

PR14 Reconciliation Rulebook

Early submission

Supporting document

Including tables and line commentaries

July 2018



The proposed adjustment to the revenue requirement at PR19 and the midnight adjustment to the RCV is shown in Table 1 below.

Table 1: High level summary of submission £m (2017/18 prices)

<u>Revenue Adjustment</u>	Water (£m)	Waste (£m)	Retail (£m)	Total (£m)
Close out of PR09 (2014/15)	(11.3)	(1.0)	-	(12.3)
2015-20 Totex	23.4	(8.3)	-	15.2
Outcome Delivery Incentive	(10.9)	12.0	-	1.1
Wholesale Revenue	(2.5)	1.9	-	(0.6)
Retail Revenue	-	-	4.4	4.4
Water Trading	-	-	-	-
Total Revenue Adjustment	(1.2)	4.6	4.4	7.7

<u>RCV Midnight Adjustment</u>	Water (£m)	Waste (£m)	Retail (£m)	Total (£m)
Close out of PR09 (2014/15)	36.9	8.4		45.9
PR09 CIS error correction	(34.4)	(38.5)		(73.5)
Outcome Delivery Incentive	-	-		-
2015-20 Totex	41.2	(23.2)		18.0
Land Sales	(0.3)	(0.1)		(0.5)
Total RCV Adjustment	43.5	(53.6)	-	(10.1)

Statement of Board Assurance

Early submission – PR14 Reconciliation Rulebook for PR19

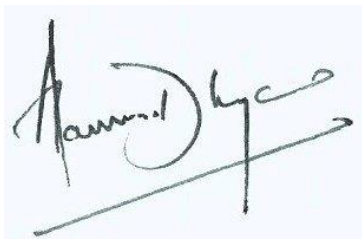
The Board has considered the early submission of the Reconciliation Rulebook at its meeting held on 5th July 2018. The Board considered relevant supporting materials and made appropriate enquiries of the Executive Team, in particular the Regulation and Strategy Director, and of Jacobs (Nigel Sanders) who had been engaged to provide independent assurance and a review of our approach, and the information and data that supports the assumptions used in the submission.

Having made reasonable and relevant enquiries the Board is able to confirm that it supports the submission.

We can confirm that appropriate steps have been taken to ensure that the information on which the document is based is accurate within reasonable levels of tolerance. The tables and the required additional information have been prepared and delivered under the direction of experienced staff, using appropriate processes and internal systems of control and has accordingly been prepared to a standard that could be reasonably expected of a diligent company. The assurance process was approved by the Audit Committee on 6th June 2018.

Having regard to the information requirements in the document 'Delivering Water 2020: Our final methodology for the 2019 price review' issued by the Water Services Regulation Authority on 15 December 2017 and subsequent PR19 final methodology queries and answers the Board has satisfied itself that our submitted models and the information provided in this document have been compiled in accordance with these requirements.

This supporting document is published with the models and data tables and contains the proposed PR19 adjustments, information and commentary as required. It sets out the accuracy of the data tables and supporting information and exposes material assumptions.

A handwritten signature in black ink, appearing to read 'Alastair Lyons', with a long horizontal stroke extending from the bottom right.

Alastair Lyons
Chairman
On behalf of the Board
15 July 2018

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1 Methodology

1.1 Purpose

The PR14 Reconciliation Rulebook submission comprises of the following documents:

1. **PR19 Business plan tables** “PR19-Business-plan-data-tables-June 2018- WSH.xlsx” using the company specific tables published on 25th June 2018;
2. **Totex Reconciliation Model** “Totex-Menu-2016-05-17-change-log-removed WSH.xlsx”;
3. **WRFIM Model** “WRFIM-June-2018-update WSH.xlsx”;
4. **Retail Reconciliation** “pap_tec20160216hhrecon WSH.xlsx”
5. **Revenue Feeder Model** “PR19-Revenue-adjustments-feeder-model-June-2018-update WSH.xlsm”
6. **RCV Feeder model** “PR19-RCV-adjustment-feeder-model-June-2018-update WSH.xlsm”; and
7. This supporting document which contains the Board Assurance Statement, independent assurance report, relevant business plan tables and line commentaries and sets out the procedures used to complete the submission.

1.2 Background

In July 2017 Ofwat published “Delivering Water 2020: Consulting on our methodology for the 2019 price review”. The document sets out the expectation of companies to publish their populated PR14 reconciliation models, along with explanations, in July 2018 with the regulatory accounting reporting. This expectation is also reflected in the Water 2020 final methodology published in December 2017, IN 18/07 “Expectation for monopoly company annual performance reporting 2017-18” and confirmed in the RD letter “PR19 – business plan tables, data capture system and financial models” published on 25 June 2018.

At PR14 Ofwat introduced a series of incentive mechanisms that will be reconciled at PR19. The PR14 reconciliation rulebook outlines how the performance in 2015-20 will be taken into account at PR19. An update of the PR14 reconciliation rulebook was published in December 2017.

The reconciliation rulebook also outlines how the PR09 legacy mechanisms will be closed out at PR19 and the treatment of the PR19 uncertainty mechanism. In December 2017 Ofwat published their early view of the reconciliations for the 2010-15 period in “Updated 2010-15 reconciliation”. Our submission does comment on the PR09 legacy mechanisms, these are reported in App25 of the PR19 business plan tables. Uncertainty Mechanisms does not apply as no IDoK has been undertaken during the period.

1.3 Structure

This document outlines each of the PR14 reconciliation mechanisms and tables required for the submission.

Section 2- ODI Reconciliation

This section provides an overview of our MOS performance including any rewards and penalties. This section covers App5, App6 and App27 tables of the PR19 Business Plan Tables.

Section 3- Totex Menu Reconciliation

This section provides an overview of the totex reconciliation and provides commentary on the difference in the expenditure compared to the final determination. This section covers tables WS15 and WWS15 of the PR19 Business Plan Tables.

Section 4- Wholesale Revenue Forecasting Incentive Mechanism

This section provides an overview of the Wholesale Revenue Forecasting Incentive Mechanism (WRFIM). This section covers tables WS13 and WWS13 of the PR19 Business Plan Tables.

Section 5- Household Retail Reconciliation

This section provides an overview of the Household Retail Reconciliation and covers table R9 of the PR19 Business Plan Tables.

Section 6- Water Trading

This section provides an overview of the PR14 Water Trading incentive and covers table WS17 of the PR19 Business Plan Tables.

Section 7- Land Disposals

This section provides an overview of Land Disposals from 2015-2020 and covers the business plan table App 9

Section 8- Past performance

This section provides an overview of our past performance on complaints, major incidents and compliance with obligations agreed with our quality regulators. This covers App31 of the PR19 business plan tables.

Section 9- Service Incentive Mechanism

This section provides an overview of the service incentive mechanism and covers R10 of the PR19 Business Plan Tables.

Section 10- Inflation Forecasts

This section provides an overview of our inflation assumptions and covers App23 of the PR19 Business Plan Tables.

Appendix A- Independent Assurance Report

This section includes the Independent Assurance report and an overview of our assurance process.

Appendix B- Tables and commentaries

This section includes all of the tables and commentaries to support the PR14 Reconciliation Rulebook Submission

Appendix C- ODI Calculation

This section provides an overview of the calculation of our Outcome Delivery Incentives (ODIs)

Appendix D- Complaints

This section provides a detail overview of the complaints opened or investigated by CCWater, Ofwat or WATRS reported in App31.

Appendix E- Category 1-2 Pollution Incidents

This section provides a detail overview of the category 1-2 pollution incidents reported in App31.

Appendix F- Prosecutions, Enforcement undertakings and formal cautions

This section provides a detail overview of the prosecutions, enforcement undertakings and formal cautions

Appendix G- PR14 Reconciliation for Commitment Schemes in AMP6

This section provides an overview of our commitment schemes in AMP6.

Appendix H- Changes to pre-populated data

This section provides an overview of the changes that have been made to the pre-populated data from PR19 Business Plan Tables published in June 2018.

2 MOS and ODI Reconciliation

Our performance for 2015/16 to 2019/20 is measured against 31 Measures of Success (MOS). 16 of our MOSs have Outcome Delivery Incentives (ODIs) associated with them. The ODI reconciliation calculates the rewards and penalties based on companies' actual performance over the five years from 1 April 2015. The ODI model published with the PR14 Reconciliation Rulebook has not been used following the guidance in the Water2020 Final methodology. App5, App6 and App27 have been submitted for the ODIs.

- App5 reports the forecast performance for 2018/19 and 2019/20 for the PR14 reconciliation performance commitments.
- App6 reports the forecast performance for 2018/19 and 2019/20 for PR14 reconciliation- sub-measures.
- App27 reports the ODI revenue and RCV adjustments for 2015/16 to 2019/20.

Performance Overview

At PR14 we had 31 Measures of Success, the table below reports the number of MOS targets that were met. This table does not include our 4 MOSs for SIM. In 2015/16, 2016/17, 2018/19 and 2019/20 we met or exceeded our target for over 88% of our MOSs and over 77% in 2017/18.

	2015/16	2016/17	2017/18	2018/19	2019/20
Number of Performance Targets met	24	24	21	24	24
Number of Performance Targets not met	3	3	6	3	3
Total MOSs	27	27	27	27	27

The 4 MOSs related to SIM are relative measures and our performance commitment is to be in the top quartile. Our performance in 2015/16 and 2016/17 was 9th and 13th in the industry. Our targeted performance for 2018/19 and 2019/20 is to be top quartile.

Detailed commentary is provided below for the 4 measures of success where we have or forecast to incur rewards and penalties in the AMP. Based on our past, and forecast performance, we do not forecast that we will incur a penalty or reward against the other 12 ODIs. Full details of our performance against each of these measures is included in Appendix C and part three of our Annual Performance Report each year.

Outcome Delivery Incentives (ODIs)

Our forecast performance is for an aggregate ODI reward adjustment of £1.1m (2017/18 prices) over the AMP. All of our ODIs are claimed at end of the AMP and the amount claimed is in line with the Final Determination methodology. The PR19 final methodology highlights that revenue adjustments should be applied to the water network plus and wastewater network plus controls, except where it is clear that a specific outcome delivery incentive is wholly attributed to water resources or bioresources or retail. The allocation of the revenue adjustments are outlined in App5.

Table 2.1- ODI adjustment

		2015/16	2016/17	2017/18	2018/19	2019/20	Total	ODI Revenue Adjustment (2017/18 Prices)
Water Resources	£m	-	-	-	-	-	-	-
Water Network Plus	£m	-	-	(5.8)	(1.9)	(1.9)	(9.5)	(10.9)
Wastewater Network Plus	£m	1.0	2.8	2.4	2.5	1.8	10.4	12.0
Bioresources	£m	-	-	-	-	-	-	-
Residential Retail	£m	-	-	-	-	-	-	-
Business Retail	£m	-	-	-	-	-	-	-
Total Net Revenue Adjustments	£m	1.0	2.8	(3.4)	0.6	(0.0)	1.0	1.1

Water Network Plus

The ODI penalty for 2017/18 and forecast penalty for 2018/19 and 2019/20 is for performance commitments A2: Customer Acceptability and A3: Interruptions to supply.

A2: Customer Acceptability

Our PR14 final determination performance commitment and current and forecast performance for customer acceptability is summarised in table 2.2. The table also reports the calculation of the ODI penalty.

Table 2.2- A2: Customer Acceptability

A2 - Customer Acceptability					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	2.54	1.89	1.23	1.23	1.23
Actual/Forecast performance level	3.08	3.2	3.19	2.9	2.75
Performance commitment level met	No	No	No	No	No
Penalty Deadband	3.2	3.2	1.23	1.23	1.23
Penalty Collar	3.4	3.4	1.43	1.43	1.43
ODI rate	£0.093m per 0.01 contacts per 1000 population (Max £1.86m in penalty or reward per annum)				
Underperformance Penalty	£0 (actual performance is above the penalty deadband)	£0 (actual performance is above the penalty deadband)	= 1.43 (Penalty collar) - 1.23 (Penalty Deadband) = 20 @ 0.093 = £1.8600m Maximum penalty as actual performance of 3.19 is above penalty collar)	= 1.43 (Penalty collar) - 1.23 (Penalty Deadband) = 20 @ 0.093 = £1.8600m Maximum penalty as forecast performance of 2.90 is above penalty collar)	= 1.43 (Penalty collar) -1.23 (Penalty Deadband) = 20 @ 0.093 = £1.8600m Maximum penalty as forecast performance of 2.75 is above penalty collar)

Our performance on customer acceptability contacts has and is forecast to be higher than our performance commitment level. Within the first two years our contacts were higher than our performance commitment level, however we were within the penalty deadband. Our penalty deadband is lower in 2017/18 and as a result we incurred the maximum penalty of £1.86m.

Significant investment is being undertaken to improve our performance over the AMP. Our forecast for 2018/19 and 2019/20 is an improvement on the current performance, however our forecast performance will still result a penalty of £1.86m per annum. We are undertaking several initiatives aimed at driving improvement in performance, these include:

- Zonal studies which target investment into cleansing and replacing those pipes that give rise to discolouration contacts, of which the majority are cast iron mains;
- Proactively tackling the impact of third parties' interference. This includes initiatives such as locking down hydrants (6,500 to date) and replacing warning signs on this apparatus, where appropriate;
- Adopting innovative solutions - there are currently 44 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.

Restated Data

Our performance for customer acceptability in 2015/16 has been restated from 2.91 originally reported in our Annual Performance Report to 3.08. The original value for 2015/16 was calculated excluding contacts that relate to issues due to the customers' own pipework. During the course of the audit the reporter asked for clarification of the definition. Whilst the reporter supported how we were applying the definition they did recommend making the definition more explicit. Subsequently Ofwat confirmed that our MOS should remain the same as the DWI reporting and include those contacts from customers where the issue related to their own pipework. The restated value of 3.08 includes these contacts.

The re-stated performance level was reported in our 2016/17 APR, this has been shared with key stakeholders including our CCG and placed on our external website for all customers and stakeholders to view. The restated data has the same level of assurance as all of the MOS data in the APR. The restated data has no impact on the rewards and penalties as the performance remained within the penalty deadband.

Further details about our historic performance can be found in our Annual Performance Report.

A3: Water Supply Interruptions

Our PR14 final determination performance commitment and current and forecast performance for customer acceptability is summarised in table 2.3

Table 2.3- A3: Reliability of Supply

A3 - Reliability of Supply					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	36	24	12	12	12
Actual/Forecast performance level	21.7	12.2	43.3	12	12
Performance commitment level met	Yes	Yes	No	Yes	Yes
Penalty Deadband	48	48	12	12	12
Penalty Collar	68	68	32	32	32
Reward Deadband	12	12	12	12	12
Reward Cap	0	0	0	0	0
ODI rate	£0.195m per minute (Max Reward £2.34m pa "in the year". Max Penalty £3.9m pa "in the year")				
Penalty/Reward	£0	£0	= 32 (Penalty collar) - 12(Penalty Deadband) = 20 @ 0.195 = £3.9m Maximum penalty as actual performance of 43.3 is above penalty collar)	£0 (forecast performance sits at the reward and penalty deadband)	£0 (forecast performance sits at the reward and penalty deadband)

The performance commitment for reliability of supply was achieved in the first two years of the AMP. Our performance significantly improved in 2016/17 due to improved operational practices, including improved planning and delivery of work through the use of non-disruptive techniques. This level of performance is forecast to continue for 2018/19 and 2019/20. In 2017/18 water supply interruptions increased from 12.2 minutes to 43.3 minutes due to the challenging weather conditions in March 2018. If this severe weather incident had not occurred, our performance would have been around 15 customer minutes lost. Further information on our historical performance can be found in our annual performance report. We forecast that our performance in the final two years of the AMP will be 12 minutes lost. This performance will not incur any rewards or penalties. To meet our target we continue to focus 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;
- Mobilisation 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
- The zonal study investment programme will address the high burst frequency on our mains ensuring that the investment is targeted in those areas where the risk of interruptions is greatest.

Wastewater Network Plus

The forecast ODI outperformance for Wastewater network plus is associated with B3: Pollution incidents and D3: Properties flooded in the year.

B3: Pollution Incidents

Our PR14 final determination performance commitment and current and forecast performance for pollution incidents is summarised in table 2.4.

Table 2.4- B3: Preventing Pollution

B3 - Preventing Pollutions					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	161	154	131	131	131
Actual/Forecast performance level	110	111	112	113	112
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Reward Deadband	131	131	131	131	131
Reward Collar	106	106	106	106	106
ODI rate	Penalty - £0.400m per incident (Max 10m pa) Reward £0.047m per incident (Max of £1.175m pa)				
Outperformance payment	= 131 (deadband) - 110 (Actual performance) = 21 * 0.047 = £0.987m	= 131 (deadband) - 111 (Actual performance) = 20 * 0.047 = £0.94m	= 131 (deadband) - 112 (Actual performance) = 19 * 0.047 = £0.893m	= 131 (deadband) - 113 (forecast performance) = 18 * 0.047 = £0.8460m	= 131 (deadband) - 112 (forecast performance) = 19 * 0.047 = £0.8930m

Our performance on pollution incidents has exceeded our performance commitment level for the first 3 years of the AMP. We forecast that for the remaining two years of the AMP we will again outperform against our targets, as a result we should achieve rewards of £0.846m in 2018/19 and £0.893m in 2019/20.

Planned Improvements

We have put 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 allowing us to respond swiftly to operational incidents and take preventative measures;
- A Water Pollution Improvement Plan has been developed. The outputs include a review of silt mitigation measures employed on site, updates to the Emergency Response plans and environmental awareness sessions;
- Pressure and condition monitoring to provide early warning of rising mains bursts, allowing us to respond rapidly 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.

D3: Properties Flooded in the Year

Our PR14 final determination performance commitment and current and forecast performance for properties flooded in the year is summarised in table 2.5

Table 2.5- D3: Internal Sewer Flooding

D3 - Internal Sewer Flooding					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	310	300	292	282	269
Actual/Forecast performance level	223	242	221	223	222
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Reward Deadband	271	263	256	248	238
Reward Cap	232	226	221	215	207
ODI rate	Reward £0.062m per property, Penalty £0.161m per property (Average performance over two year period in order to smooth the effects of weather variability)				
Outperformance payment	£0 (No reward or Penalty applicable in the year as it is the average performance for two years)	$= 263 \text{ (deadband)}$ $- (223 + 242) / 2$ $= 233 \text{ (Actual performance)}$ $= 30 * 0.062$ $= £1.86\text{m}$	$= 256 \text{ (deadband)}$ $- (242 + 221) / 2$ $= 232$ $\text{(Actual performance)}$ $= 24 * 0.062$ $= £1.488\text{m}$	$= 248 \text{ (deadband)}$ $- (221 + 223) / 2$ $= 222 \text{ (Forecast performance)}$ $= 26 * 0.062$ $= £1.6120\text{m}$	$= 238 \text{ (deadband)}$ $- (223 + 222) / 2$ $= 223 \text{ (Forecast performance)}$ $= 15 * 0.062$ $= £0.9300\text{m}$

Our performance on internal sewer flooding has exceeded our performance commitment level for the first 3 years of the AMP. We forecast that for the remaining two years of the AMP we will again outperform against our targets, as a result we should achieve rewards of £1.612m in 2018/19 and £0.930m in 2019/20.

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.

Stakeholder Engagement

The 2017/18 actual performance and end of AMP forecasts were discussed with the CCG Chair in May 2018. No issues were raised.

3 Total Expenditure (Totex)

The totex menu reconciliation calculates the adjustments to revenue and RCV for the next price control based on the totex performance of the company over the current price control period. PR19 business plan tables WS15 and WWS15 in Appendix B contains the inputs to populate the totex menu reconciliation model and the final revenue and RCV adjustment.

Totex

The totex for 2016/17 to 2017/18 is obtained from the Annual Performance Report (APR). For 2015/16 the totex values were restated in the Cost Assessment Tables. These values have been used within our submission.

Llanelli and Gowerton

In September 2015 we received an updated NEP from NRW, which formally added new environmental obligations. This principally covered an undertaking to improve discharges into the Loughor estuary from Llanelli and Gowerton catchments. We have discussed the regulatory treatment of this expenditure with Ofwat. It was proposed that the most appropriate way to reflect this in the PR19 submission would be as AMP7 transition expenditure and not include it as 'additional' AMP6 totex. The Llanelli and Gowerton investment was submitted to Ofwat as part of the early cost claim submission in May 2018.

Table 3.1 reports our current expenditure for the undertaking. The expenditure has been deducted from the wastewater Totex reported in the APR and cost assessment tables totex for 2015/16 to 2017/18 for the Totex Reconciliation model as it is to be treated as transition in AMP7.

Table 3.1 Llanelli and Gowerton Totex

	2015/16 (£m)	2016/17 (£m)	2017/18 (£m)
APR Total Including Cash Items	232.4	289.3	315.8
Llanelli and Gowerton	-	4.3	18.2
Totex Inc Cash Items for the reconciliation rulebook (Outturn prices)	232.4	285.1	297.6

Forecast Variables

Table 3.2 Totex Forecast Variables

R9 Line	Purpose	Forecast Methodology
Line 9	Actual Totex	Forecast Totex for 2018/19 and 2019/20 based on our current business plan
Line 10	Third Party Services (Opex)	Forecast Third Party for 2018/19 and 2019/20 based on our current business plan
Line 11	Third Party Services (Capex)	Forecast Third Party for 2018/19 and 2019/20 based on our current business plan
Line 12	Pension Deficit Recovery Costs	Forecast based upon an actuarial review
Line 13	Other Cash items	Forecast Other Cash items for 2018/19 and 2019/20 based on our current business plan
Line 14	Disallowables	No forecast of disallowable expenditure.
Lines 17-23	Business Rates IDoK	No business rates IDoK is anticipated

Pre-populated Data

The PR19 business plan tables include pre-populated data from the annual performance report. The table below outlines changes to the pre-populated data.

Table and Line	Year	Previous Data	Updated Data	Reason
WS15- Line 9 Actual Totex	2015/16	229.629	232.562	Restated Totex in 2016/17 cost assessment submission
WS15- Line 15 Transition expenditure	2014/15	2.649	0.708	Pre-populated data is the forecast transition expenditure. Updated data is the outturn transition expenditure
WS15- Line 9 Actual Totex	2015/16	236.399	232.360	Restated Totex in 2016/17 cost assessment submission
WS15- Line 9 Actual Totex	2016/17	289.316	285.063	APR Totex less Llanelli and Gowerton expenditure
WS15 Line 15 Transition expenditure	2014/15	3.410	1.400	Pre-populated data is the forecast transition expenditure. Updated data is the outturn transition expenditure

Summary

Table 3.3 provides an overview of the proposed revenue and RCV adjustments to be made at AMP7 in 2017/18 prices.

Table 3.3 Adjustments due to Totex incentives

2017/18 Prices		Water	Waste	Total
Totex menu revenue adjustment	£m	23.4	(8.3)	15.2
Totex menu RCV adjustment	£m	41.2	(23.2)	18.0

The revenue and RCV adjustments are calculated using the Totex Reconciliation Model which compares the actual totex expenditure (net of third party service costs, pension deficit repair costs and other menu exclusions) to the menu totex allowed at the final determination. The Totex model calculates the amount of reward and penalty from any over or underspend. The totex adjustment is allocated using a weighted average of the Pay As You Go (PAYG) profile. An overview of the calculation of the totex adjustment is reported in table 3.4

Table 3.4 Totex Over/(Under) spend

Water Totex

		2015/16	2016/17	2017/18	2018/19	2019/20	Total
	Price Base	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
Actual Water Totex	Outturn	229.6	312.0	346.7	344.2	310.1	1,542.7
Less: Menu Exclusions	Outturn	13.7	14.5	13.6	13.6	11.9	67.4
Actual Totex for the Menu	Outturn	215.9	297.5	333.1	330.6	298.2	1,475.3
Actual Totex for the Menu	2012/13	204.3	274.7	296.4	284.3	248.9	1,308.7
Allowed Totex from final menu	2012/13	246.7	243.2	239.5	234.1	230.0	1,193.6
Over/(Under) spend Total	2012/13	(42.4)	31.5	57.0	50.2	19.0	115.2
<u>Sharing of Over/(Under) spend</u>							
Customer Share	2012/13	Over/Under Spend* Sharing Rate (49.9%)					57.5
<u>Company Share</u>							
Revenue Adjustment	2012/13	(Over/Under Spend* PAYG)-Customer Share					22.7
RCV Adjustment	2012/13	(Over/Under Spend* (1-PAYG))					35.0
Total	2012/13						115.2
<u>Reconciliation Rulebook Adjustments inc financing cost adjustment</u>							
Revenue Adjustment	2017/18						23.4
RCV Adjustment	2017/18						41.2

Waste Totex

		2015/16	2016/17	2017/18	2018/19	2019/20	Total
	Price Base	(£m)	(£m)	(£m)	(£m)	(£m)	(£m)
Actual Waste Totex	Outturn	232.4	285.1	297.6	336.9	350.3	1,502.2
Less : Menu Exclusions	Outturn	0.5	2.4	2.7	2.8	1.6	10.0
Actual Totex for the Menu	Outturn	231.8	282.6	295.0	334.1	348.8	1,492.3
Actual Totex for the Menu	2012/13	220.0	261.0	262.5	287.3	291.2	1,322.0
Allowed Totex from final menu	2012/13	280.4	277.6	272.8	265.9	261.4	1,358.1
Over/(Under) spend Total	2012/13	(60.4)	(16.6)	(10.3)	21.4	29.7	(36.1)
<u>Sharing of Over/(Under) spend</u>							
Customer Share	2012/13	Over/Under Spend* Sharing Rate (50.6%)					(18.3)
<u>Company Share</u>							
Revenue Adjustment	2012/13	(Over/Under Spend* PAYG)-Customer Share					(2.3)
RCV Adjustment	2012/13	(Over/Under Spend* (1-PAYG))					(15.5)
Total	2012/13						(36.1)
<u>Reconciliation Rulebook Adjustments inc financing cost adjustment</u>							
Revenue Adjustment	2017/18						(8.3)
RCV Adjustment	2017/18						(23.2)

Customer support

Our forecast expenditure over the period is greater than our PR14 Final Determination allowance taking advantage of the totex menu incentives to invest additional expenditure delivering better outcomes for customers. In 2016 we launched our 'Have your Say' consultation where we asked customers how they would like us to invest the additional expenditure. This consultation used "sliders" to allow customers to distribute their allocation of money against a number of different investments such as helping low income customers with their bills, improving resilience of water treatments and visitor centres and recreational facilities. This consultation reached over 12,000 customers. The results showed:

- Support for all options
- Strong support for Social Tariffs
- Community, environment and education projects are important to customers

In 2017 we carried out another mass customer consultation on our plans for the longer term – Welsh Water 2050. This included 22 events across the country, 3000 completions of our survey via our Chatbot and 300,000 vlog views. Using a local vlogger we created a video for each of the options in the survey. This helped us reach a wider audience to explain how each of these options would benefit customers so they are able to make choices in the survey. We used social media to promote the vlogs and also then signpost customers to complete the survey. This resulted in over 20,000 fully completed responses.

The table below provides an overview of the water opex over/(under) spend.

	Water					
Opex	2016	2017	2018	2019	2020	total
	£m	£m	£m	£m	£m	£m
Renegotiation of the NRW service charge	(1.3)	(1.6)	(1.8)	(2.1)	(2.5)	(9.3)
Rates refund received after challenging the 2005 water network assessment	(20.0)					(20.0)
Net power difference: increased hydro income and reduced energy usage	(2.2)	(1.7)	(3.3)	(1.7)	(0.7)	(9.6)
Reduced insurance cost	(1.7)	(0.9)	(2.6)	(1.6)	(2.2)	(9.0)
Release of provision regarding billing dispute		(2.1)				(2.1)
Rates increase/ (decrease)		0.9	0.0	(2.4)	(2.6)	(4.1)
Water connection increase		1.5	2.0	0.8	0.6	4.9
Transport fleet savings not yet achieved		1.6	1.1	0.7	0.6	4.0
increase in minor works contract due to increased rates		2.3	1.8	1.0	0.9	6.0
IT increase relating to transitional costs		3.2				3.2
Water used at waste sites recharged			(1.9)	(1.9)	(1.9)	(5.7)
Recharge from waste regarding treatment of water sludges				0.4	0.4	0.8
Effect of adverse weather			7.3			7.3
Direct labour increase			6.7	10.3	10.4	27.4
Other net cost pressures	3.3	6.8	3.6	3.1	(3.1)	13.7
Total opex difference	(21.9)	10.0	12.9	6.6	(0.1)	7.5

The table below provides an overview of the wastewater opex over/(under) spend.

	Wastewater					
	2016	2017	2018	2019	2020	Total
Opex	£m	£m	£m	£m	£m	£m
Lower additional expenditure on adoption of pumping stations and private sewers costs absorbed in network opex	(3.0)	(8.1)	(7.0)	(7.0)	(7.0)	(32.1)
Lower chemical usage relating to anticipated opex from capital schemes	(1.7)	(2.4)	(1.6)	(0.7)	(1.0)	(7.4)
Savings from insourcing	(1.0)					(1.0)
Rates reduction	(4.5)		(2.0)	(6.1)	(2.9)	(15.5)
Reduced insurance cost	(1.7)	(0.9)	(2.6)	(1.4)	(1.5)	(8.1)
Net power difference: reduced income due to delay in capital scheme offset by reduced energy usage		(3.8)	(4.0)	(2.4)	(2.7)	(12.9)
IT increase relating to transitional costs		2.6				2.6
Sludge disposal increase		0.9	0.4	0.3	0.3	1.9
Water used at sites not previously recharged			1.9	1.9	1.9	5.7
Cost of treating water sludges recharged to water			(0.4)	(0.4)	(0.4)	(1.2)
Other net cost (efficiencies)/ pressures	(2.2)	4.0	5.9	3.1	(2.8)	8.0
Total opex difference	(14.1)	(7.7)	(9.4)	(12.7)	(16.1)	(60.0)

The table below provides an overview of the profiling and over and under spend on water against our plan.

Capex Water						
Reprofiling of the Programme of Works:	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	2019/20 £m	Cumulative £m
Resources: Fish screen installation has been delayed until 2018/19 and the expenditure has been reprofiled to ensure that the outcomes will be achieved by the end of the AMP.	(10.3)	(1.9)	2.0	4.0	6.2	0.0
Water Resource Management Plan: Spend position has been reprofiled for years 4 and 5 for delivery of zonal demand study findings.	(3.1)	(1.8)	(1.7)	2.5	4.1	0.0
Water Treatment Works Maintenance: year 1 and 3 overspend was a result of expenditure an acceleration of expenditure planned for future years	4.3	(2.3)	5.6	(0.1)	(7.5)	0.0
Safety and Acceptability of Water, Distribution Mains Clusters and Truck Mains: zonal study work is now well underway and we recovered our position from Year 1 as studies have informed the programme of works.	(11.3)	11.3	-	-	-	0.0
Water treatment works quality: ground conditions at Bryn Cowlyd water treatment work were resolved in year 2.	(2.2)	2.2	-	-	-	0.0
Over / under spends on the programme						
Resources: increased cost to deliver Prioress Mill Water Pump Station as a full rather than partial upgrade which was originally profiled to deliver in AMP7.	-	-	2.2	4.5	6.4	13.1
Water Treatment works maintenance: Under spend due to transfer of funding to support the Bryn Cowlyd water treatment works quality scheme	-	-	-	0.4	(7.1)	(6.7)
Safety and Acceptability of Water, Distribution Mains Clusters and Trunk Mains: year 1 studies have informed an increased programme of works.	-	2.4	21.4	15.1	0.6	39.5
Water treatment work quality: Additional Costs are being experienced at Bryn Cowlyd due to ground conditions, and at Tynywaun due to raw water quality requiring additional treatment than originally planned, to meet water quality standards.	-	4.0	4.1	1.2	4.0	13.3

Impounding reservoirs and Service Reservoirs: changes to legislation will require an increased spend to address a higher number of assets including service reservoirs now under the Act. The Act has also been amended to include measures in the interest of safety and new requirements for draw down and spillways

- 5.3 3.5 3.4 1.2 13.4

Leakage: alignment for industry convergence reporting, continued additional work to meet performance targets.

4.9 2.2 3.7 (3.2) 1.0 8.6

Abstractions: lessons learnt from a water quality failure resulted in the abandonment of an abstraction as part of the programme.

- 1.2 1.0 1.2 - 3.4

Service reservoirs: An increase storage capacity in the Hereford catchment was undertaken

- - 1.9 3.2 8.7 13.8

Network Ancillary Assets: increased spend on maintenance

- 5.2 4.3 5.8 2.6 17.9

Bulk Meters Pressure release value and Air values: spend delayed in order to support the additional send on Network ancillary assets

0.0 0.0 (2.7) (4.3) (5.6) (12.6)

Water element of Cross Service: Includes additional costs for IT systems upgrade (including automation telemetry and control), visitor centre upgrades and improvement of Health and safety at works.

0.0 0.0 7.4 16.3 12.1 35.8

Other

(0.4) (3.7) (3.8) (0.6) (3.9) (12.4)

Total

(18.1) 24.1 48.9 49.4 22.8 127.1

Difference due to final determination menu

0.0 0.0 2.2 2.4 0.0 4.6

Total Difference to Final Determination

(18.0) 24.1 51.1 51.7 22.8 131.7

The table below provides an overview of the reprofiling and over and underspend on wastewater against our plan. This analysis is reported in our annual performance report each year. This table excludes expenditure for Llanelli and Gowerton for the Loughor estuary. There is a reprofiling of other expenditure between year 4 and year 5 of the period.

Capex Wastewater

	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	2019/20 £m	Cumulative £m
Reprofiling of the programme of works:						
Continuous and Intermittent: six water course discharge schemes are being discussed with NRW to define a more effective solution expected delivery 2017, 2018 and 2020. Reprioritised the programme of works in line with Water Framework Directive delivery deadline of 2020.	(22.8)	(14.2)	(9.5)	31.5	15.0	0.0
Over/Underspend against the programme						
Continuous and Intermittent Discharges	0.0	(2.9)	(12.4)	9.3	10.8	4.7
Sludge Schemes: Five Fords and Treborth Sludge schemes were delayed in years one and two whilst and North and South Wales Sludge Strategy were agreed. Delivery of the Sludge strategies to be undertaken from year three.	(7.1)	(1.5)	8.6	17.9	(14.6)	3.3
Sludge schemes: implementation of South Wales Sludge strategy	-	-	9.6	20.2	(10.0)	19.8
Sewer Network Maintenance: additional expenditure for Sewer Network Maintenance.	-	1.7	2.2	0.0	0.0	3.9
Network Intermittent Discharge and Outfalls	0.0	7.3	6.2	(8.4)	(9.0)	(3.8)
Wastewater treatment works maintenance: Funds have been reallocated to support the North Wales Sludge strategy	0.0	0.0	(1.0)	0.5	(7.9)	(8.4)
Private sewers and pumping stations assets transferred are generally in better condition than anticipated, less remedial work required. NB. 75% of the private pump station asset base has been surveyed as of March 2018 and 7% of the mapped transferred sewers and lateral drains have been surveyed.	(9.9)	(3.0)	0.7	(0.3)	2.3	(10.2)
Sewage Pump Stations: additional expenditure on Cardiff Western District Pump Station that was not previously in the programme.	0.0	0.0	0.3	1.3	19.9	21.5
Wastewater element of Cross Service: Addition cost for IT systems in preparation for the phase 2 market opening, Energy saving and development schemes	0.0	0.0	12.8	15.9	19.2	47.9
Other	(4.0)	2.4	(5.5)	(38.9)	35.5	(10.4)
Total	(43.8)	(10.2)	12.0	49.0	61.3	68.3
Difference due to final determination menu	0.0	(0.0)	(5.5)	(11.4)	(9.6)	(35.1)
Total Difference to Final Determination	(43.8)	(10.3)	(2.2)	37.6	51.7	33.0

4 Wholesale Revenue Forecasting Incentive Mechanism (WRFIM)

The Wholesale Revenue Forecasting Incentive Mechanism (WRFIM) incentivises companies to accurately forecast revenue by applying a penalty to variations that fall outside the set revenue flexibility threshold. The model also adjusts companies' allowed revenue for each year to take account of any over/under-recovery in previous years which has been returned to customers within the period. Due to the two year time-lag set out within the mechanism, the difference between the allowed revenues and recovered revenues in the final two years of AMP6 (2018/19 and 2019/20) and any resulting penalty may be applied at PR19. Variances in these "blind year" forecasts will be reconciled at PR24.

PR19 Business Plan tables WS13 and WWS13 in Appendix B includes the water and wastewater inputs used to populate the WRFIM model and the revenue adjustments produced by the WRFIM model.

Forecast Variables

The inputs from the WRFIM model are populated from the Final Determination and historical data is from the Annual Performance Reports, details are included in the line by line commentary. Table 4.1 provides an overview of the methodology for the forecast variables.

Table 4.1- WRFIM Forecast Variables

W/WS13 Line	Purpose	Forecast Methodology
Line 23	Revenue Recovered	The forecast for 2018/19 is based on the assumption that there will be no over/(under) recovery from the forecast revenue from the scheme of charges. In 2018/19 there was a planned under-recovery of revenue due to abating wholesale revenue when setting charges to avoid significant incident effects at a time of high inflation. Our current assumption is that the abated revenue will be repeated in 2019/20.
Lines 15-20	Revenue Recovered by Customer Type	Forecasts of revenue recovered for 2018/19 and 2019/20 for each component is based on historical data given the forecasts of total revenue recovered and the forecast of grants and contributions. The forecast split of household charges have been calculated in line with the effect of the expected rate of meter optants.
Line 22	Grants and Contributions	Grants and Contribution forecasts are our business plan forecasts.

APR Published Data

In APR16 and APR17 new connection revenue was allocated to Third Party Revenue. New connection revenue has been moved from Third Party Revenue (line 20 in W/WS13) to Grants and Contributions (line 22 in W/WS13) to align with RAG4 (Appendix 1) and to ensure comparability with the final determination grants and contribution allowance. This reallocation does not change the Total Revenue Governed by the Price Control and therefore does not change the WRFIM model. The table 6.2 provides a reconciliation showing the movement of new connections (A) from third party revenue (C) to grants and contributions in W/WS13 (D+A). The pre-populated data for 2015/16 and 2016/17 in WS13 and WWS13 lines 20 and 22 has been updated to reflect this change.

Table 4.2- New Connections Revenue Adjustment

			Water		Wastewater	
			2015/16	2016/17	2015/16	2016/17
A	New Connections Revenue	£m	3.311	3.443	1.034	0.848
B	Other Third Party Revenue	£m	4.059	4.702	0.000	0.000
C	Third Party Revenue	£m	7.370	8.145	1.034	0.848

APR Table 21

C	Third Party Revenue	£m	7.370	8.145	1.034	0.848
D	Grants and Contributions	£m	4.189	4.164	4.892	5.275
E	Total Revenue Governed by the Price Control	£m	286.150	289.527	384.943	387.219

W/WS13

B	Third Party Revenue	£m	4.059	4.702	-	-
(D+A)	Grants and Contributions	£m	7.500	7.607	5.926	6.123
E	Total Revenue Governed by the Price Control	£m	286.150	289.527	384.943	387.219

WRFIM

The WRFIM variances between actual and allowed revenues for the AMP are outlined in table 4.3.

Table 4.3-WRFIM Variance

	2015/16	2016/17	2017/18	2018/19	2019/20
Water: Allowed Revenue from the FD (£m)	283.0	288.3	295.6	307.1	318.0
Water: Adjustment to recover previous (over)/under recovery (£m)	-	-	(3.5)	(1.4)	(5.2)
Water: Revenue Recovered (£m)	286.2	289.5	296.6	303.2	310.3

Water: Over/(Under) Recovery (£m)	3.1	1.2	4.5	(2.5)	(2.5)
Water: Over/(Under) Recovery (%)	1.1%	0.4%	1.5%	(0.8%)	(0.8%)

	2015/16	2016/17	2017/18	2018/19	2019/20
Waste: Allowed Revenue from the FD (£m)	381.9	385.3	391.4	403.0	413.4
Waste: Adjustment to recover previous (over)/under recovery (£m)	-	-	(3.4)	(2.1)	(8.4)
Waste: Revenue Recovered (£m)	384.9	387.2	395.2	396.8	401.0

Waste: Over/(Under) Recovery (£m)	3.1	1.9	7.2	(4.1)	(4.1)
Waste: Over/(Under) Recovery (%)	0.8%	0.5%	1.9%	(1.0%)	(1.0%)

These variances are within the WRFIM flexibility threshold of +/-2%, therefore no penalty is to be applied. The over-recovery for 2015/16 and 2016/17 has already been returned to customers within 2017/18 and 2018/19 charges respectively. The over recovery in 2017/18 will be returned in the 2019/20 charges. The current assumptions for 2018/19 and 2019/20 is that there will be no over or under recovery from the forecast revenue from the scheme of charges. There is a planned under-recovery for 2018/19 which is due to abated wholesale revenue when setting charges to avoid significant incident effects at a time of high inflation. The abated revenue may need to be carried forwards to 2019/20, therefore our forecast at this time is that the same amount of revenue will be abated in 2019/20. This will be reviewed later in the year as part of the charge setting process.

The forecast WRFIM adjustment for the AMP is £5.2m for water and £8.5m for wastewater.

The WRFIM model now also accounts for the Revenue Correction Mechanism (RCM) 2014/15 Blind Year adjustment. The RCM final adjustment was published by Ofwat in November 2016 in “Revenue Correct Mechanism 2010-15 final reconciliation”. The adjustment is (£5.252m) for Water and (£4.415m) for Wastewater in 2012-13 prices. The model provides an option to recover the RCM during the AMP or at PR19. The RCM will be applied at PR19.

Table 4.4 reports the total WRFIM adjustment including the RCM adjustment.

Table 4.4- WRFIM Adjustment

Water	2019/20 (£m)
Over/(Under) Recovery WRFIM Inc Financing Adjustment (£m)	5.2
RCM Adjustment	(7.8)
Total WRFIM Adjustment	(2.6)
WRFIM Adjustment (2017/18 Prices (£m))	(2.5)

Wastewater	2019/20 (£m)
Over/(Under) Recovery WRFIM Inc Financing Adjustment (£m)	8.5
RCM Adjustment	(6.5)
Total WRFIM Adjustment	2.0
WRFIM Adjustment (2017/18 Prices) (£m)	1.9

Outturn prices except where stated

5 Retail Reconciliation

The household retail control is an average revenue control based on the efficient cost of retail activities and projected customer numbers. There is an automatic annual modification to the allowed household retail service revenue in each year of the price control to account for the difference between actual and forecast customer numbers and meter penetration. The retail reconciliation model sets out how differences in the forecast and actual customers' numbers in a given year will be reconciled. The model also reconciles any over or under recovery of household retail revenue per customer type.

PR19 Business Plan table R9 includes the inputs used to populate the retail reconciliation model and the revenue adjustment at the end of AMP6.

Revenue Sacrifice

The retail over or under recovery is the difference between the allowed revenue and the actual revenue recovered net of any revenue sacrificed. Revenue sacrifice is the amount of revenue that is not collected as a result of the company contribution in support of offering reduced tariffs for customers who struggle to pay their bills. The last three years has seen a rapid rise in uptake of our HelpU tariff, meaning that we now have over 100,000 customers on assistance tariffs. Our social tariff strategy has been informed by robust customer research, which supported cross subsidy within the full tariffs provided that the company made a contribution as well. During the course of our research it has become clear that while value for money is a top priority for customers, there is repeated evidence that customers in general are not in favour of cutting bills at the expense of performance or future investment. Regular customer research on a variety of specific decisions has shown that, in the context of an average bill profile that is already falling in relation to general inflation, a majority of customers would support money being spent on enhancing service, protecting the environment or supporting social tariffs.

Customer support

In terms of affordability for those who struggle to pay their bills, our research undertaken when we were developing the tariffs showed that customers are willing to pay around an extra £15 a year (subject to inflation) on their bills to help fund social tariffs.

Table 5.1 reports the revenue sacrifice and the forecast revenue sacrifice for 2015/16 to 2019/20¹. We have seen a substantial increase in customers benefitting from our assistance tariffs. The amount of revenue sacrifice fell in 2017/18 due to customers switching from the previous Welsh Water assist tariff to HelpU. The amount of revenue sacrifice is forecast to increase in 2019/20 due to an increase in customers on social tariffs. The revenue sacrifice increases as the necessary cross-subsidy would be higher than the willing to pay established through the customer consultation.

Table 5.1- Revenue Sacrifice

	2015/16	2016/17	2017/18	2018/19	2019/20
Revenue Sacrifice (£m)	7.5	8.7	6.5	7.3	11.2

Outturn prices

¹ The Revenue Sacrifice values for 2015/16 and 2016/17 are higher than those reported to Ofwat in January 2018 due to the inclusion of a full range of assistance tariffs including Water Direct, Water Collect and operational decisions.

Forecast Variables

The historical inputs from the household reconciliation model are mainly populated from the Final Determination and published Annual Performance Reports, details are included in the line by line commentary. Lines 7-12 for Reforecast customer numbers are based on the customer numbers used when setting the charges. Table 5.2 provides an overview of the methodology for the forecast variables.

Table 5.2- Retail Reconciliation Forecast Variables

R9 Line	Purpose	Forecast Methodology
Lines 7-12	Reforecast Customer Numbers	The forecast of customer numbers for 2018/19 is based on the forecast used when setting the 2018/19 charges. The reforecast for 2019/20 is the same as the forecast customer numbers.
Lines 13-18	Actual Customer Numbers	The forecast of actual customers are based on the forecast of movements in new connections, meter optants and billable void properties.
Lines 19-24	Actual Revenue Collected	The forecast for actual revenue collected is assumed to equal the retail revenue allowance less the forecasted revenue sacrificed.
Lines 25-30	Revenue Sacrifice	The forecast of revenue sacrifice is based on the forecast of assistance tariff take-up and customer support for social tariffs.

Summary

The over/ (under) recovery of household retail revenue is summarised in the table 5.3.

Table 5.3- Retail Reconciliation

	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Revised Allowed Revenue (£m)	56.8	55.8	54.7	53.2	53.3	273.8
Actual Revenue Recovered (£m)	49.7	45.7	44.5	45.9	42.1	227.9
Revenue Sacrifice (£m)	7.5	8.7	6.5	7.3	11.2	41.2
Net Revenue Recovered (£m)	57.3	54.5	51.0	53.2	53.3	269.2
Over/(Under) Recovery (£m)	0.5	(1.4)	(3.7)	-	-	(4.6)
Retail Revenue Adjustment (£m) (2017/18 Prices)						4.4

Outturn prices unless where stated

The under-recovery of retail revenue in 2017/18 is mainly due to a faster take-up of assistance tariffs than forecasted when setting charges.

6 Water Trading

The water trading incentive was introduced at PR14 to encourage companies to trade water where it is beneficial to do so. We published our trading and procurement code on 25th November 2015 and it was approved by Ofwat in February 2016. We do not anticipate entering into any new trades during the AMP.

7 Land Disposal

PR19 Business Plan table App9 derives the adjustment needed for the RCV for disposal of interest in land expected in the current control period 2015-20. Table 7.1 reports the actual and forecast land sales. The forecast income for 2018/19 and 2019/20 is £100k for both services.

Table 7.1- Land Sales

Actual and current forecast
land sales

			2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Water	£m	Outturn (nominal)	0.000	0.009	0.007	0.503	0.100	0.100
Waste	£m	Outturn (nominal)	0.000	0.000	0.005	0.024	0.100	0.100
Total	£m	Outturn (nominal)	0.000	0.009	0.012	0.527	0.200	0.200

8 Past Performance

App31 of the PR19 business plan tables provides additional information on past performance.

Complaints

The number of complaints received are reported in App31 lines 1-5. Table 8.1 provides an overview of the forecast methodology.

Table 8.1- Forecast Data: Complaints

App31	Line Name	Forecast Methodology
Line 1	Stage 1 Complaints received	The forecast for 2018/19 is based on a target of 22 complaints per 10,000 properties which is an improvement on the rate in 2017/18. The total number of complaints in 2019/20 is the same as the 2018/19 target although the properties increase due to targeting continual improvement in performance.
Line 2	Complaints escalated internally to stage 2	The forecast is based on the average proportion of total stage 1 and stage 2 complaints that are escalated to stage 2 in the 2015/16 to 2017/18.
Line 3	Complaints referred to CCWater	The forecast is based on the average proportion of complaints that are referred to CCWater in 2015/16 to 2017/18.
Line 4	Investigations opened by CCWater	There were no investigations opened by CCWater in 2017/18. As we continue to focus on getting this right first time we forecast that there will be no investigations opened by CCWater.
Line 5	Complaints investigated by Ofwat or WATRS	The forecast is based on historical evidence from 2016/17 to 2017/18.

Major Incidents

There were 2 major incidents from 2015/16 to 2017/18 relating to pollution incidents.

- On 28th November 2016 the company investigated a potential pollution incident due to an oil sheen observed in the river. The incident was attended within 1 hour 47 minutes of the initial call. There were some difficulties identifying the source. On 7th December, an escape of heating oil was located one of our operational sites. This had percolated through the ground in to a surface water drainage line which entered the watercourse. This was turned off immediately, stopping the leak. All remediation work has been undertaken.
- On 18th February 2017 the company investigated a pollution incident due to the over-pumping of an excavation when repairing a burst on the water distribution system. Silt netting was installed on the 20th February with further silt mitigation installed on the 21st February. This allowed the repair to continue without further impact to the watercourse. A range of environmental awareness sessions have taken place following this incident in order to prevent reoccurrence.

Severe Weather 2018

In late February and early March 2018 we faced significant operating challenges as a result of the severe weather systems affecting the country (“Beast from the East” and Storm Emma). Although this does not fall within the classification of a major incident, it is felt necessary to reference it here due to the scale of the impact on our customers.

On the 1st March we faced a Met Office ‘Red Warning’ for snow which had considerable impact on the business. In the week or so preceding this, we began to see increasing numbers of contacts from customers with individual frozen supply pipes. A rapid thaw set in on Sunday 4th March and this caused widespread ‘break out’ of bursts on our network. We protected our main population centres and supplies to key customers achieving 98% of properties remaining on supply throughout the period. The 2% of rural properties that experienced loss of supply were inaccessible to operational teams during the weather event and lessons learnt include investment in telemetry systems at these locations.

In Ofwat’s response to the weather event the need to address our resilience and access issues to our rural customers was highlighted. We received positive feedback in the way we engaged with customers before the event to reduce burst pipes, during the event to keep customers informed with the most up to date information and post the event with prompt issue of compensation payments to affected household customers. However there were improvements to be made on how non household customers could claim compensation.

Compliance with Environment Agency/National Resource Wales statutory requirements

Our compliance with the Environment Agency and National Resources Wales is outlined in App31 lines 7-13. The table includes forecasts for our performance for 2018/19 and 2019/20, our forecast methodology is outlined in table 8.2

Table 8.2- Forecast Data: Compliance

App31	Line Name	Forecast Methodology
Line 7	Number of category 1 & 2 serious pollution incidents	The forecast number of category 1 and 2 pollution incidents is based on historical performance.
Line 8	Complaints escalated internally to stage 2	Our forecast for pollution incidents reflects our continual improvement on reducing category 3 pollution incidents.
Line 9	Discharge Permit Compliance	2017/18 saw an unusual increase in one off compliance failures at wastewater treatment works, primarily associated with dry weather conditions for parts of the year. Our forecast performance is expected to improve due to increased monitoring at works which will result in operational improvements.
Line 10	Satisfactory Sludge use/disposal	Our historical performance is 100% compliance. We forecast that our performance will remain at 100% compliance.

Lines 11-13 provide information on the number of prosecution, enforcements and formal cautions by the EA/NRW. An outline of each case is in Appendix F.

9 Service Incentive Mechanism

R10- Service Incentive Mechanism of the PR19 business plan table provides actual and forecast SIM scores.

The 9.1 outlines the forecast methodology used for the qualitative and quantitative performance.

Table 9.1- Forecast Data: Service Incentive Mechanism

App31	Line Name	Forecast Methodology
Line 1-4	1 st to 4 th survey score	Forecast trend based on historical performance.
Line 5	Qualitative SIM Score	Calculated using guidance issued by Ofwat. Average of lines 1-4 divided by 4 multiplied by 75.
Line 6	Quantitative composite score	Forecast trend based on historical performance.
Line 9	SIM forecast revenue adjustment	SIM reward and penalty is a relative measure. Based on our current performance and forecast performance we forecast that we will not earn a reward or penalty.

The table provides an overview of forecast SIM performance. Our forecast is that our SIM score will increase over the period as we continually aim to improve our customer service.

SIM score	2015/16	2016/17	2017/18	2018/19	2019/20
Total annual SIM score (out of 100)	83	83	85	87	88

The SIM reward and penalty is based on companies' relative performance. Based on our current performance and forecast performance we forecast that we will not earn a reward or penalty.

10 Inflation Forecasts

Table App23 includes our forecast of the Retail Price Index (RPI) and the Consumer Price Index including housing (CPIH). Table 10.1 outlines our inflation assumptions.

Table 10.1- Inflation forecasts

	2018/19	2019/20	2021/22 onwards	Long Term
RPI annual increase	3.5%	3.0%	3.0%	3.0%
CPIH annual increase	2.6%	2.3%	2.0%	2.0%

Appendices

Appendix A	Independent Assurance Report
Appendix B	Submission tables and line commentaries (Blue Font)
Appendix C	ODI Calculation
Appendix D	Complaints from residential and business customers
Appendix E	Category 1-2 Pollution Incidents
Appendix F	Prosecutions, enforcement undertakings and formal cautions
Appendix G	PR14 Reconciliation for Commitment Schemes in AMP6
Appendix H	Changes to pre-populated data

Appendix A Assurance process and independent assurance report

The flowchart below shows the process undertaken for production and assurance of the submission.

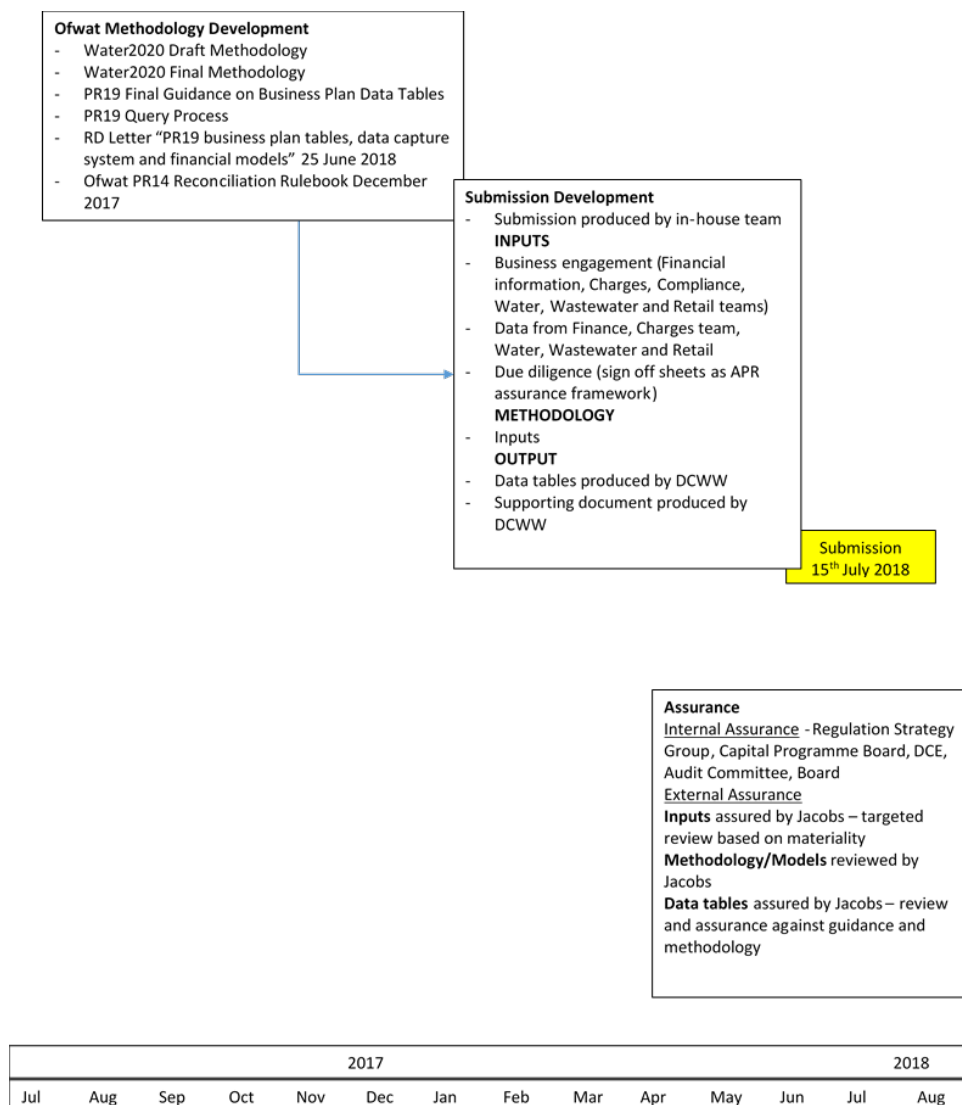
Figure A-1 Flowchart of process for production and assurance of the PR14 Reconciliation rulebook

There is a statement from the Board setting out the factors and the assurance information they considered in support of the PR14 Reconciliation rulebook.

An independent review and assurance of the submission was undertaken by Jacobs reflecting the targeted assurance requirements. Jacobs were asked to review, in particular:

- The data used for PR14 Reconciliation rulebook
- The use of the PR14 Reconciliation rulebook models
- Output of the feeder models for the PR19 Business Plan Tables

The report from Jacobs is included below.



13 July 2018

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

Project Name: Dwr Cymru Welsh Water (DCWW) PR19 assurance
Project Number: B2271301

Subject: PR19 Reconciling for past performance assurance letter

For the attention of the Board.

Part of the 2019 price review (PR19) will be the calculation of adjustments to take account of AMP6 performance and incentive mechanisms. This is particularly important given the potential materiality of the adjustments and the fact that the way adjustments are calculated can be complex and open to different possible interpretations.

Ofwat has produced the PR14 reconciliation rulebook which describes the way that it will reconcile companies' 2015-20 performance against the PR14 final determinations at PR19, through the following mechanisms:

- Outcome delivery incentives (ODIs), which provide companies with rewards for achieving stretching performance targets and compensate customers if performance is below performance targets;
- Wholesale total expenditure (totex) sharing, where company over- and underperformance is shared with customers;
- Wholesale revenue forecasting incentive mechanism (WRFIM), which provides financial incentives for companies to provide accurate forecasts, and ensures under- and over-recovery is reconciled;
- PR14 Service Incentive Mechanism;
- PR09 reconciliation (blind year adjustments); and
- Household retail, where the total revenue allowance is adjusted for actual customer numbers.

You engaged us to conduct a risk based review of your submissions relating to the Reconciliation Rule Book – Feeder Models. Our assurance focused on your interpretation of the guidance for the PR14 reconciliation rulebook and subsequent application via the feeder models. The risks identified do not reflect the robustness of the data relating to actual costs that input to the feeder models as these are subject to separate assurance.

Our review included the aggregated totex forecasts for 2018/19 and 2019/20 that input to the feeder models. We also reviewed forecasts of performance for 2018/19 and 2019/20, and the calculation of ODI rewards and penalties.

Subject: PR19 Reconciling for past performance assurance letter

We provided your team with detailed feedback that explained our assessment of the risk associated with the reported data and set out any actions. When reviewing your models our risk based sampling approach assessed the completeness, reliability and accuracy of the data and your interpretation of the process. We assigned a grade of A, B, C or D to the suite of feeder models; further details of our assessment framework are set out in Appendix A. of this letter.

Overall, for the Reconciliation Rule Book – Feeder models we consider:

- **your team has good understanding of the data required to populate the feeder models, in line where appropriate with other PR19 tables;**
- **your team has good understanding of your processes required to populate the feeder models, in line with Ofwat guidance; and,**
- **your team has good understanding of how the outputs of the feeder models provide data required for the financial model and any relevant PR19 tables.**

We note that during our reviews we identified some issues with the input data used in the models. This data has now been finalised. We have subsequently reviewed the changes.

Observations

We note the following general observations. We provided more detailed observations on our findings to your team in our feedback.

- Methodology Statements (MS) have been prepared for each feeder model but they do not include checks and controls. This might be due to the prescription and automation of the feeder models supplied by Ofwat. However, the team demonstrated during the audits that they had applied some simple but effective checks and controls e.g. to ensure consistent inflation assumptions across all models.
- We note that you have identified that your company's policy for customer bill assistance has a material impact on the household revenue reconciliation calculation due the consequential revenue sacrifice. You have produced what appears to be a relatively sophisticated revenue sacrifice model, supported by a methodology statement.
- As noted our risk based assurance approach is designed to support your own first and second line assurance. During the audit we were able to trace numeric data from the feeder models back to the appropriate source. However, during our reviews we did identify a limited number of data items that were not yet complete. We recommend that a final tick and tie of the input data should be completed before the feeder model outputs can be considered for sign off.
- Through our assurance we have observed that there remains some scope to further reduce reporting risk. We observed that you are reliant on a small team to populate the feeder models. In addition, there could be greater transparency of assumptions underpinning forecast data.

Conclusion

Overall, we consider that we have worked constructively to identify key reporting risks and issues associated with the inputs to, and outputs from, the feeder models. We have been helped by the open, co-operative and committed attitude of your teams.

Subject: PR19 Reconciling for past performance assurance letter

As noted in our findings we have identified some areas of risk and some areas for improvement. We recognize that you are committed to addressing our actions prior to submission.

Based on the findings of our risk based approach, as set out in this report, we see no reason why you should not submit the required models and associate tables to Ofwat.

Yours sincerely

A handwritten signature in black ink, appearing to read 'AMG', followed by a long horizontal flourish.

Andrew McGeoghan
Head of Economic Regulation
01212374000
andrew.mcgeoghan@jacobs.com

Appendix A. Summary of assessment framework

As we note in the letter above, our assurance approach focuses on the level of risk associated with the review of your submissions relating to the Reconciliation Rule Book – Feeder models. The result of our approach is a score of A, B, C or D for your BRMI and detailed feedback to explain our assessment. In assessing your data, we used a standard scoring framework to produce results. Table A.1 below summarises this framework.

Table A.1 Summary of scoring framework for the data stage of our assurance approach

Score	Meaning
A	Low risk – no weaknesses or deviations from methodology in production of data.
B	Low to medium risk - no material weaknesses or deviations in production of data.
C	Medium to high risk - material weakness or unjustified deviations (or number of minor ones with material effect).
D	High risk – two or more of: material weakness or deviation (or number of minor ones with material effect).

Table A.2 below sets out the results from our assurance including summary rationale

Table A.2 data score for the Reconciliation Rule Book – Feeder models

Reconciliation Rule Book – Feeder models	Score	Summary rationale
Reconciliation Rule Book – Feeder models	B	<p>The team has provided documentation to provide transparency on how data has been calculated and reported. These process appear robust. This documentation could be improved by prescribing the checks and controls that were used during the processes.</p> <p>During the earlier stages of our reviews, we identified that some of the totex input data used in the models was not complete. This data has now been finalized. We have subsequently reviewed the changes and found no material issues.</p> <p>We identified some issues with forecast performance but these were unlikely to have a material impact on the overall reconciliation rulebook.</p>

Appendix B Submission tables and line commentaries

This appendix contains the tables as submitted and the line commentaries contained within the table submission

App5- PR14 Reconciliation- Performance commitments

Unique ID	Company	PR14 price control	PR19 price control allocation (%)								
			Water resources	Water network	Wastewater	Bioresources	Residential retail	Business retail	Direct	Dummy control	Total
				plus	network plus	(sludge)			procurement for	customers	
PR14WSHWSW_A1	WSH	WSW		100.0%							100.0%
PR14WSHWSW_A2	WSH	WSW		100.0%							100.0%
PR14WSHWSW_A3	WSH	WSW		100.0%							100.0%
PR14WSHWSW_B1	WSH	WSW									0.0%
PR14WSHWSW_C2	WSH	WSW									0.0%
PR14WSHWSW_D1	WSH	WSW		100.0%							100.0%
PR14WSHWSW_D2	WSH	WSW									0.0%
PR14WSHWSW_D5	WSH	WSW									0.0%
PR14WSHWSW_E1	WSH	WSW									0.0%
PR14WSHWSW_F1	WSH	WSW		100.0%							100.0%
PR14WSHWSW_F2	WSH	WSW		100.0%							100.0%
PR14WSHWSW_F3	WSH	WSW		100.0%							100.0%
PR14WSHWSWW_B2	WSH	WSWW									0.0%
PR14WSHWSWW_B3	WSH	WSWW			100.0%						100.0%
PR14WSHWSWW_C1	WSH	WSWW			100.0%						100.0%
PR14WSHWSWW_C2	WSH	WSWW									0.0%
PR14WSHWSWW_D1	WSH	WSWW			100.0%						100.0%
PR14WSHWSWW_D2	WSH	WSWW									0.0%
PR14WSHWSWW_D3	WSH	WSWW			100.0%						100.0%
PR14WSHWSWW_D5	WSH	WSWW									0.0%
PR14WSHWSWW_E1	WSH	WSWW									0.0%
PR14WSHWSWW_F1	WSH	WSWW			100.0%						100.0%
PR14WSHWSWW_F3	WSH	WSWW			100.0%						100.0%
PR14WSHNNHR_D1	WSH	NHHR						100.0%			100.0%
PR14WSHNNHR_D4	WSH	NHHR						100.0%			100.0%
PR14WSHNNHR_D5	WSH	NHHR									0.0%
PR14WSHNNHR_E1	WSH	NHHR									0.0%
PR14WSHHHR_D1	WSH	HHR					100.0%				100.0%
PR14WSHHHR_D5	WSH	HHR									0.0%
PR14WSHHHR_E1	WSH	HHR									0.0%
PR14WSHHHR_E2	WSH	HHR									0.0%

Unique ID	PC ref.	Performance commitment	ODI type	ODI form	In-period	PC unit	PC unit description	Decimal
PR14WSHWSW_A1	A1	A1: Safety of drinking water	Under	Revenue		%	Mean zonal compliance (%)	2
PR14WSHWSW_A2	A2	A2: Customer acceptability (drinking water) - contacts per 1,000 population	Out & under	Revenue		nr	No. of contacts per 1,000 population	2
PR14WSHWSW_A3	A3	A3: Reliability of supply - minutes lost per property per year	Out & under	Revenue		time	Minutes of supply interruption per property per year	1
PR14WSHWSW_B1	B1	B1: Abstraction for water for use - % compliance with abstraction licences, as regulated by NRW	NFI			%	% compliance with abstraction licences (NRW regulated)	0
PR14WSHWSW_C2	C2	C2: Carbon footprint - gigawatt-hours (GWh) of renewable energy generated	NFI			nr	GWh (gigawatt-hours)	2
PR14WSHWSW_D1	D1	D1: Service incentive mechanism (SIM)	Out & under	Revenue		text	Service incentive mechanism (SIM) score ranking	na
PR14WSHWSW_D2	D2	D2: 'At risk' customer services - number of customers who have experienced poor service	NFI			nr	No. of properties/ incidents on the internal 'at risk' register	0
PR14WSHWSW_D5	D5	D5: Earning the trust of customers - % of customers surveyed that say they trust the company	NFI			%	% customer satisfaction	0
PR14WSHWSW_E1	E1	E1: Affordable bills - annual increase	NFI			%	% above or below inflation (affordability of bills)	0
PR14WSHWSW_F1	F1	F1: Asset serviceability	Under	Revenue		category	Asset health indicator	na
PR14WSHWSW_F2	F2	F2: Leakage	Out & under	Revenue		nr	Megalitres per day (Ml/d)	0
PR14WSHWSW_F3	F3	F3: Asset resilience - % of critical assets that are resilient against a set of criteria	Under	Revenue		%	% critical assets that are resilient against a set of criteria	0
PR14WSHWSWW_B2	B2	B2: Treating used water - % compliance of WwTW	NFI			%	% compliance against WwTW discharge permits	1
PR14WSHWSWW_B3	B3	B3: Preventing pollution - number of category 3 pollution incidents	Out & under	Revenue		nr	No. of pollution incidents (cat 3)	0
PR14WSHWSWW_C1	C1	C1: Adapting to climate change - the volume of surface water removed from the system, expressed in	Under	Revenue		nr	Surface water removed expressed in no. props equivalent	0
PR14WSHWSWW_C2	C2	C2: Carbon footprint - gigawatt-hours (GWh) of renewable energy generated	NFI			nr	GWh (gigawatt-hours)	2
PR14WSHWSWW_D1	D1	D1: Service incentive mechanism (SIM)	Out & under	Revenue		text	Service incentive mechanism (SIM) score ranking	na
PR14WSHWSWW_D2	D2	D2: 'At risk' customer services - number of customers who have experienced poor service	NFI			nr	No. of properties/ incidents on the internal 'at risk' register	0
PR14WSHWSWW_D3	D3	D3: Internal sewer flooding - properties flooded in the year	Out & under	Revenue		nr	No. of properties subjected to internal sewer flooding	0
PR14WSHWSWW_D5	D5	D5: Earning the trust of customers - % of customers surveyed that say they trust the company	NFI			%	% customer satisfaction	0
PR14WSHWSWW_E1	E1	E1: Affordable bills - annual increase	NFI			%	% above or below inflation (affordability of bills)	0
PR14WSHWSWW_F1	F1	F1: Asset serviceability	Under	Revenue		category	Asset health indicator	na
PR14WSHWSWW_F3	F3	F3: Asset resilience - % of critical assets that are resilient against a set of criteria	Under	Revenue		%	% critical assets that are resilient against a set of criteria	0
PR14WSHNNHR_D1	D1	D1: Service incentive mechanism (SIM)	Out & under	Revenue		text	Service incentive mechanism (SIM) score ranking	na
PR14WSHNNHR_D4	D4	D4: Business customer satisfaction	Under	Revenue		%	% customer satisfaction	0
PR14WSHNNHR_D5	D5	D5: Earning the trust of customers - % of customers surveyed that say they trust the company	NFI			%	% customer satisfaction	0
PR14WSHNNHR_E1	E1	E1: Affordable bills - annual increase	NFI			%	% above or below inflation (affordability of bills)	0
PR14WSHHHR_D1	D1	D1: Service incentive mechanism (SIM)	Out & under	Revenue		text	Service incentive mechanism (SIM) score ranking	na
PR14WSHHHR_D5	D5	D5: Earning the trust of customers - % of customers surveyed that say they trust the company	NFI			%	% customer satisfaction	0
PR14WSHHHR_E1	E1	E1: Affordable bills - annual increase	NFI			%	% above or below inflation (affordability of bills)	0
PR14WSHHHR_E2	E2	E2: Help for disadvantaged customers (customers benefiting from social tariffs)	NFI			nr	No. of customers benefiting from social tariffs	0

Unique ID	2018-19 forecast data (monetary amounts in 2012-13 prices, net of tax)						
	2018-19 performance level	2018-19	2018-19	2018-19	2018-19	2018-19	2018-19
	- forecast	PCL met?	forecast outperformance payment	forecast outperformance payment	forecast outperformance payment	forecast outperformance payment	forecast
		outperformance penalty	payment forecast or underperformance penalty in-period ODIs	or underperformance penalty in-period ODIs (£m)	or underperformance penalty in-period ODIs (£m)	or underperformance penalty in-period ODIs (£m)	accrued at 31 March 2019 2018-19 accrued at 31 March 2019 (£m)
PR14WSHWSW_A1	99.98	No			Underperformance penalty		
PR14WSHWSW_A2	2.9	No			Underperformance penalty		-1.8600
PR14WSHWSW_A3	12	Yes			-		
PR14WSHWSW_B1	100	Yes					
PR14WSHWSW_C2	52.9	Yes					
PR14WSHWSW_D1	Top Quartile	Yes			(SIM)		
PR14WSHWSW_D2	550	Yes					
PR14WSHWSW_D5	84	Yes					
PR14WSHWSW_E1	-2	Yes					
PR14WSHWSW_F1	Stable	Yes			-		
PR14WSHWSW_F2	171	Yes			-		
PR14WSHWSW_F3	91	Yes			-		
PR14WSHWSWW_B2	98.9	No					
PR14WSHWSWW_B3	113	Yes			Outperformance payment		0.8460
PR14WSHWSWW_C1	20000	Yes			-		
PR14WSHWSWW_C2	60.2	Yes					
PR14WSHWSWW_D1	Top Quartile	Yes			(SIM)		
PR14WSHWSWW_D2	550	Yes					
PR14WSHWSWW_D3	223	Yes			Outperformance payment		1.6120
PR14WSHWSWW_D5	84	Yes					
PR14WSHWSWW_E1	-2	Yes					
PR14WSHWSWW_F1	Stable	Yes			-		
PR14WSHWSWW_F3	78	Yes			-		
PR14WSHNHHR_D1	Top Quartile	Yes			(SIM)		
PR14WSHNHHR_D4	90	Yes			-		
PR14WSHNHHR_D5	84	Yes					
PR14WSHNHHR_E1	1	Yes					
PR14WSHHHR_D1	Top Quartile	Yes			(SIM)		
PR14WSHHHR_D5	84	Yes					
PR14WSHHHR_E1	-2	Yes					
PR14WSHHHR_E2	100000	Yes					

Unique ID	2019-20 forecast data (monetary amounts in 2012-13 prices, net of tax)					
	2019-20 performance level	2019-20	2019-20	2019-20	2019-20	2019-20
	- forecast	PCL met?	forecast outperformance payment	forecast outperformance payment	forecast outperformance payment	forecast outperformance payment
	underperformance penalty	forecast outperformance payment or underperformance penalty	Forecast or underperformance penalty in-period ODIs	Forecast or underperformance penalty in-period ODIs	in-period ODIs (£m) accrued at 31 March 2020	accrued at 31 March 2020 (£m)
PR14WSHWSW_A1	99.98	No			Underperformance penalty	
PR14WSHWSW_A2	2.75	No			Underperformance penalty	-1.8600
PR14WSHWSW_A3	12	Yes			-	
PR14WSHWSW_B1	100	Yes				
PR14WSHWSW_C2	55.6	Yes				
PR14WSHWSW_D1	Top Quartile	Yes			(SIM)	
PR14WSHWSW_D2	425	Yes				
PR14WSHWSW_D5	85	Yes				
PR14WSHWSW_E1	-1	Yes				
PR14WSHWSW_F1	Stable	Yes			-	
PR14WSHWSW_F2	169	Yes			-	
PR14WSHWSW_F3	91	Yes			-	
PR14WSHWSWW_B2	99	No				
PR14WSHWSWW_B3	112	Yes			Outperformance payment	0.8930
PR14WSHWSWW_C1	25000	Yes			-	
PR14WSHWSWW_C2	69.7	Yes				
PR14WSHWSWW_D1	Top Quartile	Yes			(SIM)	
PR14WSHWSWW_D2	425	Yes				
PR14WSHWSWW_D3	222	Yes			Outperformance payment	0.9300
PR14WSHWSWW_D5	85	Yes				
PR14WSHWSWW_E1	-1	Yes				
PR14WSHWSWW_F1	Stable	Yes			-	
PR14WSHWSWW_F3	78	Yes			-	
PR14WSHNHHR_D1	Top Quartile	Yes			(SIM)	
PR14WSHNHHR_D4	90	Yes			-	
PR14WSHNHHR_D5	85	Yes				
PR14WSHNHHR_E1	-1	Yes				
PR14WSHHHR_D1	Top Quartile	Yes			(SIM)	
PR14WSHHHR_D5	85	Yes				
PR14WSHHHR_E1	-1	Yes				
PR14WSHHHR_E2	100000	Yes				

Commentary for App5:

PR19 Price control allocation- The PR19 final methodology highlights that revenue adjustments should be applied to the water and wastewater network plus control, except where it is clear that a specific outcome delivery incentive is wholly attributed to water resources or bioresources or retail. We comply with this.

Forecast Performance level- This line is based on our forecast performance level for each MOS.

PCL Met- This columns denotes whether our forecasts meet the PR14 Final Determination performance commitment level.

Forecast outperformance payment or underperformance payment- Identification of whether there is a forecast performance payment. Further details on the calculation of ODIs are in Appendix C.

Forecast outperformance payment or underperformance payment- Forecast outperformance payment or underperformance penalty. Further details on the calculation of ODIs are in Appendix C.

App6- PR14 reconciliation- sub measures

App6 provides a forecast of our serviceability performance. Our forecast is that for 2018/19 and 2019/20 our serviceability will remain stable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unique ID	Company	PR14 price control	PC ref. (company)	Performance commitment	PC ODI type	PC / sub-measure ID	PC / sub-measure	Unit	DP	2018-19 forecast data (PCs and sub-measures) 2018-19 performance level - forecast	2018-19 performance level met? forecast	2019-20 forecast data (PCs and sub-measures) 2019-20 performance level - forecast	2019-20 performance level met? forecast
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability	Under	00	F1: Asset serviceability	category	na	Stable	Yes	Stable	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		01	Total bursts (nr)	nr	0	4957	No	4957	No
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		02	Interruptions >12h (nr)	nr	0	1813	No	1813	No
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		03	Iron non-compliance (as 100-Mean Zonal Compliance) (%)	%	2	0.41	No	0.36	No
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		04	DG2 pressure (nr)	nr	0	92	Yes	109	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		05	Customer contacts - discolouration (nr / 1000 population)	nr	2	2.12	Yes	2.16	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		06	Distribution Index TIM (as 100-Mean Zonal Compliance) (%)	%	2	0.14	Yes	0.17	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		07	Water Treatment Works Coliforms non-compliance (%)	%	2	0	Yes	0.01	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		08	Service Reservoir Coliforms non-compliance (%)	%	2	0	Yes	0	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		09	Turbidity (nr)	nr	0	0	Yes	0	Yes
PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		10	Enforcement (incidents number)	nr	0	0	Yes	0	Yes

PR14WSHWSW_F1	WSH	WSW	F1	F1: Asset serviceability		11	Unplanned maintenance (nr)	nr	0	10418	Yes	10418	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability	Under	00	F1: Asset serviceability	category	na	Stable	Yes	Stable	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		01	Sewer collapses (nr)	nr	0	714	Yes	714	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		02	Pollution incidents category 1, 2 & 3 (CSO+RM+FS) (nr)	nr	0	58	Yes	62	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		03	Properties flooded due to other causes (nr)	nr	0	212	Yes	212	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		04	Properties flooded due to overloaded sewers excluding severe weather (nr)	nr	0	15	Yes	13	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		05	Sewer blockages (nr)	nr	0	23672	Yes	23672	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		06	Equipment failures (nr)	nr	0	36	Yes	36	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		07	Sewage Treatment Works (STW) % non-compliance	%	2	2	Yes	2	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		08	Population equivalent (PE) % non-compliance	%	2	0	Yes	0	Yes
PR14WSHWSWW_F1	WSH	WSWW	F1	F1: Asset serviceability		09	Unplanned maintenance (nr)	nr	0	34290	No	34290	No

App27 - PR14 reconciliation - financial outcome delivery incentives summary

Dŵr Cymru Welsh Water

Line description		Units	DPs	2015-16	2016-17	2017-18	2018-19	2019-20	Total to be applied at PR19
A	In-period ODI revenue adjustments by PR14 price control units (2012-13 prices)								
1	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Wholesale water	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
2	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Wholesale wastewater	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
3	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Retail (household)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Retail (non-household)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
5	Total net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ PR14 controls	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
B	End of period ODI revenue adjustments by PR14 price control units (2012-13 prices)								
6	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Wholesale water	£m	3	0.000	0.000	-5.760	-1.860	-1.860	-9.480
7	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Wholesale wastewater	£m	3	0.987	2.800	2.381	2.458	1.823	10.449
8	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Retail (household)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
9	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Retail (non-household)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
10	Total net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ PR14 controls	£m	3	0.987	2.800	-3.379	0.598	-0.037	0.969

C	End of period ODI RCV adjustments by PR14 price control units (2012-13 prices)								
11	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Wholesale water	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
12	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Wholesale wastewater	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
13	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Thames Tideway	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
14	Total net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ PR14 controls	£m	3	0.000	0.000	0.000	0.000	0.000	0.000

D	In-period ODI revenue adjustments allocated to PR19 price controls (2012-13 prices)								
15	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Water resources	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
16	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Water network plus	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
17	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Wastewater network plus	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
18	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Bioresources	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
19	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Residential retail	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
20	Net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ Business retail	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
21	Total net performance payment / (penalty) applied to revenue for in-period ODI adjustments ~ PR19 controls	£m	3	0.000	0.000	0.000	0.000	0.000	0.000

E	End of period ODI revenue adjustments allocated to PR19 price controls (2012-13 prices)								
22	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Water resources	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
23	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Water network plus	£m	3	0.000	0.000	-5.760	-1.860	-1.860	-9.480
24	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Wastewater network plus	£m	3	0.987	2.800	2.381	2.458	1.823	10.449
25	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Bioresources	£m	3	0.000	0.000	0.000	0.000	0.000	0.000

26	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Residential retail	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
27	Net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ Business retail	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
28	Total net performance payment / (penalty) applied to revenue for end of period ODI adjustments ~ PR19 controls	£m	3	0.987	2.800	-3.379	0.598	-0.037	0.969

F	End of period ODI RCV adjustments allocated to PR19 price controls (2012-13 prices)								
29	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Water resources	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
30	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Water network plus	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
31	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Wastewater network plus	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
32	Net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ Thames Tideway	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
33	Total net performance payment / (penalty) applied to RCV for end of period ODI adjustments ~ PR19 controls	£m	3	0.000	0.000	0.000	0.000	0.000	0.000

G	In-period ODI revenue adjustments input to PR19 financial model (2017-18 prices)								
34	ODI in~period revenue adjustment ~ Water resources at 2017~18 FYA CPIH deflated price base	£m	3						0.000
35	ODI in~period revenue adjustment ~ Water network plus at 2017~18 FYA CPIH deflated price base	£m	3						0.000
36	ODI in~period revenue adjustment ~ Wastewater network plus at 2017~18 FYA CPIH deflated price base	£m	3						0.000
37	ODI in~period revenue adjustment ~ Bioresources at 2017~18 FYA CPIH deflated price base	£m	3						0.000
38	ODI in~period revenue adjustment ~ Residential retail at 2017~18 FYA CPIH deflated price base	£m	3						0.000
39	ODI in~period revenue adjustment ~ Business retail at 2017~18 FYA CPIH deflated price base	£m	3						0.000
40	ODI in~period revenue adjustment ~ Total net revenue adjustment at 2017~18 FYA CPIH deflated price base	£m	3						0.000

H	End of period ODI revenue adjustments input to PR19 financial model (2017-18 prices)		
41	ODI end of period revenue adjustment ~ Water resources at 2017~18 FYA CPIH deflated price base	£m	3
42	ODI end of period revenue adjustment ~ Water network plus at 2017~18 FYA CPIH deflated price base	£m	3
43	ODI end of period revenue adjustment ~ Wastewater network plus at 2017~18 FYA CPIH deflated price base	£m	3
44	ODI end of period revenue adjustment ~ Bioresources at 2017~18 FYA CPIH deflated price base	£m	3
45	ODI end of period revenue adjustment ~ Residential retail at 2017~18 FYA CPIH deflated price base	£m	3
46	ODI end of period revenue adjustment ~ Business retail at 2017~18 FYA CPIH deflated price base	£m	3
47	ODI end of period revenue adjustment ~ Total net revenue adjustment at 2017~18 FYA CPIH deflated price base	£m	3

0.000
-10.860
11.970
0.000
0.000
0.000
1.110

I	End of period ODI RCV adjustments input to PR19 financial model (2017-18 prices)		
48	ODI end of period RCV adjustment ~ Water resources at 2017~18 FYA CPIH deflated price base	£m	3
49	ODI end of period RCV adjustment ~ Water network plus at 2017~18 FYA CPIH deflated price base	£m	3
50	ODI end of period RCV adjustment ~ Wastewater network plus at 2017~18 FYA CPIH deflated price base	£m	3
51	ODI end of period RCV adjustment ~ Thames Tideway at 2017~18 FYA CPIH deflated price base	£m	3
52	ODI end of period RCV adjustment ~ Total net adjustment at 2017~18 FYA CPIH deflated price base	£m	3

0.000
0.000
0.000
0.000
0.000

KEY

	Input
	Copy
	Calculation
	Pre populated

Companies should enter a summary of the financial adjustments arising from the actual and forecast performance levels as calculated under the PR14 reconciliation rulebook methodology.

The table includes both in-period and end-of-period adjustments with a breakdown by PR14 price control element and a breakdown by the proposed allocation to the PR19 price controls. For end-of-period ODIs companies should show how they accrue year by year, where appropriate, and confirm, in the "total to be applied at PR19" column, the adjustments they want to make to the various PR19 price controls.

Blocks A to F are in 2012-13 prices.

Blocks A to C show the total amounts relating to each of the PR14 price control elements (see table App5 column D).

Blocks D to F show the amounts allocated to the PR19 price controls. As set out in chapter 12, we will apply revenue adjustments to the network plus control except where an ODI is wholly aligned to water resources, bioresources or retail. RCV adjustments for water will be applied to the network plus control except where an ODI is wholly aligned to water resources. RCV adjustments for wastewater will be applied in full to wastewater network plus.

The "total to be applied at PR19" column in blocks D to E are inputs to the revenue adjustments feeder model and the "total to be applied at PR19" of block F are inputs to the RCV adjustments feeder model.

Blocks G to I are in 2017-18 prices. These are outputs from the revenue adjustments feeder model and RCV adjustments feeder model.

Block A

In relation to the in-period ODIs for the three companies with in-period ODIs in 2015-20, those three companies should complete the in-period ODI blocks with the actual amounts determined by Ofwat in December 2016 (for 2015-16) and December 2017 (for 2016-17) for each price control. Companies should also include forecasts for 2017-18, 2018-19 and 2019-20. However when completing the "total to be applied at PR19" column companies should be careful to ensure they only enter the amount they want to claim for PR19. We will carry out in-period ODI determinations in December 2018 and December 2020 where some of the forecast ODI payments will be determined.

For all companies we expect Table App27 to be consistent with the information submitted in Tables App5 and App6. If this is not the case a company must provide a full explanation.

Block A- No in period revenue ODIs

Block B- Revenue adjustment for end of period ODIs. Detailed calculation of the ODIs is in appendix C of the supporting document.

Block C- No RCV adjustment ODIs

Block D- No in-period revenue ODIs

Block E- Allocation of ODI revenue adjustments to price control. Following the guidance the final methodology revenue adjustments have been applied to water and wastewater Network Plus price control except where it is clear that a specific outcome delivery incentive is wholly attributed to water resources or bioresources or retail.

Block F- No RCV adjustment ODIs

Block G- No in-period revenue ODIs

Block H- Output from the revenue feeder model

Block I- No RCV adjustment ODIs.

WS15 - PR14 wholesale total expenditure outperformance sharing for the water service

Dŵr Cymru Welsh Water

Line description	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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A Company details

1	Company type	Nr	0	
2	Is company enhanced?	text	0	
3	Financing rate	%	2	

2
No
3.60%

B Menu choices

4	Water: Implied menu choice	Nr	1	0
5	Water: FD pension deficit recovery costs allowance	£m	3	2012-13 FYA (RPI)
6	Water: Final menu choice	nr	1	-

					100.4
0.668	0.668	0.668	0.668	0.668	
					100.4

C TOTEX

7	Water: Baseline Totex	£m	3	2012-13 FYA (RPI)
8	Water: FD allowed totex inclusive of menu cost exclusions, less PDRC allowance	£m	3	2012-13 FYA (RPI)
9	Water: Actual Totex	£m	3	Outturn (nominal)

246.463	242.962	239.203	233.864	229.725
254.873	251.363	247.592	242.262	238.133
229.629	312.040	346.654	344.231	310.102

D Adjustments to TOTEX

10	Water: Third party services (opex)	£m	3	Outturn (nominal)
11	Water: Third party services (capex)	£m	3	Outturn (nominal)
12	Water: Pension deficit recovery costs	£m	3	Outturn (nominal)

13.070	10.904	9.547	9.547	9.547
0.000	0.000	0.579	0.579	0.579
0.656	3.638	3.508	3.463	1.791

13	Water: Other cash items	£m	3	Outturn (nominal)		0.000	0.000	0.000	0.000	0.000
14	Water: Disallowables	£m	3	Outturn (nominal)		0.000	0.000	0.000	0.000	0.000
15	Water: Transition expenditure	£m	3	2012-13 FYA (RPI)	0.708					

E	PAYG				
16	Water: PAYG ratio	%	2	-	

68.65%	68.92%	69.32%	70.27%	71.01%
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F	Business rates IDoK				
17	Company specific water business rate sharing rate	%	2	-	
18	Menu Cost Sharing Rate	nr	2	-	
19	Menu Choice Expenditure Factor	%	2	-	
20	Water business rate constant 2017, 2018, 2019	nr	3	2012-13 FYA (RPI)	
21	Water business rate constant 2017, 2018, 2019	nr	3	Outturn	
22	Applicable Water Business Rate Costs	nr	3	Outturn	
23	Water: IDoK Business rates adjustment	nr	3	Outturn	

			0.00%
			0.50
			100.00%
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

G	Totex menu adjustments				
24	Water: revenue adjustment from totex menu model	£m	3	2012-13 FYA (RPI)	
25	Water: RCV adjustment from totex menu model	£m	3	2012-13 FYA (RPI)	
26	Water: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)	
27	Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)	

20.452
35.927
23.429
41.156

KEY

	Input
	Copy

	Calculation
	Pre populated

WS15 guidance and line definitions

This table contains the water service inputs used for populating the totex menu model and the total reward / (penalty) arising as calculated by the totex menu model. The totex menu model calculates in 2012-13 prices and the adjustments are converted to 2017-18 prices in the revenue adjustments model and the RCV adjustments model. We expect companies to publish their populated totex menu models with associated explanation with the regulatory accounts reporting in July 2018.

Line	Definition
Block A Company details	
1	Company type is either WaSC or WoC. <i>Pre-populated. WaSC</i>
2	Enhanced or Non-enhanced status in PR14. <i>Pre-populated. Non-Enhanced at PR14</i>
3	Financing rate. The PR14 final determination weighted average cost of capital. <i>Pre-populated. PR14 Wholesale Real WACC</i>
Block B Menu choices	
4	The implied menu choice number for water from PR14 final determination company specific appendix. <i>Pre-populated. Ofwat PR14 Menu Model</i>
5	The final determinations pension deficit recovery costs allowance for water from PR14 final determination – company specific appendix. <i>Pre-Populated. PR14 Final determination.</i>
6	The submitted final menu choice for water from Menu choice confirmation letter 16th January 2015. <i>Pre-Populated. Final Menu choice confirmation letter</i>
Block C TOTEX	
7	Ofwat's view of the menu cost baseline at final determinations from PR14 populated final determination menu model. <i>Pre-Populated. Ofwat PR14 Menu Model</i>
8	The allowed expenditure in final determinations for input to PAYG from PR14 populated final determination menu model.

	<i>Pre-Populated. Ofwat PR14 populated final determination model</i>
9	<p>Reported actual totex for water from annual regulatory reporting.</p> <p><i>Actual Totex for 2015/16 is obtained from the 2016/17 Cost Assessment Tables as this was restated from the published Annual Performance Report figure. Actual Totex for 2016/17 and 2017/18 are from the Annual Performance Report. Forecast Totex is in line with our business plan.</i></p>
Block D	Adjustments to TOTEX
10-14	<p>Totex exclusions. Actual totex line items to be excluded in menu totex: third party costs, pension deficit recovery costs, other cash items, disallowables as set out in the PR14 reconciliation rulebook guidance.</p> <p><i>Actual Exclusions for 2015/16 to 2017/18 are obtained from the Annual Performance Report. Forecast exclusions are in line with our business plan.</i></p>
15	<p>Totex inclusions – Transition expenditure in 2014-15 (confirmed in final 2010-15 reconciliation decision document).</p> <p><i>Pre-Populated. Transition expenditure confirmed in the 2010-15 reconciliation publication. The pre-populated value has been updated see appendix H of the supporting document.</i></p>
Block E	PAYG
16	<p>The profile of PAYG ratio allowed in final determinations from PR14 final determination – company specific appendix.</p> <p><i>Pre-populated. Obtained from the PR14 final determination</i></p>
Block F	Business rates IDoK
17-23	<p>Business rates IDoK. Mechanism to account for the notified item on business rates. Only activated if after successful IDoK. See Annex of company FD letters and section 5.1 of this report for further details.</p> <p><i>N/A as there has been no IDoK during the period</i></p>
Block G	Totex menu adjustments
24	<p>Output item from totex menu model as appears on the Totex menu adjustments sheet.</p> <p><i>Output from the Totex menu model 'Calc' tab line 197</i></p>
25	<p>Output item from totex menu model as appears on the Totex menu adjustments sheet.</p> <p><i>Output from the Totex menu model 'Calc' tab line 202</i></p>
26	<p>Output item from revenue adjustments model. Totex menu revenue adjustment - Water network at 2017-18 FYA CPIH deflated price base. The value entered is prior to profiling.</p> <p><i>Output from the revenue feeder model</i></p>
27	<p>Output item from RCV adjustments model. Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base.</p> <p><i>Output from the RCV feeder model</i></p>

WWS15 - PR14 wholesale total expenditure outperformance sharing for the wastewater service

Line description	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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A	Company details									
1	Company type	Nr	0	-						2
2	Is company enhanced?	text	0	-						No
3	Financing rate	%	2	-						3.60%

B	Menu choices									
4	Sewerage: Implied menu choice	Nr	1	-						97.0
5	Sewerage: FD pension deficit recovery costs allowance	£m	3	2012-13 FYA (RPI)	0.421	0.421	0.421	0.421	0.421	
6	Sewerage: Final menu choice	nr	1	-						97.0

C	TOTEX									
7	Sewerage: Baseline Totex	£m	3	2012-13 FYA (RPI)	282.471	279.635	274.846	267.869	263.393	
8	Sewerage: FD allowed totex inclusive of menu cost exclusions, less PDRC allowance	£m	3	2012-13 FYA (RPI)	280.381	277.566	272.812	265.887	261.444	
9	Sewerage: Actual Totex	£m	3	Outturn (nominal)	232.360	285.063	297.622	336.872	350.328	

D	ADJUSTMENTS TO TOTEX									
10	Sewerage: Third party services (opex)	£m	3	Outturn (nominal)	0.133	0.125	0.070	0.209	0.209	
11	Sewerage: Third party services (capex)	£m	3	Outturn (nominal)	0.000	0.000	0.047	0.048	0.047	

12	Sewerage: Pension deficit recovery costs	£m	3	Outturn (nominal)		0.413	2.289	2.535	2.531	1.313
13	Sewerage: Other cash items	£m	3	Outturn (nominal)		0.000	0.000	0.000	0.000	0.000
14	Sewerage: Disallowables	£m	3	Outturn (nominal)		0.000	0.000	0.000	0.000	0.000
15	TTT control: logging up / (down) of scope swaps	£m	3	Outturn (nominal)		0.000	0.000	0.000	0.000	0.000
16	TTT control: Land - 100:0 (customer: company) cost sharing factor	£m	3	Outturn (nominal)		0.000	0.000	0.000	0.000	0.000
17	Sewerage: Transition expenditure	£m	3	2012-13 FYA (RPI)	1.400					

E	PAYG			
18	Sewerage: PAYG ratio	%	2	-

59.07%	57.75%	56.78%	56.26%	55.19%
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F	Business rates IDoK - Not applicable to wastewater service
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G	Totex menu adjustments			
19	Wastewater: revenue adjustment from totex menu model	£m	3	2012-13 FYA (RPI)
20	Wastewater: RCV adjustment from totex menu model	£m	3	2012-13 FYA (RPI)
21	Wastewater: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
22	Wastewater: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)

-7.222
-20.235
-8.273
-23.180

KEY

	Input
	Copy

	Calculation
	Pre populated

WWS15 guidance and line definitions

This table contains the wastewater service inputs used for populating the totex menu model and the total reward / (penalty) arising as calculated by the totex menu model. The totex menu model calculates in 2012-13 prices and the adjustments are converted to 2017-18 prices in the revenue adjustments model and the RCV model.

We expect companies to publish their populated totex menu models with associated explanation with the regulatory accounts reporting in July 2018.

Line	Definition
Block A Company details	
1	Company type is either WaSC or WoC. <i>Pre-populated. WaSC</i>
2	Enhanced or Non-enhanced status in PR14. <i>Pre-populated. Non-enhanced at PR14</i>
3	Financing rate. The PR14 final determination weighted average cost of capital. <i>Pre-populated. PR14 Wholesale Real WACC</i>
Block B Menu choices	
4	The implied menu choice number for water from PR14 final determination company specific appendix. <i>Pre-populated. Ofwat PR14 Menu Model</i>
5	The final determinations pension deficit recovery costs allowance for water from PR14 final determination – company specific appendix <i>Pre-Populated. PR14 Final determination.</i>
6	The submitted final menu choice for water from Menu choice confirmation letter 16th January 2015. <i>Pre-Populated. Final Menu choice confirmation letter</i>
Block C TOTEX	
7	Ofwat's view of the menu cost baseline at final determinations from PR14 populated final determination menu model. <i>Pre-Populated. Ofwat PR14 Menu Model</i>
8	The allowed expenditure in final determinations for input to PAYG from PR14 populated final determination menu model.

	<i>Pre-Populated. Ofwat PR14 populated final determination model</i>
9	<p>Reported actual totex for water from annual regulatory reporting.</p> <p><i>Actual Totex for 2015/16 is obtained from the 2016/17 Cost Assessment Tables as this was restated from the published Annual Performance Report figure. Actual Totex for 2016/17 and 2017/18 are from the Annual Performance Report. Forecast Totex is in line with our business plan. Expenditure for Llanelli and Gowerton has been removed for 2016/17 and 2017/18 as detailed in section 3 of the support document.</i></p>
Block D	ADJUSTMENTS TO TOTEX
10-14	<p>Totex exclusions. Actual totex line items to be excluded in menu totex: third party costs, pension deficit recovery costs, other cash items, disallowables as set out in the PR14 reconciliation rulebook guidance.</p> <p><i>Actual Exclusions for 2015/16 to 2017/18 are obtained from the Annual Performance Report. Forecast exclusions are in line with our business plan.</i></p>
15	<p>TTT Control: logging up / (down) of scope swaps. Costs associated with the reallocation of scope from the Infrastructure Provider to Thames Water that are subject to the logging up process.</p> <p><i>N/A</i></p>
16	<p>TTT control: Land - 100:0 (customer: company) cost sharing factor. TTT control land costs are not subject to the standard menu incentives and have a customer sharing rate of 100:0 to ensure customers benefit from future land disposals.</p> <p><i>N/A</i></p>
17	<p>Totex inclusions – Transition expenditure in 2014-15 (confirmed in final 2010-15 reconciliation decision document).</p> <p><i>Pre-Populated. Transition expenditure confirmed in the 2010-15 reconciliation publication. The pre-populated value has been updated see appendix H of the supporting document.</i></p>
Block E	PAYG
18	<p>The profile of PAYG ratio allowed in final determinations from PR14 final determination – company specific appendix.</p> <p><i>Pre-populated. Obtained from the PR14 final determination</i></p>
Block F	Business rates IDoK - Not applicable to wastewater service
Block G	Totex menu adjustments
19	<p>Output item from totex menu model as appears on the Totex menu adjustments sheet.</p> <p><i>Output from the Totex menu model 'Calc' tab line 198</i></p>
20	<p>Output item from totex menu model as appears on the Totex menu adjustments sheet.</p> <p><i>Output from the Totex menu model 'Calc' tab line 203</i></p>
21	Output item from revenue adjustments model. Totex menu revenue adjustment - Wastewater network at 2017-18 FYA CPIH deflated price base. The value entered is prior to profiling.

	<i>Output from the revenue feeder model</i>
22	Output item from RCV adjustments model. Wastewater: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base.
	<i>Output from the RCV feeder model</i>

WS13 - PR14 wholesale revenue forecast incentive mechanism for the water service

Line description	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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A Company details for WRFIM model

1	Company name	text	-
2	Company type	Nr	0
3	Company has accepted WRFIM licence modification	Boolean	0

WSH
2
TRUE

B WRFIM model parameters

4	Penalty rate scaling minimum threshold (+/-)	%	2	-
5	Penalty rate scaling maximum threshold (+/-)	%	2	-
6	Penalty rate (+/-)	%	2	-
7	Specified discount rate	%	2	-
8	Threshold for additional variance analyses (+/-)	%	2	-

2.00%
3.00%
3.00%
3.60%
6.00%

C Allowed revenue

9	Allowed revenue - water	£m	3	Outturn (nominal)	277.518					
10	Actual RPI: November index year on year change	%	2	-		1.98%	1.05%	2.19%	3.88%	3.50%
11	K ~ water	nr	2	-		0.00	0.82	0.32	0.03	0.03

12	Total revenue forecast ~ water	£m	3	Outturn (nominal)	277.518	283.022	288.315	295.563	307.118	317.960
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D AMP5 RCM blind year adjustment

13	RCM blind year 14/15 adjustment for implementing via WRFIM ~ water	£m	3	2012-13 FYA	-5.252
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14	Percentage of RCM adjustment by year ~ water	%	2	-
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0.00%	0.00%	0.00%
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E Revenue recovered

15	Water: Unmeasured ~ household	£m	3	Outturn (nominal)
16	Water: Unmeasured ~ non-household	£m	3	Outturn (nominal)
17	Water: Measured ~ household	£m	3	Outturn (nominal)
18	Water: Measured ~ non-household	£m	3	Outturn (nominal)
19	Water: Third party revenue ~ household	£m	3	Outturn (nominal)
20	Water: Third party revenue ~ non-household	£m	3	Outturn (nominal)
21	Water: Revenue collected from household and non-household	£m	3	Outturn (nominal)
22	Water: Grants and contributions	£m	3	Outturn (nominal)
23	Water: Revenue recovered	£m	3	Outturn (nominal)

145.305	143.415	142.690	142.597	143.169
2.199	2.158	2.079	2.123	2.167
53.840	57.352	61.178	62.347	66.027
73.247	74.293	74.118	79.848	81.505
0.000	0.000	0.000	0.000	0.000
4.059	4.702	7.709	7.898	8.061
278.650	281.920	287.774	294.813	300.929
7.500	7.607	8.827	8.424	9.333
286.150	289.527	296.601	303.237	310.263

F Variance analysis of grants and contributions

24	Water: Capital contributions from connection charges and revenue from infrastructure charges (PR14 FD)	£m	3	2012-13 prices
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6.135	6.414	6.683	6.942	7.194
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25	Water: Grants and contributions	£m	3	Outturn (nominal)
26	Water: Grants and contributions variance	£m	3	Outturn (nominal)

7.500	7.607	8.827	7.587	10.087
0.995	0.660	1.318	-0.486	1.470

G	Penalties			
27	Main revenue adjustment as incurred ~ water	£m	3	Outturn (nominal)
28	Penalty adjustment as incurred ~ water	£m	3	Outturn (nominal)
29	WRFIM adjustment as incurred ~ water	£m	3	Outturn (nominal)
30	WRFIM Total reward / (penalty) at the end of AMP6 ~ water	£m	3	Outturn (nominal)
31	WRFIM Total reward / (penalty) at the end of AMP6 ~ water network plus	£m	3	2017-18 FYA (CPIH deflated)

-3.467	-1.381	-5.197
0.000	0.000	0.000
-3.467	-1.381	-5.197
		-2.591
		-2.544

KEY

	Input
	Copy
	Calculation
	Pre populated

WS13 guidance and line definitions

This table contains the water service inputs used for populating the WRFIM model and the penalties arising as calculated by the WRFIM model. The WRFIM model calculates in outturn prices and is converted to 2017-18 prices in the revenue adjustments model. We expect companies to publish their populated WRFIM models with associated explanation with the regulatory accounts reporting in July 2018.

Line	Definition
Block A	Company details for WRFIM model
1-3	Company details for WRFIM model <i>1-2 Pre-populated. Line 3- We have accepted the licence modification</i>
Block B	WRFIM model parameters
4-8	WRFIM model parameters as defined in the PR14 reconciliation rulebook. <i>Pre-populated</i>
Block C	Allowed revenue
9	2014-15 allowed revenue from company final determination letter, as adjusted for ODIs or IDoK in accordance with the licence. <i>Pre-populated. Data from the PR14 Final Determination Letter</i>
10	Year on year increase in November RPI for the November prior to the start of the financial year <i>Calculation</i>
11	Annual K factor from the PR14 final determination, as adjusted for in-period ODIs or interim determination of K in accordance with the licence. <i>Pre-populated and calculation. Data is from the PR14 Final Determination Letter</i>
12	Total revenue forecasted in PR14. Calculated as 2014-15 allowed revenue (WS13 line 9) compounded by RPI (WS13 line 10) and K (WS13 line 11). <i>Calculation</i>
Block D	AMP5 RCM blind year adjustment
13	Revenue Correction Mechanism (RCM) 2014-15 blind year adjustment implemented via WRFIM. As published in December 2016. <i>Pre-population. Data from Ofwat WRFIM Consultation in December 2016</i>
14	Profile for applying the RCM adjustment. This should be in accordance with the choice made (as published) in December 2016. <i>Pre-population. Data from Ofwat WRFIM Consultation in December 2016</i>
Block E	Revenue recovered
15-20	Actual revenue recovered from metered and unmetered customers' water charges, household and non-household over the 2015-2020 price review period. Annual wholesale water charge revenue as reported in company's regulatory reporting 21. <i>Actual Revenue is obtained from Table 21 of the APR for 2015/16 to 2017/18. Revenue for 2018/19 and 2019/20 is set to achieve the allowed revenue less a planned under-recovery in 2018/19 to avoid significant incident effects at a time of high inflation. Our current assumption is that the abated revenue will be repeated in 2019/20 as outlined in section 4 of the supporting document. Revenue recovered from different customers is based on historical data and the expected rate of meter optants.</i>

21	<p>Calculated. Sum of WS13 lines 15 to 20.</p> <p><i>Calculation</i></p>
22	<p>Actual water grants and contributions revenue recovered. As defined in the RAGs for 2017-18 2I, total of price control grants and contributions irrespective of accounting treatment. We raised several queries on grants and contributions reporting in the 2016 APR or 2017 APR. As a result of these queries, if a company is aware that previous year's data has not been correctly reported, they should restate the figures in the pre-populated cells using the definition in the RAGs for 2017-18 reporting.</p> <p><i>Data for 2015/16 to 2017/18 is based on the APR figures. In the Annual Performance Report new connections were allocated to third party to ensure the Grants and Contributions align new connections has been allocated to Grants and Contributions as outlined in section 4 of the supporting document.</i></p>
23	<p>Calculated. Sum of WS13 lines 21 and 22.</p> <p><i>Calculation</i></p>
Block F	Variance analysis of grants and contributions
24	<p>Total grants and contributions that are included in the allowed water revenue totals.</p> <p><i>Pre-populated. Data obtained from the Final Determination</i></p>
25	<p>Relevant water capital contributions from connection charges and revenue from infrastructure charges, defined in the final determination as covered by the price control. As defined in RAG 4.07 2I.</p> <p><i>Calculation</i></p>
26	<p>Difference in outturn prices between line 24 and line 25 for water grants and contributions. Line 24 is adjusted to outturn prices using data in App23.</p> <p><i>Calculation</i></p>
Block G	Penalties
27	<p>Main revenue adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 41. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 49 (Row 41 in the previous version of the model)</i></p>
28	<p>Penalty adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 51. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 59 (Row 51 in the previous version of the model)</i></p>
29	<p>WRFIM adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 56. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 64 (Row 56 in the previous version of the model)</i></p>

30	<p>WRFIM Total reward / (penalty) at the end of AMP6. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Water' sheet in row 73. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 84 (Row 73 in the previous version of the model)</i></p>
31	<p>WRFIM Total reward / (penalty) at the end of AMP6 expressed in 2017-18 FYA (CPIH deflated) prices. This is an output item from the revenue adjustments feeder model. The value entered is prior to profiling.</p> <p><i>Data obtained from the revenue feeder model</i></p>

WWS13 - PR14 wholesale revenue forecast incentive mechanism for the wastewater service

Line description	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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A	Company details for WRFIM model									
1	Company name	text	0							WSH
2	Company type	Nr	0							2
3	Company has accepted WRFIM licence modification	Boolean	0							TRUE

B	WRFIM model parameters									
4	Penalty rate scaling minimum threshold (+/-)	%	2	-						2.00%
5	Penalty rate scaling maximum threshold (+/-)	%	2	-						3.00%
6	Penalty rate (+/-)	%	2	-						3.00%
7	Specified discount rate	%	2	-						3.60%
8	Threshold for additional variance analyses (+/-)	%	2	-						6.00%

C	Allowed revenue									
9	Allowed revenue - wastewater	£m	3	Outturn (nominal)	374.431					
10	Actual RPI: November index year on year change	%	2	-		1.98%	1.05%	2.19%	3.88%	3.50%
11	K ~ wastewater	nr	2	-		0.00	-0.14	-0.62	-0.91	-0.92
12	Total revenue forecast ~ wastewater	£m	3	Outturn (nominal)	374.431	381.857	385.333	391.398	403.020	413.418

D	AMP5 RCM blind year adjustment				
13	RCM blind year 14/15 adjustment for implementing via WRFIM ~ wastewater	£m	3	2012-13 prices	-4.415
14	Percentage of RCM adjustment by year ~ wastewater	%	2	-	

0.00%	0.00%	0.00%
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E	Revenue recovered				
15	Wastewater: Unmeasured ~ household	£m	3	Outturn (nominal)	
16	Wastewater: Unmeasured ~ non-household	£m	3	Outturn (nominal)	
17	Wastewater: Measured ~ household	£m	3	Outturn (nominal)	
18	Wastewater: Measured ~ non-household	£m	3	Outturn (nominal)	
19	Wastewater: Third party revenue ~ household	£m	3	Outturn (nominal)	
20	Wastewater: Third party revenue ~ non-household	£m	3	Outturn (nominal)	
21	Wastewater: Revenue collected from household and non-household	£m	3	Outturn (nominal)	
22	Wastewater: Grants and contributions	£m	3	Outturn (nominal)	
23	Wastewater: Revenue recovered	£m	3	Outturn (nominal)	

210.679	209.235	206.928	207.882	206.916
2.819	2.848	2.703	2.720	2.743
95.515	96.324	103.968	104.359	107.979
70.004	72.689	75.117	73.640	74.266
0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000
379.017	381.096	388.716	388.601	391.904
5.926	6.123	6.510	8.171	9.051
384.943	387.219	395.226	396.772	400.955

F	Variance analysis of grants and contributions				
24	Wastewater: Capital contributions from connection charges and revenue from infrastructure charges (PR14 FD)	£m	3	2012-13 prices	
25	Wastewater: Grants and contributions	£m	3	Outturn (nominal)	
26	Wastewater: Grants and contributions variance	£m	3	Outturn (nominal)	

4.868	5.092	5.308	5.518	5.678
5.926	6.123	6.510	5.635	7.366
0.764	0.608	0.546	-0.782	0.565

G	Penalties			
27	Main revenue adjustment as incurred ~ wastewater	£m	3	Outturn (nominal)
28	Penalty adjustment as incurred ~ wastewater	£m	3	Outturn (nominal)
29	WRFIM adjustment as incurred ~ wastewater	£m	3	Outturn (nominal)
30	WRFIM Total reward / (penalty) at the end of AMP6 ~ wastewater	£m	3	Outturn (nominal)
31	WRFIM Total reward / (penalty) at the end of AMP6 ~ wastewater network plus	£m	3	2017-18 FYA (CPIH deflated)

-3.420	-2.149	-8.364
0.000	0.000	0.000
-3.420	-2.149	-8.364
		1.961
		1.926

KEY

	Input
	Copy
	Calculation
	Pre populated

WWS13 guidance and line definitions

This table contains the wastewater service inputs used for populating the WRFIM model and the penalties arising as calculated by the WFRIM model. The WRFIM model calculates in outturn prices and is converted to 2017-18 prices in the revenue adjustments model. We expect companies to publish their populated WRFIM models with associated explanation with the regulatory accounts reporting in July 2018.

Line	Definition
Block A	Company details for WRFIM model
1-3	Company details for WRFIM model
	<i>1-2 Pre-populated. Line 3- We have accepted the licence modification</i>

Block B	WRFIM model parameters
4-8	WRFIM model parameters as defined in the PR14 reconciliation rulebook. <i>Pre-populated</i>
Block C	Allowed revenue
9	2014-15 allowed revenue from company final determination letter, as adjusted for ODIs or IDoK in accordance with the licence. <i>Pre-populated. Data from the PR14 Final Determination Letter</i>
10	Year on year increase in November RPI for the November prior to the start of the financial year <i>Calculation</i>
11	Annual K factor from the PR14 final determination, as adjusted for in-period ODIs or interim determination of K in accordance with the licence. <i>Pre-populated and calculation. Data is from the PR14 Final Determination Letter</i>
12	Total revenue forecasted in PR14. Calculated as 2014-15 allowed revenue (WWS13 line 9) compounded by RPI (WWS13 line 10) and K (WWS13 line 11). <i>Calculation</i>
Block D	AMP5 RCM blind year adjustment
13	Revenue Correction Mechanism (RCM) 2014-15 blind year adjustment implemented via WRFIM. As published in December 2016. <i>Pre-population. Data from Ofwat WRFIM Consultation in December 2016</i>
14	Profile for applying the RCM adjustment. This should be in accordance with the choice made (as published) in December 2016. <i>Pre-population. Data from Ofwat WRFIM Consultation in December 2016</i>
Block E	Revenue recovered
15-20	Actual revenue recovered from metered and unmetered customers' wastewater charges, household and non-household over the 2015-2020 price review period. Annual wholesale wastewater charge revenue as reported in company's regulatory reporting 2I. <i>Actual Revenue is obtained from Table 2I of the APR for 2015/16 to 2017/18. Revenue for 2018/19 and 2019/20 is set to achieve the allowed revenue less a planned under-recovery in 2018/19 to avoid significant incident effects at a time of high inflation. Our current assumption is that the abated revenue will be repeated in 2019/20 as outlined in section 4 of the supporting document. Revenue recovered from different customers is based on historical data and the expected rate of meter optants.</i>
21	Calculated. Sum of WWS13 lines 15 to 20 . <i>Calculation</i>

22	<p>Actual wastewater grants and contributions revenue recovered. As defined in the RAGs for 2017-18 2I, total of price control grants and contributions irrespective of accounting treatment. We raised several queries on grants and contributions reporting in the 2016 APR or 2017 APR. As a result of these queries, if a company is aware that previous year's data has not been correctly reported, they should restate the figures in the pre-populated cells using the definition in the RAGs for 2017-18 reporting.</p> <p><i>Data for 2015/16 to 2017/18 is based on the APR figures. In the APR new connections were allocated to third party to ensure the Grants and Contributions align new connections has been allocated to Grants and Contributions as outlined in section 4 of the supporting document.</i></p>
23	<p>Calculated. Sum of WWS13 lines 21 and 22.</p> <p><i>Calculation</i></p>
Block F	Variance analysis of grants and contributions
24	<p>Total grants and contributions that are included in the allowed wastewater revenue totals.</p> <p><i>Pre-populated. Data obtained from the Final Determination</i></p>
25	<p>Relevant wastewater capital contributions from connection charges and revenue from infrastructure charges, defined in the final determination as covered by the price control. As defined in RAG 4.07 2I.</p> <p><i>Calculation</i></p>
26	<p>Difference in outturn prices between line 24 and line 25 for wastewater grants and contributions. Line 24 is adjusted to outturn prices using data in App23.</p> <p><i>Calculation</i></p>
Block G	Penalties
27	<p>Main revenue adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Waste' sheet in row 41. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 49 (Row 41 in the previous version of the model)</i></p>
28	<p>Penalty adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Waste' sheet in row 51. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 59 (Row 51 in the previous version of the model)</i></p>
29	<p>WRFIM adjustment as incurred. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Waste' sheet in row 56. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 64 (Row 56 in the previous version of the model)</i></p>
30	<p>WRFIM Total reward / (penalty) at the end of AMP6. These values are calculated in the PR14 reconciliation WRFIM model on 'WRFIM - Waste' sheet in row 73. The values are in outturn prices.</p> <p><i>Data obtained from the WRFIM Model in 'WRFIM-Water' sheet in row 84 (Row 73 in the previous version of the model)</i></p>

31	<p>WRFIM Total reward / (penalty) at the end of AMP6 expressed in 2017-18 FYA (CPIH deflated) prices. This is an output item from the revenue adjustments feeder model. The value entered is prior to profiling.</p> <p><i>Data obtained from the revenue feeder model</i></p>
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R9 - PR14 reconciliation of household retail revenue

Dŵr Cymru Welsh Water

Line description	Units	DPs	Price base	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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A	Forecast customer numbers		
1	Unmetered water-only customer	nr	0
2	Unmetered wastewater-only customer	nr	0
3	Unmetered water and wastewater customer	nr	0
4	Metered water-only customer	nr	0
5	Metered wastewater-only customer	nr	0
6	Metered water and wastewater customer	nr	0

53197	52780	52375	51981	51596
58319	57902	57497	57103	56718
688873	671755	655080	638835	623009
26146	26990	27848	28722	29614
67161	68005	68863	69737	70629
472583	495370	518070	540693	563252

B	Reforecast customer numbers		
7	Unmetered water-only customer	nr	0
8	Unmetered wastewater-only customer	nr	0
9	Unmetered water and wastewater customer	nr	0
10	Metered water-only customer	nr	0
11	Metered wastewater-only customer	nr	0
12	Metered water and wastewater customer	nr	0

53649	53366	50501	49420	51511
58699	52895	49766	44284	47027
694730	679217	624019	638487	655835
25781	26644	30382	32731	32148
69555	76267	80888	88778	87616
465981	489012	549469	544544	538377

C	Actual customer numbers		
13	Unmetered water-only customer	nr	0
14	Unmetered wastewater-only customer	nr	0
15	Unmetered water and wastewater customer	nr	0
16	Metered water-only customer	nr	0
17	Metered wastewater-only customer	nr	0
18	Metered water and wastewater customer	nr	0

57669	53109	52845	52344	51511
53621	52208	50986	48649	47027
697389	686200	672826	666452	655835
23102	27586	28211	29761	32148
75840	78408	82233	84611	87616
456446	482814	505302	519915	538377

D	Actual revenue collected								
19	Unmetered water-only customer	£m	3	Outturn (nominal)	1.015	0.865	0.722	1.387	1.318
20	Unmetered wastewater-only customer	£m	3	Outturn (nominal)	0.889	0.711	0.535	1.328	1.261
21	Unmetered water and wastewater customer	£m	3	Outturn (nominal)	23.172	20.513	16.257	17.978	14.163
22	Metered water-only customer	£m	3	Outturn (nominal)	0.597	0.613	0.683	1.011	1.082
23	Metered wastewater-only customer	£m	3	Outturn (nominal)	1.748	1.719	1.969	2.741	2.822
24	Metered water and wastewater customer	£m	3	Outturn (nominal)	22.325	21.312	24.336	21.433	21.471

E	Revenue sacrifice								
25	Unmetered water-only customer	£m	3	Outturn (nominal)	0.057	0.066	0.058	0.068	0.104
26	Unmetered wastewater-only customer	£m	3	Outturn (nominal)	0.026	0.031	0.021	0.024	0.037
27	Unmetered water and wastewater customer	£m	3	Outturn (nominal)	6.431	6.989	5.191	6.107	9.368
28	Metered water-only customer	£m	3	Outturn (nominal)	0.005	0.020	0.012	0.011	0.017
29	Metered wastewater-only customer	£m	3	Outturn (nominal)	0.000	0.021	0.000	0.000	0.001
30	Metered water and wastewater customer	£m	3	Outturn (nominal)	0.988	1.601	1.181	1.084	1.663

F	Actual revenue collected (net)								
31	Unmetered water-only customer	£m	3	Outturn (nominal)	1.072	0.931	0.780	1.455	1.422
32	Unmetered wastewater-only customer	£m	3	Outturn (nominal)	0.915	0.742	0.556	1.352	1.298
33	Unmetered water and wastewater customer	£m	3	Outturn (nominal)	29.603	27.502	21.448	24.086	23.531
34	Metered water-only customer	£m	3	Outturn (nominal)	0.602	0.633	0.695	1.022	1.098
35	Metered wastewater-only customer	£m	3	Outturn (nominal)	1.748	1.740	1.969	2.741	2.823
36	Metered water and wastewater customer	£m	3	Outturn (nominal)	23.313	22.913	25.517	22.518	23.134

G	Modification factor								
37	Unmetered water-only customer	£	2		30.47	29.56	28.70	27.80	27.60
38	Unmetered wastewater-only customer	£	2		30.47	29.56	28.70	27.80	27.60
39	Unmetered water and wastewater customer	£	2		39.61	38.42	37.31	36.14	35.88
40	Metered water-only customer	£	2		38.98	37.44	35.92	34.34	34.17
41	Metered wastewater-only customer	£	2		38.52	36.47	34.47	32.40	32.22
42	Metered water and wastewater customer	£	2		48.13	46.54	44.99	43.31	42.97

H	Materiality threshold for financing adjustment		
43	Materiality threshold	%	2
44	Discount Rate	%	2

2.00%
2.00%

I	Total reward / (penalty) at the end of AMP6			
45	Residential retail revenue adjustment at the end of AMP6	£m	3	Outturn (nominal)
46	Residential retail revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)

4.630
4.374

KEY

	Input
	Copy
	Calculation
	Pre populated

R9 guidance and line definitions

This table contains the inputs used for populating the household retail revenue reconciliation model and the penalties arising as calculated by the household retail revenue reconciliation model. The household retail revenue reconciliation model calculates in outturn (nominal) prices and is converted to 2017-18 prices in the revenue adjustments model. We expect companies to publish their populated household retail revenue reconciliation models with associated explanation with the regulatory accounts reporting in July 2018.

Line	Definition
Block A	Forecast customer numbers
1-6	Forecast customer numbers as set out in the PR14 final determination company specific appendix. <i>Data is from the Final Determination letter</i>
Block B	Reforecast customer numbers
7-12	Reforecast customer numbers for each customer type at the beginning of each year from company regulatory reporting.

	<i>Reforecast customer numbers for 2015/16 to 2018/19 are the customer numbers used when setting the charges. The reforecast customer for 2019/20 are equal to the 2019/20 forecast customer numbers.</i>
Block C	Actual customer numbers
13-18	Actual customer numbers for each customer type each year from company regulatory reporting. Number of customers – RAG Proforma 2F. <i>Actual customers are obtained from table 2F of the APR for 2015/16-2017/18. Forecast customer numbers for 2018/19 and 2019/20 are based on forecasts of movements in new connections, meter optants and billable void properties.</i>
Block D	Actual revenue collected
19-24	The revenue that each company actually collected per customer type from company regulatory reporting. Retail revenue per customer type – RAG Proforma 2F. <i>Actual revenue collected is obtained from table 2F of the APR for 2015/16-2017/18. The forecast actual revenue is assumed to equal the retail revenue allowance less the forecasted revenue sacrificed.</i>
Block E	Revenue sacrifice
25-30	Revenue sacrifice. Revenue voluntarily foregone by companies, for example through customer discounts from company regulatory reporting. <i>Revenue sacrifice is revenue foregone from assistant tariffs and operational decisions. The forecast revenue sacrifice is based on forecast customer numbers.</i>
Block F	Actual revenue collected (net)
31-36	Actual revenue collected (Net). The revenue that each company actually collected per customer type less any forgone revenue. Calculated. <i>Calculated line.</i>
Block G	Modification factor
37-42	Modification Factors. Each company has a specific modification factor for each customer type each year from PR14 final determination company specific appendix. <i>Data is from the Final Determination letter</i>
Block H	Materiality threshold for financing adjustment
43	Materiality threshold is specified at 2% of revenue expected from actual customers from AMP6. <i>Pre-populate</i>
44	The discount rate used to provide a financing adjustment for the time value of money of the incentive reward / penalty. Input to be defined at PR19, if required. This may be required if the materiality threshold is exceeded.

	<i>The discount rate is the appointee WACC average RPI and CPIH weighted basis.</i>
Block I	Total reward / (penalty) at the end of AMP6
45	<p>The total revenue adjustment for household retail due to differences in actual and forecast customer numbers and differences in revenue per customer type. Output item from household retail revenue reconciliation model as appears on the Calc sheet.</p> <p><i>Output from the household retail revenue reconciliation model line 94 in the Calc Sheet</i></p>
46	<p>Output item from revenue adjustments model. The value entered is prior to profiling.</p> <p><i>Output from the revenue adjustment feeder model.</i></p>

App9 - Adjustments to RCV from disposals of interest in land

Dŵr Cymru Welsh Water

Line description	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2014-20
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A	RCV midnight adjustment ~ land sales water									
1	Forecast at previous review	£m	3	Outturn (nominal)	0.065					
2	Actual and current forecast sales	£000	3	Outturn (nominal)	0.000	9.000	7.000	503.000	100.000	100.000
3	Impact of 50% of proceeds	£m	3	Outturn (nominal)	-0.033	0.005	0.004	0.252	0.050	0.050
4	WACC - fully post tax on notional structure	%	2	-	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%
5	RPI: Financial year average year on year %	%	2	-	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%
6	Discount rate (nominal)	%	2	-	6.29%	6.29%	6.29%	6.29%	6.29%	6.29%
7	Years for discounting purposes	nr	0	-	-3	-2	-1	0	1	2
8	Discount factor	ratio	2	-	0.83	0.89	0.94	1.00	1.06	1.13
9	PV effect of 50% of proceeds from disposals of interest in land	£m	3	2017-18 FYA (RPI)	-0.027	0.004	0.003	0.252	0.053	0.056
10	NPV effect of 50% of proceeds from disposals of interest in land	£m	3	2017-18 FYA (RPI)						-0.341
11	Water ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)						-0.348

B	RCV midnight adjustment ~ land sales wastewater									
12	Forecast at previous review	£m	3	Outturn (nominal)	0.026					
13	Actual and current forecast sales	£000	3	Outturn (nominal)	0.000	0.000	5.000	24.000	100.000	100.000

14	Impact of 50% of proceeds	£m	3	Outturn (nominal)	-0.013	0.000	0.003	0.012	0.050	0.050
15	WACC - fully post tax on notional structure	%	2	-	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%
16	RPI: Financial year average year on year %	%	2	-	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%
17	Discount rate (nominal)	%	2	-	6.29%	6.29%	6.29%	6.29%	6.29%	6.29%
18	Years for discounting purposes	nr	0	-	-3	-2	-1	0	1	2
19	Discount factor	ratio	2	-	0.83	0.89	0.94	1.00	1.06	1.13
20	PV effect of 50% of proceeds from disposals of interest in land	£m	3	2017-18 FYA (RPI)	-0.011	0.000	0.002	0.012	0.053	0.056
21	NPV effect of 50% of proceeds from disposals of interest in land	£m	3	2017-18 FYA (RPI)						-0.113
22	Wastewater ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)						-0.115

KEY

	Input
	Copy
	Calculation
	Pre populated

App9 guidance and line definitions

This table collates information actual and forecast land sale proceeds and applicable discount rate to calculate the RCV midnight adjustment arising from land disposals occurring in the years from 2014-15 to 2019-20.

	Definition
A	RCV midnight adjustment ~ land sales water
1	The water share of the forecast used for 2014-15 in the PR14 final determination RCV midnight adjustment model. <i>Data is obtained from A7 of the PR14 May Submission "AA_pr14postrbrtbales.xlsm"</i>
2	Proceeds from land sales (net of associated offsetting costs). For 2014-15 to 2017-18 input actual data reported in RAG 4 table 2E. Forecasts are required for 2018-20.

	<i>Historical data is obtained from the Annual Performance Report table 2E. Forecasts are based on historical performance and expected land sales.</i>	
3	Calculated. Half of the proceeds from land sales. <i>Calculation</i>	
4	Real fully post tax WACC that applied at PR14. <i>Pre-populated. PR14 post tax WACC.</i>	
5	Calculated. Average of the year on year % change in the financial year average RPI for the 2015-20 period. <i>Calculation</i>	
6	Calculated. The discount rate is the sum of the WACC and the RPI forecast. <i>Calculation</i>	
7	Generic values. <i>Pre-populated</i>	
8	Calculated. The discount factor based on the discount rate and is centred on the base year. <i>Calculation</i>	
9	Calculated. Present value of half of the cash flow arising from the land sales using the service specific discount factor. <i>Calculation</i>	
10	Calculated. The net present value adjustment for the RCV. This is the sum of the present values with signage reversed. <i>Calculation</i>	
11	This is an output from the RCV adjustments model. <i>Output from the RCV feeder model.</i>	
B	RCV midnight adjustment ~ land sales wastewater	
12	The wastewater share of the forecast used for 2014-15 in the PR14 final determination RCV midnight adjustment model. <i>Data is obtained from A7 of the PR14 May Submission "AA_pr14postbrtables.xlsx"</i>	
13	Proceeds from land sales (net of associated offsetting costs). For 2014-15 to 2017-18 input actual data reported in RAG 4 table 2E. Forecasts are required for 2018-20. <i>Historical data is obtained from the Annual Performance Report table 2E.</i>	

14	Calculated. Half of the proceeds from land sales. <i>Calculation</i>
15	Real fully post tax WACC that applied at PR14. <i>Pre-populated. PR14 post tax WACC.</i>
16	Calculated. Average of the year on year % change in the financial year average RPI for the 2015-20 period. <i>Calculation</i>
17	Calculated. The discount rate is the sum of the WACC and the RPI forecast. <i>Calculation</i>
18	Generic values. <i>Pre-populated.</i>
19	Calculated. The discount factor based on the discount rate and is centred on the base year. <i>Calculation</i>
20	Calculated. Present value of half of the cash flow arising from the land sales using the service specific discount factor. <i>Calculation</i>
21	Calculated. The net present value adjustment for the RCV. This is the sum of the present values with signage reversed. <i>Calculation</i>
22	This is an output from the RCV adjustments model. <i>Output from the RCV feeder model.</i>

App31 - Past performance

Dŵr
Cymru
Welsh
Water

Line description	Units	DPs	2015-16	2016-17	2017-18	2018-19	2019-20
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Price base	Not applicable						
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A	Complaints from residential and business customers							
1	Stage 1 complaints received	nr	0	6702	6122	3609	3264	3264
2	Complaints escalated internally to stage 2	nr	0	425	459	253	227	227
3	Complaints referred to CCWater	nr	0	426	376	228	206	206
4	Investigations opened by CCWater	nr	0	1	1	0	0	0
5	Complaints investigated by Ofwat or WATRS	nr	0	7	14	11	13	13

B	Major incidents							
6	Total number of major incidents	nr	0	0	1	1		

C	Compliance with Environment Agency/National Resources Wales statutory requirements							
7	Number of category 1 & 2 serious pollution incidents	nr	0	2	3	3	2	2
8	Number of category 3 pollution incidents	nr	0	110	111	112	105	105
9	Discharge permit compliance	%	1	97.1%	99.0%	96.7%	97.9%	98.2%
10	Satisfactory sludge use / disposal	%	1	100.0%	100.0%	100.0%	100.0%	100.0%

11	Prosecutions for breach of relevant environmental requirements enforced by EA/NRW	nr	0	1	0	0
12	Enforcement undertakings for breach of relevant environmental requirements from EA/NRW	nr	0	1	2	1
13	Formal cautions for breach of relevant environmental requirements from EA/NRW	nr	0	3	1	1

D	Compliance with DWI statutory requirements
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14	Formal cautions for breach of drinking water quality requirements	nr	0	0	0	0
15	Completed prosecutions for breach of drinking water quality requirements	nr	0	0	0	0

E	Compliance with Ofwat regulatory requirements
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16	Completed enforcement action taken under the Water Industry Act 1991 and the licence	nr	0	0	0	0
17	Completed enforcement action taken under competition law	nr	0	0	0	0

KEY

	Input
	Copy
	Calculation
	Pre populated

The purpose of this table is to provide information on past performance that is not captured in other data tables associated with the PR14 reconciliations.

Block A covers complaints from residential and business customers and records the number of complaints at each of the key stages in the complaint handling process. Before 1 April 2017 this should include residential and business customer complaints. After 1 April 2017, for companies that have exited the business retail market business customer complaints should be limited to those that relate to wholesaler operations. For non exited companies from 1 April 2017 business customer complaints should be separately identified for those that relate to wholesaler and retailer operations.

Block B records the number of major incidents that the company has dealt with, if any. Companies should provide a brief description for each incident in the commentary. The description should include the details of the date, duration, number of customers affected by the disruption to normal business and the lessons learnt as a result of the incident.

Block C covers compliance with statutory requirements around environmental protection enforced by the Environment Agency and Natural Resources Wales. The definitions for these lines are set out in The Environment Agency Environmental Performance Assessment methodology. Category 1, 2 & 3 pollution incidents as related to wastewater assets. If companies prefer to report this information by calendar rather than financial year they are free to do so and populate calendar year 2015 data in the 2015-16 column, 2016 data in 2016-17 and so on. Block C concerns wastewater pollution incidents only. Water only companies are not required to complete block C.

Block D refers to compliance with statutory obligations on drinking water quality enforced by the Drinking Water Inspectorate.

Block E relates to completed Ofwat enforcement actions.

Completed enforcement action under the Water Industry Act includes:

- Section 18 enforcement orders
- Section 22A financial penalties
- Section 207 successful prosecutions for provision of false information

Completed enforcement action taken under competition law, including:

- Infringement decisions of any competition authority in relation to the Chapter I or II prohibition of the Competition Act 1998 or of Articles 101 or 102 of the Treaty on the Functioning of the European Union
- Successful private actions in any court or tribunal in relation to breach of competition law
- Successful prosecutions of a company director for the cartel offence under section 188 of the Enterprise Act 2002
- Findings of an adverse effect on competition following a market investigation under the Enterprise Act 2002

Line	Definition
Block A	Complaints from residential and business customers
1	<p>Total number of written complaints received from household and non household customers. The definition should use the CCWater guidance on complaint handling.</p> <p><i>Data for 2015/16 to 2017/18 has been populated based on numbers previously reported to CCWater and Ofwat. Data for 2018/19 and 2019/20 are based on forecasts of the number of complaints. The number of complaints reduced significantly in 2017/18 due to the implementation of a number of initiatives to improve our customer service. These include our Customer Led Success programme and 'Own it sort it'.</i></p>
2	<p>Total number of complaints not resolved at stage 1 and escalated internally to stage 2. The definition should use the CCWater guidance on complaint handling.</p> <p><i>Data for 2015/16 to 2017/18 has been populated based on numbers previously reported to CCWater and Ofwat. Data for 2018/19 and 2019/20 are based on forecasts of the number of complaints. The number of complaints reduced significantly in 2017/18 due to the implementation of a number of initiatives to improve our customer service. These include our Customer Led Success programme and 'Own it sort it'.</i></p>
3	<p>Total number of complaints referred to CCWater, as referenced in CCWater's End of Year Complaints and Enquiries report.</p> <p><i>Data for 2015/16 to 2017/18 is reported in CCWater's "Complaints to Water Companies England and Wales" report. The forecast number of complaints is based on historical analysis and forecast future improvements.</i></p>
4	<p>Total number of investigations opened by CCWater against companies, as referenced in CCWater's End of Year Complaints and Enquiries report.</p> <p><i>Data for 2015/16 to 2017/18 is based on previously reported data to CCWater and Ofwat. Forecast performance is based on 2017/18 performance and continual improvement.</i></p>
5	<p>Total number of customer complaints where a case has been opened and formally investigated by Ofwat or WATRS.</p> <p><i>Data for 2015/16 to 2017/18 is based on the number of formal investigations. Data for 2018/19 and 2019/20 is based on historical evidence and forecast improvement.</i></p>
Block B	Major incidents
6	<p>Number of major incidents. A major incident is defined as a category 1 event by the EA/NRW or a major water quality event by the DWI.</p> <p><i>There has been no major water quality events between 2015/16 and 2017/18. Two category 1 pollution incidents the period. Data provided is for the calendar year in line with the NRW. Detail information on the major events are in Appendix E of the supporting document. Data for 2018/19 and 2019/20 are our forecast performance levels.</i></p>

Block C	Compliance with Environment Agency/National Resources Wales statutory requirements
7	<p>Total number of category 1 & 2 pollution incidents defined by EA/NRW as follows - The total number of serious pollution incidents (categories 1 and 2) in a calendar year which overlaps with the greater part of the report year, emanating from a discharge or escape of a contaminant from a company sewerage asset affecting the water environment. This does not include incidents impacting on air or land. Incidents affecting amenity of the water environment, e.g. Bathing Waters, are included. This does not include pollution incidents from transferred/adopted private pumping stations or transferred/adopted private rising mains (transferred in 2016). Pollution incidents attributed to the clean water distribution system and water treatment works are not included in this serious pollution incidents sewerage definition. Assets included in the sewerage service are:</p> <ul style="list-style-type: none"> - sewage treatment works; - foul sewers, including private sewers transferred to the water companies in Oct 2011 (used in the EPA from 1 Jan 2016); - combined sewer overflows; - rising mains; - pumping stations; - storm tanks; - surface water outfalls; - other. <p>This is not an exhaustive list. The 'other' category is an optional categorisation used in the Environment Agency National Incident Recording System (NIRS) database for recording incidents where the incident source does not fit in any of the other categories. It is generally used very infrequently but is used occasionally.</p> <p><i>Data provided is for the calendar year in line with the NRW reporting. An overview of historical incidents are in appendix E of the supporting document. Data for 2018/19 and 2019/20 are our forecast performance levels.</i></p>
8	<p>Total number of category 3 pollution incidents defined by EA/NRW as follows - The total number of pollution incidents (category 3) in a calendar year which overlaps with the greater part of the report year, emanating from a discharge or escape of a contaminant from a company sewerage asset affecting the water environment. This does not include incidents impacting on air or land. Incidents affecting amenity of the water environment, e.g. Bathing Waters, are included. This does not include pollution incidents from transferred/adopted private pumping stations or transferred/adopted private rising mains (transferred in 2016). Pollution incidents attributed to the clean water distribution system and water treatment works are not included in this serious pollution incidents sewerage definition.</p> <p>Assets included in the sewerage service are:</p> <ul style="list-style-type: none"> - sewage treatment works; - foul sewers, including private sewers transferred to the water companies in Oct 2011 (used in the EPA from 1 Jan 2016); - combined sewer overflows; - rising mains; - pumping stations; - storm tanks; - surface water outfalls; - other. <p>This is not an exhaustive list. The 'other' category is an optional categorisation used in the Environment Agency National Incident Recording System (NIRS) database for recording incidents where the incident source does not fit in any of the other categories. It is generally used very infrequently but is used occasionally.</p>

	<i>Data provided is for the calendar year in line with the NRW reporting. Data for 2018/19 and 2019/20 are our forecast performance levels.</i>
9	<p>The definition for Discharge Permit Compliance is set out in section 2.3 of the Environment Agency's Water & Sewerage Company Environmental Performance Assessment (EPA) Methodology (version 3), November 2017.</p> <p>Note that the data to be reported relates to compliance with certain numeric consent conditions (specified in the EA's Methodology) at both sewage treatment works and water treatment works in the calendar year which overlaps with the greater part of the report year.</p> <p><i>Data for 2015/16 to 2017/18 is reported through the EPA. 2017/18 had an unusual increase in one off compliance failures at STWs primarily associated with dry weather conditions in the year. Forecast improvement in compliance is expected due to increased monitoring at wastewater treatment works.</i></p>
10	<p>For 2017-18 and prior years: Percentage of overall tds production which is determined as satisfactory by the company, but which, as a minimum, is compliant with the Safe Sludge Matrix and with any legal obligations, including the Urban Waste Water Treatment Directive, the Sludge (Use in Agriculture) Regulations and the Environmental Permitting (England and Wales) Regulations 2010.</p> <p>For 2018-19 onwards: Percentage of overall tds production utilised in a compliant manner in the calendar year which overlaps with the greater part of the report year. "Compliant" should be interpreted as compliant with the Sludge (Use in Agriculture) Regulations, the EPR Regulations in so far as they apply to the recycling &/or disposal of sewage sludge containing products and residual wastes, and with the Safe Sludge Matrix.</p> <p><i>Forecast performance of 100% compliance with the bio solids assurance scheme.</i></p>
11	<p>The definition for prosecutions is set out in the Environment Agency's enforcement and sanctions policy (ESP). Include only completed prosecutions, not the ongoing cases.</p> <p><i>An overview of prosecutions is provided in Appendix F of the supporting document.</i></p>
12	<p>The definition for enforcement undertakings is set out in the Environment Agency's enforcement and sanctions policy (ESP). Only include undertakings accepted by the EA/NRW and not those that have been submitted and are awaiting decision or those that have been rejected.</p> <p><i>An overview of the enforcement undertakings is provided in Appendix F of the supporting document.</i></p>
13	<p>The definition of formal cautions is set out in the Environment Agency's enforcement and sanctions policy (ESP).</p> <p><i>An overview of formal cautions is provided in Appendix F of the supporting document.</i></p>
Block D	Compliance with DWI statutory requirements
14	<p>Number of cautions related to water quality incidents as defined by DWI.</p> <p><i>There has been no incidents where the DWI have issued a formal caution between 2015/16 and 2017/18</i></p>
15	<p>Number of successful prosecutions for water quality incidents.</p> <p><i>There has been no incidents where the DWI have completed a prosecution between 2015/16 and 2017/18</i></p>

Block E Compliance with Ofwat regulatory requirements	
16	<p>Total should include section 18 enforcement orders, section 19 undertakings, section 22A financial penalties and section 207 successful prosecutions for false information.</p> <p><i>There has been no completed enforcement actions against Welsh Water under the Water Industry Act 1991 between 2015/16 and 2017/18.</i></p>
17	<p>Total should include</p> <ul style="list-style-type: none"> • Infringement decisions of any competition authority in relation to the Chapter I or II prohibition of the Competition Act 1998 or of Articles 81 or 82 of the Treaty on the Functioning of the European Union • Successful private actions in any court or tribunal in relation to breach of competition law • Prosecution of a company director for the cartel offence under section 188 of the Enterprise Act 2002 • Findings of an adverse effect on competition following a market investigation under the Enterprise Act 2002 • Undertakings in lieu of a market investigation reference under the Enterprise Act 2002 <p><i>There have been no completed enforcement actions against Welsh Water under competition law between 2015/16 and 2017/18.</i></p>

R10 - PR14 Service incentive mechanism

Dŵr
Cymru
Welsh
Water

Line description	Units	DPs	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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Price base

2017-18 FYA
(CPIH deflated)

A	Qualitative performance							
1	1st survey score	nr	2	4.28	4.39	4.49	4.54	4.59
2	2nd survey score	nr	2	4.44	4.54	4.45	4.54	4.59
3	3rd survey score	nr	2	4.49	4.32	4.55	4.64	4.69
4	4th survey score	nr	2	4.52	4.41	4.40	4.49	4.54
5	Qualitative SIM score (out of 75)	nr	2	64.36	64.03	65.11	66.61	67.55

B	Quantitative performance							
6	Quantitative composite score	nr	2	126.79	123.37	109.45	85.08	84.52
7	Quantitative SIM score (out of 25)	nr	2	18.64	18.83	19.53	20.75	20.77

C	SIM score							
8	Total annual SIM score (out of 100)	nr	0	83	83	85	87	88

D	Revenue adjustment for SIM performance			
9	SIM forecast revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	

0.000

KEY

	Input
	Copy
	Calculation
	Pre populated

R10 guidance and line definitions

This table asks companies to include their actual and forecast SIM scores and ranking. The table is based on the APR SIM table for consistency. Final SIM results will be available during PR19 to inform the application of rewards and penalties. The table also asks companies to forecast their SIM scores and ranking for 2019-20 as this informs whether they have met their own performance commitments and reputational ODIs. This information will not be used to inform any financial incentives.

Line	Definition
Block A	Qualitative performance
1	Score of the first qualitative survey for the current reporting year. <i>Historical Data is obtained from the SIM results. Forecast performance for 2018/19 and 2019/20 is based on the historical performance trend.</i>
2	Score of the second qualitative survey for the current reporting year. <i>Historical Data is obtained from the SIM results. Forecast performance for 2018/19 and 2019/20 is based on the historical performance trend.</i>
3	Score of the third qualitative survey for the current reporting year. <i>Historical Data is obtained from the SIM results. Forecast performance for 2018/19 and 2019/20 is based on the historical performance trend.</i>
4	Score of the fourth qualitative survey for the current reporting year. <i>Historical Data is obtained from the SIM results. Forecast performance for 2018/19 and 2019/20 is based on the historical performance trend.</i>
5	Companies should use the formula below to calculate their score and then input this number in line 5. The qualitative score is calculated as follows: $[(S - LS) / (HS - LS)] * WS$ where: S = qualitative survey annual average score (unrounded), calculated using unrounded quarterly Wave scores. LS = minimum survey score possible (set at 1). HS = maximum survey score possible (set at 5). WS = survey weighting (set at 75). <i>Calculated using Ofwat formula.</i>

Block B Quantitative performance	
6	<p>The quantitative composite score is calculated as follows: $[(\text{unwanted phone contacts} \times 1) + (\text{written complaints} \times 5) + (\text{escalated written complaints} \times 100) + (\text{CCWater investigated complaints} \times 1000)] / (\text{connected household properties} / 1000)$</p> <p><i>Historical data is pre-populated. Data from 2015/16 is obtained from CCWater. 2016/17 and 2017/18 is from the APR table 3D. 2018/19 and 2019/20 are based on forecasts.</i></p>
7	<p>The quantitative score is calculated as follows: $[1 - [(C - CL) / (CH - CL)]] * WC$ where: C = total contact score (see above). CL = contact score minimum (set at 0). CH = contact score maximum (set at 500). WC = contact score weighting (set at 25).</p> <p><i>Calculation</i></p>
Block C SIM score	
8	<p>The total annual SIM score is the addition of R10 lines 5 and 7.</p> <p><i>Calculation</i></p>
Block D Revenue adjustment for SIM performance	
9	<p>SIM high performance payment / (low performance penalty) revenue adjustment at end of period for retail. Output item from revenue adjustments model. The value entered is prior to profiling.</p> <p><i>Forecast revenue adjustment. Based on our actual performance and forecast performance this is forecast to be nil.</i></p>

App23 - Inflation measures

Line description	Units	DPs	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
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A	Retail price index											
1	RPI: Months of actual data for Financial Year	nr	0	12	12	12	12	12	12	12	12	12
2	Retail Price Index for April	nr	1	234.4	242.5	249.5	255.7	258.0	261.4	270.6	280.1	288.5
3	Retail Price Index for May	nr	1	235.2	242.4	250.0	255.9	258.5	262.1	271.7	281.2	289.6
4	Retail Price Index for June	nr	1	235.2	241.8	249.7	256.3	258.9	263.1	272.3	281.8	290.3
5	Retail Price Index for July	nr	1	234.7	242.1	249.7	256.0	258.6	263.4	272.9	282.5	290.9
6	Retail Price Index for August	nr	1	236.1	243.0	251.0	257.0	259.8	264.4	274.7	284.3	292.8
7	Retail Price Index for September	nr	1	237.9	244.2	251.9	257.6	259.6	264.9	275.1	284.7	293.3
8	Retail Price Index for October	nr	1	238.0	245.6	251.9	257.7	259.5	264.8	275.3	284.9	293.5
9	Retail Price Index for November	nr	1	238.5	245.6	252.1	257.1	259.8	265.5	275.8	285.5	294.0
10	Retail Price Index for December	nr	1	239.4	246.8	253.4	257.5	260.6	267.1	278.1	287.8	296.5
11	Retail Price Index for January	nr	1	238.0	245.8	252.6	255.4	258.8	265.5	276.0	285.7	294.2
12	Retail Price Index for February	nr	1	239.9	247.6	254.2	256.7	260.0	268.4	278.1	287.8	296.5
13	Retail Price Index for March	nr	1	240.8	248.7	254.8	257.1	261.1	269.3	278.3	288.0	296.7

B	Consumer price index (including housing costs)											
14	CPIH: Months of actual data for Financial Year	nr	0	12	12	12	12	12	12	12	12	12
15	Consumer Price Index (with housing) for April	nr	1	93	96	98	100	100	101	103	105.9	108.3
16	Consumer Price Index (with housing) for May	nr	1	94	96	98	100	100	101	104	106.2	108.6
17	Consumer Price Index (with housing) for June	nr	1	94	96	98	100	100	101	104	106.2	108.6
18	Consumer Price Index (with housing) for July	nr	1	94	96	98	100	100	101	104	106.2	108.6

19	Consumer Price Index (with housing) for August	nr	1	94	96	98	100	100	101	104	106.7	109.2
20	Consumer Price Index (with housing) for September	nr	1	95	96	99	100	100	102	104	107.0	109.5
21	Consumer Price Index (with housing) for October	nr	1	95	97	99	100	100	102	104	107.1	109.6
22	Consumer Price Index (with housing) for November	nr	1	95	97	99	100	100	102	105	107.4	109.9
23	Consumer Price Index (with housing) for December	nr	1	95	97	99	100	100	102	105	107.7	110.2
24	Consumer Price Index (with housing) for January	nr	1	95	97	99	99	100	102	105	107.2	109.7
25	Consumer Price Index (with housing) for February	nr	1	95	98	99	100	100	102	105	107.6	110.1
26	Consumer Price Index (with housing) for March	nr	1	95	98	99	100	100	103	105	107.8	110.3

C	Indexation rate for index linked debt percentage increase											
27	Indexation rate for index linked debt percentage increase	%	2								3.50%	3.00%

D	Financial year average indices											
28	RPI: Financial year average indices	nr	1	237.3	244.7	251.7	256.7	259.4	265.0	274.9	284.5	293.1
29	CPIH: Financial year average indices	nr	1	94.3	96.6	98.6	99.7	100.2	101.5	104.2	106.9	109.4

E	Year on year % change											
30	RPI: November year on year %	%	2									
31	RPI: Financial year average indices year on year %	%	2									
32	RPI: Financial year end indices year on year %	%	2									
33	CPIH: November year on year %	%	2									
34	CPIH: Financial year average indices year on year %	%	2									

2.98%	2.65%	1.98%	1.05%	2.19%	3.88%	3.50%	3.00%
3.09%	2.88%	1.96%	1.08%	2.14%	3.74%	3.50%	3.00%
3.28%	2.45%	0.90%	1.56%	3.14%	3.34%	3.50%	3.00%
2.43%	1.86%	1.11%	0.40%	1.50%	2.85%	2.60%	2.30%
2.41%	2.09%	1.14%	0.44%	1.37%	2.63%	2.60%	2.30%

35	CPIH: Financial year end indices year on year %	%	2
36	Wedge between RPI and CPIH	%	2

2.52%	1.53%	0.30%	0.80%	2.29%	2.34%	2.60%	2.30%
0.68%	0.80%	0.82%	0.64%	0.77%	1.11%	0.90%	0.70%

F	Long term inflation rates		
37	Long term RPI inflation rate	%	2
38	Long term CPIH inflation rate	%	2

KE
Y

	Input
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Line description	Units	DPs	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
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A	Retail price index												
1	RPI: Months of actual data for Financial Year	nr	0	12	12	12	12	12	12	12	12	12	12
2	Retail Price Index for April	nr	1	297.1	306.0	315.2	324.7	334.4	344.5	354.8	365.4	376.4	387.7
3	Retail Price Index for May	nr	1	298.3	307.3	316.5	326.0	335.8	345.9	356.2	366.9	377.9	389.3
4	Retail Price Index for June	nr	1	299.0	308.0	317.2	326.7	336.5	346.6	357.0	367.7	378.8	390.1
5	Retail Price Index for July	nr	1	299.7	308.6	317.9	327.4	337.3	347.4	357.8	368.5	379.6	391.0
6	Retail Price Index for August	nr	1	301.6	310.7	320.0	329.6	339.5	349.7	360.2	371.0	382.1	393.6
7	Retail Price Index for September	nr	1	302.1	311.1	320.5	330.1	340.0	350.2	360.7	371.5	382.7	394.1
8	Retail Price Index for October	nr	1	302.3	311.4	320.7	330.3	340.2	350.4	360.9	371.8	382.9	394.4
9	Retail Price Index for November	nr	1	302.8	311.9	321.3	330.9	340.8	351.1	361.6	372.5	383.6	395.1
10	Retail Price Index for December	nr	1	305.4	314.5	324.0	333.7	343.7	354.0	364.6	375.6	386.8	398.4
11	Retail Price Index for January	nr	1	303.1	312.1	321.5	331.2	341.1	351.3	361.9	372.7	383.9	395.4
12	Retail Price Index for February	nr	1	305.4	314.5	324.0	333.7	343.7	354.0	364.6	375.6	386.8	398.4
13	Retail Price Index for March	nr	1	305.6	314.8	324.2	333.9	343.9	354.3	364.9	375.8	387.1	398.7

B	Consumer price index (including housing costs)												
14	CPIH: Months of actual data for Financial Year	nr	0	12	12	12	12	12	12	12	12	12	12
15	Consumer Price Index (with housing) for April	nr	1	110.5	112.7	114.9	117.2	119.6	122.0	124.4	126.9	129.5	132.0
16	Consumer Price Index (with housing) for May	nr	1	110.8	113.0	115.3	117.6	119.9	122.3	124.8	127.3	129.8	132.4
17	Consumer Price Index (with housing) for June	nr	1	110.8	113.0	115.3	117.6	119.9	122.3	124.8	127.3	129.8	132.4
18	Consumer Price Index (with housing) for July	nr	1	110.8	113.0	115.3	117.6	119.9	122.3	124.8	127.3	129.8	132.4
19	Consumer Price Index (with housing) for August	nr	1	111.3	113.6	115.8	118.2	120.5	122.9	125.4	127.9	130.5	133.1

20	Consumer Price Index (with housing) for September	nr	1	111.7	113.9	116.2	118.5	120.9	123.3	125.8	128.3	130.8	133.4
21	Consumer Price Index (with housing) for October	nr	1	111.8	114.0	116.3	118.6	121.0	123.4	125.9	128.4	131.0	133.6
22	Consumer Price Index (with housing) for November	nr	1	112.1	114.3	116.6	119.0	121.3	123.8	126.2	128.8	131.3	134.0
23	Consumer Price Index (with housing) for December	nr	1	112.4	114.7	117.0	119.3	121.7	124.1	126.6	129.1	131.7	134.3
24	Consumer Price Index (with housing) for January	nr	1	111.9	114.1	116.4	118.7	121.1	123.5	126.0	128.5	131.1	133.7
25	Consumer Price Index (with housing) for February	nr	1	112.3	114.6	116.8	119.2	121.6	124.0	126.5	129.0	131.6	134.2
26	Consumer Price Index (with housing) for March	nr	1	112.5	114.8	117.1	119.4	121.8	124.2	126.7	129.2	131.8	134.5

C	Indexation rate for index linked debt percentage increase												
27	Indexation rate for index linked debt percentage increase	%	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

D	Financial year average indices												
28	RPI: Financial year average indices	nr	1	301.9	310.9	320.2	329.8	339.7	349.9	360.4	371.2	382.4	393.9
29	CPIH: Financial year average indices	nr	1	111.6	113.8	116.1	118.4	120.8	123.2	125.6	128.2	130.7	133.3

E	Year on year % change												
30	RPI: November year on year %	%	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
31	RPI: Financial year average indices year on year %	%	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
32	RPI: Financial year end indices year on year %	%	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
33	CPIH: November year on year %	%	2	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
34	CPIH: Financial year average indices year on year %	%	2	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

3 5	CPIH: Financial year end indices year on year %	%	2	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
3 6	Wedge between RPI and CPIH	%	2	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

F	Long term inflation rates												
3 7	Long term RPI inflation rate	%	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
3 8	Long term CPIH inflation rate	%	2	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

App23 guidance and line definitions

This table contains companies' assumptions about inflation during the price control period. The information allows us to adjust the price base of companies' business plan projections and compare across companies on a consistent basis without prescribing assumptions about inflation.

Line	Definition
Block A	Retail price index
1-13	Pre-populated data in green cells are published values for the retail price index (RPI) available on the ONS website. For 2017-18 onwards in lines 2 to 13, companies should enter forecast RPI values for each month. Line 1 will update automatically and should equal 12 to indicate that forecasts have been completed for all months of the financial year. <i>Data is obtained from the ONS and forecasts.</i>
Block B	Consumer price index (including housing costs)
14-26	Pre-populated data in green cells are published values for the consumer price index including housing costs (CPIH) available on the ONS website. For 2017-18 onwards in lines 15 to 26, companies should enter forecast CPIH values for each month. Line 14 will update automatically and should equal 12 to indicate that forecasts have been completed for all months of the financial year. <i>Data is obtained from the ONS and company forecasts.</i>
Block C	Indexation rate for index linked debt percentage increase
27	The percentage uplift of index-linked debt by indexation. The financial model works on year average prices, so a year average inflation rate for index linked debt is more appropriate. <i>Company forecasts</i>
Block D	Financial year average indices

28-29	The financial year average indices calculated by taking an average over 12 months from April to March. <i>Calculation</i>
Block E	Year on year % change
30-35	The year on year % change in the indices. <i>Calculation</i>
36	The annual % change in RPI average minus the annual change in CPI(H) average. <i>Calculation</i>
Block F	Long term inflation rates
37	The company's view of the long term inflation rate for RPI. Long term inflation rate is the rate used to discount the nominal WACC into a real WACC. <i>Company forecasts</i>
38	The company's view of the long term inflation rate for CPI(H). Long term inflation rate is the rate used to discount the nominal WACC into a real WACC. <i>Company forecasts</i>

App25 - PR14 reconciliation adjustments summary

Dŵr Cymru Welsh Water

Line description	Units	DPs	Price base	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
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A	Further 2010-15 reconciliation adjustments								
1	Water ~ Total Adjustment RCV carry forward to PR19	£m	3	2012-13 FYA (RPI)					32.255
2	Water ~ Total Adjustment Revenue carry forward to PR19	£m	3	2012-13 FYA (RPI)					-9.831
3	Wastewater ~ Total Adjustment RCV carry forward to PR19	£m	3	2012-13 FYA (RPI)					7.355
4	Wastewater ~ Total Adjustment Revenue carry forward to PR19	£m	3	2012-13 FYA (RPI)					-0.889
5	Water ~ CIS RCV inflation correction	£m	3	2012-13 FYA (RPI)					-30.039
6	Wastewater ~ CIS RCV inflation correction	£m	3	2012-13 FYA (RPI)					-33.635
7	Water ~ Total Adjustment RCV carry forward to PR19 at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)					36.950
8	Water ~ Total Adjustment Revenue carry forward to PR19 at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)					-11.262
9	Wastewater ~ Total Adjustment RCV carry forward to PR19 at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)					8.425
10	Wastewater ~ Total Adjustment Revenue carry forward to PR19 at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)					-1.018
11	Water ~ CIS RCV inflation correction at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)					-34.411
12	Wastewater ~ CIS RCV inflation correction at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)					-38.530

B Adjustment to RCV from disposal of land				
13	Water ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
14	Wastewater ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)

-0.348
-0.115

C Outcome delivery incentive reconciliation adjustments to be applied at PR19				
15	ODI in~period revenue adjustment ~ Total net revenue adjustment at 2017~18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
16	ODI end of period revenue adjustment ~ Total net revenue adjustment at 2017~18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
17	ODI end of period RCV adjustment ~ Total net adjustment at 2017~18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)

0.000
1.110
0.000

D Wholesale total expenditure outperformance sharing				
18	Water: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
19	Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
20	Wastewater: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
21	Wastewater: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)

23.429
41.156
-8.273
-23.180

E Wholesale revenue forecasting incentive mechanism				
22	WRFIM Total reward / (penalty) at the end of AMP6 ~ water network plus	£m	3	2017-18 FYA (CPIH deflated)

-2.544

23	WRFIM Total reward / (penalty) at the end of AMP6 ~ wastewater network plus	£m	3	2017-18 FYA (CPIH deflated)
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1.926

F	Reconciliation of household retail revenue
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24	Residential retail revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
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4.374

G	Water trading incentive reconciliation
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25	Total value of export incentive - water resources at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
26	Total value of export incentive - water network plus at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
27	Total value of export incentive to be paid after PR19 at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
28	Total value of import incentive - water resources at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
29	Total value of import incentive - water network plus at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)

0.000

0.000

0.000

0.000

0.000

H	Service incentive mechanism
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30	SIM forecast revenue adjustment at 2017-18 FYA CPIH deflated price base	£m	3	2017-18 FYA (CPIH deflated)
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0.000

KEY

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App25 guidance and line definitions

This table summarises the adjustments arising from the 2010-15 reconciliation and from each of the PR14 reconciliations of performance in the period ending 31 March 2020. This table copies values entered in the tables for each of the PR14 reconciliation mechanisms. Block A relates to the further adjustments arising from the 2010-15 reconciliation to reflect the updated information for 2014-15. These are residual to the adjustments already recovered through the 2015-20 price controls. All input and copied values are in 2017-18 prices.

Line	Definition
Block A	Further 2010-15 reconciliation adjustments
1-4	2010-15 reconciliation adjustments. These are the further adjustments arising from the update to take account of actual 2014-15 performance. Note – lines 2 and 4 relate to CIS revenue adjustments only, as per the PR09 legacy blind year adjustments model (published in December 2017). <i>The adjustments are taken from the “Updated 2010-15 Reconciliation” published in December 2017.</i>
5-6	The adjustments to ensure consistency in how we apply inflation indices for the PR09 capital expenditure incentive scheme, we published the adjustments in October 2016. <i>The adjustments are obtained from the October 2016 publication and December 2017 publication “Updated 2010-15 Reconciliation”.</i>
7	Line 1 inflated to 2017-18 prices. This is an output from the RCV adjustments model. <i>Output from the RCV adjustment model</i>
8	Line 2 inflated to 2017-18 prices. This is an output from the revenue adjustments model. <i>Output from the revenue adjustment model</i>
9	Line 3 inflated to 2017-18 prices. This is an output from the RCV adjustments model. <i>Output from the RCV adjustment model</i>
10	Line 4 inflated to 2017-18 prices. This is an output from the revenue adjustments model. <i>Output from the revenue adjustment model</i>
11	Line 5 inflated to 2017-18 prices. This is an output from the RCV adjustments model. <i>Output from the RCV adjustment model</i>
12	Line 6 inflated to 2017-18 prices. This is an output from the RCV adjustments model. <i>Output from the RCV adjustment model</i>

Appendix C Outcome Delivery Incentive Calculations

Appendix C provides a detailed calculation for each ODI.

A1 - Safety of Drinking Water					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	99.98	99.98	100	100	100
Actual/Forecast performance level	99.96	99.97	99.96	99.98	99.98
Performance commitment level met	No	No	No	No	No
Penalty Deadband	99.95	99.95	99.95	99.95	99.95
ODI rate	£2.5m per 0.01% per year within the penalty zone (Maximum £10m per annum penalty)				
Penalty	£0 (actual performance sits above the penalty deadband)	£0 (actual performance sits above the penalty deadband)	£0 (actual performance sits above the penalty deadband)	£0 (forecast performance sits above the penalty deadband)	£0 (forecast performance sits above the penalty deadband)

A2 - Customer Acceptability					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	2.54	1.89	1.23	1.23	1.23
Actual/Forecast performance level	3.08	3.2	3.19	2.9	2.75
Performance commitment level met	No	No	No	No	No
Penalty Deadband	3.2	3.2	1.23	1.23	1.23
Penalty Collar	3.4	3.4	1.43	1.43	1.43
ODI rate	£0.093m per 0.01 contacts per 1000 population (Max £1.86m in penalty or reward per annum)				
Underperformance Penalty	£0 (actual performance sits in the reward and penalty deadband)	£0 (actual performance sits in the reward and penalty deadband)	= 1.43 (Penalty collar) - 1.23 (Penalty Deadband) = 20 @ 0.093 = £1.8600m Maximum penalty as actual performance of 3.19 is above penalty collar)	= 1.43 (Penalty collar) - 1.23 (Penalty Deadband) = 20 @ 0.093 = £1.8600m Maximum penalty as forecast performance of 2.90 is above penalty collar)	= 1.43 (Penalty collar) - 1.23 (Penalty Deadband) = 20 @ 0.093 = £1.8600m Maximum penalty as forecast performance of 2.75 is above penalty collar)

We re-stated our performance on this measure to 3.08, 2.91 was the figure originally published in our Annual Performance Report. The original value for 2015/16 was calculated excluding contacts that relate to issues due to the customers own pipework. During the course of the audit the reporter asked for clarification of the definition. Whilst the reporter agreed how we were applying the definition they did recommend making the definition more explicit. Ofwat stated that our MOS should remain the same as the DWI reporting and include those contacts from customers where the issue related to their own pipework. The restated value of 3.08 includes these contacts.

The re-stated performance level was reported in our 2016/17 APR, this has been shared with key stakeholders and placed on our external website for all customers and stakeholders to view. The restated performance level remains within the penalty deadband so there is no change to the penalty to be applied for the year.

A3 - Reliability of Supply					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	36	24	12	12	12
Actual/Forecast performance level	21.7	12.2	43.3	12	12
Performance commitment level met	Yes	Yes	No	Yes	Yes
Penalty Deadband	48	48	12	12	12
Penalty Collar	68	68	32	32	32
Reward Deadband	12	12	12	12	12
ODI rate	£0.195m per minute (Max Reward £2.34m pa "in the year". Max Penalty £3.9m pa "in the year")				
Penalty/Reward	£0	£0	= 32 (Penalty collar) - 12(Penalty Deadband) = 20 @ 0.195 = £3.9m Maximum penalty as actual performance of 43.3 is above penalty collar)	£0 (forecast performance sits at the reward and penalty deadband)	£0 (forecast performance sits at the reward and penalty deadband)

B3 - Preventing Pollutions					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	161	154	131	131	131
Actual/Forecast performance level	110	111	112	113	112
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Reward Deadband	131	131	131	131	131
Reward Collar	106	106	106	106	106
ODI rate	Penalty - £0.400m per incident (Max 10m pa) Reward £0.047m per incident (Max of £1.175m pa)				
Outperformance payment	= 131 (deadband) - 110 (Actual performance) = 21 * 0.047 = £0.987m	= 131 (deadband) - 111 (Actual performance) = 20 * 0.047 = £0.94m	= 131 (deadband) - 112 (Actual performance) = 19 * 0.047 = £0.893m	= 131 (deadband) - 113 (forecast performance) = 18 * 0.047 = £0.8460m	= 131 (deadband) - 112 (forecast performance) = 19 * 0.047 = £0.8930m

C1 - Responding to Climate Change					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	1,000	1,000	15,000	20,000	25,000
Actual/Forecast performance level	1,531	13,661	15,097	20,000	25,000
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Penalty Deadband	1,000	1,000	8,000	10,500	13,000
Penalty Collar	1,000	1,000	1,000	1,000	1,000
ODI rate	Penalty is £200 per property not delivered. Maximum penalty of £2.4m in 2019/20.				
Underperformance Penalty	£0 (actual performance achieves the Performance commitment level)	£0 (actual performance achieves the Performance commitment level)	£0 (actual performance achieves the Performance commitment level)	£0 (forecast performance achieves the Performance commitment level)	£0 (forecast performance achieves the Performance commitment level)

D1 - SIM					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	Top Quartile	Top Quartile	Top Quartile	Top Quartile	Top Quartile
Actual/Forecast performance level	83 -9th in the Industry	83 -13th in the Industry	85 -TBC (Other companies position not yet known)	Top Quartile	Top Quartile
Performance commitment level met				Yes	Yes
ODI rate	Penalty and Reward will be based on Ofwat methodology and apply at the end of the AMP 6 period				
Penalty/Reward	Penalty and Reward will be based on Ofwat methodology and apply at the end of the AMP 6 period				

D3 - Internal Sewer Flooding					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	310	300	292	282	269
Actual/Forecast performance level	223	242	221	223	222
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Reward Deadband	271	263	256	248	238
Reward Cap	232	226	221	215	207
ODI rate	Reward - £0.062m per property, Penalty £0.161m per property (Average performance over two year period in order to smooth the effects of weather variability)				
Outperformance payment	£0	= 263 (deadband) - (223 + 242)/2 = 233 (Actual performance) = 30 * 0.062 = £1.86m	= 256 (deadband) - (242+221)/2 = 232 (Actual performance) = 24 * 0.062 = £1.488m	= 248 (deadband) - (221 + 223)/2 = 222 (forecast performance) = 26 * 0.062 = £1.6120m	= 238 (deadband) - (223 + 222)/ 2 = 223 (forecast performance) = 15 * 0.062 = £0.9300m

D4 - Business Customer Satisfaction					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	87	88	89	90	90
Actual/Forecast performance level	88	89	87	90	90
Performance commitment level met	Yes	Yes	No	Yes	Yes
Penalty Deadband	80	80	80	80	80
Penalty Collar	70	70	70	70	70
ODI rate	Penalty rate of £0.5m/% (Max penalty of £5m pa)				
Penalty	£0 (actual performance is above the performance commitment level)	£0 (actual performance is above the performance commitment level)	£0 (actual performance is above the penalty deadband)	£0 (forecast performance is to achieve the performance commitment level)	£0 (forecast performance is to achieve the performance commitment level)

F1 - Asset Serviceability					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	Stable	Stable	Stable	Stable	Stable
Forecast performance level	Stable	Stable	Stable	Stable	Stable
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Penalty Deadband	Marginal	Marginal	Marginal	Marginal	Marginal
ODI rate	£20m maximum penalty for water and £20m maximum penalty for wastewater (£2.5 million per failure)				
Penalty	£0 (Performance commitment level is met)	£0 (Performance commitment level is met)	£0 (Performance commitment level is met)	£0 (forecast performance meets the performance commitment level)	£0 (forecast performance meets the performance commitment level)

F2 - Leakage					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	181	177	173	171	169
Actual/Forecast performance level	180	175	173	171	169
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Penalty Deadband	186	182	178	176	174
Penalty Collar	191	187	183	181	179
Reward Deadband	176	172	168	166	164
Reward Cap	171	168	163	161	159
ODI rate	Reward - £0.92m per MI/d (Maximum of £4.6m reward pa) Penalty - £1.84m per MI/d (Maximum of £9.2m penalty pa)				
Penalty/Reward	£0 (actual performance sits between the penalty deadband and the reward cap)	£0 (actual performance sits between the penalty deadband and the reward cap)	£0 (actual performance sits between the penalty deadband and the reward cap)	£0 (forecast performance sits between the penalty deadband and the reward cap)	£0 (forecast performance sits between the penalty deadband and the reward cap)

F3 - Asset Resilience (Water)					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	80	81	83	85	87
Actual/Forecast performance level	88	90	90	91	91
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Penalty Deadband	N/a	N/a	N/a	N/a	85
ODI rate	The penalty is £3.1m per % within the penalty zone. A maximum of £15.5m penalty at end of AMP 6 period.				
Penalty	£0 (actual performance is above the performance commitment level)	£0 (actual performance is above the performance commitment level)	£0 (actual performance is above the performance commitment level)	£0 (forecast performance is above the performance commitment level)	£0 (forecast performance is above the performance commitment level)

The performance level for 2015/16 was restated in the 2016/17 APR from 87 to 88. The original 2015/16 value was calculated against our most up to date list of strategically important assets as at 31 March 2016. During the audit the reporter asked for clarification of the definition, whilst the reporter agreed with how are applying the definition, they did recommend that the definitions should be more explicit. Correspondence with Ofwat was undertaken with Ofwat in November 2016. It was agreed that the list of assets that should be measured against is the list of assets at the time of the final determination. The performance was recalculated against the list of assets at the time of the Final Determination. Assurance has been undertaken on the restated data in line with our level of assurance for the APR.

An expanded commentary has been included within our published 2016/17 APR to explain the changes to the reported numbers to customers and stakeholders. The restated performance is still higher than our performance commitment level, therefore there is no change in the ODI penalty value.

F3 - Asset Resilience (Waste)					
Forecast year	2015/16	2016/17	2017/18	2018/19	2019/20
Performance commitment level	71	72	74	76	78
Actual/Forecast performance level	74	74	78	78	78
Performance commitment level met	Yes	Yes	Yes	Yes	Yes
Penalty Deadband	N/a	N/a	N/a	N/a	76
ODI rate	The penalty is £2.2m per % within the penalty zone. A maximum penalty of £11m at end of AMP 6 period.				
Penalty	£0 (actual performance is above the performance commitment level)	£0 (actual performance is above the performance commitment level)	£0 (actual performance is above the performance commitment level)	£0 (forecast performance sits above the penalty deadband)	£0 (forecast performance sits at the penalty deadband)

Appendix D Complaints from residential and business customers

Details for 2015/16

Date	Brief Overview of Complaint	Outcome	Actions Taken
July 2015	WATRS Case – A non-household property had been disconnected for non-payment. The customer challenged that no notice was given and no copy bill was issued,	WATRS ruled that “the company was legally authorised to disconnect the customer’s water supply”. However, as a copy bill was not provided WATRS ruled that a written apology is to be sent.	Written apology letter sent to the customer.
July 2015	WATRS Case – A metered customer requested a non-standard billing frequency	WATRS ruled that “the company has not failed to provide its service to the standard reasonably expected”	None
December 2015	CCWater Investigation –. One meter supplied three properties as a result of a conversion. One property was receiving the bill for all the properties which include charges for a leak.	The CCWater investigation was upheld, that the single property was not responsible for the leaking metered supply	Agreed to bill customer on unmeasured charges.
February 2016	WATRS Case – A customer disputed responsibility for a sewer blockage and requested the work to be paid by us. Evidence was provided that the blockage was on the customer private sewage pipe.	The customers claim did not succeed. WATRS ruled that “the reasons given by the customer are not sufficient to justify his claims”.	None
February 2016	Ofwat Case – A Customer complained that we went onto their land without permission. As we were not aware of the ownership we didn’t issue a notice to the customer.	Ofwat ruled in the customers favour and ruled for the compensation to be paid to the customer.	Compensation was paid to the customer.
February 2016	WATRS Case – A customer claimed a surface water rebate should be back dated to April 1998.	The customers claim did not succeed. WATRS ruled that “the reasons given by the customer are not sufficient to justify his claim”.	None
March 2016	WATRS Case – A customer raised multiple issues with water and waste water asset locations, shared services and charges being made from metered supply rather than unmeasured charges.	The customers claim did not succeed. WATRS ruled that “the reasons given by the customer are not sufficient to justify her claims”.	None
March 2016	Ofwat Case – A customer complained compensation for damage to their garden during a pipe replacement was not sufficient.	Ofwat ruled they will not investigate further as compensation has been paid to the customer and the complaint is now related to the “level of land compensation”.	Compensation has been paid to the customer.

Details for 2016/17

Date	Brief Overview of Complaint	Outcome	Actions Taken
June 2016	WATRS Case – A customer disputed the Rateable Value they were being billed.	The customers claim did not succeed. WATRS ruled that “the company has not failed to provide its services to the standard to be reasonably expected”.	None
June 2016	WATRS Case – A customer complained their metered charges were too high. We confirmed there were no leaks and the supply was only serving the customers property.	The customers claim did not succeed. WATRS ruled that “the company has not failed to provide its services to the standard to be reasonably expected”.	None
June 2016	WATRS Case – A customer claimed they were billed differently to other properties in the street. The customer was being billed on a Rateable Value and some of the neighbours were billed on a water meter.	The customers claim did not succeed. WATRS ruled that “the company has not failed to provide its services to the standard to be reasonably expected”.	None
July 2016	WATRS Case – A customer stated we failed to finalise their account when they left their property. We have no record of the customer contacting us to finalise their account.	The customers claim did not succeed. WATRS ruled that “there is no evidence that the company has failed to provide its services to the standard to be reasonably expected”.	None
September 2016	CCWater Investigation – A customer has an unauthorised connection to their metered supply and complained about excessive bills.	The CCWater investigation was upheld.	Customer’s previous charges were cancelled and customer was billed on Assessed Measured Charges.
September 2016	WATRS Case – A customer was claiming compensation for damage to their land in 1973 and 2015 caused by a leaking water main. We offered £1,500 but the customer declined this.	The customers claim succeed in part. WATRS ruled “I direct that the company should pay the customer compensation”.	Customer was paid to cover damage to their land.
October 2016	WATRS Case – A customer states that a Direct Debit payment had been set up and a default notice should not have been issued. We have no record of the Direct Debit and were unable to contact the customer therefore 3 years of arrears were accrued on the account	The customers claim did not succeed. WATRS stated “the customer has not shown that the company has failed to provide its services to the standard to be reasonably expected in respect of the Default notice”.	None

October 2016	WATRS Case – A customer requested a nonstandard bill format (daily unit standing charge rate)	The customers claim did not succeed. WATRS ruled that “there is no evidence that the company has failed to provide its services to the standard to be reasonably expected”.	None
November 2016	WATRS Case – A customer stated they were not liable for a service charge on a water meter as it had been paid for when installed.	The customers claim did not succeed. WATRS ruled that “the company does not need to take any further action”.	None
November 2016	WATRS Case – A customer challenged the Rateable value water charge on their property.	The customers claim did not succeed. WATRS ruled that “the company does not need to take any further action”.	None
December 2016	WATRS Case – Customer claimed the sewerage element of their bill did not have the 5% applied to the consumption element.	The customers claim succeed. WATRS ruled that “the company shall provide the customer with £5.00 and consider reasonable sewerage bill adjustments in future upon the customer’s request.	Customer was provided with the £5 and additional amounts will be paid upon request by the customer. In addition the words in our Scheme of Charges was amended.
December 2016	Ofwat Case – A customer refused us entry to their land to lay a new sewer pipe.	Ofwat ruled in the company’s favour.	None.
December 2016	WATRS Case – A customer applied for a surface water rebate in 2016. The rebate was applied to their account dating back to April 2014. The customer then claimed the rebate should go back to 1992.	The customers claim did not succeed. WATRS ruled that “the company does not need to take any further action.”	None.
January 2017	Ofwat Case – A customer claimed they owned the lane at the side of their house and would not let us lay a new sewer pipe.	Ofwat ruled that that they are unable to identify who owns the land and asked the customer to provide a copy of the title to proof they own the land.	None.
January 2017	WATRS Case – A customer’s property floods during rainfall. The customer claimed this was caused by our sewerage network. We investigated the flooding and confirmed the flooding was caused by surface water gullies.	The customers claim did not succeed. WATRS ruled that “the company does not need to take any further action”.	None

Details for 2017/18

Date	Brief Overview of Complaint	Outcome	Actions Taken
April 2017	WATRS Case - Following a visit to a customer's property (in 2016) we identified the customers should not be charged Surface Water Drainage. A rebate was applied to their account dating back to April 2014. The customer requested the rebate should go back to 2001.	The customers claim did not succeed. WATRS ruled that "the company does not need to take any further action".	None
April 2017	WATRS Case – A customer was disputing responsibility of a leaking pipe serving their property.	The customers claim did not succeed. WATRS ruled that "the company does not need to take any further action".	As a gesture of goodwill we have agreed to repair the leak.
April 2017	WATRS Case – A customer complained about a delay in resolving an issue with low water pressure and recurring sewage blockages. In addition the customers states we chased them for outstanding debt. The low water pressure issue was resolved promptly. Due to safety reasons there was a delay in resolving the sewer blockages. There was agreement that the customer account would be put on "hold" so that no further debt recovery action would be taken until the sewer blockages were addressed. However, this was not clearly communicated to the debt recovery team. A compensation value was refused by the customer	The customers claim succeeded. WATRS ruled that "the company needs to take the following further actions: (1) provide the customer with an explanation, if it is able to do so. (2) pay the customer compensation in the sum of £1,500.00. (3) an authorised representative of the company must provide the customer with a formal written apology for the stress and inconvenience caused."	An explanation, apology and compensation were sent to the customer.
May 2017	WATRS Case – A customer complaint was received about a debt recovery and litigation action taken. The customer debt has accumulated over a number of years and we had communicated with the customer on debt help and advice however the customer disputed this.	The customers claim did not succeed. WATRS ruled that "the company does not need to take any further action".	None
June 2017	WATRS Case – A customer complained regarding remedial work at their property and the customer service provision following a sewer blockage. We acknowledge that errors were made and as a result agreed with the customer to pay compensation. The	The customers claim did not succeed. WATRS ruled that "the company does not need to take any further action".	None

	customer subsequently requested additional compensation for their garden to be re-turfed.		
August 2017	WATRS Case – A customer complained they had been billed on the wrong tariff since 2011 and the offer of compensation was not sufficient. We recognise that we had not provided our usual level of service to the customer we offered to cancel charges and pay the customer higher compensation which was declined	The customers claim succeeded. WATRS ruled that” The company needs to take the following further action(s): I direct that the company clear the balance of the customer’s 2017/18 charges and pay compensation directly to the customer, if it has not already done so.	The account balance was cancelled and the customer has been paid.
November 2017	WATRS Case – A customer complained they should have a sewerage rebate for an artificial stream in their garden which does not return to the sewer. We visited the property and assessed that the customer is not entitled to a rebate as the stream works on a closed pump system and reuses the same water.	The customers claim did not succeed. WATRS ruled that “the company does not need to take any further action”.	None
November 2017	WATRS Case - A customer stated that the company has incorrectly charged them for water usage during a period which the property was rented, which was notified to us. The customer objects that we have brought court proceedings against them to recover the amount owed. The customer requested that we cancel the charges currently on the account, that we install a water meter, inform him of the applicable charges and pay compensation for negative reporting to credit reference agencies and legal fees relating to court proceedings. We stated that the customer remains liable for the water charges and that we are legally entitled to report them to credit reference agencies We were willing to fit a meter at property.	The customers claim did not succeed. WATRS ruled that “The dispute cannot be adjudicated at WATRS as it is currently the subject of court proceedings. The company does not need to take any further action”.	None
December 2017	WATRS Case - A customer stated that they are entitled to a payment of £8,000.00 as a result of their dissatisfaction with their bills & the company’s handling of this billing issue.	The customers claim did not succeed. WATRS ruled that “The company does not need to take any further action”.	N/A

	We maintain that the customer did not pay the charges which were correct and therefore debt recovery and payment defaults were filed.		
January 2018	<p>WATRS Case - A customer complained that we left the pavement in front of their property in a poor condition following work done at neighbouring property, thereby causing damage to their lawn and front path.</p> <p>We acknowledge the pavement was not left in a condition that could be reasonably expected, but deny that it caused damage to the complainants property. We repaired the pavement after the complaint was received and paid a goodwill payment to the complainant.</p>	The customers claim did not succeed. WATRS ruled that "The company does not need to take any further action".	N/A
February 2018	<p>WATRS Case – A customer stated that we placed negative reporting on his credit file for an amount they had not been notified they owed. The customer requested that the negative reporting be removed from their credit file.</p> <p>We maintain that the amount was correctly billed and we had made repeated attempts to contact the customer.</p>	The customers claim did not succeed. WATRS ruled that "The company does not need to take any further action".	N/A

Appendix E Category 1-2 Pollution Incidents

This section provides an overview of the category 1-2 pollution incidents for 2015-2017.

Incident Overview	Work Undertaken
On 1st July 2015 the company investigated a pollution incident due to a break in the final effluent line which led to a discharge of treated effluent into a stream.	The incident was attended within 80 minutes. A repair was carried out on the same day to repair damaged pipework. The repair was in place to stop the discharge 12 hours and 20 minutes after the report was received and a clean-up was undertaken.
On 18 th September 2015 the company investigated a pollution incident due to a burst rising main, which led to a discharge of wastewater into surface water near our wastewater treatment works.	The incident was attended within 38 minutes of receiving the report. A stopper was put in place to divert the flows and stop the pollution and then a repair was carried out to resolve the issue. Within 4 hours 46 minutes from attendance we investigated, identified the issue and stopped the pollution. The incident was cleaned up while the repair was being carried out.
On 13 th July 2016 the company investigated a pollution incident due to a drain valve on the storm tanks being partially opened. This did not set off our alarm. This resulted in a discharge of foul sewage via the long sea outfall.	The incident was attended 40 minutes after receiving the report. Within 2 days the valve was excavated and replaced. The incident was cleaned up while repair was being carried out.
We were inspecting out culverts in the area 13 th September 2016 and self-reported due to debris and rags at the outfall. This was confirmed during a site visit with NRW on the 14 th of September.	A clean up was undertaken. It was identified that 45 foul sewerage connections were misconnected to a surface water outfall. This was fully resolved by 7 th December 2016, with mitigation in place for the duration of the repairs. A review of similar networks was initiated to prevent reoccurrence elsewhere.
On 28 th November 2016 the company investigated a potential pollution incident due to an oil sheen observed in the river	<p>The incident was attended within 1 hour 47 minutes of the initial call. There were some difficulties identifying the source. On 7th December, an escape of heating oil was located at one of our operational sites. This had percolated through the ground in to a surface water drainage line which entered the watercourse. This was turned off immediately, stopping the leak. All remediation work has been undertaken.</p> <p>(This was reported as a Major Incident in Line 6 of App31)</p>

On 9 th January 2017 the company investigated a pollution incident caused by silt being released following the failure of mitigation measures during the drain down of a reservoir for repair.	The incident was attended within 32 minutes of the initial call to investigate. Within 2 days the area was fully cleaned and we made sure there was no lasting impact to the watercourse.
In January 2017 we reported an incident on the 24 th December 2016 the company investigated a pollution incident due to a burst rising main, which led to a discharge of wastewater into the watercourse	The incident was attended within 95 minutes of receiving the report. Within an hour of staff arriving on site, the discharge ceased. We carried out a repair to stop the pollution and the area was cleaned up whilst the repair was being carried out. An emergency response plan was developed to reduce the potential for impact if further bursts occur.
On 18 th February 2017 the company investigated a pollution incident due to the over-pumping of an excavation when repairing a burst on the water distribution system.	Over-pumping of the excavation took place without sufficient mitigation to prevent entry of silt into the nearby watercourse. Silt netting was installed on the 20 th February with further silt mitigation installed on the 21 st February. This allowed the repair to continue without further impact to the watercourse. A range of environmental awareness sessions have taken place following this incident in order to prevent reoccurrence. (This was reported as a Major Incident in Line 6 of App31)

Appendix F Prosecutions, enforcement undertakings and formal cautions

This table provides an overview of the prosecutions, enforcement undertakings and formal cautions from the EA/NRW reported in App31 lines 11-13.

Prosecution and Enforcement Undertakings- App31 lines 11 and 12

Date	Type of Breach	Brief Overview of Breach	Outcome	Actions Taken
December 2015	Prosecution	<u><i>Pentre Halkyn Sewage Pumping Station</i></u> The Company was prosecuted by Natural Resources Wales for two offences under the Environmental Permitting Regulations 2010.	The Company was fined £35,000 with £2,762 costs and a surcharge of £120. Magistrates agreed that the case was one of lower culpability and was given full credit for its early guilty plea.	Action was taken immediately to rectify the problem, lessons had been learned, additional works were carried out at the pumping station and a remote monitoring system was introduced.
June 2016	Enforcement Undertaking	<u><i>Ty Gwyn Waste Water Treatment Works</i></u> Natural Resources Wales accepted an Undertaking from Welsh Water in respect of an offence under the Salmon and Freshwater Fisheries Act 1975. A breach of permit conditions took place at Ty Gwyn Waste Water Treatment Works near Buckley, where a faulty hydrobrake which controls the flow of water to the works, caused raw sewage to discharge into the Foundry Drain, a tributary of the River Alyn over a two year period	The Company made a contribution of £40,000 to the Welsh Dee Trust to complete the River Alyn catchment habitat survey work and implement projects to improve the Alyn catchment, £10,000 to the Wrexham and District Fly Fishing Club and £20,000 to the North Wales Wildlife Trust to support habitat improvements in Alyn and the Anglesey Fens Living Landscapes Scheme. In addition DCWW paid £3,488 to Natural Resources Wales.	Appropriate remedial works were carried out as a matter of urgency.
June 2016	Enforcement Undertaking	<u><i>Alwen Water Treatment Works</i></u> Natural Resources Wales accepted an Undertaking from Welsh Water in respect of an offence under the Salmon and Freshwater Fisheries Act 1975.	The company made a contribution of £27,000 to the Marine Conservation Society to support their Wales-wide 'Wet	A programme of improvement and upgrading was carried out at the works. In addition, the aluminium coagulant was changed

		Aluminium levels from the Alwen Water Treatment Works, near Corwen exceeded permit conditions after a fault on an inlet valve allowed sediment build up from a back-up valve to enter the river. Aluminium in acidic waters increases toxicity to fish and the River Alwen at the point of entry is acidic.	Wipes Turn Nasty When You Flush Them' campaign which aimed to improve the marine environment along the Welsh coast, and £5,000 to the Welsh Dee Trust to help with their projects to improve spawning habitat in River Alwen catchment. We also paid £2,692 in costs to Natural Resources Wales	to an iron based one and the sludge in the lagoon was removed.
January 2016	Enforcement Undertaking	<u>Crosshands Sewage Pumping Station</u> Natural Resources Wales accepted an Undertaking from Welsh Water in respect of an offence under the Salmon and Freshwater Fisheries Act 1975. A blockage on the network balancing tank between the tank and the pumping station caused by excessive fat, oil and grease from a third party caused an overland discharge into the Afon Gwilli.	In response the company made a contribution of £12,000 to Afonydd Cymru, the body that represents the interests of the six River Trusts in Wales.	Legal action was instigated against the traders alleged to have caused this incident. A full environmental survey was undertaken, telemetry alarms were fitted and a full clean-up operation was undertaken.
August 2017	Enforcement Undertaking	<u>Bodenham Waste Water Treatment Works</u> Environment Agency accepted an Undertaking from Welsh Water in respect of an offence under the Environmental Permitting Regulations 2010 for contravention of a permit condition.	The company made a contribution of £28,000 to Farm Herefordshire/Herefordshire Rural Hub CIC in order to extend the existing farmer engagement project on diffuse pollution in the River Lugg catchment. £749.56 was also paid to the Environment Agency for investigation and legal fees	A robust remedial action plan was put in place and site infrastructure works were also carried out.

Formal Caution- App31 Line 13

Date	Type of Breach	<u>Overview of the Breach</u>
June 2015	Formal Caution	<p><u>Seion, Llanddeiniolen</u></p> <p>Welsh Water received a Formal Caution for a breach of Regulation 38(2) of the Environmental Permitting (England & Wales) Regulations 2010. Specifically, this related to two breaches of the permit conditions (operating without an infiltration system and the infiltration system must not connect to any water course or land drainage system).</p>
July 2015	Formal Caution	<p><u>Queensferry WWTW, Sandycroft, Flintshire</u></p> <p>Welsh Water received a Formal Caution for a breach of Regulation 38(2) of the Environmental Permitting (England & Wales) Regulations 2010. Specifically, this related to two breaches of the permit conditions (failure to ensure that the flow meter was fully operational and failure to ensure the storm tank was in use before the pass forward flow was achieved).</p>
January 2016	Formal Caution	<p><u>Tan Y Cae Pumping Station, Aberystwyth</u></p> <p>Welsh Water received a Formal Caution for a breach of Regulation 38(2) of the Environmental Permitting (England & Wales) Regulations 2010. Specifically, this related to the failure to provide and fully utilise 4700 cubic metres storm sewage storage capacity prior to discharge being made on two occasions and a failure to provide a recording system to record the frequency and duration of overflow events.</p>
November 2016	Formal Caution	<p><u>Blaenau Ffestiniog Waste water Treatment Works</u></p> <p>Welsh Water received a Formal Caution for a breach of Regulation 38(2) of the Environmental Permitting (England & Wales) Regulations 2010. Specifically, this related to the storm tanks filling and remaining full when the permitted pass forward flow had not been achieved.</p>
December 2017	Formal Caution	<p><u>Llandrindod Wells Waste Water Treatment Works</u></p> <p>Welsh Water received a Formal Caution for a breach of Regulation 38(2) of the Environmental Permitting (England & Wales) Regulations 2010. Specifically, this related to discharges of storm sewage to the storm tank occurring when the rate of flow at the storm separating weir was less than the agreed rate on two occasions and not minimising the pollution effects of discharges into the River Ithon on two occasions.</p>

Appendix G PR14 Reconciliation for Commitment Schemes in AMP6

1. Source

Information on the progress of each commitment scheme has been provided by the Welsh Water Project Management Office, extracted from the Commitment Tracker which is updated monthly by programme managers and client managers.

2. Reported figures

Schemes with Commitments for AMP6				
Type of Commitment	Number Complete	Number confirm to be completed before AMP end	Number forecast for AMP7 delivery	Grand Total
DWI Notices	25	15	19	59
National Environmental Programme Water Quality	1,087	1,339		2,426
National Environmental Programme Water Resources	19	10		29
Stakeholder	31	3	3	34
Statutory	38	7		45
Grand Total	1,210	1,399	40	2,646

Stakeholder commitments include:

- Dry Weather Flow compliance
- Catchment obligations
- Odour schemes

Welsh Water categorise Stakeholder commitments as schemes which Welsh Water or a representative of Welsh Water has made representation in writing or in a public forum that a scheme will be undertaken within the AMP6 timeline.

Statutory commitments include:

- Section 10 notices on Impounding Reservoirs
- Section 101a – first time sewage
- Wastewater Treatment works compliance schemes

Welsh Water categorise statutory commitments as schemes where there is Legislative driver.

3. Feedback on DWI Notices

Notices due for Completion in Amp6	15
Notices due for Completion in Amp7	19
Notices Completed in AMP6	25
New Notices issued in AMP6	3
Change Applications Submitted in AMP6	13
Change Applications Accepted in AMP6	12

We currently have 34 Notices that are forecast for completion in the remainder of AMP6 and in AMP7, with the majority of these being for Customer Acceptability (26). These customer acceptability Notices are for risks associated with discolouration and associated customer acceptability due to the condition and operation of the network system. 31 out of 82 zones have a Notice for customer acceptability, 5 of which have been completed and are in the monitoring period.

During AMP6 we made a total of 13 Change Applications to DWI, mainly for a change in delivery date and to date 12 have been accepted. 3 Notices, Pontsticill WTW, Bryn Cowlyd WTW and Tynywaun WTW were delayed due to the severe weather conditions in February and March. Portis WTW was delayed due to Brecon Beacons National Park requiring an environmental impact assessment for abandoning the works and laying new mains which caused a delay of a year for completion.

All other ongoing Notices are on target for completion by the deadline in the Notice.

Three new Notices have been issued in AMP6 to date, all for water treatment works, Pontsticill WTW, Llwynon WTW and Alaw WTW. These were issued following a turbidity exceedance at Pontsticill WTW, a taste and odour event at Llwynon WTW and a lead failure in the zone the Alaw WTW feeds.

4. Feedback on Water Resources National Environmental Programme (WRNEP)

As required by the WR NEP 5.1 for AMP 6, we have agreed modifications to 21 of our abstraction licences in order to meet the requirements of the Habitats Directive. This has included installing Hydrolox intake screens at 6 of our large river abstractions with a seventh to be delivered as part of the overall pumping station rebuild at Prioress Mill. We have undertaken the required investigations at 8 waterbodies designated as "Heavily Modified" due to the presence of our reservoir assets upstream, as required under the Water Framework Directive. The investigations have led to a number of remedial/further investigations to be completed in AMP 7, with one scheme at Castell Nos reservoir to be delivered before the end of AMP 6. We have completed all investigations required under the Eels regulations and are progressing with mitigation measures where required, for completion by the end of AMP 6. We are on schedule to deliver all the commitments identified in the Water Resources NEP v5.1 identified for delivery by the end of AMP6.

5. Feedback on Water Quality National Environmental Programme

NEP 5.3 was issued on 25th May 2018, Welsh Water have delivered 1,087 outputs to date with a further 1,339 outputs to be delivered by the end of AMP6 and 8 outputs to be delivered in early AMP7.

As part of the quarterly Regional Asset Strategy and Planning (RASP) meetings, NRW and Welsh Water have agreed changes to the programme to deliver the best solutions and value for money for the customer and environment including where investigations from AMP6 will inform our investment decision in AMP7.

The NEP programme is updated and signed off quarterly at RASP and annually NRW provide sign off for all schemes completed within the financial year.

In September 2015 the Llanelli Gowerton L2 drivers were included in the NEP to Welsh Water from NRW, these were not included in our PR14 submission, however we did submit a supporting document highlighting the potential risk required to meet this driver at that time. The L2 drivers have a commitment delivery date of 31st December 2020, which we are expected to meet and Welsh Water have ensured the transparency of the costs to deliver this new driver in the transition spend shown in table WWS10 and summarised in Section 5.

6. Feedback on Stakeholder Schemes

Of the 34 stakeholder commitments we are on schedule to complete 31 by the end of AMP6, 3 dry weather flow schemes are currently under review for discussion with the NRW to move the schemes to an AMP7 delivery date to ensure the most economical and effective design solution is agreed.

7. Feedback on Statutory Schemes

Section 101a – First time sewerage

Two schemes were completed in Year 2 at Conwy Rd (Llandudno) and Llanafan. One scheme has been completed in Year 3 at Ynysybwll. We currently have one scheme in progress at Ynyslas. Another scheme at Bagillt is currently having feasibility undertaken for delivery by end of AMP6.

Additional duty schemes that may arise through assessment or appeal during AMP6 will initially be planned for delivery in AMP7.

Treatment Works compliance

Brecon WWTW, Llanblethian SPS and Hereford Eign WWTW are complete or are scheduled to be complete to meet compliance requirements by the end of AMP6.

Section 10 Notices

In 2015/16, 18 section 10 notices were complete, 16 in 2016/17, 5 in 2017/18, 3 are scheduled for 2018/19 and 5 in 2019/20. Measures in the interest of safety (MITIOS) are then completed within the timelines identified by the Independent Inspection engineer and subsequently signed off by the engineer as complete. All MITIOS identified for completion before the end of AMP6 are on schedule. MITIOS for delivery by AMP7 deadlines have been included in our PR19 plan.

Appendix H Changes to pre-populated data

This appendix provide an overview of any changes to Ofwat's pre-populated data in the tables published in June 2018.

Table and Line	Year	Original Data	Updated Data	Reason
WS13 Line 7 -Specified Discount Rate	2015/20	0	3.6%	Data Missing
WS13 Line 20 - Third Party Revenue-Non-Households	2015/16	7.370	4.059	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WS13 Line 20 - Third Party Revenue-Non-Households	2016/17	8.145	4.702	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WS13 Line 22 - Grants and Contributions	2015/16	4.189	7.500	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WS13 Line 22 - Grants and Contributions	2016/17	4.164	7.607	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WWS13 Line 7 - Specified Discount Rate	2015/20	0	3.6%	Data Missing
WWS13 Line 20 - Third Party Revenue-Non-Households	2015/16	1.034	0	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WWS13 Line 20 - Third Party Revenue-Non-Households	2016/17	0.848	0	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WWS13 Line 22 - Grants and Contributions	2015/16	4.892	5.926	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WWS13 Line 22 - Grants and Contributions	2016/17	5.275	6.123	Movement of new connections revenue in the APR from third party non-household to grants and contributions
WS15- Line 9 - Actual Totex	2015/16	232.562	229.629	Restated Totex in 2016/17 cost assessment submission
WS15- Line 15 - Transition expenditure	2014/15	2.649	0.708	Pre-populated data is the forecast transition. Updated data is the outturn transition expenditure
WWS15- Line 9 - Actual Totex	2015/16	236.399	232.360	Restated Totex in 2016/17 cost assessment submission
WWS15- Line 9 - Actual Totex	2016/17	289.316	285.063	APR Totex less Llanelli and Gowerton expenditure
WS15 Line 15 - Transition expenditure	2014/15	3.410	1.400	Pre-populated data is the forecast transition. Updated data is the outturn transition expenditure
R10 Line 7 - Quantitative composite score	2015/16	127.19	126.79	Data obtained from the CCWater report.