and the appropriateness of the confidence grade the team had assigned to the data. After each data audit we provided you with detailed feedback that explained our assessment of the risk associated with the reported performance figure including setting out any material and/or non-material actions.

For APR Section 4 CATs we met with your teams to review proposed data for sets of lines that were produced using the same process (e.g. 4P.61-62, which cover potable mains relining and renewal). As agreed, our focus was on 2018-19 data, and we did not audit prior year figures unless stated otherwise in our audit feedback.

Overall, for the data we covered, other than where indicated in our feedback, we consider:

- all individuals within the approval process have signed-off the data;
- data is competently sourced, processed and fit for purpose;
- any rewards/penalties are calculated in line with FD requirements[1]; and your teams' internal commentaries were consistent with the data we saw at the time of reviewing them and did not contain any obviously false or misleading statements in relation to that data.

Observations

Overall, since we have been working with you, we have seen a steady improvement in data – evidenced by being promoted to self-assured status. Our risk-based assurance approach is designed to support your own first and second line assurance and your due diligence process. During our 2018-19 full year data assurance exercise, however, we did identify a limited number of potentially material issues across your MoS; supporting sub-components; KPIs and APR Section 4 CAT lines. In keeping with being a self-assured company, you worked constructively to address them prior to year end reporting.

Figure 1 below summarises the distribution of final data scores across your MoS; supporting sub-components; KPIs and APR Section 4 CAT lines that we reviewed for 2018-19.

Figure 1 Distribution of 2018-19 data scores

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[1] We have reviewed the mechanistic calculation of rewards/penalties pre adjustments for price base, tax and any management adjustments.

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As can be seen in Figure 1 all of the MoS and CAT figures for 2018-19 that we reviewed were graded A or B, indicating that there are no material weaknesses in the production of the data and that the confidence grade is appropriate. The reported data for these lines therefore presents a low or low to medium level of reporting risk.

However, at the time of reporting to the DCWW Executive Team on 28th May there were seven areas where we identified potential material data issues with an MoS or APR section 4 CAT line during our 2018-19 assurance. Your teams have worked hard to resolve these for your 2018-19 reporting and we are able to confirm that they have satisfactorily addressed all of the material actions. We briefly discuss the issues and how you have addressed them in Table 1 below.

Table 1 MoS or APR Section 4 Cost Assessment Lines where we identified potentially material issues with the proposed data

Measure of Success	Material issue(s) or minor issues with a material effect as at 28th May 2019	Material issue(s) or minor issues with a material effect as at 21st June 2019
D2 (part C)	**At risk – odour** We have material concerns that the team is unable to identify specific odour related complaints. There is a mismatch between the expected pattern of complaints and the figures being reported i.e. more complaints received in winter than summer. We note the team is using a different process to report performance than used in 2017/18.	**Resolved** Concerns with the dataset used for this measure and 4U.21 (below) that we raised during the initial audit have been resolved. The team resolved errors in the dataset and was able to confirm that this did not impact on the reporting of this measure and that the original figure presented for audit remained the same.
C1	**Responding to climate change** The team was unable to demonstrate the impermeable areas being claimed for two schemes in the audit. Following further review the reported performance for the year was reduced. The team has provided more information to support the revised figure but we remain concerned that there are weaknesses in the method used to calculate the impermeable areas.	**Resolved** Your team was able to satisfactorily demonstrate the basis of the rooftop equivalents claimed for the schemes that we originally sampled during a follow up audit. This was aided by the attendance of SMEs from Sweco and Arup at the re-audit.
G2	**Competency for role** (note that this is an internal MoS and is not reported in the APR) Although there were no errors identified during our audit, the process relies on significant level of manual processing of information and there is an absence of effective first and second line assurance.	**Resolved** During a focussed re-audit your team was able to demonstrate significant process improvements and that it had completed all the material actions we identified. The performance figure changed but we consider it to be more robust in the round.
APR Section 4 table/lines	**Material issue(s) or minor issues with a material effect**	
4U.21	**Number of odour related complaints** See D2 above.	**Resolved** Concerns with the dataset used for this measure and D2 part C (above) that we raised during the initial audit have been resolved. The team resolved errors in the dataset in conjunction with SMEs from Customer Services and IT and as a result revised the reported figure.
4Q.29	**Event Risk Index** The team stated that the DWI score is provisional and does not account for a September event that could	**Resolved** The team now propose to submit the provisional DWI figure.

	contribute to the figure, nor does it take account of freeze/thaw event(s). The team's own ERI calculation results in a score >50% different to that issued by DWI. Where the team has seen DWI event-level scores these are not materially different to its own and therefore the source of the discrepancy is unclear. In addition DWI is also yet to take a decision on freeze/thaw and, should this be included, the team have calculated that this could change the reported performance by a magnitude of 50.	They will continue to work to understand the difference in calculated numbers to assist with accurate internal tracking of performance. Similarly, for the Compliance Risk Index the figure provided by DWI to your team is not consistent with the figure your team has calculated albeit the difference is immaterial and does not feature once rounded. Your team will also work to align approaches and identify the source of the variation for the CRI.
4P.20, 22	**Nr and capacity of intake and source pumping stations** The team only includes boreholes, intakes and impounding reservoirs that have a pump associated in SAP. However if pumps are in situ but not recorded in SAP then these stations and their output are being omitted. Also the team is taking the capacity from some pumps that may not fit the criteria for inclusion for this measure e.g. sampling pumps.	**Resolved** The team has met with relevant area managers to investigate all intake and source pumping stations. It has manually revised the submission figures for 2018-19 reporting and taken on board our feedback. The team is continuing its SAP data improvements for future reporting including to reduce reliance on data infilling.
4P.21, 23	**Nr and capacity of raw water transport stations** A number of pumps were described as 'river intake' in the 'MO survey' column in SAP, contradictory to primary data column description of 'transfer' used for reporting these data lines. The team stated that the data in the 'MO survey' column came from a previous and now redundant system and was not valid, but this assumption needs verifying. Also the team is taking the capacity from some pumps that may not fit the criteria for inclusion for this measure e.g. sampling pumps	**Resolved** The team has met with relevant area managers to investigate all raw water transport pumping stations. It has manually revised the submission figures for 2018-19 reporting and taken on board our feedback. The team is continuing its SAP data improvements for future reporting including to reduce reliance on data infilling.

Overall, we consider we have worked constructively to identify key reporting risks and issues associated with the PC and APR section 4 CAT figures you propose to report. In addition to the material observations above, we also note the following general observations from our review of your 2018-19 data including for your internal KPIs. We provided more detailed feedback to your teams after each audit.

- We continue to observe the value of your due diligence process and you have taken on board our feedback from last year. We saw you have enhanced your process to include confirmation that checks and controls have been done and that figures have been signed off by managers. We note that the vast majority of your teams are able to describe their checking processes in detail, but we recommend that teams develop auditable checking processes e.g. control sheets that record names, dates, issues found and resolutions as part of your ongoing improvements.

- As noted our risk-based assurance approach is designed to support your own first and second line assurance and during our reviews we did identify a limited number of potentially material issues which were subsequently resolved. Overall though, we observed improvements from 2017-18. For example, across the bioresources tables where last year we identified a failure of first and second line checks, we found this data to be closer to 'right first time' with fewer changes made during our 2018-19 review. However, we did observe some instances of transposition; rounding; and normalisation errors which were simply rectified. This was generally with newer teams that were less familiar with the APR submission tables.

- Ofwat has not requested companies assign confidence grades to the APR Section 4 CAT data for 2018-19. Consistent with last year, you have encouraged teams to assign confidence grades to data as best practice and we observed that the vast majority of teams had done this, and that these were generally appropriate. We have identified some areas where, although the confidence grade is appropriate for the specific data item(s), we would expect confidence to be higher given the information being reported and Ofwat's minimum expectations set out in 2016-17.

- In some cases where we identified exceptions during our data sampling, teams were able to make corrections during the audit (e.g. 4A.3-4 and 4R.23-25, 28-30). Where this is the case, we have noted this in our feedback, and our assessments reflect the final position at the end of the audit. We also note some instances where your teams were able to satisfactorily address material actions post audit and we updated our original assessments (e.g. MoS SV WWNI unplanned maintenance and lines 4R.14-15).

- For lines 4R.14-15 (length of gravity sewers rehabilitated and rising mains replaced/refurbished) we note there continues to be a mismatch between the actual length of sewer repaired and the length claimed (the entire manhole to manhole length is claimed for the section on which defects are repaired). We understand your approach is consistent with previous reporting practice and that you intend to be transparent on your approach in the commentary you will submit to Ofwat.

- During audits we were generally able to trace data back to corporate systems without identifying issues. However, for some areas it was difficult to trace back to source. For example, during the 4E.25 'sewage treatment and disposal' audit, we were shown trade effluent and metered commercial data the team had received from the Cost Intelligence Analyst but could not trace this data back to the billing system from which it is derived. For the financial tables that we reviewed, as agreed we traced data back to table 4D and 4E.

- In line with your approach last year, you are recording restitution costs you incur and compensation payments you make (including potentially GSS payments), with a view to offsetting them against any potential penalties at PR19 (to avoid 'double jeopardy'). In your FD, Ofwat accepted your position on double jeopardy in principle but noted that it expects you to clearly explain why an incentive should not apply in the event that you felt double jeopardy had occurred. We note that you have been transparent in previous years and we recommend that you continue to be transparent on how your rewards and penalties are calculated. We note there is risk with this approach and that this risk is greater where there is not direct alignment between GSS payment groups and MoS. For 2018-19 we understand that you have grouped costs associated with low pressure and water flood damage to MoS D1 Service Incentive Mechanism as the most appropriate MoS.

- Across each of the stages of our assurance approach we note there remains scope for your teams to further reduce reporting risk. For example, we continued to observe that for F1 serviceability – wastewater equipment failures, your teams rely on a small number of SAP reports to extract information that then requires a number of additional stages of analysis to arrive at final reported figures.

After the audits we provided detailed feedback to your teams setting out material and non-material actions to reduce the reporting risk associated with your submission.

Conclusion

Overall, since we have been working with you, we have seen a steady improvement in data, evidenced by your being promoted to self-assured status, and for this year we consider that you have maintained a robust level of reporting.

We worked constructively together to identify key reporting risks and issues associated with the MoS, KPIs and APR Section 4 CATs that fell within the scope of our assurance. We have been helped by the open, co-operative and committed attitude of your teams.

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During the course of our audits we identified a number of issues that had a material impact on the reported figures. Following our feedback your teams were able to satisfactorily address all of these.

Therefore, for all measures and lines that we audited, we identified no material issues and all 2018-19 figures were graded A or B, indicating that there are no material weaknesses in the production of the data and that the confidence grade is appropriate. The reported data for these measures and lines therefore presents a low or low to medium level of reporting risk.

As noted in our findings we have identified areas for improvement which will ultimately help reduce your overall reporting risk. In keeping with being a self-assured company, you are working constructively to address them. For 2019-20 we look forward to continuing to build on the constructive work we have done together as you further strengthen your reporting and continue your ongoing improvement plans for future years.

Overall, for the data we covered, and other than where indicated in our feedback, we consider:

- all individuals within the approval process have signed-off the data;
- data is competently sourced, processed and fit for purpose;
- any rewards/penalties are calculated in line with FD requirements[2]; and
- your teams' internal commentaries were consistent with the data we saw at the time of reviewing them and did not contain any obviously false or misleading statements in relation to that data.

Yours sincerely

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[2] We have reviewed the mechanistic calculation of rewards/penalties pre adjustments for price base, tax and any management adjustments.