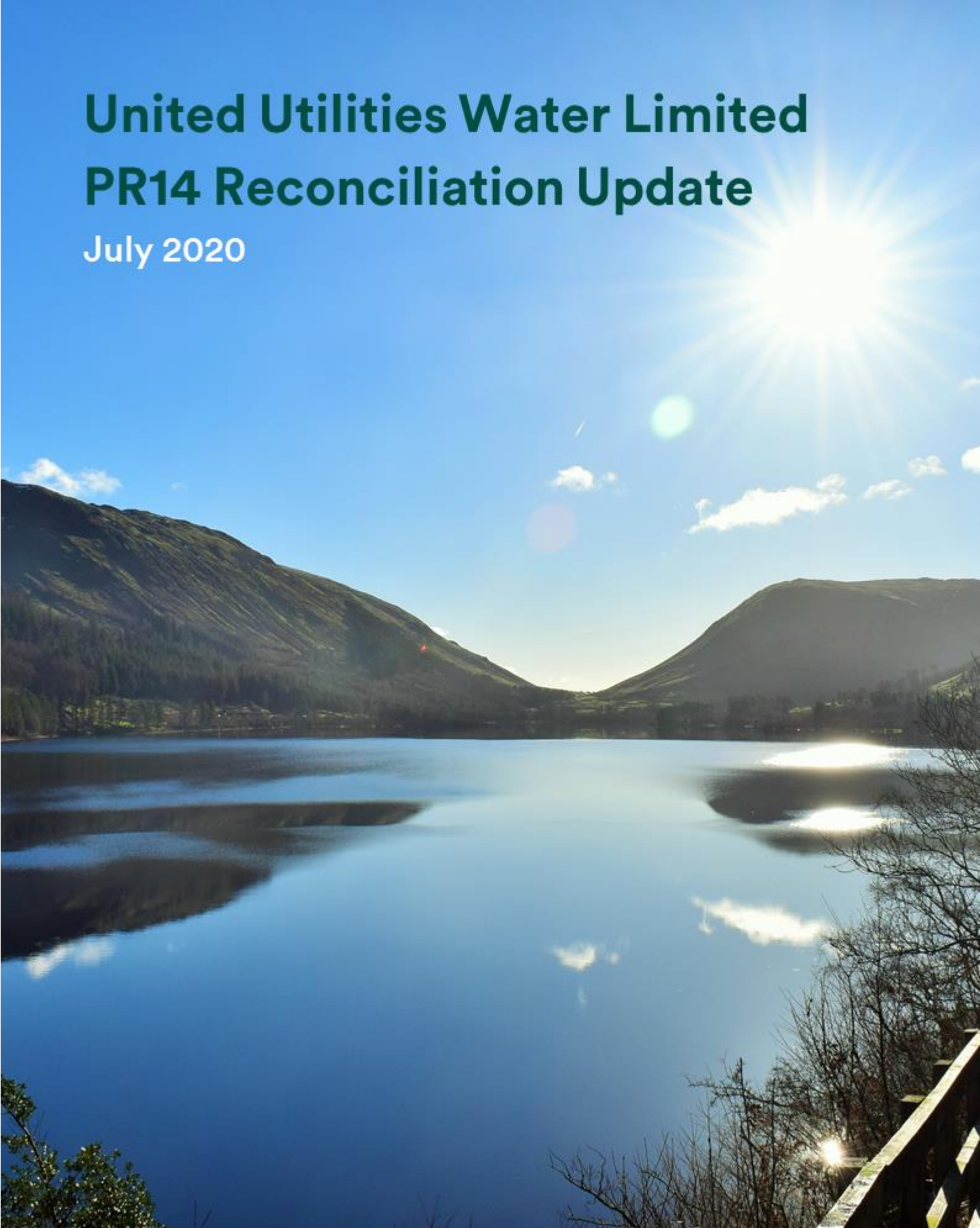


United Utilities Water Limited PR14 Reconciliation Update

July 2020



Background and purpose of this document

In July 2019, all water companies, including United Utilities, published PR14 reconciliation submissions which set out:

- How they had performed against the PR14 incentive regimes for the first four years of the AMP6 period and how they expected to perform in the final year, and
- How they proposed that this performance should be reflected in AMP7 revenue and the opening RCV adjustments, calculated using the relevant PR14 rulebook and applied through the PR19 process.

Ofwat published the PR19 final determinations in December 2019. These included details on the decisions made with respect to UU's proposed adjustments, the resultant revenue and RCV adjustments that were included within the PR19 process and detailed models that had been used to support the published adjustments.

In IN 20/03 Ofwat set out that:

"The blind year adjustment will require companies to refresh all of their PR14 reconciliations to replace the 2019-20 forecast performance with 2019-20 actual performance. We expect companies to submit their PR19 blind year information alongside their APR in July 2020.

To increase the transparency of this exercise we propose that companies use the new ODI performance model for the 2020-25 period".

We have worked with Ofwat to agree and finalise a version of the new ODI performance model, which accurately reflects the final determination. We have then used this agreed version to reflect any changes to ODI payments by replacing the 2019-20 forecast performance with 2019-20 actual performance and we have provided this as part of this year's re-submission.

This document, which is being provided alongside our 2020 Annual Performance Report, sets out in detail how we have performed against the PR14 incentive regimes for the final year of the AMP6 period. For completeness and additional transparency, it also provides details on performance against each measure over the full five years of the AMP6 period.

It also sets out how this performance varies from the position assumed in the FD and shows how this variance would be reflected in subsequent revenue and RCV adjustments.

The document follows the same format and is based on equivalent tables and models to our 2019 submission, although the submission to Ofwat uses the "year 5 only tables" provided by Ofwat and the new ODI model, it also provides specific commentary to demonstrate that any interventions highlighted within the FD have been incorporated within this resubmission. For clarity, the way that we have taken on board the FD feedback is summarised in Appendix A. The document contains:

- Overview of the PR14 reconciliation – summarising the impacts of each mechanism and the impact that this would have on customer bills in the AMP7 period
- Impact of the reconciliation models – detailed review of how each mechanism works and the impact of our performance against each mechanism
- Appendices – providing more detail on: our performance commitments; our customer experience programme; the delivery of our outputs and environmental commitments and also providing copies of the data tables and a detailed table commentary and a summary of how the FD feedback has been accommodated.

Our Annual Performance Report, which we have published alongside this submission, provides customers and other stakeholders with a detailed and transparent commentary on our performance in 2019/20, together with additional information setting out how we have performed across the full AMP6 period.

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Executive summary

1. In 2019 UuW published a PR14 reconciliation which set out our actual performance for the first four years of the AMP6 period and our predicted performance for the final year
2. In its December 2019 Final Determination, Ofwat identified a small number of areas where revisions were required
3. We have repopulated the data tables and models to reflect the revisions made in the FD and actual performance in 2019/20
 - a. Our performance against our ODIs was marginally worse than we had anticipated
 - b. We delivered our investment programmes in line with expectations, although we have accelerated an additional c£50m of AMP7 expenditure into 2019/20 to ensure we are as well placed as possible for the start of the AMP7 period.
 - c. We have also reflected the adjustments to the other incentive mechanisms
4. The impact of the revisions to all the incentive models is to reduce the revenue adjustment by £1.2m and to increase the RCV adjustment by £14.6m (17/18 prices).

During 2019/20 we faced a number of unexpected challenges; It has been a year of significant rainfall, culminating in severe flooding caused by storms Dennis and Ciara in February 2020. The flooding caused by Storm Ciara caused damage to a key water main that served thousands of properties in the Eden Valley area. The flooding and major burst had a negative impact on customer service and as a result our net performance against our ODI's was marginally worse than the assumed position in the FD.

A benefit of receiving 'fast track' status for PR19 is that we have greater certainty over AMP7 requirements. In our 2019 submission we had committed to an additional £100m of investment in this period to provide a flying start to AMP7 and to help meet some of the tougher targets for the 2020-2025 period. During the year we have implemented this programme, delivered our other investment programmes in line with expectations and have also accelerated £50m of AMP7 expenditure into 2019/20.

Our performance against each of the incentive mechanisms is set out in detail in Section 2 of this document. Changes from last year's assumptions and reference to where more detail can be found are summarised below.

Wholesale performance commitments

Performance against our performance measures and outcome delivery incentives is reported within our Annual Performance Report (APR).

The review of our performance against each measure, from this year's APR, has been replicated in section 2.1 of the document.

A number of our performance commitments measured the delivery of the outcomes from the AMP6 quality enhancement programmes or other similar programmes of work. Full details on the delivery of all the projects within these programmes is set out in **Appendix C** to this document.

In our 2019 submission we reflected the improvement in performance that we had made over the first four years of the period, whilst recognising that the performance targets for some of our measures became increasingly challenging in the latter years of the period. We set out that we anticipated ending the period with a net outperformance payment of between £30m and £60m and included a central estimate of c£45m (12/13 prices).

In the FD, Ofwat adjusted the penalty we had assumed for wastewater treatment works compliance and adjusted the methodology for calculating the wastewater rivers improved measure, as a result the net outperformance assumption was increased to £50m (12/13 prices).

The final outturn position on our wholesale ODIs over the period is £43.5m, with a slight improvement in water being offset by a reduction in wastewater.

PR14 Reconciliation

Overview

Household retail performance

During the AMP6 period we implemented a major transformation programme designed to allow us to both reduce our retail cost to serve and to improve customer service, with investment in this programme being underpinned by an ODI. In 2019 we set out that because we had revised the scope of this programme and had been able to deliver the programme at a lower cost than anticipated, we proposed returning £5.17m (2017/18 prices)¹ to customers. This approach was accepted in the FD, with a minor adjustment being proposed to this measure as a result of actual depreciation levels in 2019/20. Full details of this programme of work and the basis for the proposed adjustment are set out in **Appendix B** to this document.

Wholesale totex

As part of the PR14 process we made a totex menu choice of 106.2 for wastewater and 100.5 for the water service. This resulted in an assumed menu totex for the water service of £2.348bn (2012/13 prices) and an assumed totex for the wastewater service of £2.940bn (2012/13 prices).

In our 2019 submission we set out that we expected to be able to deliver the AMP6 programme of work on a like for like and outturn cost basis, for approximately £100 million lower than the totex assumed at PR14 and that we had significantly accelerated our AMP6 investment programmes to deliver a better performance against our performance commitments.

We also said that we had committed to an additional £350 million of investment to support resilience projects, bringing additional customer benefits during AMP6 as well as to make a flying start to some of the key AMP7 targets. Together with £84m of atypical expenditure that was being incurred in responding to and building additional resilience to deal with the extended period of hot and dry weather in 2018.

This year we have completed the implementation of these programmes, broadly in line with our 2019 expectations. We have however, also accelerated £50m of AMP7 scope (over and above our agreed transition programmes), to ensure that we are as well placed as possible for the start of AMP7.

Other incentive mechanisms

Wholesale Revenue Forecasting Incentive Mechanism (WRFIM) - The WRFIM incentivises companies to improve their revenue forecasting by adjusting future revenues to account for any over or under recovery in previous years and applying a penalty if companies over or under recover by 2% more or less than the allowed revenue. In our 2019 submission the wholesale water variance had been no more than 1.5% and the wholesale wastewater variance having been no more than 0.6%, therefore we had not incurred any penalty against this mechanism and we assumed that we would recover revenue directly in line with expectations in 2019/20. During 2019/20 we remained within the 2% tolerance levels, although we over recovered on water and under recovered on wastewater. Details of this revision are set out in section 2.4 of this document.

Household retail mechanism - The household retail price control provides for annual revenue adjustment factors to reflect differences between actual and expected customer numbers and numbers of metered customers. In 2019 we stated that customer numbers had been slightly above PR14 assumptions and proposed to recover £5.2m (2017/18 prices). The current figure is slightly lower at £4.9m. The differences are explained in the table commentary in **Appendix E**.

Land Sales - The land sales mechanism returns money to customers via reductions to the RCV, from the net proceeds of disposals of land during the period, after the deduction of all offsetting costs. In 2019 we estimated that the value of this during the AMP6 period was £6.8m (2017/18 prices). The actual figure is similar at £6.5m and the differences are explained in the table commentary in **Appendix E**.

¹ Equal to £4.5m in 2012/13 prices and £5.7m on a nominal basis

PR14 Reconciliation

Overview

Water trading incentives - To encourage better, more sustainable use of water resources within the UK, incentives designed to encourage efficient water trading between companies were introduced for AMP6. We do not benefit from this incentive during the AMP6 period.

Uncertainty mechanism (water rates) - The only uncertainty mechanism (notified item) within the AMP6 final determination is for water business rates. As our actual costs are not materially different to those assumed at PR14 we are not applying this mechanism.

Service Incentive mechanism (SIM) – Final values for SIM were determined in the PR19 Final determination and have not been revisited in this resubmission.

Reconciling 2010-15 performance - The PR14 price review and final determination made revenue and RCV adjustments that reflected the anticipated AMP5 outturn position against the AMP5 incentive mechanisms. Due to the timing of the price review, these adjustments were based upon four years of actual performance and one year of predicted performance. Ofwat published the final position on these measures in December 2017 and these adjustments were reflected in the PR19 final determination.

CIS RCV inflation adjustment - Following the PR14 final determination Ofwat identified an adjustment to indexation that should be made in determining the opening RCV for AMP7. The value for each company was set out in its 2010-2015 reconciliation document published in December 2017. These adjustments were reflected in the PR19 final determination.

PR14 Reconciliation

Overview

1.1 Application of adjustments to revenue and regulatory capital value

As part of the PR19 process, revenue and wholesale regulatory capital values (RCV) were adjusted using the process and models set out within Ofwat's relevant "PR14 reconciliation rulebook" methodology^{2 3} to account for our actual and forecast performance against the PR14 incentive mechanisms.

In our 2019 submission we set out that, at aggregate level, the adjustments would increase allowed revenues by £54.3m (2017/18 prices) and increase the opening RCV by £73.0m.

Ofwat revised some of these assumptions in the PR19 final determination to reduce the revenue adjustments to £42.2m, mainly as a result of the revised calculation of SIM and to increase the uplift to the opening RCV to £77.7m.

The final values are an uplift to revenues of £41.0m and an increase to the RCV of £92.2m

Table 1 Overall adjustments - £m (2017-18 FYA CPIH deflated: PR19 base year price)

	Wholesale water		Wholesale Wastewater		Retail
	RCV	Revenue	RCV	Revenue	Revenue
PR19 FD	58.2	28.8	19.5	7.1	6.3
Final Position	59.3	24.1	32.9	11.1	5.8
Variance	1.1	-4.7	13.4	3.9	-0.5

Revenue adjustments by incentive mechanism

The previously assumed and final revenue adjustments resulting from each of the AMP6 reconciliation mechanisms that apply to each PR19 price control are set out in **Table 2 to Table 4 below**.

Table 2 Water service revenue adjustments £m 2017/18 CPIH FYA prices

Water revenue adjustments	2019 submission	FD	2020 submission	Variance
Final 2010-15 reconciliation	-11.6	-11.6	-11.6	-0.0
Water trading	-	-	-	
WRFIM	-6.0	-6.0	-13.6	-7.5
Outcome delivery incentive (net penalty)	-3.2	-3.2	-0.7	2.5
Totex menu revenue adjustment	49.6	49.6	50.0	0.4
Water service: revenue adjustment	28.8	28.8	24.1	-4.7

² UJW's PR14 ODIs are aggregated at service level with the net value being applied as a RCV adjustment (reward) or revenue adjustment (penalty). As such, the rulebook models have been applied in this way.

³ UJW has a financial ODI which applies to the household retail control, as no model exists for household retail ODIs a wholesale model has been used to determine the impact of this ODI on PR19 revenue.

PR14 Reconciliation

Overview

Table 3 Wastewater service revenue adjustments £m 2017/18 CPIH FYA prices

Wastewater revenue adjustments	2019 submission	FD	2020 submission	Variance
Final 2010-15 reconciliation	-11.8	-11.8	-11.9	-0.0
WRFIM	7.8	7.8	12.9	5.1
Outcome delivery incentive (net penalty)	-	-	-	-
Totex menu revenue adjustment	11.2	11.2	10.0	-1.2
Wastewater service: revenue adjustment	7.1	7.1	11.1	3.9

Table 4 Household retail revenue adjustments £m 2017/18 CPIH FYA prices

Household retail revenue adjustments	2019 submission	FD	2020 submission	Variance
Customer Experience (CEP)	-5.2	-5.2	-5.3	-0.1
Household retail revenue	5.2	5.2	4.9	-0.3
Service Incentive Mechanism (SIM)	15.0	6.2	6.2	-
Household retail revenue adjustment	15.0	6.3	5.8	-0.5

As can be seen from the tables above, the revisions to the PR14 incentive mechanisms generate:

- A net reduction in wholesale water revenues of £4.7m
- A net increase to wholesale wastewater revenues of £3.9m and
- A net reduction in household retail revenues of £0.5m

The combined impact of the revision to the incentive mechanisms is an overall net reduction to revenues of £1.2m.

PR14 Reconciliation

Overview

Regulatory Capital Value adjustments by incentive mechanism

The previously assumed and final revenue adjustments resulting from each of the AMP6 reconciliation mechanisms that apply to each PR19 price control are set out in **Table 5** and **Table 6** below

Table 5 PR14 Water service RCV reconciliation adjustments expressed in 2017/18 FYA CPIH deflated price base

Water RCV adjustments excluding the PR09 CIS correction	2019 submission	FD	2020 submission	Variance (£m)
Net PR14 RCV adjustment carried forward to PR19	36.4	36.4	36.5	0.1
Outcome delivery incentives (net reward)	-	-	-	-
AMP6 Totex menu RCV adjustment	107.8	107.8	108.8	1.1
NPV effect of 50% of proceeds of land disposals 2014-20	-6.3	-6.3	-6.1	0.2
Other adjustment to wholesale water RCV	-	-	-	-
PR09 CIS RCV indexation adjustment	-79.8	-79.8	-80.0	-0.3
Total Water RCV adjustment	58.2	58.2	59.3	1.1

Table 6 PR14 Wastewater service RCV reconciliation adjustments expressed in 2017/18 FYA CPIH deflated price base

Wastewater RCV Adjustments excluding the PR09 CIS correction	2019 submission	FD	2020 submission	Variance (£m)
Net PR14 RCV adjustment carried forward to PR19	52.5	52.5	52.7	0.2
Outcome delivery incentives (net reward)	55.9	60.5	50.7	-9.8
Totex menu RCV adjustment	42.0	42.0	65.5	23.5
NPV effect of 50% of proceeds of land disposals 2014-20	-0.5	-0.5	-0.4	0.1
Other adjustment to wholesale wastewater RCV	-	-	-	-
CIS RCV indexation adjustment as at 31 March 2015	-135.1	-135.1	-135.5	-0.4
Total Wastewater RCV adjustment	14.9	19.5	32.9	13.4

As can be seen from the tables above, the revisions to the PR14 incentive mechanisms generate:

- A net increase in the wholesale water RCV of £1.1m and
- A net increase to wholesale wastewater RCV of £13.4m

The combined impact of the revision to the incentive mechanisms is an overall net increase to the RCV of £14.6m (17/18 prices).

PR14 Reconciliation

Overview

As part of the PR14 process, the wholesale incentive mechanisms were applied to the two water and wastewater price controls. However, for PR19, the impact of these incentives needed to be attributed across four PR19 wholesale price controls.

The following five tables provide a summary of the 2019 submission, the position assumed in the FD, the final position and then the variance between the final position and the FD for each of the five PR19 price controls.

Table 7 Reconciling AMP6 performance for Water network plus (17/18 CPIH FYA)

Water network plus (£m)	2019 submission	FD	2020 submission	Variance
Total revenue adjustment	28.05	28.05	23.40	-4.65
RCV adjustment	58.18	58.18	59.29	1.11

Table 8 Reconciling AMP6 performance for Water resources (17/18 CPIH FYA)

Water resources (£m)	2019 submission	FD	2020 submission	Variance
Total revenue adjustment	0.70	0.70	0.70	0.00
RCV adjustment	-	-	-	-

Table 9 Reconciling AMP6 performance for Wastewater network plus (17/18 CPIH FYA)

Wastewater network plus (£m)	2019 submission	FD	2020 submission	Variance
Total revenue adjustment	7.14	7.14	11.08	3.94
RCV adjustment	14.87	19.45	32.90	13.45

Table 10 Reconciling AMP6 performance for Bioresources (17/18 CPIH FYA)

Bioresources (£m)	2019 submission	FD	2020 submission	Variance
Total revenue adjustment	-	-	-	-
RCV adjustment	-	-	-	-

Table 11 Reconciling AMP6 performance for Retail household (17/18 CPIH FYA)

Retail household (£m)	2019 submission	FD	2020 submission	Variance
Total revenue adjustment	15.00	6.27	5.85	-0.46

The values shown in the tables above are made up from adjustments through eight separate incentive mechanisms. The impact of each of these mechanisms by price control is set out in the following sections.

PR14 Reconciliation

Overview

1.2 Assurance

The data used within this year's submission has been derived from two main sources:

- **Actual data for 2019/20** : this data has been subject to detailed assurance processes as set out within our APR
- **Historic data from AMP5 or the first four years of AMP6**: this data has already been determined by Ofwat and has been used without any subsequent adjustments within this submission

The actual data for 2019/20 has been subject to a detailed three lines of assurance approach.

- Data providers, their managers and business unit directors have produced and approved the data and audit trails that were developed to support the values and data reported within this submission. Reported data is reviewed and signed off before presentation to the U UW Board.
- The Economic Regulation team has provided the assurance and governance framework for the data collection and review process and has provided oversight of the application of this process. UU Corporate Audit has undertaken a review of the controls over the accuracy of the data within the submission and to confirm that the assurance framework has been fully applied.
- The U UW Financial auditor (KPMG) or the U UW Independent Technical Auditor (Jacobs) has reviewed each of the data methodologies and audit trails and have provided audit opinions or independent technical assurance statements for the U UW Board. These opinions or statements are published within each year's Annual Performance Report.

The methodology used to undertake the analysis and the checks and controls that have been put in place to confirm that this data has been transposed and analysed correctly has been fully documented, with these documents and supporting data being subject to detailed internal governance and review processes.

The information within the submission has also been subject to an independent review undertaken by UU Corporate Audit. This review had the objectives of reviewing:

- The validity and consistency of the data reported in the supporting data tables
- Consistency of the commentary with the underlying data
- Compliance of the reported data and commentary with key aspects of PR19 methodology and PR14 reconciliation rulebook
- Board Assurance statements are supportable, in particular in respect of the stated assurance activities

The review concluded that: "Overall we are satisfied that the data in the AMP6 data tables is valid and supported to underlying records. The commentary within the draft submission is consistent with the data and is compliant with the PR19 methodology and PR14 reconciliation rule book. The Board assurance statement is supportable and a fair reflection of the assurance activities"

The PR14 reconciliation submission and the results of the assurance process were reviewed at the June 2020 U UW Board meeting, which endorsed the submission and approved the signature of the following Board Assurance statement.

PR14 Reconciliation

Overview

Board Assurance statement

We, the Board of United Utilities Water Limited (UUW, or the Company) are satisfied that:

- The data and information contained within this submission has been subject to the same robust approach to assurance and governance that we are using for our 2020 Annual Performance Report,
- The information provided sets out how the company has performed during financial year 2019 20 against the PR14 Final determination and our statutory and licence obligations and how this performance compares to the assumed performance levels assumed in 2019 and used within the PR19 final determination,
- The proposed adjustments follow the PR14 reconciliation rulebook methodology

In making this statement we have considered the evidence provided by the Executive to the UUW Board, the assurance provided by KPMG and Jacobs and the review of the submission undertaken by UU Corporate Audit.

The Corporate Audit review had the objectives of assuring:

- The validity and consistency of the data reported in the supporting data tables
- Consistency of the commentary with the underlying data
- Compliance of the reported data and commentary with key aspects of PR19 methodology and PR14 reconciliation rulebook
- Board Assurance statements are supportable, in particular in respect of the stated assurance activities

Signed on behalf of the Board



Steve Mogford

Chief Executive Officer

This board assurance statement was approved at a meeting of the board of directors of United Utilities Water Limited on 30 June 2020 and signed on its behalf by Steve Mogford, Chief Executive Officer.

2 Impact of the reconciliation mechanisms

Overview of the incentive mechanisms

As part of the PR19 process, Ofwat made adjustments to the AMP7 required revenue and opening RCV to account for our actual performance within the AMP6 period against the assumptions made at PR14. With these adjustments being made using the prescribed incentive mechanisms.

These mechanisms cover the full range of activities within the Wholesale and Household Retail businesses, rewarding or penalising the company to ensure that customer bills are a fair reflection of actual performance compared to the assumptions made in the PR14 final determination. The ten adjustment mechanisms are summarised below:

Outcome delivery incentives (wholesale water / wholesale wastewater / household retail)

Outcome Delivery Incentives (ODIs) were new mechanisms for AMP6 that were designed to incentivise companies to deliver and outperform performance targets, and to protect customers where companies did not deliver against the range of performance commitments embedded in their final determinations. They also provide incentives to companies to improve performance beyond these commitments, where it is cost beneficial to do so. UUW's measures all apply at the end of the period with adjustments made by:

- Summing the aggregate five year penalties and rewards for all measures within a service to produce a net penalty or reward for each service.
- If this generates a net penalty this is applied as an AMP7 revenue reduction at the service level. If this generates a net reward this is applied as an increase to the AMP7 opening RCV for the service.

Service Incentive Mechanism (SIM)

Ofwat's Service Incentive Mechanism (SIM) encouraged water companies in England and Wales to provide better service to their customers by measuring customer satisfaction. The SIM allowed a comparison of companies' performance by measuring the following aspects of service delivery:

- The number of occasions where customers have made contact when something has gone wrong or appears to have gone wrong, for example, phoning about a billing error or writing to complain about a water supply problem.
- A customer survey measuring how well companies have handled all types of customer contacts, not just when things have gone wrong.

An aggregate SIM score is calculated based on performance against these two elements. At PR19 penalties and rewards were then based on the degree of variance between each company's final score and the corresponding industry average.

Companies which had a strong performance on SIM - as measured by their ranking relative to other companies - earned a financial reward. Companies with a weaker performance received a financial penalty.

PR14 Reconciliation

Impact of the reconciliation mechanisms

Totex menu reconciliation

The PR14 final determination set total expenditure (totex) for the 2015-20 period for UUW's wholesale water and wholesale wastewater revenue allowances. The totex menu incentive mechanism accounts for variances against the totex assumptions embedded in the company's final determination. The detail of this mechanism is complex, although it is based upon three main principles:

- All expenditure incurred in the five year period is treated the same whether that expenditure is capital expenditure ("capex") or operating expenditure ("opex").
- Variances in expenditure levels result in revisions to AMP7 revenues and opening regulatory capital values (RCV). An increase in expenditure results in an increase in revenue and RCV (using PR14 PAYG rates).
- Variances in expenditure levels are also subject to a pain/gain mechanism, which provides revenue incentives for companies to deliver lower expenditure and penalties where companies overspend.

These principles work together in a way such that if companies deliver their programme for a lower level of totex than assumed in the FD then this saving is shared between customers and the company. Equally, where the company spends more than was allowed at PR14, then both the company and customers contribute towards the additional expenditure.

Wholesale revenue forecasting incentive mechanism (WRFIM)

The Wholesale Revenue Forecasting Incentive Mechanism (WRFIM) is a new mechanism for AMP6 that replaces the PRO9 Revenue Correction Mechanism (RCM). The design of the mechanism incentivises companies to improve their revenue forecasting within the wholesale price controls and reduces the impact on customer bills arising from revenue forecasting deviations by:

- Applying a financial penalty if over or under recovery of revenue falls outside the set error tolerance range (2%).
- Permitting the adjustment of future allowed revenues during the AMP to take account of over and under recoveries in previous years.

Household retail mechanism

The household retail price control is an average revenue control with annual revenue adjustment factors to reflect differences between actual and expected customer numbers and meter penetration. Total estimated allowed revenues are based on the projected numbers of customers and meter penetration set out in our business plan. If actual customer numbers or meter penetrations differ from these projected values, then a modification is required to allow household retail revenues to account for this.

Uncertainty mechanism (water rates)

The only uncertainty mechanism (notified item) within the AMP6 final determination is for water business rates. This mechanism reflected that there was uncertainty around the 2017 revaluation exercise and that these costs are outside of management control but still provided incentives to companies to engage with stakeholders to minimise the impact on customers. This was done by applying a cost sharing rate of 75% to the customer and 25% to the company.

Water trading

In order to encourage better, more sustainable use of water resources within the UK, water trading incentives designed to encourage efficient water trading between companies have been introduced. These incentives apply to both new water exports (sellers) and new water imports (buyers) for all new qualifying trades in 2015-20.

PR14 Reconciliation

Impact of the reconciliation mechanisms

Land disposal

The land disposals mechanism has formed part of the regulatory price setting process since PR94. It ensures that customers benefit from land sales and is based on the net proceeds - after the deduction of all offsetting costs from disposals of protected land - including those already subject to regulation through Condition K of the licence.

Final reconciliation of 2010-15 performance

The PR14 final determination made revenue and RCV adjustments reflecting the anticipated AMP5 outturn position against the AMP5 targets and incentive mechanisms, which were set at PR09. Due to the timing of the review, these adjustments were based upon four years of actual performance and one year's predicted performance. Following company submissions and consultations during 2016 Ofwat published a determination in October 2016 and subsequently provided an update and revised adjustment values to the change protocol and overlap mechanisms in December 2017.

PR09 capital incentive scheme RCV inflation correction

The company's RCV varies in with inflation and relative additions/depreciation to the asset base. Following the PR14 FD Ofwat identified an indexation adjustment that should be applied in determining the opening RCV for AMP6. The value for each company was set out in the 2010-2015 reconciliation document published in December 2017 and it was determined that this adjustment should be applied to the RCV through the PR19 process.

Revenue adjustments summary

Several of the reconciliation mechanisms result in adjustment to revenues where there are variances to the assumptions set out at PR14. The revenue feeder model collates the outputs from the various reconciliation mechanisms and calculates a net revenue adjustment to apply to the AMP7 revenue requirements (and converts the adjustments into base year prices). **Table 12** summarises the adjustments that we have calculated based on our performance across the various mechanisms in AMP6.

Table 12 Summary of the revenue adjustments to be made to AMP7 £m 2017/18 CPIH FYA prices

	18/19 adjustment total	FD	19/20 adjustment total	Variance
Water resources	0.698	0.698	0.700	0.002
Water network plus	28.051	28.051	23.399	-4.653
Bioresources	-	-	-	-
Wastewater network plus	7.138	7.138	11.075	3.938
Retail Household	15.004	6.238	5.846	-0.392

PR14 Reconciliation

Impact of the reconciliation mechanisms

The adjustments for the reconciliation mechanisms within each price control are in **Table 123 to Table 17** below.

Table 123 Water Resources revenue adjustments to be made to AMP7 £m 2017/18 CPIH FYA prices

	18/19 adjustment total	FD	19/20 adjustment total	Variance
ODI in-period revenue adjustment	-	-	-	-
ODI end of period revenue adjustment	0.698	0.698	0.700	0.002
Water trading incentives	-	-	-	-
Water resources revenue adjustment	0.698	0.698	0.700	0.002

Table 134 Water network plus revenue adjustments to be made to AMP7 £m 2017/18 CPIH FYA prices

	18/19 adjustment total	FD	19/20 adjustment total	Variance
2010-15 reconciliation revenue adjustment	-11.610	-11.610	-11.648	-0.038
ODI in-period revenue adjustment	-	-	-	-
ODI end of period revenue adjustment	-3.938	-3.938	-1.434	2.504
Totex menu revenue adjustment	49.614	49.614	50.041	0.427
Water trading export incentive	-	-	-	-
Water trading import incentive	-	-	-	-
WRFIM reward / (penalty) end of AMP6	-6.015	-6.015	-13.561	-7.546
Water network plus revenue adjustment	28.051	28.051	23.399	-4.653

Table 145 Bioresources revenue adjustments to be made to AMP7 £m 2017/18 CPIH FYA prices

	18/19 adjustment total	FD	19/20 adjustment total	Variance
ODI in-period revenue adjustment	-	-	-	-
ODI end of period revenue adjustment	-	-	-	-
Bioresources revenue adjustment	-	-	-	-

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 16 Wastewater network plus revenue adjustments to be made to AMP7 £m 2017/18 CPIH FYA prices

	18/19 adjustment total	FD	19/20 adjustment total	Variance
2010-15 reconciliation revenue adjustment	-11.846	-11.846	-11.884	-0.038
Totex menu revenue adjustment	11.187	11.187	10.030	-1.157
ODI in-period revenue adjustment	-	-	-	-
ODI end of period revenue adjustment	-	-	-	-
WRFIM reward / (penalty) end of AMP6	7.797	7.797	12.930	5.133
Wastewater network plus revenue adjustment	7.138	7.138	11.075	3.938

Table 17 Household retail revenue adjustments to be made to AMP7 £m 2017/18 CPIH FYA prices

	18/19 adjustment total	FD	19/20 adjustment total	Variance
ODI in-period revenue adjustment	-	-	-	-
ODI end of period revenue adjustment	-5.173	-5.173	-5.335	-0.162
Residential retail revenue adjustment	5.209	5.209	4.943	-0.266
SIM forecast revenue adjustment	14.968	6.238	6.238	-
Household retail revenue adjustment	14.098	6.274	5.846	-0.438

PR14 Reconciliation

Impact of the reconciliation mechanisms

RCV adjustments summary

Several of the reconciliation mechanisms result in adjustment to the RCVs where there are variances to the assumptions set out at PR14. The RCV feeder model collates the outputs from the various reconciliation mechanisms and calculates the adjustment required to at the end of AMP6 - the “midnight adjustment” - and converts the adjustments into base year prices. The adjustments, which will be made to the Water and Wastewater RCVs before they are split out into the AMP7 price control components, are summarised in **Table 18 and Table 19** below.

Table 18 Water midnight adjustments before allocation to AMP7 price control £m 2017/18 CPIH FYA prices

	Adjustment
Water - Total adjustment RCV carry forward to PR19	36.533
Water - CIS RCV inflation adjustment as at 31 March 2015	-80.008
Water - NPV effect of 50% of proceeds from disposals of interest in land	-6.079
ODI end of period RCV adjustment - Water resources	-
Water - Totex menu RCV adjustment	108.842
Water - Other adjustment to wholesale RCV	-

Table 19 Wastewater midnight adjustments before allocation to AMP7 price control £m 2017/18 CPIH FYA prices

	Adjustment
Wastewater - Total adjustment RCV carry forward to PR19	52.703
Wastewater - CIS RCV inflation adjustment as at 31 March 2015	-135.501
Wastewater - NPV effect of 50% of proceeds from disposals of interest in land	-0.438
ODI end of period RCV adjustment - Wastewater network plus	50.662
Wastewater - Totex menu RCV adjustment	65.477
Wastewater - Other adjustment to wholesale RCV	-

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.1 Outcome delivery incentive (ODI) mechanisms

Change in performance between 2019/20 assumed performance 2019/20 actual performance

The net impact of the change in performance between 2019/20 assumed performance and 2019/20 actual performance as derived through the ODI model and ODI reconciliation model that were provided following the PR19 FD are set out in the table below.

Table 20 2019/20 ODI comparison FD to Actual (£m 2012/13 prices)

Performance Commitment	FD position – (2015-2020)	Actual position – (2015-2020)	Variance
A2: Water quality events DWI category 3 or above	-3.0	-2.4	0.6
A3: Water Quality Service Index	-14.2	-14.2	0.0
B1: Average minutes supply lost per property (a year)	7.0	12.5	5.6
B2: Reliable water service index	-23.9	-31.9	-8.0
B3: Security of supply index (SoSI)	-	-	-
B4: Total leakage at or below target	9.1	13.1	4.0
B5: Resilience of impounding reservoirs	-	-	-
B6: Thirlmere transfer into West Cumbria	21.6	21.6	0.0
C1: Contribution to rivers improved - water	0.6	0.6	0.0
Water total	-2.8	-0.6	2.2
A1: Private sewers service index	36.9	36.9	0.0
A2: Wastewater network performance index	-	-	-
B2: Sewer flooding index	-0.9	-9.2	-8.3
C1: Contribution to bathing waters improved	-	-	-
D1: Protecting rivers from deterioration	-	-	-
D2: Maintaining our wastewater treatment works	-	-	-
D3: Contribution to rivers improved	0.5	0.2	-0.3
D4a: Wastewater category 1 and 2 pollution incidents	-	-	-
D4b: Wastewater category 3 pollution incidents	16.4	16.4	0.0
D5: Satisfactory sludge disposal	-	-	-
Wastewater total	52.9	44.1	-8.8

The following sections provide background on the ODI mechanisms and details of the assumed and actual performance levels that have driven the changes set out in the table above.

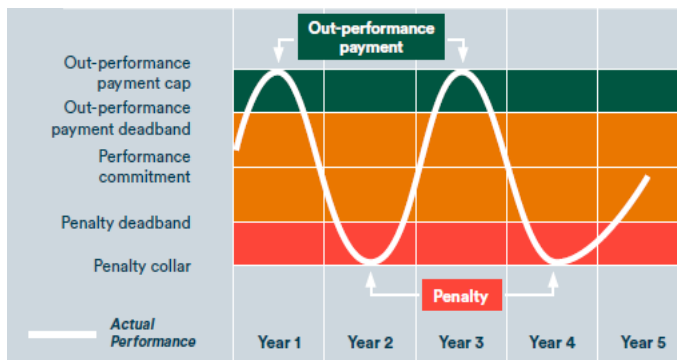
PR14 Reconciliation

Impact of the reconciliation mechanisms

Background on ODI mechanisms

At the 2014 Price Review, we set annual performance commitments based on what our customers and stakeholders told us about how they valued our services or the cost of service failure. Many of our 2015-2020 performance commitments were challenging and required a significant improvement on our 2010-2015 levels of performance. Some of our performance commitments do not carry a penalty or reward, but they do have a 'reputational incentive', which means our success or failure in this area can affect how we are seen as a company. Some reputational incentives may also be a focus for other regulators. For example, if we failed to maintain our Drinking Water Safety Plan score this would affect our reputation and the Drinking Water Inspectorate could take enforcement action against us.

Figure 1 how our AMP6 outcome delivery incentives work



Most of the performance commitments carry a financial penalty if we do not achieve them. For some performance commitments we can earn a financial reward if we outperform the commitment.

If we meet the performance commitments we 'break even' and do not earn a reward or a penalty. We only start to earn outperformance payments once we beat the target, or have to pay a penalty for underperformance if we drop below a target.

There is a limit or 'cap' to the amount we can be rewarded for each measure in any given year. Similarly, there is a limit (known as a 'collar') to the amount we can be penalised for underperforming. However, we don't always enter penalty or reward territory immediately. For some measures, we have to outperform (or underperform) beyond a certain level before there is a financial impact. This is to ensure that rewards and penalties are applied where there is significant deviation from a target and not where the under or out-performance is attributable to natural or random variations only.

For example, where third parties heavily influence our assets it might be difficult to meet our commitments. That is why there is a margin or buffer built into some measures (known as the 'deadband'), which means we do not immediately incur a penalty as soon as we fall below target. Similarly, for some measures we don't enter instant reward as soon as we outperform a target. We have to get beyond the reward 'deadband' to start earning a reward – to guarantee our great performance is the result of our own efforts and not the result of external factors, such as a mild winter, for example. The financial and non-financial (reputational) ODIs as summarised in **Table 21**.

Table 21 Composition of the package of ODIs for AMP6

	Reward and penalty	Penalty-only	Non-financial incentive
Wholesale Water	6	3	3
Wholesale Wastewater	4 ⁴	6	1
Retail Household	1	1	2
Total	11	10	6

⁴ Counting two performance commitments for pollution incidents separately

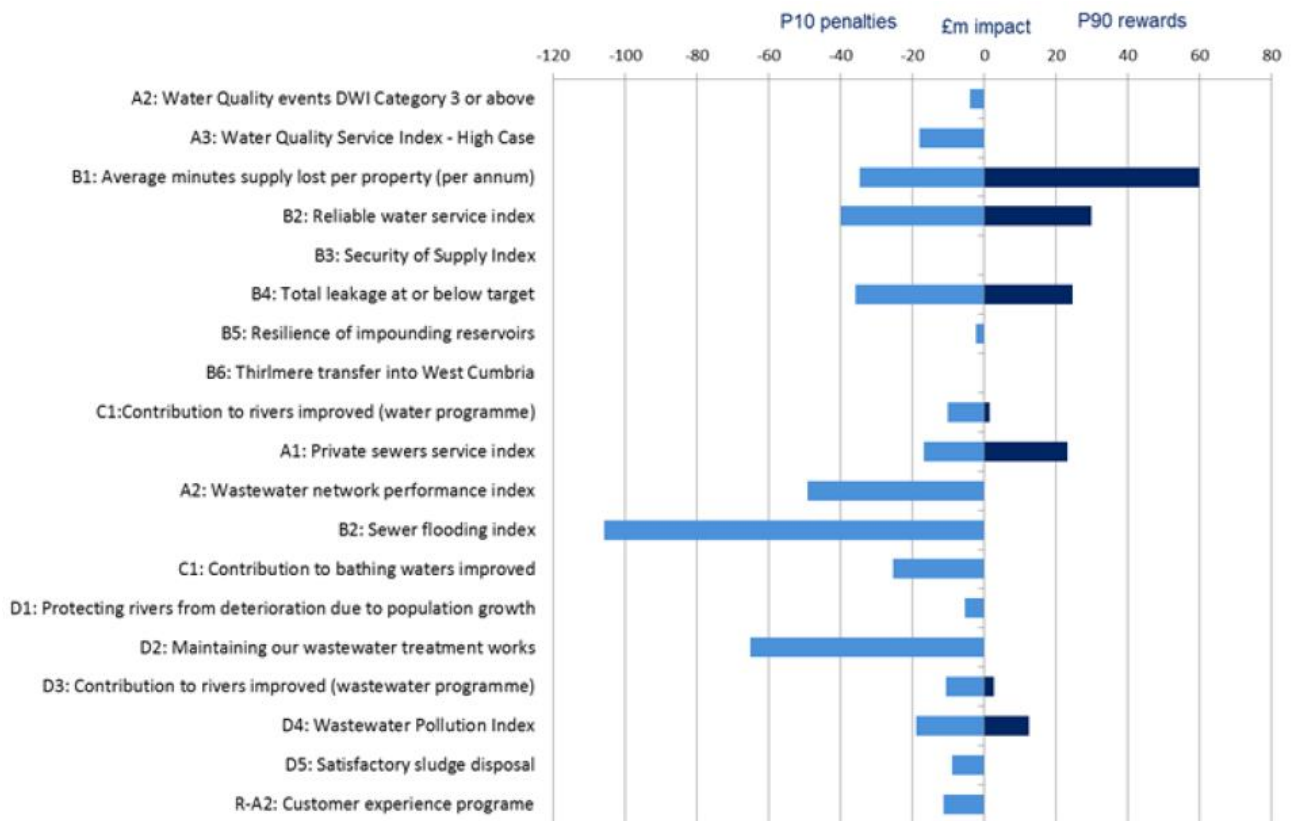
PR14 Reconciliation

Impact of the reconciliation mechanisms

Wholesale Outcome delivery - overview and AMP6 challenge

The performance commitments that were determined through the PR14 process were challenging. As set out within the U UW company specific appendix to the final determination the likelihood of a net penalty was significantly higher than the likelihood of a net reward.

Figure 2 Overview of U UW financial ODIs (taken from FD14 figure AA4.1)



To seek to address this challenge, we accelerated many of our investment programmes to address key risks and to implement and develop the capability to much more effectively and proactively target our investment or to be able to meet some of these challenges.

Wholesale performance – Actual v predicted performance

Full details of our performance against the wholesale ODIs are set out in each year's APR. Details of performance against the ODI's during 2019/20 are set out in detail in section 1 of this year's APR.

In our 2018/19 submission we assumed that we would earn a net reward of £46.0m, comprising a £2.8m penalty in the water service and an £48.8m reward in the wastewater service. In the FD Ofwat revised the assumed performance for WWTW compliance and revised the calculation for the Wastewater rivers improved measure, details of these adjustments are set out in Appendix A. As a consequence of this adjustment, the total net reward over the 5 year period assumed in the FD was £50.0m, made up of a £2.8m penalty in Water and a £52.9m reward in Wastewater.

During 2019/20 the actual net reward was £21.1m made up of £20.6m reward in Water and £0.5m reward in Wastewater. This means that the total reward in the period was £43.5m, made up of a £0.6m penalty in Water and a £44.1m reward in Wastewater.

The 2019 and full AMP values assumed in the FD and the actual 2019 and full AMP values are shown in the tables below:

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 262 Wholesale water 2019/20 comparative ODI performance

Performance Commitment	2019/20 Forecast incentive (£m)	Forecast incentive for 2015-2020 (£m)	2019/20 actual incentive (£m)	Actual incentive for 2015-2020 (£m)
A2: Water quality events DWI category 3 or above	-1.2	-3.0	-0.6	-2.4
A3: Water Quality Service Index	-3.6	-14.2	-3.6	-14.2
B1: Average minutes supply lost per property (a year)	1.7	7.0	7.2	12.5
B2: Reliable water service index	-	-23.9	-8.0	-31.9
B3: Security of supply index (SoSI)	-	-	-	-
B4: Total leakage at or below target	-	9.1	4.0	13.1
B5: Resilience of impounding reservoirs	-	-	-	-
B6: Thirlmere transfer into West Cumbria	21.6	21.6	21.6	21.6
C1: Contribution to rivers improved - water	-	0.6	-	0.6
Water Service net: 2019/20 financial incentive (£m)	18.5	-2.8	20.6	-0.6

Table 263 Wholesale wastewater 2019/20 comparative ODI performance

Performance commitment	2019/20 Forecast incentive (£m)	Forecast incentive for 2015-2020 (£m)	2019/20 actual incentive (£m)	Actual incentive for 2015-2020 (£m)
A1: Private sewers service index	7.4	36.9	7.4	36.9
A2: Wastewater network performance index	-	-	-	-
B2: Sewer flooding index	-	-0.9	-8.3	-9.2
C1: Contribution to bathing waters improved	-	-	-	-
D1: Protecting rivers from deterioration	-	-	-	-
D2: Maintaining our wastewater treatment works	-4.4*	-4.4	-	-
D3: Contribution to rivers improved	-0.1*	0.9	-0.9	0.2
D4a: Wastewater category 1 and 2 pollution incidents	-	-	-	-
D4b: Wastewater category 3 pollution incidents	3.3	16.4	3.3	16.4
D5: Satisfactory sludge disposal	-	-	-	-
Wastewater Service 2019/20 financial incentive (£m)	6.1	48.8	1.5	44.1

PR14 Reconciliation

Impact of the reconciliation mechanisms

Translating variance in ODI reward to future RCV/revenue adjustment

In this year's submission we have used the new blind year ODI performance model to calculate the outputs shown in the table above. This model replaces App5 and App6 in previous years' submissions.

We completed a version of this model using adjusted figures based on the FD feedback, and sent this to Ofwat on the 30th April. Following minor formatting changes suggested by Ofwat on the 28th May we updated this model again to reflect the FD position. In addition to this, we have separately completed the model using actual 2019/20 data replacing the forecasted final year values in the aforementioned version.

The two models feed into the new 'blind year ODI difference model'. Here the differences between the FD forecasted position and the actual values are calculated and an adjustment based on the difference is calculated in 2017/18 prices. This value is £7.6m including a £2.5m greater reward than expected in 2019/20 in Water, offset by £0.1m additional penalty in Residential Retail and £10.0m additional penalty within Wastewater.

Wholesale assumptions and method

In developing our final adjustments to include within the new ODI models we have followed the approach we adopted for our 2019 submission, which complied with the October 2016 publication 'Ofwat PR14 reconciliation rulebook' and other published guidance for this submission, although we have revised our methodology for calculating the S-D3: Rivers improved wastewater (Km) to align with the approach set out within the final determination.

- We have not applied any mitigating factors (e.g. weather, third party actions or exceptional events) in determining our reported performance for each ODI, except where clearly documented within the performance commitment definition set out within the final determination.
- We have described what internal and external assurance, including input from the Customer Challenge Group Your Voice, we have obtained for our ODI proposals in our Annual Performance Report.
- We have described any ambiguity in the definition of each of our ODIs, how we have interpreted the ambiguity and what assurance we have obtained on our interpretation of the ambiguity.

In our 2019 submission we set out that, with three exceptions, the reported performance and resultant incentive payments against our outcome delivery incentives have been developed using the automatic operation of the ODIs as set out in our final determination company specific appendix and detailed within our published definition documents. The three measures where there was potential ambiguity about the derivation of the performance value or incentive payments were:

- A1: Drinking Water Safety Plan risk score (Wholesale Water price control)
- S-D3: Rivers improved wastewater (Km) (Wholesale Wastewater price control)
- R-A2: Customer experience programme (Household retail price control)

The position on all of these measures was confirmed in the final determination.

Water Price Control: Drinking Water Safety Plan risk score – Following the PR14 final determination the DWI changed its process for calculating the drinking water safety plan risk score. This measure is a reputational commitment and as such does not directly impact upon the value of this reconciliation.

Wastewater Price Control: Rivers improved – As part of the PR19 final determination, Ofwat set out the methodology that needed to be used to address the ambiguity within this measure. We have followed that approach in this year's resubmission. A detailed summary of the actual performance and incentive payments under this methodology is set out within **Appendix C: Delivery of our AMP6 outputs**.

Household Retail Price Control: Customer experience programme – In our 2019 submission, we provided details of the proposed methodology that should be used to generate the incentive payments for this measure. This methodology was confirmed within the PR19 FD. More details of the proposed adjustment for this measure reflecting actual depreciation in 2019/20 are set out in **Appendix B: Customer Experience Programme**.

PR14 Reconciliation

Impact of the reconciliation mechanisms

In line with the approach we took in 2019, we have again completed the assessment of our performance commitments and associated outcome delivery incentives (ODIs) for AMP6 in accordance with the guidance set out in the PR14 reconciliation rulebook. For our wholesale water and wastewater performance commitments:

- We have input all PR14 final determination information using the source specified within the Ofwat PR14 reconciliation rulebook.
- We utilised the recalibrated ODI rates resulting from our menu choices rather than those stated in the PR14 final determination that assumed 50% customer/company sharing rates.
- Our PR14 final determination performance commitments have been updated in line with the published corrigenda⁵. Further details about the wastewater contribution to rivers improved performance commitment are set out within **Appendix C**.
- We have rounded actual performance to the specific number of decimal places which is set out within the performance commitment definitions and APR table 3A.
- We have aggregated the net results from the water and wastewater ODIs independently to produce a net position per service, which is in line with the statements in the company specific appendix of the PR14 final determination⁶ and subsequent correspondence with Ofwat⁷.
- We have applied adjustments to AMP7 revenues and opening RCV at the price control level. Although adjustments from AMP6 are calculated at the water and wastewater service level, they must be applied to AMP7 opening RCV at the water resources, water network plus, wastewater network plus and bioresources level. Therefore we have applied the adjustments to the PR19 price controls as set out below:
 - The cumulative net penalty in the PR14 water services price control of £0.64m has been applied to the PR19 price controls as a revenue adjustment. This has been allocated to water network plus as a reduction to revenue of £1.25m and to water resources as an uplift to revenue of £0.61m (12/13 price base). This is based on the type of ODI giving rise to the revenue adjustment, and which sub-price control it relates to.
 - The cumulative net reward in the PR14 wastewater services price control of £44.15m (12/13 price base) has been applied to the PR19 price controls as an adjustment to RCV. The total has been allocated to wastewater network plus as an uplift to RCV and we have not applied any adjustment to the bioresources RCV. This is because the ODIs giving rise to the adjustments relate to wastewater network plus activities, not bioresources activities.
- We have identified the resulting reward/penalty for each price control based on performance up to the end of the period in line with our final determination.
- The resultant reward/penalty for each PR14 price control has been allocated across the PR19 price controls in line with the allocation of ODIs to price controls set out within the new ODI performance model.

⁵ <https://www.ofwat.gov.uk/publication/united-utilities-company-specific-appendix-corrigenda/>

⁶ This stated that we “calculate a cumulative net penalty or reward for all of UUW’s financial measures within a price control. Where a cumulative net penalty is calculated for a price control, this will be applied as a revenue adjustment to ensure customers are fully compensated for any underperformance. Where a cumulative net reward for a price control is calculated, this will be applied as an upward adjustment to the RCV, to minimize the short-term impact on customer bills.” (Ofwat, 2016).

⁷ See email from James Bullock (United Utilities) to Keith Mason (Ofwat) dated 9 November 2015, document reference “UUW_014_AFPD_ES Ofwat email 1 sent”. Also email confirmation from Andrew Chesworth (Ofwat) dated 21 June 2016: document reference “UUW_015_AFPD_ES Ofwat email 2 received”.

PR14 Reconciliation

Impact of the reconciliation mechanisms

Having applied the assumptions and method set out above, the final net impact of the incentives against each of the performance commitments within each wholesale price control is set out in **Table 274**.

Table 274 Summary of adjustments required to reconcile the delivery of our AMP6 performance commitments £m 2017/18 CPIH FYA prices (all values stated prior to profiling)

ODI end of period adjustment	AMP7 revenue adjustment	RCV adjustment
Water resources	0.700	-
Water network plus	-1.434	-
Bioresources	-	-
Wastewater network plus	-	50.662

The difference between these values and the values assumed with the FD is set out in **Table 25**. Having applied the assumptions and method set out above, the final net impact of the incentives against each of the performance commitments within each wholesale price control is set out below.

Table 285 Variance between table 24 and the FD position £m 2017/18 CPIH FYA prices (all values stated prior to profiling)

ODI end of period adjustment	AMP7 revenue adjustment	RCV adjustment
Water resources	0.002	-
Water network plus	2.504	-
Bioresources	-	-
Wastewater network plus	-	-5.210

PR14 Reconciliation

Impact of the reconciliation mechanisms

Household retail performance

Four performance commitments were defined for the household retail control. Two were reputational, with performance against these measures being discussed in our Annual Performance Report. The two financial measures were SIM - which is discussed in detail in Section 2.2 of this document - and delivery of the customer experience programme.

The customer experience programme ODI is a bespoke measure supporting the implementation of a system enabled change programme. It compares actual depreciation levels to depreciation levels assumed in the final determination, returning money to customers where efficiencies have been made. A detailed explanation of the actual and forecast performance for this measure is set out in **Appendix B** to this document.

Table 296 Retail Household AMP6 performance commitments - reward / (penalty) summary £m 12/13 prices

	Incentive type	18/19 reward/ (penalty) total	19/20 reward/ (penalty) total	Variance
Customer experience programme	Penalty only	-4.522	-4.649	-0.127
Customers saying that we offer value for money	Reputational	-	-	-
Per household consumption	Reputational	-	-	-
Retail household reward / (penalty)		-4.522	-4.649	-0.127

Household retail assumptions and method

We set out the basis of the calculation of the customer experience penalty in Appendix B. We have again used this methodology in the current resubmission using actual 2019/20 depreciation values. The resultant financial incentive at 2012/13 prices has been input to the ODI performance model as a non-standard performance commitment. These values have then been managed in the same way as the wholesale ODI's.

Having applied the assumptions and method set out above the resulting adjustment required in AMP7 for the Retail performance commitments is summarised in

Table 27.

Table 27 Summary of adjustments required to reconcile the delivery of our AMP6 performance commitments £m 2017/18 CPIH deflated prices

		AMP7 revenue adjustment	RCV adjustment
Retail household	ODI in-period adjustment	-	n/a
	ODI end of period adjustment	-5.335	n/a

This value is £0.162m higher than the -£5.173m included within the PR19 final determination.

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.2 Service Incentive Mechanism (SIM)

Overview of the final position on SIM

We are committed to delivering the best possible service for customers. Increasing customer engagement and boosting customer satisfaction in the water sector is a crucial element of maintaining the industry's legitimacy in the long term. Throughout AMP6 we have sought to offer customers the service that they want and value.

We have delivered a substantial improvement in customer service levels in AMP6, as indicated by steady improvement in Service Incentive Mechanism (SIM) performance.

The position on SIM was finalised in the December 2019 PR19 final determination. With the financial incentives associated with the measure being in the range of -12% (underperformance payments) to +6% (outperformance payments) of residential retail revenues in 2017-18, with the value of the incentives for each company being based upon on companies' performance relative to each other, over the first four years of the AMP6 period. With the revenue adjustments being applied to each of the five years between 2020-21 and 2024-25.

Across this period we achieved above average sector performance on SIM overall and ended that period amongst the best performing Water and Sewerage companies.

In March 2019, we ended the final quarter of FY2019 as a leading company in our peer group for customer satisfaction as measured by SIM, which gave us our highest ever year end score of 4.53, placing us at 5th out of 18 companies. Over the past four years, we have made a significant improvement in performance and moved from below industry average, to one of the leading performers.

In our 2019 submission we used a reward/deadband/penalty calculation methodology consistent with that used at PR14, and estimated that our performance would yield a reward of £16.485m (nominal prices).

In the final determination Ofwat set the residential retail service incentive mechanism adjustment to + 1.10% of residential retail revenue, which is + £6.238 million (2017-18 FYA CPIH deflated price base).

Final incentives (as set out within the FD)

Ofwat considered that there was a clear distinction between the top cluster of companies and the top performing company - Portsmouth Water. There is an even clearer distinction between the majority of companies and the bottom four companies – SES Water, Affinity Water, Thames Water and Southern Water. They therefore, used the full range of -12% (underperformance payment) to +6% (outperformance payment) of residential retail revenues to calculate SIM payments.

To assign payments they determined the percentage out or under performance payment for each company based on its relative distance to the top performer – Portsmouth Water – and the worst performer – Southern Water, who were awarded the maximum out and under performance payment respectively.

They then multiplied these percentages by residential retail revenue to give the SIM payments. The process contained the following four steps:

- Step 1: Calculate the four year average SIM score for each company.
- Step 2: Calculate the relative distance for each company between the top and bottom performer and calculate the percentage performance payment using this, allocating a +6% outperformance payment for the best performing company's score, and a -12% underperformance payment for the worst performing company's score.
- Step 3: Apply the company-specific percentage to each company's 2017-18 residential retail revenue.
- Step 4: Multiply the results by five to produce results for five years in £ million.

PR14 Reconciliation

Impact of the reconciliation mechanisms

The results are presented in the figure and **table 28** below, which are copied from the [PR19 final determinations: Accounting for past delivery technical appendix](#).

Figure 3 Four year average SIM scores and % retail revenue adjustments

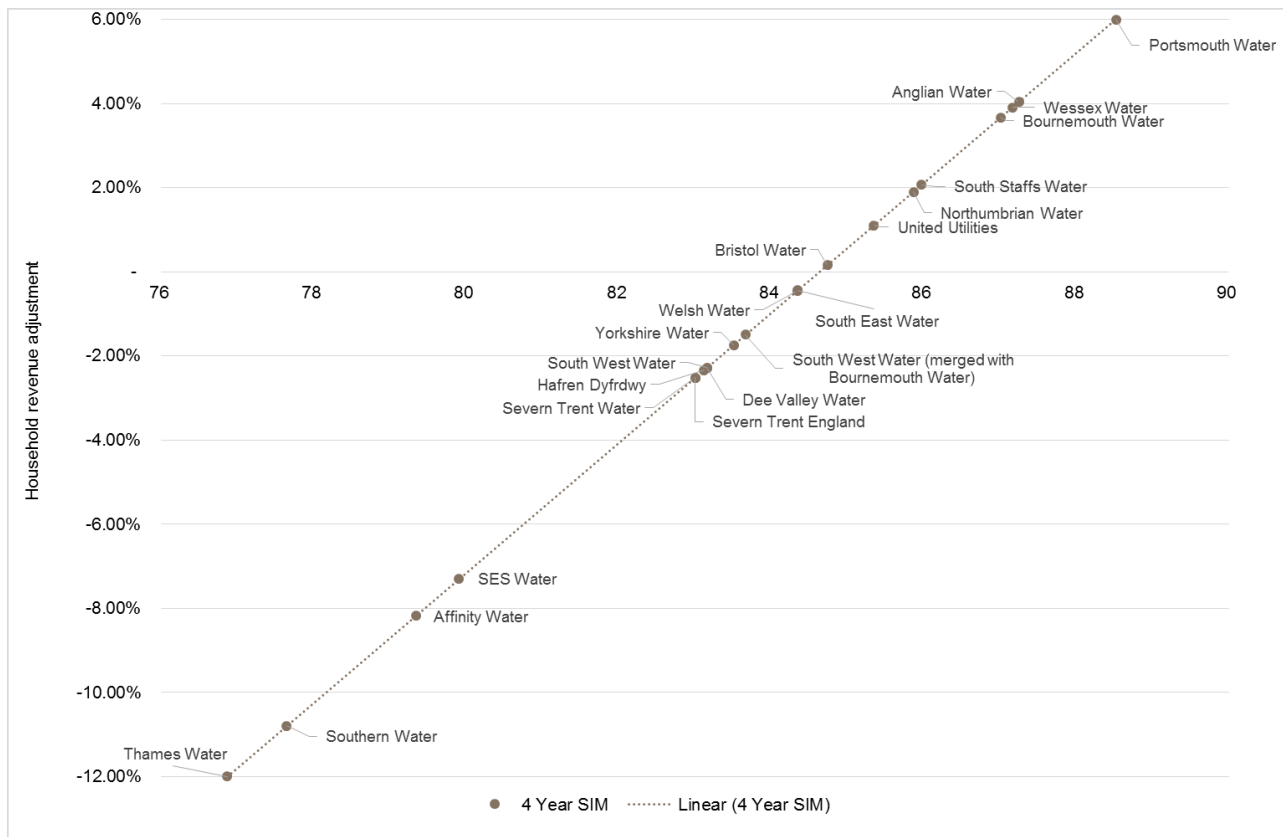


Table 28 Calculation of UU SIM incentive (£m 17/18 outturn prices)

Company	Step 1 (SIM score out of 100)	Step 2 Relative distance for each company between the top and bottom performer (%)	Step 3 Apply to the 2017-18 residential retail revenue (£111.393m)	Step 4 multiply by five (£m)
United Utilities	85.35	1.10%	£1.225m	£6.127m

The value of £6.127m derived through the above calculation and using 2017-18 base year revenues of £11.393m, is equivalent to a value of £6.238 million at 2017-18 FYA CPIH deflated price base.

For transparency the basis of our 2019 calculation of the SIM incentive is set out below.

PR14 Reconciliation

Impact of the reconciliation mechanisms

Assumptions and method (2019 submission)

In our 2019 submission we noted that SIM was a continuation of the incentive first introduced in AMP5 and therefore proposed that the methodology for reconciling AMP6 Service Incentive Mechanism performance should be based upon the PR14 methodology.

At PR14 the SIM reconciliation approach used for a company with a SIM score which is above industry average, but less than one full standard deviation above average is:

$$SIM\ reward = \frac{(\bar{x}_{Company} - \bar{x}_{Ind})}{\sigma_{Ind}} \cdot Household\ retail\ revenue \cdot 6\%$$

Where:

$\bar{x}_{Company}$ = annual average combined SIM score for the company

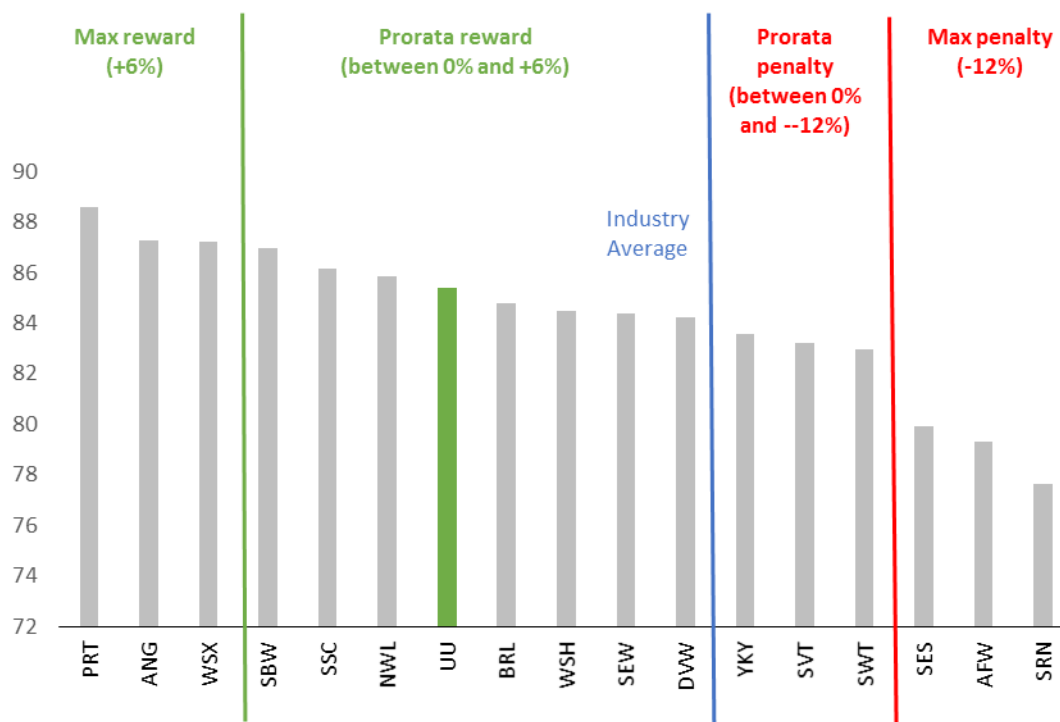
\bar{x}_{Ind} = annual average combined SIM score for the industry

σ_{Ind} = standard deviation associated with \bar{x}_{Ind}

Household retail revenue = revised household retail allowed revenues for 2019/20 * 5

We used this methodology to forecast UU reward/penalty reconciliation values, in our 2019 submission.

Figure 4 Estimated four year average SIM performance by company and associated reward/penalty categories



This assessment of SIM performance was based upon the first four years of AMP6 for both ourselves and other companies and at this time, we:

- Calculated our actual performance using the component parts of both the quantitative and qualitative (rounded) elements of the SIM utilising actual performance.
- Utilised 3 years of actual information as reported in APR table 3D of the Annual Performance Report for other companies' actual performance.
- Estimated 2018/19 performance for other companies based on published quarterly qualitative survey results and past qualitative performance trends.

PR14 Reconciliation

Impact of the reconciliation mechanisms

- Maintained Bournemouth Water as a separate entity for the purposes of calculating industry average SIM performance.
- Calculated the resulting SIM scores as being the average of all four years for each company, deriving the industry average SIM score and standard deviation in the process.
- Calculated UU's performance relative to the average SIM score and then ranked all companies according to their standard deviation from the average.
- Applied penalty and reward deadbands alongside caps and collars (consistent with the approach adopted at PR14), with deadbands set at ± 0.2 standard deviation and the cap/collar set at ± 1.0 standard deviation.
- Scaled rewards and penalties for companies that lie between the average and cap/collar on a pro rata basis.
- Used a maximum reward rate of 6% and a maximum penalty rate 12% of Residential Retail revenues.
- Used forecast UU Residential Retail revenues for 2019/20 to scale rewards.

UUW's four year average SIM score is 85.37, and we estimated that the industry average would be 83.83, with a standard deviation of 3.35. This calculation indicated a £16.485m reward (nominal prices) for United Utilities. However, as set out above, Ofwat adopted a changed calculation method which resulted in a final reward of £6.238 million at 2017-18 FYA CPIH deflated price base.

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.3 Totex menu reconciliation

Background

The PR14 process and final determination (FD) set total expenditure (totex) assumptions for the 2015-20 period for UUW's wholesale water and wholesale wastewater services.

- The total assumed expenditure for the wholesale water service was £2.397 billion (in 2012/13 prices)
 - £2.348 billion excluding non-menu items such as pension deficit repair costs
- The total assumed expenditure for the wholesale wastewater service was £2.979 billion (in 2012/13 prices)
 - £2.940 billion excluding non-menu items such as pension deficit repair costs

The price review process (PR19) reviewed how our expected actual expenditure compares against these PR14 assumptions, with variances against the initial assumptions being accounted for through the totex menu incentive mechanism. The detail of this mechanism is complex, although it is based upon three main principles.

- For incentivisation purposes, all expenditure incurred in the five year period is treated the same whether that expenditure is capital expenditure ("capex") or operating expenditure ("opex").
- Variances to the expenditure levels assumed within the PR14 FD result in revisions to the revenue and opening regulatory capital value (RCV) for the AMP7 period to reflect actual expenditure levels. An increase in expenditure results in an increase in revenue and RCV (using PR14 PAYG rates).
- Variances to the assumed expenditure levels are also subject to a pain/gain mechanism, which provides revenue incentives for companies to deliver lower expenditure and penalties where companies overspend.

These principles work together in a way such that if companies deliver their programme for a lower level of totex than assumed in the FD then this saving is shared between customers and the company. Equally, where the company spends more than was assumed at PR14, then both the company and customers contribute towards the additional expenditure.

Some costs, including compensation payments and pension deficit recovery costs, are excluded from this incentive mechanism, which means that any increase in company expenditure cannot be passed on to customers. The remaining costs are subject to the cost sharing incentive mechanism, and are described in the PR14 FD and the APR pro forma tables as "menu costs".

Further details on our totex expenditure and how this compares to the assumptions made in PR14 are set out in our [Annual Performance Report](#).

PR14 Reconciliation

Impact of the reconciliation mechanisms

AMP6 Performance

In our 2019 submission, we reported that total expenditure levels in the first four years of the AMP6 period were higher than assumed within the PR14 final determination. This was the result of the managed acceleration of our expenditure programmes to ensure the delivery of our regulatory commitments and to improve performance against our performance commitments.

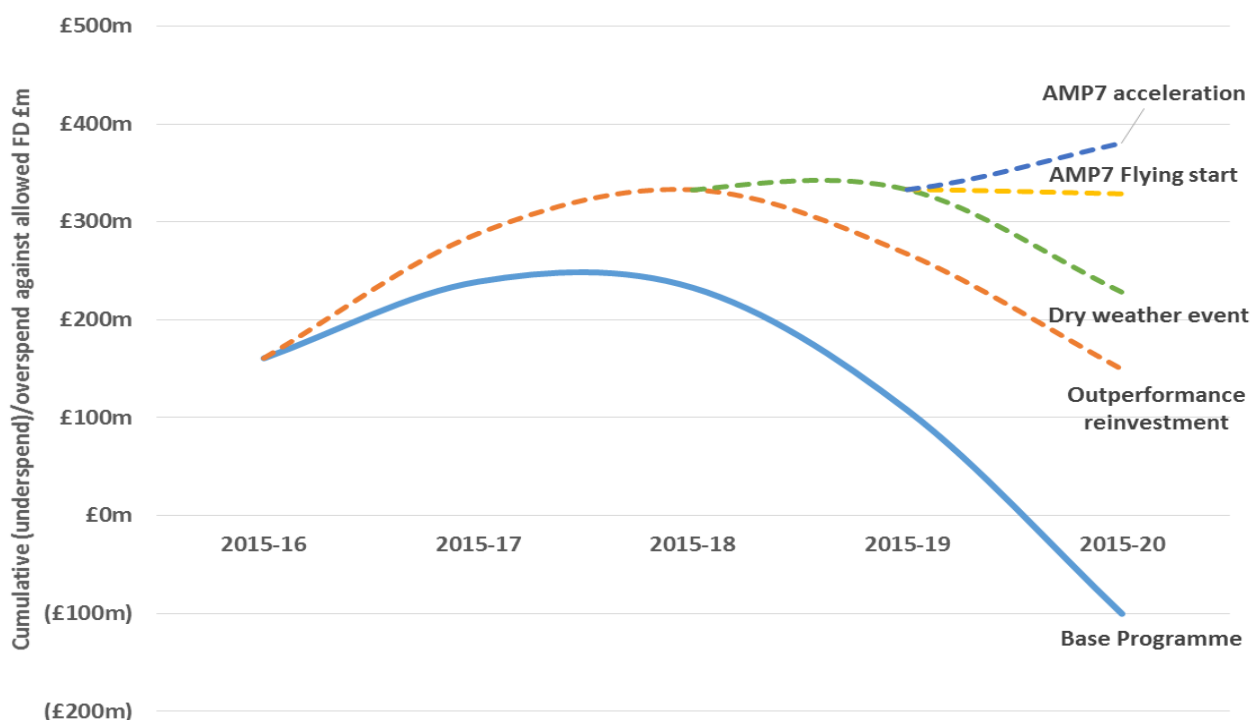
At that time we were targeting that:

- On a like for like basis (i.e. expenditure incurred against planned scope), we would outperform the ‘base programme’ allowed wholesale totex by £100m.
- We would reinvest an additional £250m to deliver projects that were not part of our original PR14 determination but that will help deliver improve long-term resilience for the benefit of customers and the environment.
- Invest an additional £80m to ensure that customers continued to receive a reliable service without the need for any temporary use restrictions, in response to the Dry Weather Event during the summer of 2018.
- Reinvest a further £100m of our AMP6 outperformance in areas where we have opportunity to deliver improved performance earlier in AMP7 against some of our toughest performance targets for AMP7.
- At an aggregate level, we expected to overspend the PR14 allowed baseline by £334m.

We also stated that in April 2019 we pre-paid at a discount all of the deficit repair contributions originally planned up to 2021 for our larger scheme (UUPS) and up to 2024 for our smaller scheme (ESPS). As a consequence, the only future payments we expected to make will be our ongoing service contributions, and that since our deficit repair plan was our final step to self-sufficiency, we now have no deficit on a funding basis and no deficit on a self-sufficiency basis.

During 2019/20 we implemented our programmes broadly in line with these expectations and to further enhance our preparations for the AMP7 period, in addition to the agreed transition investment programmes, we also accelerated a further £50m of AMP7 expenditure into 2019/20. The evolution of our investment programmes is illustrated by Figure 5.

Figure 5 Cumulative Wholesale totex AMP6 performance against the allowed menu (nominal prices)



PR14 Reconciliation

Impact of the reconciliation mechanisms

The main changes from the Wholesale expenditure reported last year are summarised in **Table 2929** below.

Table 29 Summary of changes to Wholesale expenditure (£m outturn)

	2019	Final	Variance
Actual Totex - base programme	£6,056	£6,080	£24
- Third party services (opex)	£10	£10	-
- Pension deficit recovery costs	£202	£202	-
- Disallowables	£32	£32	-
+ Transition expenditure (AMP5 to 6)	£28	£28	-
- Transition expenditure (AMP6 to 7)	-	£24	24
Actual menu totex - base programme	£5,839	5,839	-
Outperformance reinvestment spend	£250	£250	-
+ Flying start	£100	£100	-
+ Dry Weather Event	£79	£79	-
+ GMP pension equalisation	£5	£5	-
+ AMP7 acceleration	-	£50	£50
Actual menu totex - total	£6,273	6,323	£50

Assumptions and method

We have completed the assessment of our total expenditure (totex) menu performance for AMP6 using Ofwat's reconciliation feeder model in accordance with the guidance set out in the October 2016 publication 'Ofwat PR14 reconciliation rulebook'. In particular, we have:

- Input all PR14 final determination information using the source specified within the Ofwat PR14 reconciliation rulebook.
- Utilised the menu choice values set out within the final determination.
- Used actual (outturn) totex values for the five financial years to 2020 as reported in our APR table 4B. All values are as reported in PR19 submission tables WS15 and WWS15.
- Excluded AMP7 Transition investment from our expenditure for FY2020.
- Allocated capital expenditure (capex) on a principal use basis consistent to the definitions set out within the Regulatory Accounting Guidelines.
- Used actual RPI values to deflate our expenditure into base year prices in order to compare to the final determination assumption (as stated in App23).
- Utilised the AMP6 Wholesale weighted average cost of capital (WACC) of 3.60% for making financing adjustments to account for the time value of money within AMP6.
- Left all information relating to a business rates IDoK (Water) blank as we have not sought to adjust the assumptions made at PR14.
- Input the resulting adjustments to the RCV and revenue feeder models to calculate the resulting AMP7 adjustment in PR19 base year prices.

PR14 Reconciliation

Impact of the reconciliation mechanisms

Value of the resultant adjustments

Following the population of the totex menu reconciliation model on the above basis, we calculate that the adjustments shown in **Table 30** are required in order to correct for the assumptions set out in the AMP6 revenue allowance. These values are the inputs to the revenue and RCV feeder models for totex reconciliation that form part of the overall adjustment required in AMP7 that is summarised within **Table 12**, **Table 18** and **Table 19**.

Table 30 Wholesale totex menu adjustments £m 2012/13 RPI FYA prices

	Revenue Adjustment	RCV adjustment
Wholesale Water	43.605	94.843
Wholesale Wastewater	8.740	57.055
Wholesale total	52.345	151.898

Wholesale Water

As described in our Annual Performance Report we accelerated the pace of delivery of the AMP6 programme whilst we will also invest delivered over £250m of additional investment to build additional resilience and a further £100m to give a flying start to AMP7. As a result of this additional investment, we have overspent the Water assumed totex prior to accounting for financing adjustments by £261.6m as shown in **Table 30**.

Table 30 Wholesale Water (menu) totex performance £m 2012/13 RPI FYA prices

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP6
PR14 menu baseline	447.5	469.1	470.1	499.1	459.2	2,345.1
Assumed totex from final menu	448.1	469.7	470.6	499.7	459.7	2,347.8
Actual menu totex	478.6	531.1	518.4	556.0	525.3	2609.4
Out / (under) performance	(30.6)	(61.4)	(47.7)	(56.3)	(65.6)	(261.6)

The overspend against the assumed totex generates a menu performance of 111.27 relative to the AMP6 baseline compared to an initial menu choice of 100.47. The sharing mechanism between the company and customers, which within Water is set at 49.9%⁸, results in a menu penalty of 5.63% of the Water baseline which equates to £131.9m⁹. Because of our PR14 menu choice being greater than the baseline, £1.4m of the total penalty has already been applied to the AMP6 revenue allowances, therefore, there is a net penalty of £130.5m (£140.2m including financing costs) compared to the previous year forecast of £129.6m (£139.2m including financing costs).

Balancing the menu reward/penalty, the totex adjustment remunerates companies for variances to the assumptions set out in the final determination. This reconciliation results in an adjustment of £278.6m which is apportioned between the RCV and revenue requirement for AMP7 based on the PR14 weighted PAYG ratio. The adjustments due to both elements of the totex reconciliation are summarised in **Table 312** below, with the prior year forecast in **Table 33** and the blind year adjustment variance in **Table 34**.

⁸ "A cost sharing rate of 60% implies that the company retains 60% of any underspend but would incur 60% of any overspend relative to a companies' allowed expenditure" – Ofwat (2016), "Ofwat PR14 reconciliation rulebook", p24

⁹ Excluding financing cost adjustments

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 31 Wholesale Water totex menu adjustments £m 2012/13 RPI FYA prices – 2019/20 actuals

	Revenue adjustment	RCV adjustment	Total adjustment
Net menu reward / (penalty)	-140.2	n/a	-140.2
Totex adjustment	183.8	94.8	278.6
Total	43.6	94.8	138.4

Table 33 – Prior year forecast £m 2012/13 RPI FYA Prices

	Revenue adjustment	RCV adjustment	Total adjustment
Net menu reward / (penalty)	-139.2	n/a	-139.2
Totex adjustment	182.6	94.2	276.8
Total	43.4	94.2	137.6

Table 34 – Blind year adjustment (variance between table 32 and table 33) £2012/13 RPI FYA Prices

	Revenue adjustment	RCV adjustment	Total adjustment
Net menu reward / (penalty)	-1.0	n/a	-1.0
Totex adjustment	1.2	0.6	1.8
Total	0.2	0.6	0.8

Wholesale Wastewater

As described in our Annual Performance Report we have overspent the Wastewater assumed totex prior to accounting for financing adjustments by £91.2m as shown in **Table 35**.

Table 35 Wholesale Wastewater (menu) totex performance £m 2012/13 RPI FYA prices

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP6
PR14 menu baseline	545.3	565.1	617.7	626.9	539.7	2,894.6
Assumed totex from final menu	553.8	573.9	627.3	636.7	548.1	2,939.8
Actual menu totex	675.1	629.9	619.3	585.2	521.5	3031.0
Out / (under) performance	(121.3)	(56.0)	8.0	51.5	26.6	(91.2)

This overspend against the assumed totex generates a menu performance of 104.72 relative to the AMP6 baseline compared to an initial menu choice of 106.24. The sharing mechanism between the company and customers, within Wastewater is set at 48.8%, results in a menu penalty of 2.34% of the Wastewater baseline which equates to £67.7m. Because our PR14 menu choice was greater than the baseline, a £23.1m revenue penalty was applied to the AMP6 revenue allowances, therefore, a net penalty of £44.5m (£47.8m including financing costs) is applied to the AMP7 requirement to correct for this compared to the previous year forecast of £24.8m (£26.6m including financing costs).

PR14 Reconciliation

Impact of the reconciliation mechanisms

Balancing the menu reward/penalty, the totex adjustment remunerates companies based on variances to the assumptions set out in the final determination. This reconciliation results in an adjustment of £113.6m which is apportioned between the RCV and revenue requirement for AMP7 based on the PR14 weighted PAYG ratio. The adjustments due to both elements of the totex reconciliation are summarised in **Table 36** below, with the prior year forecast in **Table 37** and the blind year adjustment variance in **Table 38**.

Table 36 Wholesale Wastewater totex menu adjustments £m 2012/13 RPI FYA prices – 2019/20 actuals

	Revenue adjustment	RCV adjustment	Total adjustment
Menu reward / (penalty)	-47.8	n/a	-47.8
Totex adjustment	56.6	57.1	113.6
Total	8.7	57.1	65.8

Table 37 Prior year forecast £m 2012/13 RPI FYA Prices

	Revenue adjustment	RCV adjustment	Total adjustment
Menu reward / (penalty)	-26.6	n/a	-26.6
Totex adjustment	36.4	36.7	73.2
Total	9.8	36.7	46.5

Table 38 Blind year adjustment (variance between table 36 and table 37) £2012/13 RPI FYA Prices

	Revenue adjustment	RCV adjustment	Total adjustment
Menu reward / (penalty)	-21.2	n/a	-21.2
Totex adjustment	20.0	20.4	40.4
Total	-1.2	20.4	19.2

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.4 Wholesale revenue forecasting incentive mechanism (WRFIM)

Background

The Wholesale Revenue Forecasting Incentive Mechanism (WRFIM) was a new mechanism for AMP6 that replaced the PR09 Revenue Correction Mechanism (RCM). The design of the mechanism incentivises companies to improve their revenue forecasting within the wholesale price controls and reduce volatility on customer bills arising from revenue forecasting deviations by:

- Permitting the adjustment of future allowed revenues during the AMP to take account of over and under recoveries in previous years.
- Applying a penalty if over or under recovery falls outside the set error tolerance range (2%).

Assumptions and method

We have completed the assessment of the WRFIM for AMP6 using Ofwat's reconciliation feeder model in accordance with the guidance set out in the October 2016 publication 'Ofwat PR14 reconciliation rulebook'. In particular, we have:

- Input all PR14 final determination information using the source specified within the Ofwat PR14 reconciliation rulebook.
- Applied the blind year adjustments required for 2014-15 revenue correction mechanism (RCM) as specified by Ofwat in guidance provided on 8th December 2016¹⁰ rather than using the values provided in the PR09 legacy blind year feeder model.
- Used actual revenues recovered for all five years of the AMP.
- Used actual RPI values to inflate our allowed revenues into outturn prices in order to compare actual revenues recovered.
- Used a discount rate of 3.6% in line with the PR14 assumptions.
- Accelerated the return of estimated over-recovered 2018/19 revenues to reduce the amount of revenue recovered in 2019/20.

Performance and value of adjustments

The WRFIM model provided by Ofwat allows (per item 16 of the WRFIM model change log) for companies to accelerate the return of over-recovered 2018/19 revenue after one year, i.e. in 2019/20. We have utilised this facility of the model to amend our adjusted allowed revenue and revenue forecast for 2019/20 by our over-recovery of revenue in 2018/19 of £6.1m and £2.1m for water and wastewater respectively.

For Water, the total end of AMP6 WRFIM adjustment of £13.745m is made up from:

- An adjustment of £6.116m relating to 2018/19 performance; comprising an adjustment of £12.253 relating to 2018/19 over-recovery offset by an accelerated return of £6.137m revenue in 2019/20
- An adjustment of 7.628m relating to over-recovery of 2019/20 revenues

The PR19 Final Determination included the above adjustment of £6.116m (relating to 2018/19 performance) in our allowed revenues for AMP7, therefore we expect the result of the 2019/20 WRFIM true-up to be a further reduction of £7.628m to our allowed revenues.

¹⁰ <https://www.ofwat.gov.uk/final-reconciliation-models/>

PR14 Reconciliation

Impact of the reconciliation mechanisms

For Wastewater, the total end of AMP6 WRFIM adjustment of £13.105m is made up from:

- An adjustment of £7.928m relating to 2018/19 performance; comprising an adjustment of £5.829m relating to 2018/19 under-recovery plus £2.099m of expected outperformance that was accelerated and applied to 2019/20 revenues
- An adjustment of £5.117m relating to under-recovery for 2019/20

The PR19 Final Determination included the above adjustment of £7.928m (relating to 2018/19 performance) in our allowed revenues for AMP7, therefore we expect the result of the 2019/20 WRFIM true-up to be a further increase of £5.117m to our allowed revenues.

The following tables summarise our performance against the Water and (over the page) the Wastewater price controls for AMP6.

Table 39 Water WRFIM performance, Outturn prices (£m)

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP7
Allowed Revenue from FD	703.4	721.7	744.7	779.5	810.3	
WRFIM Adjustment from year t-2			-10.1	-1.9	-3.2	
AMP5 RCM blind year adjustment			-3.2	-3.5	-3.7	
Accelerated return of 2018/19 revenue					-6.137	
Adjusted Allowed Revenue (AR)	703.4	721.7	731.4	774.1	797.2	
Revenue Recovered (RR)	712.6	723.4	734.1	785.6	804.8	
Over / (Under) recovery versus adjusted allowed revenue	9.1	1.7	2.8	11.5	7.6	
WRFIM adjustment to be made				-12.253	-7.628	-13.745
Forecast error	1.3%	0.2%	0.4%	1.5%	0.9%	
Is a penalty required?	No	No	No	No	No	
AMP6 Penalty	0.0	0.0	0.0	0.0	0.0	

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 40 Wastewater WRFIM performance, Outturn prices (£m)

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP7
Allowed Revenue from FD	834.4	856.8	885.3	927.3	959.4	
WRFIM Adjustment from year t-2			0.2	-2.3	2.3	
AMP5 RCM blind year adjustment			-0.7	-0.8	-0.8	
Adjusted return of 2018/19 revenue					2.099	
Adjusted Allowed Revenue (AR)	834.4	856.8	884.8	924.3	958.8	
Revenue Recovered (RR)	834.2	858.8	882.8	918.8	953.6	
Over / (Under) recovery versus adjusted allowed revenue	-0.1	2.0	-2.0	-5.5	-5.2	
WRFIM adjustment to be made				5.829	5.177	13.105
Forecast error	-0.0%	0.2%	0.2%	-0.6%	-0.5%	
Is a penalty required?	No	No	No	No	No	
AMP6 Penalty	0.0	0.0	0.0	0.0	0.0	

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.5 Household retail mechanism

Background

The household retail price control is an average revenue control with annual revenue adjustment factors to reflect differences between actual and expected customer numbers and meter penetration. Total estimated allowed revenues are based on the projected numbers of customers and meter penetration set out in our business plan. As actual customer numbers or meter penetrations differ from these projected values, a modification is required to allow household retail revenues to account for this.

Assumptions and method

We have completed the assessment of the Household retail mechanism for AMP6 using Ofwat's reconciliation feeder model in accordance with the guidance set out in the October 2016 publication 'Ofwat PR14 reconciliation rulebook'. In particular, we have

- Input all PR14 final determination information using the source specified within the Ofwat PR14 reconciliation rulebook.
- Calculated reforecast customer numbers on an annual basis which are stated in the forecast charge multipliers at the beginning of each year (those used in setting the tariffs for the relevant year).
- The forecast customer numbers by category are consistent with both the changes in customer numbers and with the forecast charge multipliers.
- The revenues in each reporting category include a revenue sacrifice due to offering Support and Social tariffs. This has been calculated as the total value of discounts, given to customers on the Support and Help To Pay social tariffs that has been funded by United Utilities and not cross-subsidised by other customers. The loss of revenue resulting from this Revenue Sacrifice is not recovered back from the Household Retail Mechanism.
- Applied a discount rate of 3.74% (the appointed WACC from PR14) in reconciling AMP6 performance.

Performance and value of adjustments

Following population of the retail household feeder model on the above basis, we have calculated that the following adjustments are required to correct for variations from assumptions set out at PR14.

The first step of the reconciliation calculates the additional/(shortfall of) revenue expected from actual compared to reforecast customers as shown in **Table 41**. This calculates the adjustment to be applied as a result of actual customer numbers being different to the reforecast customer numbers, by way of multiplying the difference by the relevant cost to serve allowance (the modification factor).

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 41 Additional/ (shortfall of) revenue expected from actual compared to reforecast customers (Outturn, £m)

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP6
Unmetered water-only customer	-0.02	-0.04	0.04	0.02	0.02	0.02
Unmetered wastewater-only customer	-0.07	-0.04	0.07	0.03	0.01	-0.00
Unmetered water and wastewater customer	0.99	0.00	0.46	0.58	0.26	2.29
Metered water-only customer	-0.00	0.04	0.01	0.00	-0.02	0.03
Metered wastewater-only customer	0.04	1.01	0.24	-0.01	-0.02	1.27
Metered water and wastewater customer	-0.84	0.18	-0.49	0.06	-0.40	-1.49
Total	0.10	1.16	0.31	0.67	-0.14	2.10

Secondly, the excess/shortfall of reforecast revenue from the table above compared to actual revenue collected is calculated as shown in **Table 322**. This calculates the difference between the actual revenue collected, as compared to the revenue expected from the reforecast customer numbers.

Table 322 Excess / (shortfall) of reforecast revenue vs actual revenue collected (Outturn, £m)

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP6
Unmetered water-only customer	0.32	0.33	0.21	0.17	0.15	1.17
Unmetered wastewater-only customer	0.36	0.31	0.18	0.19	0.18	1.22
Unmetered water and wastewater customer	-5.43	-2.76	-3.68	-5.36	-6.37	-23.61
Metered water-only customer	0.39	0.35	0.38	0.37	0.40	1.88
Metered wastewater-only customer	0.18	-0.13	0.80	1.00	1.04	2.88
Metered water and wastewater customer	4.17	4.01	4.37	2.75	4.20	19.49
Total	-0.02	2.12	2.25	-0.89	-0.40	3.04

PR14 Reconciliation

Impact of the reconciliation mechanisms

Finally, the two calculations within **Table 41 and Table 322** are summed across AMP6 to calculate the resulting total adjustment to be applied to the AMP7 revenue requirement as shown below in **Table 43**.

Table 43 Total adjustment at the end of AMP6 (Outturn, £m)

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP6
Unmetered water-only customer	0.30	0.29	0.25	0.19	0.17	1.19
Unmetered wastewater-only customer	0.29	0.27	0.25	0.22	0.20	1.22
Unmetered water and wastewater customer	-4.44	-2.76	-3.23	-4.78	-6.12	-21.32
Metered water-only customer	0.39	0.39	0.39	0.37	0.38	1.91
Metered wastewater-only customer	0.22	0.88	1.04	0.98	1.02	4.15
Metered water and wastewater customer	3.32	4.20	3.87	2.81	3.80	17.99
Total	0.08	3.28	2.55	-0.22	-0.55	5.14

The total adjustment for the period is entered into the revenue feeder models to form part of the overall adjustment required in AMP7 that is summarised within *Application of adjustments to revenue and regulatory capital value*.

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.6 Uncertainty mechanisms (Water Cumulo rates)

Background

The only uncertainty mechanism (notified item) within the AMP6 final determination is for water cumulo rates. This mechanism reflected that there was uncertainty around the 2017 revaluation exercise and that these costs are outside of management control but still provided incentives to companies to engage with stakeholders to minimise the impact on customers. This was done by applying a cost sharing rate of 75% to the customer and 25% to the company.¹¹

Assumptions and method

The 2017 revaluation of cumulo rates along with the refund from the 2005 revaluation has resulted in aggregate expenditure over AMP6 that is broadly in line with that which was assumed in setting the baseline for Water at PR14. The uncertainty mechanism allows companies that have experienced significant variances between their assumed cumulo rates and the subsequent revaluation to seek an interim determination (IDoK).

During 2019/20 we received a rate rebate of £12.3m which reduced the reported cumulo rates in the year, so the actual value of cumulo rates was £46.5m which compares with the £56.9m we assumed in 2019. Over the 5 year period the variation between assumed rates and actual rates was £10.1m which is within 4% of the original assumption. Given that the variance we have between our actual and assumed rates is not material, an IDoK is not required and any variance will be addressed through the totex reconciliation mechanism.

Table 44 Water business rates £m 2012/13 RPI FYA prices

	2015/16	2016/17	2017/18	2018/19	2019/20	AMP6
PR14 assumed Cumulo rates	57.4	57.4	57.4	57.4	57.4	287.1
Actual Cumulo rates	58.3	58.0	57.1	57.1	46.5	277.0
Variance	0.8	0.6	-0.3	-0.3	-10.9	-10.1

¹¹ Ofwat, "Final price control determination notice: company-specific appendix – United Utilities", p29

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.7 Land disposals

Background

The land disposals mechanism has formed part of the regulatory price setting process since PR94. It ensures that customers benefit from land sales and is based on the net proceeds - after the deduction of all offsetting costs from disposals of protected land - including those already subject to regulation through Condition K of the licence.

Assumptions and method

Whilst a specific feeder model for calculating the adjustments required has not been issued as with the other correction mechanisms, we have completed the assessment of our actual and forecast sales for AMP6 in line with the method used within the PR19 business plan table (App 9). In particular, we have

- Calculated the net adjustments required for 2014-15 by comparing actual sales to those forecast from PR14 in line with the value used within the 'Regulatory capital value midnight adjustment'¹² feeder model and apportioned them between Water and Wastewater based on the actual assets sold.
- Calculated 50% of the net proceeds for 2015-20 and 50% of the residual value for 2014-15.
- Utilised the AMP6 Wholesale weighted average cost of capital (WACC) of 3.60% for ensuring that any adjustment is NPV neutral.
- Used the average of the actual and forecast RPI and CPIH values for the period to convert the result into base year prices (2017/18) in line with the calculation steps within table App9.
- Input the resulting adjustments to the RCV feeder model to calculate the AMP7 adjustment.

Value of adjustment

Having completed our assessment of the expected net proceeds for both the Water and Wastewater businesses for the period 2014-20 on the above basis, we calculate that the adjustments set out in the table over page are required to the respective RCVs. **Table 45** and

Table 46 set out both the calculation steps as well as the resulting adjustments to RCVs for Water and Wastewater.

The actual value of land sales in 2019/20 was £1.539m in Water and £161m in Wastewater, this compared to our predicted sale of £1.972m and £0.290m. Sales are therefore £433m lower than anticipated in Wastewater and £0.129m lower in Water. The impact on the RCV adjustment in 17/18 prices for Wastewater is a reduction from £6.255m to £6.079m and from £0.495m to £0.438m in Water.

¹²http://webarchive.nationalarchives.gov.uk/20150624091829/http://www.ofwat.gov.uk/pricereview/pr14/pap_tec1412feederrcvfdnwt.xlsx

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 45 Adjustments to Water RCV from disposals of land £m

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2014-20
Forecast at previous review	1.868						1.868
Actual sales	2.354	2.131	2.853	2.077	2.602	1.539	13.556
Impact of 50% of proceeds	0.243	1.065	1.426	1.039	1.301	0.770	5.844
WACC - fully post tax on notional structure	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	
RPI: Financial year average year on year %	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	
Discount rate (nominal)	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	
Years for discounting purposes	-3	-2	-1	0	1	2	
Discount factor	0.83	0.88	0.94	1.00	1.06	1.13	
PV effect of 50% of proceeds	0.291	1.200	1.514	1.039	1.226	0.683	(5.952)

Table 46 Adjustments to Wastewater RCV from disposals of land £m

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2014-20
Forecast at previous review	0.044						0.044
Actual sales	0.055	0.050	0.192	0.108	0.353	0.161	0.919
Impact of 50% of proceeds	0.006	0.025	0.096	0.054	0.177	0.081	0.438
WACC - fully post tax on notional structure	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	
RPI: Financial year average year on year %	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	
Discount rate (nominal)	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	
Years for discounting purposes	-3	-2	-1	0	1	2	
Discount factor	0.83	0.88	0.94	1.00	1.06	1.13	
PV effect of 50% of proceeds	0.007	0.028	0.102	0.054	0.166	0.072	(0.429)

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.8 Reconciling 2010-15 performance: 2014-15 adjustments

Background

The PR14 price review and final determination (FD) made revenue and RCV adjustments, which reflected the anticipated AMP5 outturn position against the AMP5 targets and incentive mechanisms, which were set at PR09.

Due to the timing of the review, these adjustments were based upon four years of actual performance and one year's predicted performance. This timing allowed some of the measures to be finalised, although other measures were still subject to subsequent confirmation of outturn performance.

The measures that were subject to further review were:

- Revenue correction mechanism (RCM).
- Change protocol (logging up, logging down, shortfalls).
- Service standard outputs.
- Serviceability performance.
- 2009 agreed overlap programme.
- Capital expenditure incentive scheme (CIS).

In February 2016 UUW (and other water companies) provided Ofwat with details of our actual outturn performance against each of these measures. This submission highlighted any differences to the assumptions made at PR14 and proposed how these differences should be reflected in adjustments to revenue or RCVs either during AMP6 or through the PR19 process.

Ofwat published an initial draft determination for consultation in early 2016. Following feedback it provided a final determination in October 2016. In addition, it subsequently provided an update and revised adjustment values to the change protocol and overlap mechanisms in March 2017, with a final update on 2010-15 reconciliations published in December 2017.

Assumptions and method

The adjustments that were made at PR19 reflected the additional adjustments that needed to be made, relative to the adjustments that were made at PR14.

The values of these adjustments are fully in line with the information published by Ofwat, either in their final determination on October 5, 2016, or where relevant, in the updated information published on 18th December 2017.

Value of adjustment

The adjustments that were determined by Ofwat in the October 2016 final determination were set out in Table A1 Revenue and RCV adjustments (2015-20) (£million).

PR19 adjustments for serviceability performance were nil. The Revenue correction mechanism (RCM) adjustments have been recovered during AMP6 through the WFRIM.

The impacts of the adjustments for the remaining measures on revenue and RCV are set out in the tables below. These tables indicate the original values published (in 2012/13 prices) and then the equivalent values in 2017/18 prices. There are slight differences between the 2017/18 values used within the FD and the 2017/18 values calculated for this submission as a result of changes between the assumed inflation indices used for the FD and the outturn inflation indices.

PR14 Reconciliation

Impact of the reconciliation mechanisms

Table 47 2014-15 revenue adjustments £m

Total Adjustment Revenue Carry Forward to PR19	2012/13 FYA (RPI)	2017/18 FYA (CPIH deflated)	
		FD	Actual
Water Service	-10.150	-11.610	-11.648
Wastewater Service	-10.356	-11.846	-11.884

Table 338 2014-15 RCV adjustments £m

Total Adjustment Revenue Carry Forward to PR19	2012/13 FYA (RPI)	2017/18 FYA (CPIH deflated)	
		FD	Actual
Water Service	31.834	36.415	36.533
Wastewater Service	45.924	52.533	52.703

The RCV adjustments set out in the PR14 final determination did not include for the impact of an indexation correction that was identified following the FD but prior to the FD for the PR09 2014/15 blind year reconciliation. The values shown in the table above initially show the position excluding the indexation correction (in line with the PR14 FD) and post the correction (in line with the 2014/15 reconciliation FD). This correction does not change the proposed CIS RCV adjustment, which is shown above. The indexation correction is discussed separately in the following section.

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.9 CIS RCV inflation adjustment

Background

The PR14 price review and final determination (FD) made RCV adjustments to reflect the actual (or anticipated) AMP5 outturn expenditure and indexation.

The company's RCV varies in with inflation and relative additions/depreciation to the asset base. Following the PR14 FD Ofwat identified an indexation adjustment that should be made in determining the opening RCV for AMP6. The value for each company was set out in the 2014/15 reconciliation final determination published in October 2016 and it was determined that this adjustment should be applied to the RCV through the PR19 process.

Assumptions and method

The PR19 adjustments are designed to be fully in line with the information published by Ofwat, in their 2010-2015 reconciliation document published in December 2017.

Value of adjustment

The adjustments that were determined by Ofwat and published in the December 2017 2010-2015 reconciliation document¹³ were set out in Table 3.3 Inflation correction that will be applied at PR19 – Water and Table 3.4 Inflation correction that will be applied at PR19 – Wastewater.

The impact of these adjustments are set out in the table below. This table indicate the original values published (in 2012/13 prices) and then the equivalent values in 2017/18 prices. There are slight differences between the 2017/18 values used within the FD and the 2017/18 values calculated for this submission as a result of changes between the assumed inflation indices used for the FD and the outturn inflation indices.

Table 349 CIS indexation adjustments £m

CIS RCV inflation adjustment as at 31 March 2015	2012/13 FYA (RPI)	2017/18 FYA (CPIH deflated)	
		FD	Actual
Water Service	-69.718	-79.751	-80.008
Wastewater Service	-118.073	-135.065	-135.501

¹³ <https://www.ofwat.gov.uk/wp-content/uploads/2017/12/Updated-2010-2015-reconciliation.pdf>

PR14 Reconciliation

Impact of the reconciliation mechanisms

2.10 Water trading incentives

Background

In order to encourage better, more sustainable use of water resources within the UK, water trading incentives designed to encourage efficient water trading between companies have been introduced. These incentives apply to both new water exports (sellers) and new water imports (buyers) for all new qualifying trades in 2015-20. Companies that export water to other regions are able to retain 50% of the lifetime economic profits (that is, the profits over and above the normal return on capital invested) whilst importers will benefit from totex efficiency and are able to retain 5% of their costs from new qualifying imports during 2015-20.

Assumptions and method

We have completed the assessment of the water trading incentive for AMP6 using Ofwat's reconciliation feeder model in accordance with the guidance set out in the October 2016 publication 'Ofwat PR14 reconciliation rulebook'. We can confirm that whilst we do have a number of trading arrangements with other companies, we have not entered into any new trades during the 2015-20 period over and above those that were in place prior to the beginning of the AMP as stated within our 2014 Water Resources Management Plan (WRMP).

Value of adjustment

Because no new trades occurred within the period, we are not adjusting the AMP7 revenue requirement.

Appendices

- Appendix A – IAP queries and responses
- Appendix B - Customer experience programme – justification for proposed adjustment
- Appendix C – Delivery of AMP6 outputs and impact on related outcome delivery incentives
- Appendix D - Supporting spreadsheets and models
- Appendix E – Table commentary

Appendix A: PR19 final determination feedback

This appendix restates the feedback we had on our 2019 PR14 reconciliation submission, within the PR19 final determination document [United Utilities – Accounting for past delivery final decisions](#) that is published on Ofwat's [website](#).

It then sets out how we have taken on board this feedback within this submission.

PR14 Reconciliation

Appendix A Reponse to final determination actions

Introduction

This appendix follows the order of and uses the references within Table 1 of the PR19 final determination document “United Utilities - Accounting for past delivery final decisions”, that is published on Ofwat’s website.

<https://www.ofwat.gov.uk/wp-content/uploads/2019/12/PR19-Final-Determinations-United-Utilities-Accounting-for-past-delivery-final-decisions.pdf>.

It reproduces each of the points in the FD document, summarises the previous feedback and response to the point and then sets out how this point has been addressed in this current submission.

All Models

Summary

We were asked for more information in the IAP, this was provided with our 2019 submission, this year we have submitted the PR14 document using actual data from 2019-20, which replaces forecasted data submitted last year.

Detail of previous interactions

UUW.PD.A5 – Action

PR14 reconciliations: Further to the actions we have set out to address our concerns over the evidence provided in its business plan for the individual reconciliations, we will require the company to refresh all of its PR14 reconciliations to replace its 2018-19 forecast performance with 2018-19 actual performance and update the evidence for its forecast 2019-20 performance taking into account of the actual 2018-19 performance. The company should submit the updated past delivery tables and populated models by 15 July 2019.

Previous feedback and response:

- **UUW.PD.A5 – Initial response**

The company notes this requirement and will provide additional evidence by the deadline of 15th July 2019.

- **UUW.PD.A5 – Further information and cross reference**

We have refreshed all of our PR14 reconciliations, replacing our 2018-19 forecast performance with 2018-19 actual performance and have updated the evidence for our forecast 2019-20 performance taking into account of the actual 2018-19 performance.

This document provides a detailed commentary on the updated values and the reasons for variances from our previous projections. We have also submitted the updated past delivery tables and populated models.

- **Ofwat Feedback from the FD**

Our final interventions take account of United Utilities’ actual performance in 2018-19 and updated evidence for its forecast performance in 2019-20 (taking into consideration its actual performance in 2018-19) as submitted on 15 July 2019 and in its 30 August 2019 representation.

UUW.PD.A5 – 2019/20 response

We have submitted this year’s document using actual data from 2019-20, which replaces forecasted data submitted last year.

PR14 Reconciliation

Appendix A Response to final determination actions

Land Sales

Summary

We have used the latest business plan table for App9 which calculates the present value correctly by dividing proceeds by the discount factor. We were also asked for more information in the IAP, this was provided with our 2019 submission, this year we have used actual data in place of forecasted data.

Detail of previous interactions

UUW.PD.A1 – Action

PR14 Land sales: The company should provide additional evidence to support the forecast trajectory reported in table App9.

Previous feedback and response:

- **UUW.PD.A1 – 2018/19 response**

We provide additional evidence to support our forecast trajectory of land sales, within Appendix E in the Table commentary to App 9.

- **Feedback from the FD**

No intervention required. The company addresses the issue appropriately in its 15 July 2019 submission.

UUW.PD.A1 – 2019/20 response

No action required, this year's submission provides actual data in place of forecast data, therefore supporting evidence in addition to what was provided last year is not required.

UUW.PD.C003.01/ UUW.PD.C003.02 - Action

We are intervening to revise the calculation of the present value effect of 50% of proceeds from disposals of interest in land for the wholesale water and wholesale wastewater price control. We are doing this so that the calculation aligns with the revised business plan table templates released on 31 January 2019.

Previous feedback and response:

- **Feedback from the FD**

No intervention required.

The draft determination intervention is no longer required because the company addresses the issue appropriately in its 15 July 2019 submission.

In the original business plan table App9, the present value was calculated in error by multiplying proceeds by the discount factor. Our draft determination interventions corrected the present value calculation by dividing proceeds by the discount factor. This correction aligns with the revised business plan table templates released to companies on 31 January 2019 and the template used for the 15 July 2019 submission.

UUW.PD.C003.01/ UUW.PD.C003.02 – 2019/20 response

No action required, we have used the latest business plan table for App9 which calculates the present value correctly by dividing proceeds by the discount factor.

PR14 Reconciliation

Appendix A Response to final determination actions

Outcomes

Summary

In response to the FD feedback on our calculation of S-D3 - contribution to rivers improved – wastewater, we have adjusted our prior year performance to reflect the changes in the FD and have calculated our 2019/20 performance in line with the FD. This approach was reflected in the new ODI blind year performance model, which we provided to Ofwat at the end of April and is within the current versions of this model.

We were also asked for more information in the IAP, this was provided with our 2019 submission. Our 2019 view of performance on the ODI “maintaining wastewater treatment works”, was also challenged in the FD. This year we have input actual data for 2019/20 in place of the forecasted position and as such the position is resolved.

Detail of previous interactions

UUW.PD.A2 – Action

PR14 Outcome delivery incentives: The company should provide evidence of how the proposed change to the R-A2 customer experience programme outcome delivery incentive is in customers' interests and how it has calculated the Thirlmere outcome delivery incentive in tables App5/App6 for table App27.

The company should, in its 15 July 2019 submission, update its forecast for 2019-20 performance to take account of the actual 2018-19 performance for all its performance commitments. We expect the company to pay particular focus where we found the evidence provided in its business plan for the 2018-20 forecasts to be insufficient which was for:

- A2: Water quality events DWI category 3 or above
- A3: Water Quality Service IndexS-D4a: Wastewater serious (category 1 and 2) pollution incidents
- S-D2: Maintaining our wastewater treatment works (includes Oldham and Royton WwTWs special cost factor claims)
- B5: Resilience of impounding reservoirs
- B2: Reliable water service index
- B1: Average minutes supply lost per property (a year)
- S-A1: Private sewers service indexS-B2: Sewer flooding index
- S-A2: Wastewater network performance index
- C1: Contribution to rivers improved - water programme (NEP schemes and abstraction changes at 4 AIM sites)
- S-C1: Contribution to bathing waters improved (includes NEP phase 3&4 bathing water intermittent discharge projects)

Previous feedback and responses:

- **UUW.PD.A2 – Initial response**

In respect of the requirement to update forecasts for 2019-20 performance to take account of the actual 2018-19 performance for all performance commitments, the company confirms that these will be provided in line with the APR timetable (15th July 2019).

We note the expectation that we pay particular focus to the listed areas in UUW.PD.A2.

In respect of the proposed change to R-A2 customer experience programme outcome delivery incentive, please see document I011 – R-A2 Customer experience programme.

In respect of how we have calculated the Thirlmere outcome delivery incentive in tables App5 / App6 for table App27, this will also be provided by 15th July 2019.

- **UUW.PD.A2 – Further information and cross references**

PR14 Reconciliation

Appendix A Response to final determination actions

Specific information related to Outcome delivery incentives R-A2 customer experience programme is set out within [Appendix B: Customer experience programme](#).

The Thirlmere outcome delivery incentive in tables App5/App6 for table App27 has been calculated in this resubmission to the appropriate number of decimal places. Details of the delivery of this project and the calculation of the ODI are included within Appendix A Detailed review of our performance commitments with a detailed breakdown of the delivery of the project being included within Appendix C Delivery of our AMP6 outputs - see Section [C.10 W-B6: Thirlmere transfer into West Cumbria](#).

In this submission we have updated our forecasts for 2019-20 performance to take account of the actual 2018-19 performance for all of our performance commitments. The basis of our projections for each of these measures is set out within our APR.

The detailed breakdown of the actual and planned progress against the performance commitments that cover the delivery of enhancement programmes such as S-D3: Contribution to rivers improved (wastewater) is set out in [Appendix C 1 Delivery of our AMP6 outputs](#).

- **Feedback from the FD**

For R-A2 customer experience programme, there is No intervention required. The draft determination intervention is no longer required because the company addresses the issue appropriately in its 15 July 2019 submission. United Utilities provides sufficient evidence that it follows the stated definition for this ODI and that its calculation of the underperformance payment is in the interests of customers.

In relation to the calculation of the Thirlmere ODI there is No intervention required. The draft determination intervention is no longer required because the company addresses the issue appropriately in its 15 July 2019 submission.

We have assessed the data the company provides and its forecasts for the 2019-20 reporting year. We are intervening where we found data errors or inconsistencies, or the company provided insufficient evidence for its performance.

Please see UUW.PD.D002.01 below.

In respect of the performance commitment S-D2 (maintaining wastewater treatment works), we consider that to receive an underperformance payment United Utilities would need to deliver a worse level of service than it has achieved in the last three years.

The company provides no evidence for why performance will deteriorate in the final year.

We are therefore removing this underperformance payment for the final determination.

UUW.PD.A2 – 2019/20 response

In this year's submission we have inputted actual data for 2019/20 in place of the forecasted positions. Therefore the issue of the forecasted maintaining wastewater treatment works position being too pessimistic is removed and replaced by actual data.

Additional action from FD

UUW.PD.D002.01 - Action

In its 15 July 2019 submission, United Utilities' calculation of the ODI payment for performance commitment S-D3 (contribution to rivers improved - wastewater) does not reflect the definition.

Previous feedback and response:

- **Feedback from the FD**

Intervention required.

PR14 Reconciliation

Appendix A Response to final determination actions

We have taken the difference between the outperformance cap as the number of km delivered at the end of the year of river was greater than this and the committed performance level in the corrigenda and multiplied it by the outperformance ODI rate:

2016-17

(30.82km -15.41km) multiplied by £0.028m/km = £0.431m.

2017-18

(120.75km - 98.14km) multiplied by £0.028m/km = £0.633m.

2018-19

(178.93 km - 145.39km) multiplied by £0.028m/km = £0.939m.

2019-20

(355.22km - 341.92km) multiplied by £0.111m/km = £1.476m

UUW.PD.D002.01 – 2019/20 response

We have adjusted our prior year performance to reflect the changes above. Our approach has been agreed by Ofwat on submission of the new ODI blind year performance model.

PR14 Reconciliation

Appendix A Response to final determination actions

Residential Retail

Summary

In line with the FD feedback, we have rounded the modification factor figures to 2 decimal places. We were also asked for more information in the IAP, this was provided with our 2019 submission, as we received no additional feedback in the FD, we have assumed no further action is required.

Detail of previous interactions

UUW.PD.A3 – Action

PR14 Residential retail: The company should provide further clarity on the reasons for the difference between reforecast customer numbers and actual customer numbers in 2018-2019 in table R9.

Previous feedback and response:

- **UUW.PD.A3 – Initial response**

The company notes this requirement and will provide additional evidence by the deadline of 15th July 2019.

- **UUW.PD.A3 – Further information and cross reference**

We provide further clarity on the reasons for the difference between reforecast customer numbers and actual customer numbers in 2018-2019, in the table commentary of last year's submission.

- **Feedback from the FD**

N/A

UUW.PD.A3 – 2019/20 response

Due to there being no additional feedback at FD, we have assumed that the further information we required in July 2019 was sufficient to satisfy the initial request.

Additional action from FD

UUW.PD.C008.01 - Action

Intervention required. We are intervening to round United Utilities' modification factor figures to two decimal places to ensure consistency with the PR14 Reconciliation Rulebook.

- **Feedback from the FD**

Intervention retained.

We are rounding to two decimal places, modification factor figures for 2015-16 to 2019-20 associated with the following lines in business plan table R9:

- unmetered water-only customer;
- unmetered wastewater-only customer;
- unmetered water and wastewater customer;
- metered water-only customer;
- metered wastewater-only customer; and
- metered water and wastewater customer.

Our interventions do not change the total residential retail revenue payment at the end of the 2015-20 period which remains at £5.209 million (2017-18 FYA CPIH deflated price base).

UUW.PD.C008.01 – 2019/20 response

We have rounded the modification factor figures to 2 decimal places in line with the FD feedback above.

PR14 Reconciliation

Appendix A Response to final determination actions

Residential retail service incentive mechanism (SIM)

Summary

The position on SIM was finalised in the PR19 final determination. We have retained a section on SIM within this document (2.2 Service Incentive Mechanism (SIM)) which confirms this final value and makes brief reference to our previously proposed methodology for deriving the incentive payments for SIM.

Detail of previous interactions

UUW.PD.D009.01 – Action

Intervention required.

We are intervening to adjust United Utilities' residential retail revenue as a result of its SIM performance from 2015-16 to 2018-19.

Previous feedback and responses:

- **Feedback from the FD**

Intervention retained.

We consider that our approach is consistent with our PR19 final methodology and the removal of high performing outliers would not be appropriate. Our approach allocates payments in a way which clearly distinguishes between performance differences (payments are proportionate). SIM payments also reflect the outcome of our consultation on calculating SIM.

We are updating our analysis to take account of companies' finalised scores for 2018-19.

UUW.PD.D009.01 – 2019/20 response

The position on SIM was finalised in the PR19 final determination. We have retained a section on SIM within this document (2.2 Service Incentive Mechanism (SIM)) which confirms this final value and makes brief reference to our previously proposed methodology for deriving the incentive payments for SIM.

Totex

Summary

We have revised our menu choices to align with the position set out by Ofwat in the FD. We were also asked for more information in the IAP, this was provided with our 2019 submission. Actual data has replaced forecasted numbers in this year's APR and within this submission, with similar commentary provided.

Detail of previous interactions

UUW.PD.A4 – Action

PR14 Totex: The company should provide a more detailed and numerically sound explanation of its forecasted performance in tables WS15/WWS15.

Previous feedback and responses:

- **UUW.PD.A4 – Initial response**

The company notes this requirement and will provide additional evidence by the deadline of 15th July 2019.

- **UUW.PD.A4 – Further information and cross reference**

We provide a more detailed and numerically sound explanation of our forecast expenditure projections that are set out within tables WS15/WWS15, within section [2.3 Totex menu reconciliation](#).

- **Feedback from the FD**

No intervention required. The company addresses the issue appropriately in its 15 July 2019 submission.

UUW.PD.A4 – 2019/20 response

No response is required this year as forecasted performance in 2019/20 has been replaced by actual performance.

Additional action from FD

UUW.PD.D006.01 - Action

Intervention required.

Where companies did not change their position on the menu from that used in the PR14 final determination, we are ensuring the water and sewerage final menu choices reflect the full accuracy of these figures as calculated in the 38TPR14 populated final determination models38T (see 'Calculations' tab cell D68).

- **Feedback from the FD**

We are intervening to change the 'Water: Final menu choice' figure from 100.470 to 100.476 and the 'Sewerage: Final menu choice' figure from 106.240 to 106.239.

UUW.PD.A4 – 19/20 response

We have mirrored Ofwat's approach set out within the FD and changed our final menu choices to match the ones in the feedback document at FD.

PR14 Reconciliation

Appendix A Response to final determination actions

RCV adjustments

Summary

In response to the FD feedback below, we have followed the guidance set out in the FD in order to arrive at a starting position (prior to adjusting forecast 19/20 numbers for actuals) that matches the numbers Ofwat have stated within the FD.

Detail of previous interactions

UUW.PD.D010.01 – Action

In its 15 July 2019 submission, United Utilities includes a figure of 14% for ‘RCV ~ 31 March 2020 (% of total wholesale water) - Water resources.’

Through subsequent engagement, United Utilities is revising its allocation to water resources from 14% to 15%.

Previous feedback and responses:

- **Feedback from the FD**

Intervention required.

At draft determination, we expressed concerns about the RCV allocation for water resources. We intervened and proposed an alternative allocation of 20%.

In light of this feedback, United Utilities changed its methodology to base it on future expenditure and has now revised its allocation to water resources to 15%. We welcome this revision and accept the

We are intervening to include a revised figure of 15% for ‘RCV ~ 31 March 2020 (% of total wholesale water) - Water resources’ replacing United Utilities original figure of 14%.

Our minor interventions increase the water totex revenue adjustment at the end of the period from £49.614 million to £49.618 million and reduce the wastewater RCV adjustment from £42.022 million to £42.021 million.

UUW.PD.D010.01 – 19/20 response

We have followed the guidance set out above in order to arrive at a starting position (prior to adjusting forecast 19/20 numbers for actuals) that matches the numbers Ofwat have stated above.

PR14 Reconciliation

Appendix A Response to final determination actions

Revenue adjustments

Summary

In response to the FD feedback, we have adjusted the wholesale WACC to 2.92% in our models which is in line with the feedback provided by Ofwat in the final determination.

Additional action from FD

UUW.PD.C011.01 - Action

Intervention required.

We are standardising the discount factor used to profile revenue adjustments.

Previous feedback and responses:

- **Feedback from the FD**

Intervention required.

We are intervening to reflect our updated view of the wholesale WACC.

Companies can choose to apply revenue adjustments either in the first year, or, spread over a number of years in the 2020-25 period to minimise the impact on bills or to generate a bill profile that is appropriate for its customers.

We consider the wholesale WACC is an appropriate discount factor as this is a measure of the time value of money that is consistent with the price control framework.

We are not intervening in United Utilities' choices for profiling revenue adjustments in 2020-25.

Where profiling selections have been made for controls with no revenue (Dummy control and/or Business retail) we have set these selections to '0'. This has no impact on the modelling outputs. We are using our view of the wholesale WACC (2.92%) as the discount factor to preserve the net present value of the outperformance or underperformance payments due when spreading adjustments over the period.

We are using our view of the wholesale WACC (2.92%) as the discount factor to preserve the net present value of the outperformance or underperformance payments due when spreading adjustments over the period.

UUW.PD.C011.01 – 19/20 response

We have adjusted the wholesale WACC to 2.92% in our models which is in line with the feedback provided by Ofwat in the final determination.

Appendix B: Customer experience programme

This appendix was originally developed for our 2019 submission to provide details to support the proposed adjustment relating to the customer experience programme outcome delivery incentive (ODI).

The approach set out within this appendix was used within the FD.

The FD position was based upon assumed levels of depreciation in 2019/20. Actual depreciation levels have been used to determine equivalent ODI incentive payments, with these values being reflected within the updated ODI assessment.

The only change from the FD position is a modest variance between the 2019/20 depreciation assumed in our 2019 submission (and therefore the FD) (10.051m), and the actual level of depreciation in 2019/20 (£9.692m). We have reproduced the supporting information that was included within our 2019 submission appendix and have added an additional section which sets out the basis of the revised calculation. This appendix is now structured as follows:

- B1 – New information showing the calculation of the ODI value within the FD and based upon actual 2019/20 depreciation level.
- B2 – B7 Details of the programme of work and the supporting assurance – as provided as part of our 2019 submission.

Section B1 demonstrate how the variation in depreciation increases the underperformance penalty from £5.697m to £5.876m.

PR14 Reconciliation

Appendix B Customer experience programme

B.1 ODI adjustment

There are two penalty/incentive tests associated with this performance commitment and ODI. In this section we describe our actual and forecast position against both aspects of the measure and set out how we propose that this should be reflected through the incentive mechanism.

Part 1 Cumulative Depreciation – This test compares the actual cumulative depreciation at 2020 with the depreciation assumed in the final determination and which was used to set the target for the measure.

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
Target Cumulative Depreciation (£m)	1.053	3.370	6.396	10.860	17.769
Actual Cumulative Depreciation (£m)	0.001	0.363	2.576	5.685	10.051
Actual Depreciation (£m)	0.001	0.363	2.576	5.685	9.692

Unit of measure	2019 assumed values	2020 actual values
Variance in cumulative depreciation by 2020	£7.718m	-£8.077m
Customer share rate	50%	50%
ODI performance adjustment	-£3.859m	-£4.039m

Part 2 Delivery of the programme - This test relates to the whether we had fully delivered the programme by 31st March 2019. The table below sets out the status of each element of the programme assumed within the final determination.

Component	Delivery test passed March 2019	Assumed cost at PR14 (£m)
Debt Manager replacement	Yes	
Billing system upgrades	Yes	
Customer relationship management system (CRM)	No	8.996
Multi-channel routing	Yes	
Workforce optimisation	Yes	
Analytic capabilities	Yes	
Web content management system	Yes	

As shown in the table above all systems were delivered and operational by the 31st March 2019, other than the customer relationship management system. With the cumulative depreciation associated with this expenditure being set out in the table below.

PR14 Reconciliation

Appendix B Customer experience programme

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Projected cost profile for CRM (£m)	3.844	2.656	0.886	1.610	0.000	8.996
Cumulative depreciation for CRM (£m)	0.000	0.242	0.842	1.196	1.397	3.677

Cumulative depreciation on non-delivered elements	£3.677m
Non- delivery incentive rate	50%
Projected and actual ODI performance adjustment	-£1.838m

Combination of the mechanisms and development of the proposed adjustment

	2019 assumed values	2020 actual values
Relative depreciation	-£3.859m	-£4.039m
Full delivery	-£1.838m	-£1.838m
Total ODI value (nominal prices)	-£5.697m	-£5.876m

Adjusting for inflation for an ODI linked to a residential Retail price control

As part of our 2019 PR14 reconciliation submission we deflated the forecast Customer Experience Programme penalty from nominal to 2012/13 prices. This was done to resolve the issue of inflationary uplifts embedded in the PR19 Revenue Adjustments and Financial Models. The effect of this was to ensure future revenue returned to customers via the Customer Experience ODI equalled the expected value on a nominal basis. This approach was confirmed in the PR19 final determination and has been reused for this years updated 2020 values.

The impact of this deflation to 12/13 prices is set out in the table below.

	2019 assumed total ODI values	2020 actual total ODI values
Nominal prices	-£5.697m	-£5.876m
Net deflation (%)	20.6%	20.9%
12/13 prices	-£4.522m	-£4.649m

The detail of this calculation can be seen in the 'retail adjustment factors' tab of the Revenue adjustments feeder model. The calculation takes the nominal reward/penalty (-£5.876m) , then divides this figure by the RPI 2013-2020 inflation factor (1.1959), the CPIH 2020-2018 deflation rate (0.9596) and finally, divides by an equivalent annual inflation adjustment factor (1.013) which relates to forecasted future CPIH rates.

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B.2 Full delivery test – delivering in customers’ interest

This section presents the customer benefits initially attributed to the delivery of a new CRM system, and details of how they have actually been achieved, in some instances through innovative, lower cost means. In particular it shows how the decision not to deliver the CRM sub-element of the Customer Experience Programme, and the proposed return of revenues to customers via the R-A2 customer experience programme ODI is in customers’ interests.

We have fully delivered technology, business process and organisational changes associated with six of the seven Customer Experience Programme component elements.

	Technology	Business Processes	Organisational changes
CRM	x	✓	✓
Multi-channel routing	✓	✓	n/a
Workforce optimisation	✓	✓	✓
Analytic capabilities	✓	✓	✓
Web Content Management System	✓	✓	✓
Billing system upgrades	✓	✓	✓
Debt Management	✓	✓	✓

In AMP6 we have delivered substantial improvements in customer service and large scale cost reductions. Over AMP6 United Utilities’ SIM performance has improved materially, we have delivered a 18% real terms reduction in residential retail operating costs (excluding changes in bad debt charges), and have achieved a 34% reduction in customer complaints across the whole of United Utilities.

Delivery of the Customer Experience Programme has been central to this improved performance. New systems and capabilities delivered through the programme has underpinned better customer service and engagement, the roll out of enhanced digital offerings, and advanced our customer data analytics capabilities.

The only aspect of the Customer Experience Programme that has changed from the original programme design is related to CRM technology. In August 2016 we made a decision not to invest in a CRM system. Our decision was based on a number of factors. A review of the CRM project showed that we would be able to generate the intended customer benefit through cross over benefits from other aspects of the Customer Experience Programme, and through process and organisational changes. As such we arrived at the view that a new CRM system was not cost beneficial. Uncertainty at the time regarding the potential opening of household retail markets, and subsequent business separation also reinforced the decision that there was insufficient value from investing in a new tool that integrated wholesale and household retail systems.

Despite our decision not to implement the CRM technology tool we have delivered the business process and organisational changes, delivering most of the anticipated benefits without making costly technology investments. These have resulted in real improvements to the overall customer experience, as can be seen through the improvements in customer experience measures described below. Under the Customer Experience Programme ODI’s ‘full delivery’ test since one part of the CRM component has not been delivered that depreciation allowances in AMP6 associated with that component of the programme must be returned to customers. Our proposed return value to customers is set out in the “Proposed ODI adjustment” section below.

As we will not deliver the CRM element of the programme we will instead return to customers the £3.7m¹⁴ of AMP6 revenue allowances made at PR14 for a new system, in line with the requirements of ‘R-A2 customer experience programme ODI’.

¹⁴ Total proposed adjustment £5.7m (nominal prices). This is made up of the sum of a ‘non-delivery’ element (£1.8m) and reduced depreciation sharing element (£3.9m). In total £3.7m of these elements are associated with the CRM system.

B.3 Clarification of potential ambiguity about full delivery

In the final determination 'Full delivery' was defined as the implementation of all new technology, business processes and organisational changes, and evidence that all affected household customers are being managed through the new technology platforms and processes (CRM, multi-channel routing, workforce optimisation, analytic capabilities, web contact management system and debt management).

Our intention in writing the ODI was that Full Delivery would be tested against each of the components, with the primary measure being that customers would be receiving the benefits of the programme (through full implementation of the business process and organisational changes for each component, rather than simply that an IT system had successfully passed an internal testing process).

Following discussions with Jacobs (the independent auditors commissioned to review delivery of the Customer Experience Programme) we recognise that it would be feasible to interpret "full delivery" as meaning that the programme would need to have been delivered on an "all or nothing" basis – i.e.: that a decision not to implement one part of the CEP because it was not appropriate would mean that no reimbursement would be made for any of the other elements of the CEP which had been implemented. We agree with the independent auditors' view that this would not be a desirable interpretation. Indeed, applying such an interpretation would lead to perverse incentives which would act against the customer interest.

We consider that the appropriate interpretation of the 'full delivery' test within the ODI should be applied at a component by component level. In other words the delivery test should be applied to the CRM element of the programme separately from the other successfully delivered elements of the programme. In hindsight we recognise that the definition could have been clearer and as originally specified allows for ambiguity. We have shared this view and rationale with both the independent auditors, Jacobs and the YourVoice panel (CCG), who support our interpretation of the ODI test.

We consider that it would be both unreasonable and perverse not to recognise the delivery of all other elements of the Customer Experience Programme when assessing delivery of ODI R-A2. It cannot be right to derecognise the full delivery of most of the programme components and penalise our efforts to avoid non-cost beneficial investment; this would lead to perverse incentives that would drive us to undertake investment in an unneeded CRM simply to ensure recognition of investment in the remainder of the programme.

These outcomes would not be consistent with the underlying objective of this specific ODI, nor the design principles of ODIs in general. Accordingly, such an interpretation would not be consistent with customers' interests, nor the broad operation of incentive based regulation in the sector. Companies should be incentivised to deliver the most cost beneficial approach to providing an outcome, even if this means making changes to an original plan to reflect changing circumstances and knowledge. If incentives do not provide scope for such changes then this will tend to reinforce an output focussed approach to delivery and, in this case, would have meant that the company would have been financially incentivised to spend money in a way which was not the most cost beneficial for customers.

We recognise that by not investing in a CRM system we have delivered a revised programme and as set out below we have made allowance for this within our proposed adjustment for this ODI.

B.4 Benefit realisation for customers

Subsequent to our accepting the PR14 Final Determination we reviewed the functionality and benefits of the Customer Experience Programme components, including those associated with a new CRM system, and identified that the expected benefits and capabilities of a CRM could be realised through already delivered technology and changes to ways of working. This means that the initially outlined capital investment is not required, and instead we propose to return associated revenue allowances to customers.

These alternative delivery options included:

- Utilisation of new capabilities embedded within other Customer Experience Programme components, including a new web content management system, workforce optimisation tool, advanced analytics systems and new multi-channel routing.
- Changes in ways of working to optimise the way front line agents and other employees utilise the capabilities of existing systems.
- Maximising new capabilities for other new systems delivered in AMP6, including a new mobile app, unified messaging system, compensation to bank account capability and Priority Services Register.
- Small scale integration and enhancement of existing systems, to maximise the utility of those systems.
- Better capture and integration of customer data from Credit Reference Agency, Government, other 3rd parties and internal sources.
- Utilising emerging technologies such as the latest in robotic process automation.

The original business cases for these new systems and ways of working were developed independent of the original CRM planned benefits. However as the Customer Experience Programme matured we identified the opportunity of cross over benefits, delivering the capabilities that a new CRM was initially planned to provide at minimal additional cost.

We therefore made the decision not to deliver the CRM element of the Customer Experience Programme. As set out in the section below on the proposed ODI adjustment, and in our July 2018 ‘PR14 Reconciliation Early Submission’¹⁵, we instead propose to return to customers the £3.7m of AMP6 revenue allowances associated with a new CRM via the ‘R-A2 customer experience programme ODI’.

Figure 1: Summary of CRM anticipated benefits and alternative routes of benefit realisation

CRM anticipated benefits at the time of PR14 Representations	Ways in which AMP6 Retail changes have delivered comparable benefits at a lower cost to customers
Having a unified CRM system in place improves agent efficiency.	We have made significant improvements to agent efficiency via initiatives to improve ways of working, supported by our new workforce optimisation tool. We have also been able to use small scale system enhancements to deliver improved agent productivity. For example our focus on operational excellence has reduced telephone average handling time by +15% and agent productivity by +24%.
Having a unified CRM system in place boosts our ability to gather meaningful data about customers.	We have implemented other ways of improving data capture through manual and automated processes, in particular we are utilising Credit Reference Agency, Government and other 3 rd party data sources to develop a fuller picture of customers’ circumstances and service experience. Our PR19 business plan gives fuller details on how we have been capturing, integrating and analysing third party data to boost customer experience and drive down levels of bad debt (UU PR19 Business Plan, supplementary document ‘S2001: The affordability and vulnerability challenge – Operational response’, section 4.1.1).

¹⁵ UU July 2018 PR14 Reconciliation Early Submission, appendix B, section B.3

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CRM anticipated benefits at the time of PR14 Representations	Ways in which AMP6 Retail changes have delivered comparable benefits at a lower cost to customers
Process workflow automation enables the organisation to analyse processing time for non-voice activities effectively.	Through maximising capabilities embedded within a new mobile app, new web content management system and new multi-channel routing system we have continued to drive automation of non-voice activities and utilise data analytics to measure processing times. This has supported an increase in automated channel volumes, and a 31% reduction in back office processing times.
A new CRM system supports frontline customer contact across Retail Billing and Retail Service, facilitating a better, more seamless customer experience.	<p>We have introduced a Unified Messaging Service capability which aligns billing and network information, ensuring the most up to date contact details are used to contact customers during service interruptions. Information on the effectiveness of the UMS system is included in our business plan submission (UU PR19 Business Plan, supplementary document 'S5001: Innovation in action', case study 20).</p> <p>We have enabled both billing and network service teams to access unified Priority Services Register data, ensuring that all areas of the business can reliably identify customers with advanced service needs.</p>
All contact details will be recorded in this system, enabling a single customer view of contact history and helping the agent dealing with the contact to understand the likely context for the call.	<p>We have implemented a range of policy, ways of working, and system changes to enable an integrated customer experience across billing and service contacts.</p> <ul style="list-style-type: none"> • Unified Messaging Service capability aligns billing and network information, ensuring the most up to date contact details are used • All areas of the business can reliably identify customers with advanced service needs via access to a unified Priority Services Register. • Changes in charging policy and ways of working ensure that, for example customers that are unable to live in their home due to flooding are not charged for the period that the property is void. • Introduced 'compensation to bank account' capabilities across billing and water/wastewater services systems so that data held within billing systems can be used to automatically process service related compensation direct to customers' bank accounts
Having a central source of customer information will also provide the organisation with a rich source of customer data, supporting better prediction of customer behaviour.	<p>We are utilising customer data from Credit Reference Agencies, CACI and UU in house data sources to develop targeted, service specific customer segmentation, as set out in our Business Plan submission (UU PR19 Business Plan, Chapter 2: Voice of the customer: our approach to engagement, section 2.6.1).</p> <p>This new in depth data, powered by new advanced analytics systems is enabling us to target new service offerings at those customer most likely to benefit. Examples include targeted campaigns on affordability support, water efficiency promotion, metering promotion, and 'what not to flush' campaigns.</p>
The solution will integrate with core systems in both businesses such as Alto, SAP CRM and Debt Management, and will provide the 'gateway' into those systems for agents.	<p>The introduction of cross business Unified Messaging Service, compensation to bank account capabilities and Priority Services register ensures that customers experience an integrated service where it matters most.</p> <p>Agents continue to access multiple systems, but the introduction of new ways of working initiatives, small scale system integrations and new robotics capabilities has enabled planned for productivity improvements to be realised.</p>

This improvements in capabilities can be seen in our overall customer service performance. As we have implemented elements of the Customer Experience Programme and other transformational changes we have shown continual improvement in customer experience metrics, and our cost to serve efficiencies are also showing consistent year on year improvements.

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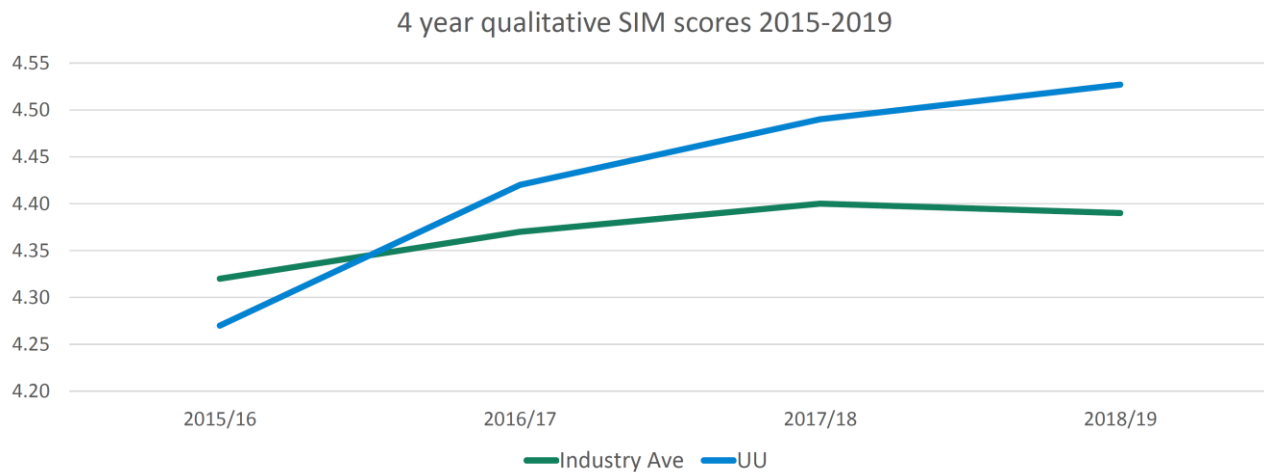
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We have improved our absolute and relative SIM performance for both qualitative and quantitative aspects as shown below.

In March 2019, we ended the last quarter of 2018/19 as a leading company in our peer group for customer satisfaction as measured by SIM, which gave us our highest ever year end score of 4.53, placing us at 5th out of 18 companies. Over the past four years we have made a significant improvement in performance, and moved from below industry average to one of the leading performers.

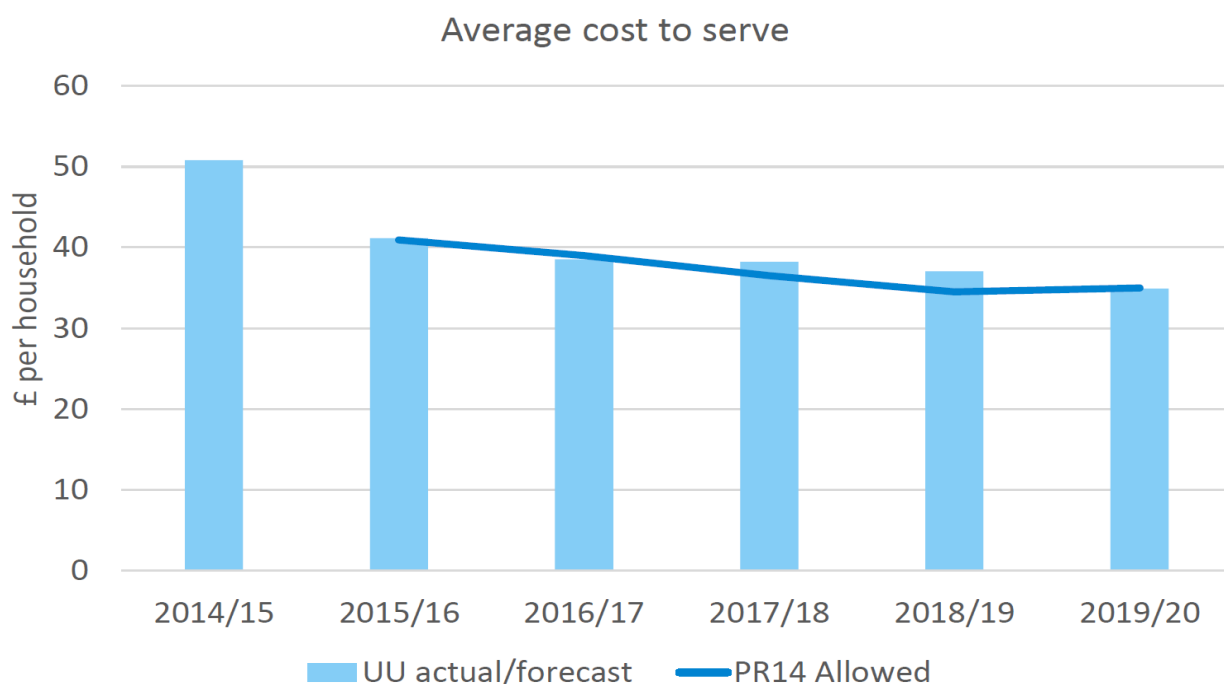
The improvements in SIM performance is also reflected in our number of complaints. Our performance over the past four years shows an improving trend, with 32% fewer complaints than in 2015/16.

Figure 2: UU qualitative performance compared to the industry average



We have achieved reductions in average cost to serve per customer whilst simultaneously reducing levels of complaints and boosting levels of customer satisfaction.

Figure 3: UU average residential retail cost to serve per customer



B.5 Delivery of the Programme

By the end of March 2019, we had successfully delivered six of the seven identified component systems. We have however, revised the strategy with the Customer Relationship Management (CRM) system no longer being required.

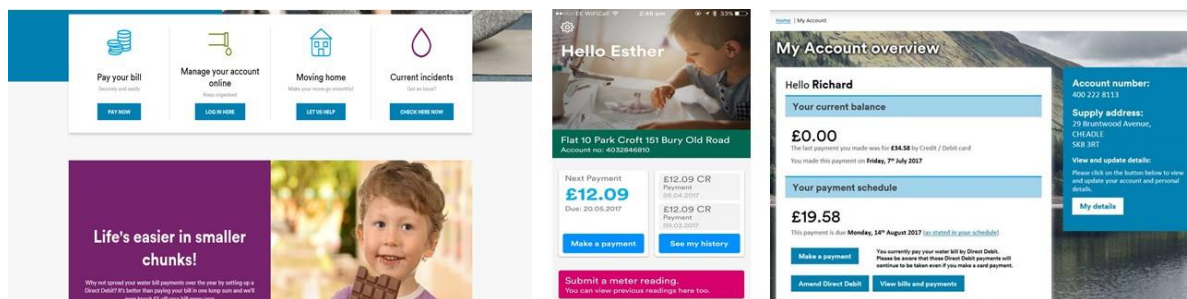
The programme has already delivered substantial improvements, which has had a significant and positive impact on the efficiency of the retail function and customer experience.

The new technology, business process changes and organisational changes delivered through this programme are set out below:

1. Web Content Management System (complete) – the re-platform of the United Utilities Company website to a mobile responsive and content manageable site including a webchat tool upgrade, the development and publication of the UU Mobile Application within the Google Play Store (Android) and Apple App Store and the delivery of the My Account self-service online portal.

We have engaged with customers through our development of digital channels to ensure usability and accessibility across devices and platforms. Our website has circa 300k visitors per month. The Mobile App has nearly 80,000 customers registered with functionality to make payments, view payment history and submit meter readings. My Account has over 625,000 active customers registered providing personalised pages with consumption history for metered customers.

Figure 4: Our digital capabilities are accessible and continue to show increasing usage and take-up



Having an improved digital presence and self-serve options for our customers has been a significant outcome from this technology. We continue to listen to customers’ feedback so that we can react and respond to their needs. These are important channels for our overall service offering with 43% of customer transactions in 2017/18 managed through self-serve.

In the original proposal we had intended that social media would be accessible via the website and that we would integrate the social media tool into the new systems so that we could hold customers’ twitter handles and communicate with them in a pro-active way. Part of the original vision was having the ability to communicate with customers in the event of an incident i.e. bursts on the Network, poor pressure etc.

We have identified more effective means of achieving the same outcomes since we submitted the plan. Whilst social media is accessible via the website and is branded, look and feel to our other digital channels we are not maintaining or holding all of the twitter handles on our internal systems. Customers can change twitter handles regularly, or use more than one, so the risk of insisting that they tell us who they are and linking up to them is uncertain. Twitter handles are often used to hide a person’s real identity and cannot be readily matched to a customer account/address. We therefore chose not to integrate social media but have delivered the vision and outcome through a different technology.

We are using a UMS tool which allows us to identify on a mapping tool where a DMA or postcode area is affected by an incident. Using this tool we carry out pro-active communications via email, text or voice-blast to let customers know that there is an issue affecting their water supply and to let them know when it will be fixed. We then follow up with updates to let customers know where we are up to. We use data that is held in our billing system to do this. Since the tool was implemented in June 2017 a total of 2.3m messages have been sent. We receive positive feedback from customers about this capability with commendations via our WOW feedback process.

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2. Multi-channel Routing (complete) – refresh of our main telephony lines with new tone of voice and branding, a new automated self-service telephony application providing an easy to use, touch tone dial-pad solution that removes legacy voice recognition, CLI routing and screen pops for customer service agents.

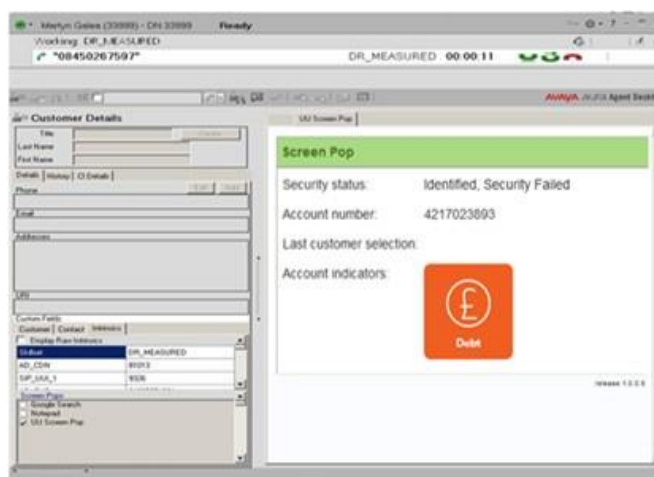
Our automated telephony line is an important channel for customers with over 435k transactions per year. We have delivered a 10% improvement in overall success rates of the new system. We have also developed caller recognition and customer flags presented to our agents to identify customer sensitives such as Priority Services upon call arrival. Currently over 40% of calls are recognised.

For routing of channels under MCR we changed the proposed technology. Our vision was to create a single view of work and agent through the use of Open Queue technology. Open Queue channels distribute work through one product and delivers it to agents via a CRM tool. We have moved away from this approach and have adopted dedicated skilled agents managing key processes and propositions such as Moving Home, High Measured bills, Priority Services or Digital Services. Calls and work are routed based on telephone numbers registered and customer flags so that customers are matched to the most appropriate skill set to deal with their enquiry.

We have seen significant improvements in operational efficiency, customer experience and reduced complaints as a result of this organisational model and this enables us to deliver service propositions that are important to customers. Through our concept phase we chose not to use the Open Queue technology as the upgrade path to the capability has not been proven, our predominance of telephony based contacts and the decision not to implement the CRM tool. The technology was intended to be used alongside an organisational model which utilises a multi-skilled operation.

The outcome of creating a single view of an agent is still maintained using the telephony and workforce optimisation technology alongside the analytics capability. This single view of work and agent was proven and endorsed as part of the external assurance work.

Figure 5: The screen pop enables customer identification and flags sensitives



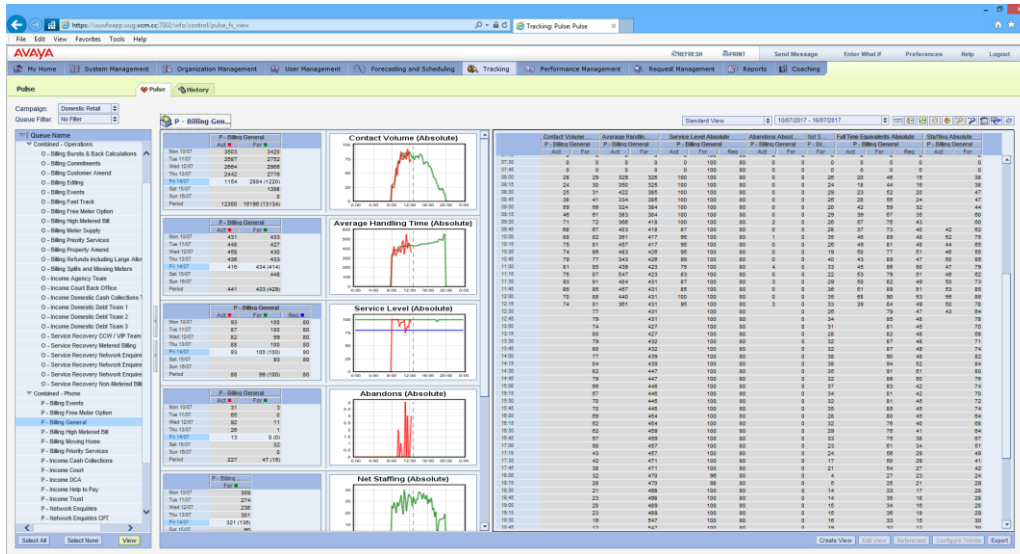
Full list of account indicators that can pop up on the screen



3. Workforce Optimisation (complete) – deployment of an Avaya workforce management tool used for forecasting and scheduling agents to work on inbound and outbound calls and back office work.

The product has improved both the efficiency of the workforce planning team through better system functionality and reporting and the overall workforce. The workforce planning team reduced by 13 FFTE. For 2018 we did not recruit any temporary staff to help with our main billing activities; this can be circa 50FTE in an average annual billing cycle. We now have a single view of agents and workload.

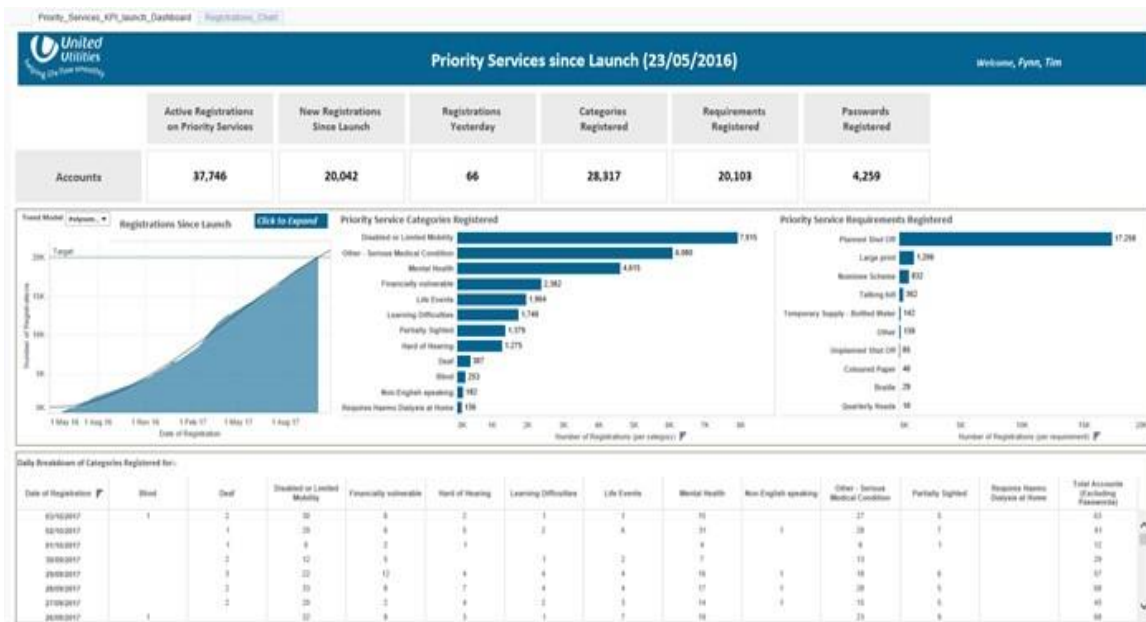
Figure 6: Workforce tools driving planning and scheduling optimization and adherence efficiencies



4. **Analytics capabilities (complete)** – the use of Exasol and Tableau has been deployed within the household function and extensive capabilities have been developed providing a suite of analytical tools and reporting.

We have developed an information centre of customer and performance data that is accessible to operational people and management, refreshed on a daily basis to enable business decisions. The tool is used extensively to gain insight into customer behaviour and drive decisions and next best actions. Amongst a range of new capabilities the tool for example allows us to provide segmented views of customers such as the Priority Services dashboard below

Figure 7: Our Priority Services dashboard provides a segmented view and is a critical tool used in operational incidents



5. **Billing system upgrades¹⁶ (complete)** – upgrades to the in-house billing system (ALTO) to ensure a stable and fully supported platform for the AMP removing the need for a full replacement system. This investment negates the need to invest in a new billing platform until beyond 2025.

¹⁶ The Billing System upgrades were identified as enabling activities to the CEP and included in the funding allowance but is not an ODI deliverable.

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6. Debt Manager System (complete) – completed replacing the now out of support FICO Debt Manager 6 (DM6) with the current version 10 of FICO's Debt Manager system (DM10). Full transition to the new system completed in March 2019. 302k active customer accounts migrated over with a debt value of £313m. 120-130 agents actively use the system daily to collect outstanding customer debt. The legacy DM6 system had been switched off and is in read only mode.

DM10 offers additional benefits such as integration with advanced analytics tools, the ability to tailor approaches to collections, clearly presented 'dashboard'-style screens, and a system that is stable, fully supported and offers a high degree of future-proofing.

7. Customer Relationship Management (CRM) (no longer required)

Following the submission of our business plan a number of changes have been made to the detailed coverage and implementation approach for the programme to ensure investment is only made where it is the best interests of customers. These are detailed below.

In our original price review submission we proposed to invest in a CRM system which would provide visibility of both billing and operational (Wholesale) activities and involve significant integration between household retail and wholesale systems. Since our submission we now have a greater understanding of the implications of retail separation, having experienced the set-up of the competitive retail market for non-household customers.

Since PR14 there have been significant policy developments in relation to the future arrangements for household retail activities in the sector. In particular, in August 2016 when we took a decision on investment in the CRM there was significant uncertainty as the near term shape of household retail activities in the water sector, with Government activity reviewing the introduction of competition for household retail customers. We therefore took a decision not to invest in a new CRM system given such uncertainty. We believe that investment in such close integration would be wasteful given the lessons of separation that were learned in the context of readying ourselves for competition in the non-household retail market.

We believe that it would not be in customer's interest to invest in technology that may subsequently be aborted. The forecast depreciation associated with the CRM system in the original proposals was £3.7m in AMP6. As set out below we are proposing to reflect this in a future ODI adjustment.

Adjusting for inflation for an ODI linked to a residential Retail price control

In total £17.8m was allowed in UU Residential Retail price control limits for additional depreciation associated with the Customer Experience Programme. As retail price controls are not linked to RPI the amount received from customers over AMP6 will equal £17.8m on a nominal basis.

The purpose of the ODI is to return unused elements of funding for discretionary enhancement investment. The calculation of returns to customers under the ODI should therefore, be subject to the same inflationary uplifts as the original depreciation allowance, i.e. zero uplift. However the design of the PR19 Revenue Adjustments model automatically applies RPI inflation to all ODI rewards/penalties.

Left uncorrected the application of RPI inflation to this residential retail ODI will result in excess return to customers. As an extreme example, if we had delivered none of the Customer Experience Programme then the full £17.8m of the original revenue allowance would correctly be returned to customers. However, if RPI was automatically applied to this value it would result in a penalty of £20.5m.

As part of our PR19 Business Plan submission¹⁷ we deflated the forecast Customer Experience Programme penalty from nominal to 2012/13 prices to ensure that future revenue returned to customers equalled the expected value on a nominal basis. This approach has been used for the updated 2020 value.

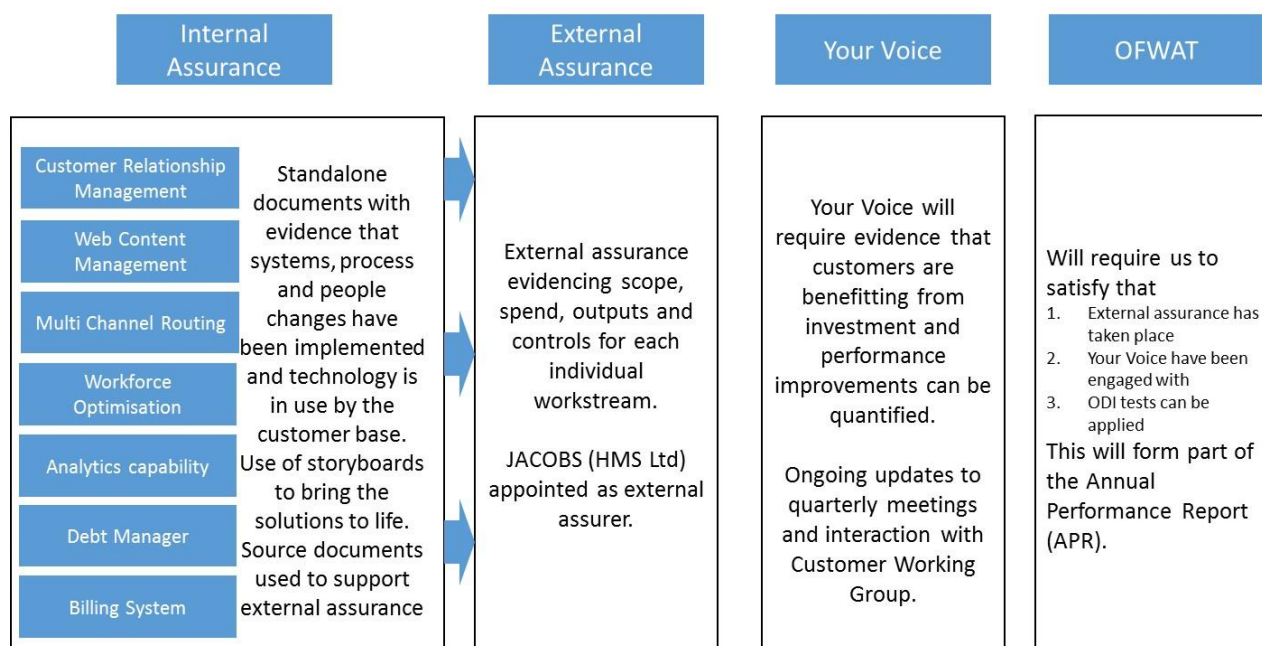
¹⁷ This adjustment was set out in our 2018 PR14 reconciliation submission within Section 2.1 outcome delivery incentive (ODI) mechanisms, on page 29 Household retail assumptions and method. The calculation showing how we converted the nominal penalty to a 2012/13 prices input to App 27 was set out on a worksheet (called 'retail adjustment factors') that we added to our submitted revenue feeder model.

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Appendix B Customer experience programme

B.6 Assurance

As part of our ODI commitment we set out an approach to external assurance. Below is a diagram to explain our approach to meeting this commitment. The following sections detail each in turn.



Internal Assurance

The Customer Experience Programme followed UU's robust programme governance approach covering funding approval, project approach (concept, definition and implementation), business readiness and project closedown.

CEP was governed through executive sponsorship and had a Steering Group that was accountable for finance management, decision making and direction. Actions, decisions, change control and risk management were managed through a project management office and captured in a SharePoint repository. All programme documentation and delivery evidence is held on a SharePoint site.

For each technology component that has been delivered a formal handover process was followed with end-users to confirm that the scope and outcomes have been met. This process is fully auditable and we have shared the approach and content with our external assurers.

External Assurance

There are two aspects to the external approach.

Firstly our Annual Performance Report (APR) is subject to external assurance by Jacobs UK Ltd. Within that process the CEP ODI values i.e. the actual reported depreciation is assured for accuracy and completeness. A summary of their annual audit findings is published on our website, within the APR.

Secondly we also engaged Jacobs to undertake a specific and detailed review of the AMP6 Customer Experience Programme, with a series of system demonstrations and reviews being held at United Utilities Lingley Mere offices in February 2018.

In their report Jacobs state that the scope of work was to

“provide an independent view on the Company’s achievement of the outcome delivery incentives (ODIs) associated with the Customer Experience Programme (Performance Commitment R-A2). To achieve this, we queried the following for each component of the programme:

1. Has the full scope of work set out at PR14 been delivered?

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- a. What was stated at PR14 that would be delivered in AMP6?
- b. What has been delivered (or is in the process of being delivered)
- c. What factors have caused any change in deliverables?
- d. Key differences between a. and b. in terms of:
 - Customer experience benefits, positives and negatives
 - Range of customers affected
 - Change of completion date

2. Are the reported and anticipated future depreciation costs soundly based?"

The review was completed for all aspects of the programme. Jacob's detailed audit findings are provided alongside this submission, document reference U UW_012_AFPD, with the conclusions from their review presented below:

"For the AMP 6 Customer Experience Programme the Company has delivered substantial improvements, fixes and additional capabilities that have had a significant and positive impact on the efficiency of the business and to the customer's overall experience.

There are aspects of the proposed programme that have not been delivered as originally described but we believe the Company has acted in the customer's best interests. The Company's alternative solutions have addressed most of the original needs and in some cases, have delivered benefits above and beyond what was originally proposed. The Company have also made significant process changes such as the move to teams of dedicated skilled agents rather than the previous 'multi-skilled' approach.

There have been notable recent improvements to the Company's SIM performance and the customer experience changes made in AMP 6 is likely to be a major factor in achieving this result.

Depreciation projections have been calculated appropriately. However, there is uncertainty over Ofwat's interpretation of the 'full-delivery' aspect of the ODI due to the aforementioned deviations from PR14 commitments for some components of the programme.

We note that the Company has indicated that it will propose to return £3.7m of initially expected cumulative depreciation costs for the CRM system back to customers through the ODI and that they have communicated this to the 'Your Voice' customer forum. If Ofwat consider that the programme has not achieved 'full delivery' status then the Company could be exposed to an additional penalty of £8.88m. We would suggest that such a penalty would be inappropriate considering that most of the intended outcomes have been achieved."

YourVoice review

The CCG panel YourVoice provides challenge and critical oversight of the commitments we made in our business plan. Meetings are held on at least a quarterly basis to share progress against our commitments and to outline our future plans.

We specifically reviewed progress against the CEP with YourVoice in February 2018. With the presentation including the decision to remove the Customer Relationship Management system from the programme as this was no longer cost beneficial, together with the outcome from the programme in terms of customer experience benefits and reduced cost to serve.

Minutes and actions of this panel are made available through our company website, at <https://www.unitedutilities.com/corporate/about-us/performance/yourvoice/yourvoice-updates-and-meeting-minutes/>.

Appendix C: Delivery of our AMP6 outputs

A draft of this appendix was provided with our 2019 submission to provide additional supporting detail on the delivery of the individual schemes and outputs that we committed to deliver as part of the PR14 or subsequent regulatory processes.

Many of these schemes were also embedded within the performance commitments and outcomes that were defined within the PR14 process.

We have updated this appendix to reflect the final position on these programmes.

We have also updated the appendix using the revised calculation of the Wastewater rivers improved measure, as set out within the final determination.

Performance against these outcomes is set out within our Annual Performance Report.

This appendix provides project level detail on the schemes within these outcomes. The appendix needs to be read alongside the spreadsheet that we have provided, which sets out the details of the actual delivery dates for the projects within each programme. The spreadsheet also sets out any variance between the values currently assumed and the values that were included in our 2019 reconciliation document.

- **The spreadsheet is available as U UW_011_2020 AFD Project Delivery spreadsheet.**

In our 2019 submission we provided copies of the output in use certificates for the projects, which had been delivered to that date. We have continued to collect and review this information through the governance and assurance processes supporting our Annual Performance Report. As there is a substantial number of these output in use certificates, we have not provided this information alongside our 2020 submission, although they could be made available if necessary.

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Appendix C Delivery or our AMP6 outputs

C.1 Introduction

This appendix provides additional supporting detail on the delivery of the individual schemes and outputs that we committed to deliver as part of the PR14 or subsequent regulatory processes. Many of these schemes were also embedded within the performance commitments and outcomes that were defined within the PR14 process.

At PR14 we developed eleven outcomes, with each outcome supported by a set of specific performance commitments (PC), which enable us to quantify our performance against the outcomes.

These performance commitments can be categorised into two main types:

- Performance measures, monitoring operational performance, customer service or asset health.
- Delivery measures, monitoring the delivery or the benefit of the delivery of specific named outputs, usually specified by quality regulators and required to deliver our key regulatory commitments.

Detail on our performance against all of our performance commitments is set out in our Annual Performance Report.

This appendix provides the supporting detail and evidence for the delivery performance commitments and reviews:

- The actual level of delivery performance attained from 2015/16 to 2019/20; and
- Provides commentary and detailed project listings to explain any variance between the previously assumed and actual delivery positions.

This appendix also provides a review of how well we have complied with our broader commitments to our environmental and quality regulators. The Appendix is set out in the following Sections:

Environmental commitments

The Environment Agency (EA) sets out the enhancements that need to be made to our asset base in the AMP6 period. This part of the appendix reviews performance against:

- The Environment agency's Environmental Performance Assessment
- The National environmental Programme (NEP5) and the three performance commitments that are underpinned by the National Environmental Programme:
 - Contribution to rivers improved (Wastewater)
 - Contribution to bathing waters improved
 - Contribution to rivers improved- water programme

Accommodating development

Reviewing performance against the enhancement works that we are undertaking to ensure that development in the area does not result in a deterioration in environmental performance. This is measured through the following PR14 performance commitment.

- Protecting rivers from deterioration due to population growth

Drinking Water Inspectorate or other Water Service commitments

The Drinking Water Inspectorate (DWI) sets out legal agreements for the schemes that we need to deliver in the AMP6 period. This appendix reviews performance against:

- Drinking Water Inspectorate commitments
- The two performance commitments that underpin our compliance with the DWI expectations are:
 - Resilience of impounding reservoirs
 - Thirlmere transfer into West Cumbria

A spreadsheet setting out full details of the schemes for each of these programmes, together with the actual or planned delivery dates for these projects is provided as U UW_011_2020 AFD Project Delivery spreadsheet.

C.2 Environmental commitments

Environmental Performance Assessment (EPA) overview

In 2011 the Environment Agency (EA) introduced the Environmental Performance Assessment (EPA) as a tool for comparing performance between water companies and across years.

Initially the EPA contained six indicators of environmental performance, but this was expanded to seven in 2016 with the inclusion of the security of supply measure. The assessment thresholds were also tightened in 2016. The current indicators are:

- Reducing pollution incidents (Category 1-3 assessment)
- Reducing pollution incidents (Category 1-2 assessment)
- Increasing company reporting of incidents
- Complying with discharge permits for sewage treatment and water treatment plants
- Managing the use and disposal of sewage sludge
- Delivering environmental improvement schemes
- Delivering secure supplies of water ('security of supply')

The EPA is set for the duration of the current AMP.

United Utilities – EPA performance in AMP6

Our EPA performance in AMP6 is shown in the tables below. In 2015, 2016 and 2017 we attained four star status, which is the highest attainable category and classifies us as an industry leading company. In 2018 we attained three star status, as we were amber on two measures (discharge permit compliance and Environment Programme Delivery). This means we moved from the highest assessment of our performance as “Leading” (4 star), to the “Good” (3 star) performance category.

The publication of the 2019 EPA results have been delayed due to the Covid-19 outbreak. In their letter to all water companies in England on the 22nd May 2020, the Environment Agency stated:

“The current Covid-19 outbreak has placed restrictions on the activities and impacted the resources of our organisations. As a result, we are assessing and re-organising our work priorities for the next few months into the autumn and quite possibly beyond.”

“Annual Environmental Performance Assessment (EPA) for water and sewerage companies sector report - This report is normally published in early July but we are postponing the publication of this report until the week commencing the 28th September 2020. This report will be accompanied by detailed performance ‘drill down’ reports for each individual water and sewerage company.”

Therefore the performance levels of the individual metrics, and our overall company star status, is yet to be confirmed for 2019/20. Our EPA performance in the earlier years is set out in the Tables below:

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Table 1 2015 Indicators and performance

	Pollution incidents (Sewage)	Serious pollution incidents (Sewage)	Discharge permit compliance	Satisfactory sludge disposal	Reporting of pollution incidents	Environment programme delivery	Security of supply	
Units	Category 1-3 incidents	Category 1-2 incidents	%	%	%	% of planned delivered	Above or below target	Overall rating
RAG thresholds	≥130	≥4	≤96	≤98	≤37	≤96	Below	Red
	>50	>1.5	<99	>98	<68	>96	Concern	Amber
	≤50	≤1.5	≥99	100	≥68	≥99	Above	Green
2015 Performance	40	1.2	97.2	100	81	100		****

Table 2 2016/17/18/19 Indicators and performance

	Pollution incidents (Sewage)	Serious pollution incidents (Sewage)	Discharge permit compliance	Satisfactory sludge disposal	Reporting of pollution incidents	Environment programme delivery	Security of supply	
Units	Category 1-3 incidents	Category 1-2 incidents	%	%	%	% of planned delivered	Above or below target	Overall rating
RAG thresholds	>50	>1.5	<97	<96	<55	<97	Below	Red
	>25	>0.5	<99	>96	<75	≥97	Concern	Amber
	≤25	≤0.5	≥99	100	≥75	≥99	Above	Green
2016 Performance	22	0.4	97.4	100	75	100	100	****
2017 Performance	23	0.1	98.8	100	82	100	100	****
2018 Performance	24	0.1	98.7	N/A (see commentary below)	79	98.8	100	***
2019 Performance	TBC	TBC	TBC	N/A (see commentary below)	TBC	TBC	TBC	TBC

Performance star rating: **** Industry leading company, *** Good company, ** Company requires improvement

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Pollution incidents (supported by two performance ODI's see Appendix A)

Pollution incidents are reported as the number of incidents per 10,000 km of sewer.

The Environment Agency work with water companies to minimise the damage that pollution incidents cause. Pollution incidents are usually caused by loss of control of operational assets which leads to the release of harmful substances into the air, land or water. The Environment Agency categorise all incidents based on their impact:

- Category 1 incidents have a serious, extensive or persistent impact on the environment, people or property and may for example result in a large number of fish deaths.
- Category 2 incidents have a lesser yet significant impact.
- Category 3 incidents have a minor or minimal impact on the environment, people and/or property with only a limited or localised effect on water quality.

We have a history of strong performance for pollution events and we anticipate this will continue in the future.

Self-reporting of incidents

The Environment Agency encourage high levels of self-reporting of pollution incidents, where water companies tell them about their incidents before a member of the public or a third party does. The rationale being that without a rapid and effective response, relatively minor events can escalate and the opportunity for mitigation measures is often lost.

We have a good record with regard to self-reporting performance. This is driven by multiple factors including clear signage on our sites, our brand exposure, field training for our staff and the provision of relevant information on our website.

Discharge permit compliance (supported by one performance ODI see Annual Performance Report)

All water companies have licences and permits to control the level of impact they are allowed to have on the environment. These vary in complexity depending on the activities concerned and the nature and sensitivity of the local environment. The Environment Agency expect companies to be 100% compliant with them.

In 2016 for the first time, the Environment Agency included discharge compliance at water treatment works (WTWs), as well as at sewage treatment works (STW) within their EPA assessment.

Our performance in 2015, 2016, 2017 and 2018 was in the amber classification due to 10 permit breaches in 2015, 11 in 2016, 5 in 2017 and 5 in 2018. As described above, the 2019 performance level will be confirmed in September 2020

Going forward we anticipate a reduction in the number of permit non compliances due to:

- An increased focus and awareness of WTWs inclusion within the assessment.
- Successful implementation of a compliance improvement programme focused around people, processes, systems and data.
- The further development of our mobile data systems, increasing the accessibility of permit requirements and compliance data to operational staff.
- The development of new tools for the analysis of root causes of non-compliance and the monitoring of trends with a view to improving the quality of data available for sharing best practice.
- The development of new templates, modification of existing escalations processes and introduction of intensive care plans for high risk sites.
- The improvement of internal reporting to ensure that focus remains on sites with historic performance issues.

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Satisfactory sludge disposal (supported by one performance ODI see Annual Performance Report)

Sludge is produced as part of our sewage treatment processes. This sludge needs to be disposed of and can be put to good use, for example as a fertiliser on agricultural land. Its storage and spreading, requires regulatory control as misuse can result in environmental damage.

The definition of the EPA measure, Satisfactory Sludge Use/Disposal, is slightly different to the performance commitment, Satisfactory Sludge Disposal, definition. The EPA measure considers compliance with the Sludge Use in Agriculture Regulations, Environmental Permitting Regulations and the Safe Sludge Matrix. We attained 100% compliance in 2015, 2016 and 2017, which is the maximum available score. We have reported 100% compliance for 2018.

However, the Environment Agency notified us on 1st May 2019 that the 2018 EPA Sludge Use/Disposal measure has been suspended until further notice. The Environment Agency is investigating potential inconsistencies in practice by water companies which they consider may not driving the right environmental and regulatory outcomes. In the interim, the EA will provide a narrative commentary on sector performance on sludge use and disposal, rather than providing the quantitative environmental performance assessment. We believe that we remain fully compliant with the measure.

Environment programme delivery (supported by two delivery ODIs detail provided below)

As part of the 2014 price review we worked with the Environment Agency to develop their AMP6 National Environment Programme (NEP). The NEP sets out the environmental improvements we need to make during the AMP6 period to ensure we meet European and national environmental standards related to water. The NEP, includes schemes, investigations and monitoring to improve and protect the environment.

Until 2016, this element of the assessment only included environmental improvement schemes for water quality. From April 2016 onwards, it also includes schemes associated with water resources, fisheries, biodiversity and geomorphology.

We attained 100% delivery against our NEP in 2015, 2016 and 2017, which is the maximum available score. In 2018, we achieved 98.8% due to the late delivery of Ulverston and Dragley Beck.

In 2019 we delivered the delayed Ulverston and Dragley Beck schemes, and were able to hit the regulatory dates for the remaining projects. The only exception to this was the Schola Green scheme, which was delivered one day early. We were also able to deliver more than the planned percentage of the spend on the Blackburn WwTW storm tank improvements.

In 2020 we delivered all the required projects by the delivery date with the exception of the transfer of Billinge WwTW to St Helens WwTW, which was delayed by a week due to difficulties in commissioning.

Security of supply (supported by one performance ODI see Annual Performance Report)

The security of supply index (SoSI) compares forecast water available for supply with actual customer demand. Expected performance is for companies to have a balance or a small surplus of water available when compared with demand (scoring a SoSI of 100).

This measure was included in the EPA for the first time in 2016 and we attained an index score of 100, which is the maximum available score, this level of performance was repeated in 2017, 2018 and 2019.

C.3 National Environment Programme

We review delivery of the National Environment Programme (NEP5) through three performance commitments:

- Contribution to rivers improved (wastewater)
- Contribution to bathing waters improved
- Contribution to rivers improved (water)

We recognise that Ofwat revised the methodology for calculating the “Contribution to rivers improved (wastewater)” measure in the FD, with this appendix and the resultant ODI values reflecting the approach set out within the FD.

We review the detailed delivery of the outputs within these programmes in the following sections of this appendix. Our performance against the NEP at high level is summarised below:

Year 1, 2 3 and 4 performance

In years 1, 2, 3 we successfully delivered the schemes required by the Environment Agency (EA) and set out within their National Environment Programme 5 (NEP5). In a few instances, delivery issues meant that schemes may not be able to be completed on time, in these cases we have worked with the Environment Agency to exchange schemes to ensure that the environmental benefit is still realised.

In year four we were again able to deliver all of the schemes required by the EA or to agree exchanges, with exception of two bathing water schemes (Ulverston WwTW Storm Tanks and Dragley Beck combined sewer overflow). Due to unforeseen planning difficulties, we were unable to deliver these schemes to the regulatory delivery dates. The schemes completed in summer 2019. To mitigate this delay we accelerated delivery of improvements at Ambleside WwTW by a year and we completed a major bathing water improvement scheme at Anchorsholme pumping station in March, ahead of its regulatory date

Review of year 5 performance

In our 2019 submission we predicted that we would deliver the majority of our schemes on time. But highlighted that there were a small number of projects where there were delivery or constructability issues where there was a risk of delay. We continued to work with the Environment Agency to understand these risks and keep them informed of progress as part of our routine processes during the remainder of the AMP.

During 2019 we concluded all three performance commitment delivery programmes and details of the individual projects involved are set out in the relevant sections below.

C.4 S-D3: Contribution to rivers improved (wastewater)

Measure description

This measure tracks the delivery of our National Environmental Programme (NEP) obligations and is achieved through the delivery of an extensive programme of capital projects and investigations throughout AMP6. This measure has financial penalties and rewards.

AMP6 performance commitment

The original performance commitment target profile, as set out within our PR14 business plan, was developed from a programme of projects agreed with the Environment Agency during the development of the price review process and assumed completion dates for a small number of AMP5 projects that were continuing into the AMP6 period.

Following the end of the AMP5 period a final determination was made on the impact (short falling) of the AMP5 carry over projects within this programme. The revised end dates for these projects together with a small number of corrections to the delivery dates for AMP6 projects were provided to Ofwat, with a corrected performance commitment target now having been published in a corrigendum on the Ofwat website. The corrected performance commitment target (measured in terms of cumulative length of river improved) is:

Corrigendum profile

Table 3: Regulatory targets for the 'contribution to rivers improved' (wastewater programme) performance commitment

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
Km of river improved	0.75	15.41	98.14	145.39	355.22

In addition and also subsequent to the PR14 final determination, the Environment Agency published an updated version of the environmental programme (NEP5). We worked with the Environment Agency to ensure that the revisions to the programme were broadly cost neutral and of equivalent environmental benefit. We have also subsequently agreed a number of other changes to the programme set out within the corrigendum.

Over AMP6 we aimed to deliver the programme of work set out by and agreed with the Environment Agency.

In the PR19 FD Ofwat confirmed that performance against this ODI should be measured relative to the values set out within the corrigendum.

We delivered the programme broadly in line with the requirements of NEP5, although we have delivered some schemes early and there are some other adjustments to the programme. These changes and the impact of the changes on the incentive mechanism are set out later in this section of the report.

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AMP6 performance

Reward and penalty calculation method

In our 2019 submission we calculated the incentives on this measure via the following five steps:

1. For each individual project within the rivers improved (Ww) programme, the number of days between the actual project completion date and regulatory date set out within the relevant performance commitment target, is calculated. Completion dates are confirmed with the EA via output in use certificates.
2. This number of days enables an 'ODI factor' to be generated utilising the sliding scale set out within the final determination and shown below in **figure 1**:

Figure 1 – ODI scaling factors

	271-365 days early	181-270 days early	91-180 days early	1-90 days early	On time	1-90 days late	91-180 days late	181-270 days late	271-365 days late
ODI Factor	1.00	0.75	0.50	0.25	0.00	-0.25	-0.50	-0.75	-1.00

3. The ODI factor for each project is then multiplied by the length of river improved (Km) by the project to calculate an 'impact on outcome' value. All projects within the programme were assigned an agreed river improved length, with lengths for any new projects or variations to projects being agreed when the revision is made.
4. The total 'impact on outcome' figures is calculated by summing the impacts of the individual projects. Values reported as year-end positions are based upon the net impact of the projects that were planned to be delivered or have been delivered by that date (see table below).
5. If this net position is a positive value, it is multiplied by the reward rate to calculate the overall reward. If the net position is negative, then it is multiplied by the penalty rate to calculate the overall penalty.

Worked examples of this process are provided in the U UW performance commitment definition document published on our [website](#).

However, in the FD Ofwat set out that the incentive calculation should simply be based upon the difference between the target and actual performance levels in each year multiplied by the incentive rates, taking account of caps and collars. This retained the performance levels but revised the value of the incentive as shown in Table 4.

Table 4: 2019 Actual performance for the 'contribution to rivers improved' (wastewater programme)' performance commitment

AMP6 financial projection	Actual				
	2015/16	2016/17	2017/18	2018/19	2019/20
£0.150m	0.750	46.98	120.75	178.93	338.52

Performance in AMP6

Over AMP6 we planned to deliver the programme of work set out by and agreed with the EA through NEP5 and as such our reporting focusses on delivery against the NEP5 target dates and performance commitment targets.

In year 1 we delivered the schemes required as part of our NEP. In year 2 we delivered some schemes earlier than required by NEP5 and were therefore able to outperform and earn a small outperformance payment. As this is a cumulative measure, the benefit of this is also reflected in the incentive position at the end of year 3.

The outperformance in year 2 was as a result of early delivery of the "No Deterioration" schemes at Horwich WwTW and Dalston WwTW and the early delivery of the "UWWTd" scheme at Altrincham WwTW.

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During year 3 we have delivered the projects set out within NEP5. There have, however, been some delays to the AMP5 carry over project at Oldham WwTW. Oldham WwTW is complying with the environmental standards required by the project and the work involved to complete the project will have limited environmental impact. However, as the project has not been fully delivered we are including the underperformance payment associated with this delay in our reported value.

In year 4 we have again delivered the projects within NEP5. The low phosphorous trials and Ambleside and Oakmere were all delivered early. The project at Oldham has not yet been fully delivered due to issues in commissioning the final settlement tanks. Overall this delivery performance has resulted in a small outperformance-payment.

In year 5 we have delivered the projects within NEP5. There have been some programme changes which have been agreed with the Environment Agency which have brought some projects forward in to AMP6, pushed others back to AMP7 or delivered a changed scope. These programme updates have resulted in a reduction in the kms of rivers improved that we have delivered in the last year of the AMP. In addition to this one project was delivered late. The transfer of Billinge WwTW to St Helens WwTW was delayed because of difficulties in commissioning and was not delivered until early April 2020. This means that in the last year of the AMP we will be subject to an underperformance payment. However, the cumulative position for the end of the AMP will be a net reward because of the earlier delivery of projects in the first four years of AMP6.

A full list of all projects within the programme, the delivery date and the kilometres of rivers improved can be found below.

Table 5 – Comparison between planned and actual programme delivery

Project	NEP reference	Planned delivery date	Planned delivery year	Planned Km river improved	Actual/LBE delivery date	Actual/LBE delivery year	Actual Km river improved	Early/late
FY16 – EDM projects	Various	31/03/2016	FY16	0.39	31/03/2016	FY16	0.40	On time
FY16 – Flow project	Various	31/03/2016	FY16	0.36	31/03/2016	FY16	0.36	On time
FY17 – Chemicals programme	Various	31/03/2017	FY17	9.95	31/03/2017	FY17	9.21	On time
Marston North (Flow 3)	6UU0009	31/03/2017	FY17	0.37	31/03/2020	FY20	0.37	3 years late
FY17 – Flow project	Various	31/03/2017	FY17	0.36	31/03/2017	FY17	0.42	On time
Elterwater (I1)	6UU0034	31/03/2017	FY17	0.97	31/03/2017	FY17	0.97	On time
Knutsford Moor Pumping Station (I5)	6UU0038	31/03/2017	FY17	0.37	31/03/2017	FY17	0.37	On time
EDM2 Year 2 (224)	Various	31/03/2017	FY17	1.34	31/03/2017	FY17	1.34	On time
Chorley WwTW Storm Tanks	6UU0521	30/04/2017	FY18	0.00	30/04/2017	FY18	0.00	On time
Chorley WwTW (ND)	6UU0040	17/08/2017	FY18	12.70	17/08/2017	FY18	12.70	On time
Oldham WwTW (F1a)	5UU0580A	30/09/2017	FY18	2.60	23/01/2020	FY20	2.60	2.25 years late
River Loud and Chipping Brook investigation	6UU0553	30/09/2017	FY18	0.37	30/09/2017	FY18	0.37	On time
Mere Platts Pumping Station (I1)	6UU0037	07/12/2017	FY18	1.19	07/12/2017	FY18	1.19	On time
Davyhulme WwTW (F1a)	5UU0545	26/01/2018	FY18	2.43	26/01/2018	FY18	2.43	On time
Dalston WwTW (ND)	6UU0043	31/03/2018	FY18	7.60	31/03/2017	FY17	7.60	1 year early
Whaley Bridge WwTW (ND)	6UU0044	31/03/2018	FY18	12.90	31/03/2018	FY18	12.90	On time
Horwich WwTW (ND)	6UU0042	31/03/2018	FY18	24.93	31/03/2017	FY17	24.93	1 year early
Cleator WwTW (ND)	6UU0041	31/03/2018	FY18	14.40	31/03/2018	FY18	14.40	On time
FY18 – Flow project	Various	31/03/2018	FY18	0.30	31/03/2018	FY18	0.30	On time
FY18 – Chemicals programme	Various	31/03/2018	FY18	5.87	31/03/2018	FY18	6.97	On time
EDM2 Year 3 (588)	Various	31/03/2018	FY18	3.53	31/03/2018	FY18	3.59	On time
Tarvin WwTW	6UU0541	31/03/2018	FY18	18.90	31/03/2018	FY18	18.90	On time
Nantwich WwTW (U2)	6UU0003	14/11/2018	FY19	1.82	14/11/2018	FY19	1.82	On time

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Project	NEP reference	Planned delivery date	Planned delivery year	Planned Km river improved	Actual/LBE delivery date	Actual/LBE delivery year	Actual Km river improved	Early/late
Nantwich WwTW (WFD)	6UU0548	14/11/2018	FY19	1.82	14/11/2018	FY19	1.82	On time
Crewe WwTW (U2)	6UU0004	14/11/2018	FY19	1.82	14/11/2018	FY19	1.82	On time
Winsford WwTW (U2)	6UU0005	14/11/2018	FY19	3.64	14/11/2018	FY19	3.64	On time
Northwich WwTW (U2)	6UU0006	14/11/2018	FY19	1.06	14/11/2018	FY19	1.06	On time
Altrincham WwTW (U2)	6UU0007	14/11/2018	FY19	1.37	31/03/2017	FY17	1.37	1.75 years early
Darwen WwTW (U2)	6UU0002	14/11/2018	FY19	1.50	14/11/2018	FY19	1.50	On time
Blackburn WwTW (U2)	6UU0001	14/11/2018	FY19	3.38	14/11/2018	FY19	3.38	On time
Garstang WwTW (U2)	6UU0008	14/11/2018	FY19	1.51	14/11/2018	FY19	1.51	On time
Irlam WwTW	6UU0430	31/12/2018	FY19	0.00	31/12/2018	FY19	0.00	On time
Kendal WwTW (ND)	6UU0508	20/03/2019	FY19	20.21	20/03/2019	FY19	20.21	On time
FY19 – Flow project	Various	31/03/2019	FY19	0.36	31/03/2019	FY19	0.36	On time
FY19 – Chemicals programme	Various	31/03/2019	FY19	6.58	31/03/2019	FY19	6.22	On time
Outgate WwTW (I1)	6UU0039	31/03/2019	FY19	0.37	31/03/2019	FY19	0.37	On time
WwTW Low P pilot plant trials for AMP6	Various	16/10/2019	FY20	0.00	31/03/2017	FY17	0	2.75 years early
EDM2 Year 4 (579)	Various	31/03/2019	FY19	3.47	31/03/2019	FY19	3.52	On time
Lower Weaver – Cuddington WwTW	6UU0551	31/03/2019	FY19	2.64	31/03/2019	FY19	2.64	On time
Grasmere WwTW (Biod1)	6UU0035	31/03/2020	FY20	0.78	31/03/2020	FY20	0.78	On time
Grasmere WwTW Storm Tanks (Biod1)	6UU0036	31/03/2020	FY20	0.78	31/03/2020	FY20	0.78	On time
Glebe Road CSO (Biod1)	6UU0031	31/03/2020	FY20	5.70	31/03/2020	FY20	5.70	On time
Windermere WwTW (Biod1)	6UU0032	31/03/2020	FY20	5.70	31/03/2020	FY20	5.70	On time
Ambleside WwTW (Biod1)	6UU0033	31/03/2020	FY20	5.70	31/03/2019	FY19	5.70	1 year early
FY20 – Chemicals programme	Various	31/03/2020	FY20	6.59	31/03/2020	FY20	6.59	On time
Investigations of sewerage effluent into groundwater (DrW2)	6UUD010	31/03/2020	FY20	0.37	31/03/2020	FY20	0.37	On time
EDM2 Year 5 (468)	Various	31/03/2020	FY20	2.81	31/03/2020	FY20	2.64	On time
Horwich WwTW (WFD)	6UU0523	14/08/2019	FY20	2.94	14/08/2019	FY20	2.94	On time
Wigton WwTW (WFD)	6UU0500	31/03/2020	FY20	16.79	31/03/2020	FY20	16.79	On time
Calthwaite WwTW (WFD)	6UU0501	31/03/2020	FY20	6.06	31/03/2020	FY20	6.06	On time
Kidsgrove WwTW (WFD)	6UU0542/ 6UU0543	31/03/2020	FY20	5.87	31/03/2020	FY20	5.87	On time
Lawton Gate WwTW (WFD)	6UU0544/ 6UU0545/ 6UU0546	31/03/2020	FY20	2.91	31/03/2020	FY20	2.91	On time
Lower Weaver – Oakmere WwTW	6UU0550	31/03/2020	FY20	2.64	31/03/2019	FY19	2.64	1 year early
Northwich WwTW (WFD)	6UU0552	31/03/2020	FY20	1.06	31/03/2020	FY20	1.06	On time
OLD0100 (WFD)	6UU0536	31/03/2020	FY20	0.24	31/03/2020	FY20	0.24	On time
OLD0109 (WFD)	6UU0537	31/03/2020	FY20	1.26	31/03/2020	FY20	1.26	On time
OLD0120 (WFD)	6UU0538	31/03/2020	FY20	1.26	31/03/2020	FY20	1.26	On time
OLD0151 (WFD)	6UU0539	31/03/2020	FY20	1.82	31/03/2020	FY20	0.37	On time
Failsworth WwTW (WFD)	6UU0532/ 6UU0533/ 6UU0534	31/03/2020	FY20	5.81	31/03/2020	FY20	5.81	On time

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Project	NEP reference	Planned delivery date	Planned delivery year	Planned Km river improved	Actual/LBE delivery date	Actual/LBE delivery year	Actual Km river improved	Early/late
Billinge WwTW (WFD)	6UU0531	31/03/2020	FY20	2.16	05/04/2020	FY21	2.16	late
Halsall WwTW and Haskayne WwTW (WFD)	6UU0528/ 6UU0529	31/03/2020	FY20	12.99	31/03/2020	FY20	12.99	On time
Harrisons Farm Storm Spill CHR0021 (WFD)	6UU0524	31/03/2020	FY20	1.20	31/03/2021	FY21	1.20	Removed from NEP
CHR0012 (WFD)	6UU0522	31/03/2020	FY20	1.20	31/03/2021	FY21	1.2	Removed from NEP
Motherby	N/A	31/03/2021	FY21	1.5	31/03/2020	FY20	1.5	Additional
Motherby first time flow measurement	N/A	31/03/2021	FY21	0.37	31/03/2020	FY20	0.37	Additional
HYN0005 (WFD)	6UU0515	31/03/2020	FY20	0.60	31/03/2020	FY20	0.60	On time
HYN0008 (WFD)	6UU0517	31/03/2020	FY20	0.60	31/03/2020	FY20	0.60	On time
HYN0003 (WFD)	6UU0516	31/03/2020	FY20	2.33	31/03/2020	FY20	2.33	On time
Colne WwTW (WFD)	6UU0518	31/03/2020	FY20	4.45	31/03/2020	FY20	4.45	On time
RIB0017 (WFD)	6UU0512	31/03/2020	FY20	0.13	31/03/2020	FY20	0.13	On time
RIB0019 (WFD)	6UU0513	31/03/2020	FY20	0.13	31/03/2020	FY20	0.13	On time
Billington Storm Tanks (WFD)	6UU0514	31/03/2020	FY20	0.51	31/03/2020	FY20	0.37	On time
Barton WwTW (WFD)	6UU0507	31/03/2020	FY20	4.30	31/03/2020	FY20	4.30	On time
Aspatria WwTW (WFD)	6UU0502	31/03/2020	FY20	7.44	31/03/2020	FY20	7.44	On time
Hayton WwTW (WFD)	6UU0503	31/03/2020	FY20	7.48	31/03/2020	FY20	7.48	On time
Hayfield WwTW (WFD)	6UU0540	31/03/2020	FY20	16.70	31/03/2020	FY20	16.70	On time
MAN0131 (WFD)	6UU0535	31/03/2020	FY20	1.20	31/03/2020	FY20	1.2	On time
Darwen WwTW (WFD)	6UU0526	31/03/2020	FY20	1.48	31/03/2020	FY20	1.48	On time
Darwen WwTW storm tanks (WFD)	6UU0527	31/03/2020	FY20	1.48	31/03/2020	FY20	1.48	On time
Blackburn WwTW (WFD)	6UU0525	31/03/2020	FY20	4.40	31/03/2020	FY20	4.40	On time
FY20 - Flow programme	Various	31/03/2020	FY20	0.54	31/03/2020	FY20	0.42	On time
Inland CSW programme	6UU0530	31/03/2020	FY20	0.18	31/03/2020	FY20	0.18	On time
Manchester Ship Canal (F1a)	6UU0379	31/03/2020	FY20	6.44	31/03/2021	FY21	6.44	Removed from NEP
Barrow Nook	N/A	31/03/2021	FY21	4	31/03/2020	FY20	4	Additional
West Newton	6UU0556	31/03/2020	FY20	7.48	31/03/2020	FY20	7.48	On time
Whalley WwTW	6UU0519	31/03/2020	FY20	1.00	31/03/2021	FY21	1.00	Removed from NEP
Crewe WwTW (WFD)	6UU0547	31/03/2020	FY20	5.46	31/03/2020	FY20	5.46	On time
Winsford WwTW (WFD)	6UU0549	31/03/2020	FY20	3.64	31/03/2020	FY20	3.64	On time
Investigation into opportunities to optimise existing Turning Basin aeration	6UU0379a	31/03/2021	FY21	0.00	31/03/2020	FY20	0.37	Additional

C.5 S-C1: Contribution to bathing waters improved

Measure description

This performance commitment measures the delivery of the programme of work which we have agreed with the Environment Agency to improve the impact that our assets have on bathing water compliance. Each project in this programme has been assigned an impact upon bathing water compliance called a bathing water equivalent (BWE), which is proportionate to the impact that completing the project will have on a designated bathing water. The measure is penalty only.

AMP6 performance commitment

Table 6: Regulatory targets for the 'contribution to bathing waters improved' performance commitment

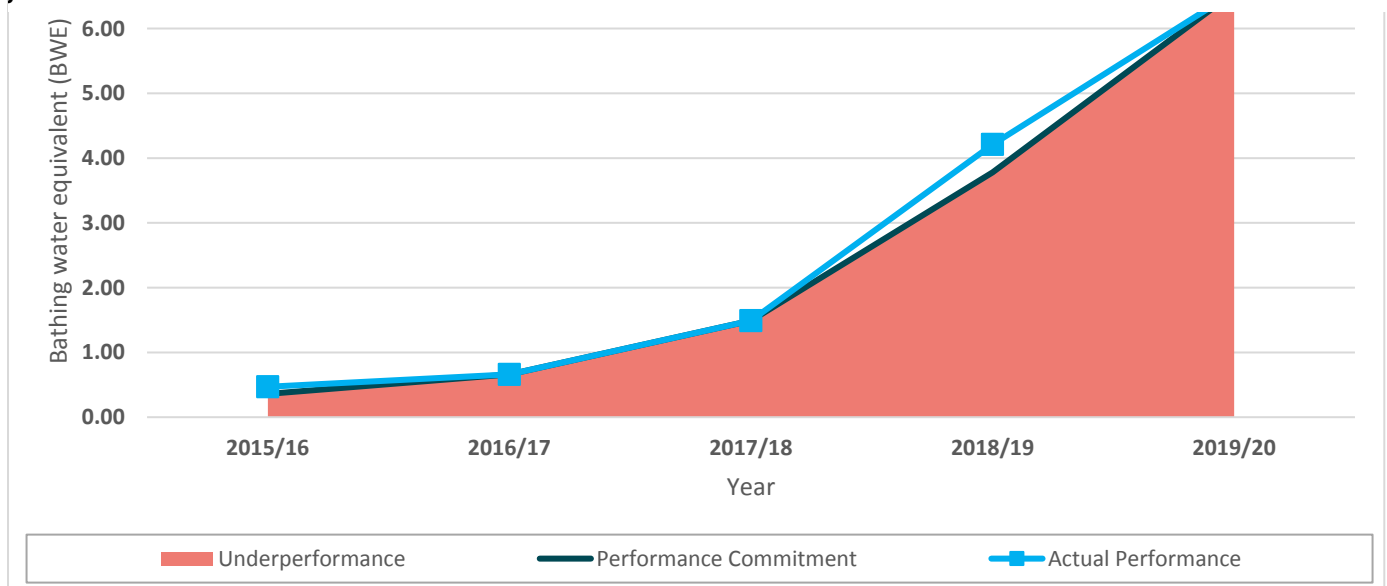
Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
Bathing water equivalent (BWE)	0.36	0.66	1.49	3.78	6.56

AMP6 performance

Table 7: Actual performance for the 'contribution to bathing waters improved' performance commitment

AMP6 financial position	Actual				
	2015/16	2016/17	2017/18	2018/19	2019/20
£0m	0.47	0.66	1.49	4.21	6.56

Figure 2: Contribution to bathing waters improved - AMP6 actual performance against performance commitment and financial incentives



Year 1, 2 and 3 performance

In the first three years of the period we have delivered all the required schemes to the planned date, other than the Coastal Misconnections (CSW) programme, which was delivered earlier than planned.

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Appendix C Delivery of our AMP6 outputs

Table 8: Years 1, 2 and 3 Bathing Water programme

Project	NEP reference	Planned delivery date	Actual/LBE delivery date	Actual/LBE delivery year	Actual bathing water equivalent	Early/late
Allonby WwTW Storm Tank	6UU0018	31/03/2016	31/03/2016	FY16	0.31	On time
Event Duration Monitors	Various	31/03/2016	31/03/2016	FY16	0.05	On time
Misconnections	6UU0022	21/07/2016	30/11/2015	FY16	0.11	Early
Hesketh Bank	6UU0520	31/03/2017	31/03/2017	FY17	0.09	On time
Mersey North Wirral Investigations	6UU0030	31/03/2017	31/03/2017	FY17	0.03	On time
Tidal Ribble and Wyre Investigation	6UU0021	31/03/2017	31/03/2017	FY17	0.07	On time
Chorley WwTW Storm Tanks	6UU0013	30/04/2017	30/04/2017	FY18	0.26	On time
Hagg Lane (Midland Terrace)	6UU0019	30/04/2017	30/04/2017	FY18	0.21	On time
Ravenglass WwTW	6UU0504	31/12/2017	31/12/2017	FY18	0.10	On time
Ravenglass Ww TW Storm Tanks	6UU0505	31/12/2017	31/12/2017	FY18	0.10	On time
Ravenglass WwTW CSO	6UU0506	31/12/2017	31/12/2017	FY18	0.10	On time
Kendal WwTW	6UU0509	31/12/2017	31/12/2017	FY18	0.05	On time
Event Duration Monitors	Various	31/03/2018	31/03/2018	FY18	0.01	On time

Performance in year 4

In year 4 we delivered schemes as agreed with EA and Ofwat at Manchester Square PS, Chatsworth Ave PS and Preston Storm Tanks. We also delivered the outfall extension at Anchorsholme PS earlier than originally planned.

However, the two schemes at Ulverson WwTW storm tanks (6UU0027) and Dragley Beck CSO (6UU0028) were delayed against their 31/03/19 regulatory date, instead being delivered on the 31/07/2019 and 30/06/2019 respectively in year 5.. A number of key issues arose on these schemes, which facilitated this delay, as set out below:

- significant infiltration into the sewer network and interaction with an EA flooding scheme – Town Beck culvert improvements;
- greater than anticipated objections to a required planning application; and
- protracted land purchase.

Table 9: Year 4 Bathing Water programme

Project	NEP reference	Planned delivery date	Actual/LBE delivery date	Actual/LBE delivery year	Actual bathing water equivalent	Early/late
Manchester Square Pumping Station	6UU0011	30/04/2018	30/04/2018	FY19	0.68	On time
Chatsworth Avenue Pumping Station	6UU0012	30/04/2018	30/04/2018	FY19	0.68	On time
Preston WwTW Storm Tanks	6UU0015	30/04/2018	30/04/2018	FY19	0.68	On time
Anchorsholme	6UU0010	30/04/2019	29/03/2019	FY19	0.68	Early

The early delivery of the Anchorsholme outfall extension has netted off the loss of BWE due to the delay in the Ulverston and Dragley Beck scheme. With 2.72 bathing water equivalents being improved in the year compared to the planned 2.29 bathing water equivalents.

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Appendix C Delivery of our AMP6 outputs

Performance in Year 5 and AMP7

Table 10: Year 5 Bathing Water programme

Project	NEP reference	Planned delivery date	Actual/LBE delivery date	Actual/LBE delivery year	Actual bathing water equivalent	Early/late
Raby Cote outfall	6UU0020	30/04/2019	30/04/2019	FY20	0.74	On time
Ulverston WwTW Storm Tanks	6UU0510	31/03/2019	31/07/2019	FY20	0.25	Late
Dragley Beck CSO	6UU0511	31/03/2019	30/06/2019	FY20	0.00	Late
Schola Green Pumping Station	6UU0016	31/03/2020	30/03/2020	FY20	0.79	Early
Blackburn WwTW Storm Tanks (part)	6UU0014	31/03/2020	31/03/2020	FY20	0.57	On time
Blackburn WwTW Storm Tanks (completion)	6UU0014	30/04/2021	30/04/2021	FY21	0.31	On time

The scheme at Blackburn WwTW will fully deliver by the 30th April 2021. For the purposes of the ODI the benefits of the project (in terms of bathing waters improvements) were apportioned in line with the anticipated spend on the project, with 0.57 BWE allocated to 2019/20 and the remaining 0.31 BWE being allocated to 2020/21 (outside of the ODI).

As detailed above, we delivered the delayed Ulverston and Dragley Beck schemes in year 5, and were able to hit the regulatory dates for the remaining projects, which were due to be delivered in 2019/20. The only exception to this was the Schola Green scheme, which was delivered one day early. We were also able to deliver more than the planned percentage of the spend on the Blackburn WwTW storm tank improvements.

Calculation of the Outcome Delivery Incentive

This performance commitment is penalty only (there is no reward for early delivery of schemes) and we have met or outperformed the cumulative target for all five years of the period.

Therefore in line with the position assumed within the FD no penalty is applied for this measure.

C.6 W-C1: Contribution to rivers improved - water programme

Measure description

This performance commitment measures the delivery of the National Environment Programme (NEP) schemes as set out in NEP5. It also covers abstraction changes at our Abstraction Incentive Mechanism (AIM) sites. The performance commitment has both financial reward and financial penalty outcome delivery incentives.

We report annually to the Environment Agency on our progress against the NEP outputs. If capital schemes are not delivered there is a risk of enforcement action by the Environment Agency if our abstractions cause environmental damage or do not comply with our licence conditions e.g. not implementing eel screening at river intakes – this has both reputational and financial implications. If investigations are not completed in a timely manner it may affect our ability to include any required implementation schemes in the following AMP cycle.

AMP6 performance commitment

Table 11: Regulatory targets for the 'contribution to rivers improved' (water programme) performance commitment

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
Km of river improved	0.0	6.6	6.6	6.6	159.5

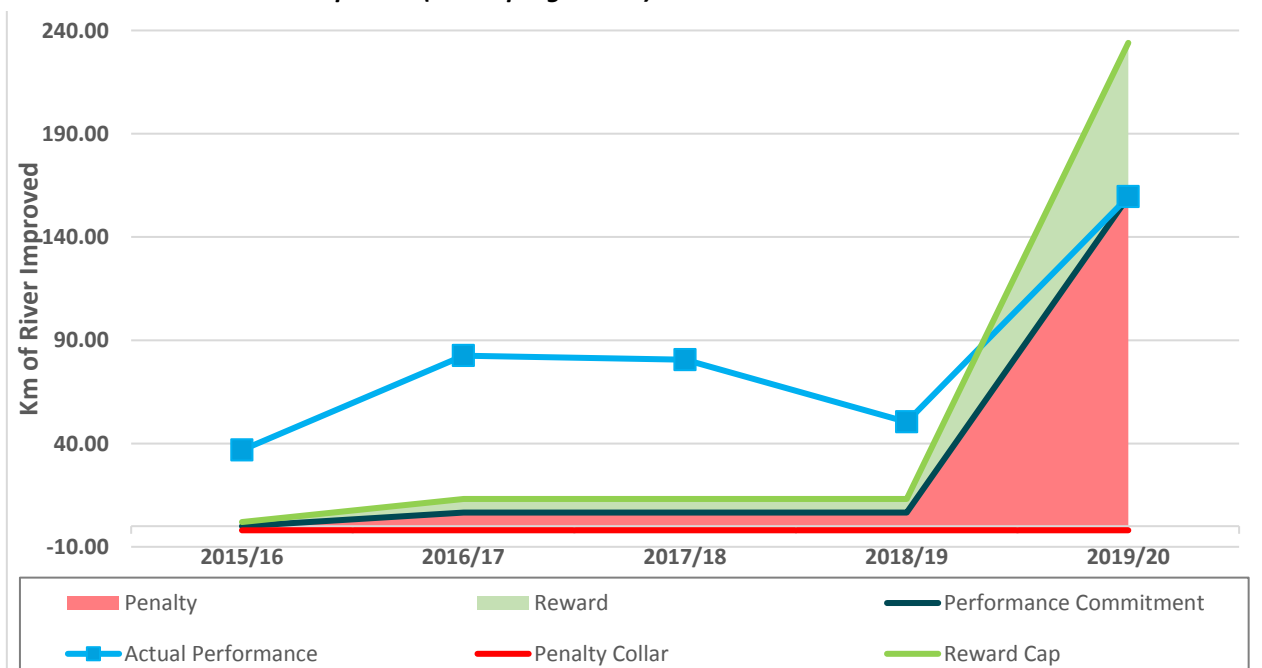
AMP6 performance

Table 11 sets out the annual performance and resultant incentive payments assumed in 2019 and reflected in the FD. Table 12 sets out the actual performance level and resultant incentive payment.

Table 12: Actual and forecast 2019/20 performance for the 'contribution to rivers improved' (water programme) performance commitment

AMP6 financial projection	Actual				
	2015/16	2016/17	2017/18	2018/19	2019/20
£0.6m	36.8	82.5	80.6	50.5	159.5

Figure 3: Contribution to rivers improved (water programme)



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Appendix C Delivery of our AMP6 outputs

A full list of all projects within the programme, the delivery date and the kilometres of rivers improved can be found below.

Table 13 – Comparison between planned and actual programme delivery

Project	Planned delivery date	Planned delivery year	Km rivers improved	Actual delivery date	Actual delivery year	Comments
6UUWR0045 - Heltondale fish migration investigation	31/03/17	FY17	0.01	18/03/16	FY16	1 year early
6UUWR0031 – Swindale RoC2 works	31/03/17	FY17	6.55	31/03/17	FY17	On time
6UUWR009 – Calder	31/03/20	FY20	4.63	31/03/17	FY17	3 years early
6UUWR0010 – Crummock	31/03/20	FY20	4.55	31/03/17	FY17	3 years early
6UUWR0013 - Stocks	31/03/20	FY20	6.45	31/03/17	FY17	3 years early
6UUWR0015/6UUWR0016/6UUWR0017 - Jumbles	31/03/20	FY20	9.01	31/03/17	FY17	3 years early
6UUWR0020 – Dovestone	31/03/20	FY20	5.46	31/03/17	FY17	3 years early
6UUWR0022 – Goyt	31/03/20	FY20	3.84	31/03/17	FY17	3 years early
6UUWR0026 – Alston (Langden & Hareden)	31/03/20	FY20	5.21	31/03/17	FY17	3 years early
6UUWR0042 – Thirlmere AMP6 Investigation impact of Mill Gill aqueduct interception of tributaries	31/03/20	FY20	0.00	31/03/17	FY17	3 years early
6UUW0036 - Haweswater AMP6 investigation: impact of aqueduct interception of Naddle-Tailbert-Mossy Beck tributaries	31/03/20	FY20	0.02	22/03/18	FY18	2 years early
6UUWR0034 - River Calder hands off flow (EA flow site)	31/03/20	FY20	5.50	25/09/18	FY19	1 year early
6UUWR00035a - Stage 3 assessments & UKTAG flow guidance assessments (7 sites listed in the January published NEP5)	31/03/20	FY20	0.00	31/03/17	FY17	3 years early
6UUWR0035b - Stage 3 assessments & UKTAG flow guidance assessments (any other sites identified by thte EA)	31/03/2020	FY20	3.79	24/03/2020	FY20	On time
6UUF022 - River Calder: Eel screen (9mm) & three eel passes	31/03/2020	FY20	0.00	25/09/2018	FY19	1 year early
6UUWR0012 - Poaka Beck (new Q95 flow)	31/03/2020	FY20	5.28	04/03/2020	FY20	On time
6UUWR0005 - Marchnant low flow alleviation	31/03/2020	FY20	1.51	31/12/2020	FY21	Delayed
6UUWR0018 - Readycon Dean (new Q95 flow)	31/03/2020	FY20	0.96	23/07/2019	FY20	On time
6UUWR0023 - Horse Coppice (new Q95 flow)	31/03/2020	FY20	2.88	25/07/2019	FY20	On time
6UUWR0019 - Castleshaw (adaptive flow changes)	31/03/2020	FY20	0.67	17/03/2020	FY20	On time
6UUWR0022 - Errwood and Fernilee (adaptive flow changes)	31/03/2020	FY20	-	17/03/2020	FY20	On time
6UUWR0021 - Longdendale (adaptive flow changes)	31/03/2020	FY20	-	17/03/2020	FY20	On time
6UUWR0004 - Cownwy low flow alleviation	31/03/2020	FY20	2.81	31/12/2020	FY21	Delayed
6UUWR0002/ 6UUWR0003 - Tarnbrook Wyre low flow alleviation	31/03/2020	FY20	8.24	31/10/2018	FY19	1 year early
6UUF016 - Crummock: Eel tiles and four pumped eel passes on weir; strobe light deterrents on intakes	31/03/2020	FY20	6.03	12/12/2019	FY20	On time
6UUF014 - Ulpha: Two pumped eel passes and counter	31/03/2020	FY20	4.12	24/03/2020	FY20	On time
6UUF010 - River Lune at Forge weir: Eel pass on south bank of Forge weir	31/03/2020	FY20	1.54	20/03/2020	FY20	On time
6UUF007 - River Wyre: Four eel passes (both sides of bank on two downstream weirs) & up and over pass over intake	31/03/2020	FY20	11.82	26/03/2020	FY20	On time
6UUF009 - River Lune at Caton: Eel screen (10mm)	31/03/2020	FY20	2.66	07/02/2020	FY20	On time
6UUF012 - Windermere: Strobe light deterrents	31/03/2020	FY20	14.40	31/12/2020	FY21	Delayed

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Appendix C Delivery of our AMP6 outputs

Project	Planned delivery date	Planned delivery year	Km rivers improved	Actual delivery date	Actual delivery year	Comments
6UUF021 - Ullswater: Strobe light deterrents	31/03/2020	FY20	15.38	10/03/2020	FY20	On time
6UUF002/ 6UUF003/ 6UUF004/ 6UUF005/ 6UUF006/ 6UUF011/ 6UUF013/ 6UUF015 Eel monitoring and feasibility studies for "trap and truck" systems and need for 9-10mm aperture silver eel screening on reservoir intake at 5 reservoir sites: Harlock and Poaka Beck; Simpson Ground/High Newton; Damas Gill; Grizedale; Rivington	31/03/2020	FY20	0.16	07/11/2018	FY19	1 year early
6UUF010 - River Lune (LCUS): Eel monitoring and feasibility study	31/03/2020	FY20	0.23	07/11/2018	FY19	1 year early
6UUF001/ 6UUF018/ 6UUF019/ 6UUF020 - River Dee intakes (Heronbridge, Huntington, Llangollen and Hurlleston): Eel monitoring and feasibility study	31/03/2020	FY20	1.47	24/02/2020	FY20	On time
6UUWR0032 - Haweswater tributary abstraction metering (Wet Sleddale, Keld, Thornship, Tailbert, Naddle, Cawdale, Heltondale, Mossy)	31/03/2020	FY20	5.19	07/03/2018	FY20	On time
6UUWR0044 - RSA monitoring study of abstraction licence changes	31/03/2020	FY20	2.17	24/02/2020	FY20	On time
6UUWR0028 - Ennerdale RoC3 works	31/03/2020	FY20	2.27	11/02/2020	FY20	On time
6UUWR0030 - Yearl weir removal works	31/03/2020	FY20	11.01	01/11/2019	FY20	On time

AMP6 performance

We out-performed the performance commitments for the first four years of AMP6 through the early delivery of NEP schemes. The rivers improved (water) programme initially had two projects due for delivery in 2016/17, with the remainder of the programme due for delivery in 2019/20. In 2019/20 we underperformed against the delivery of NEP schemes but outperformed the AIM. A breakdown of performance for each year follows below.

- In 2015/16 we delivered the Heltondale fish migration investigation (6UUWR0045) one year earlier than proposed in the NEP, securing 0.01 km of river improved.
- We also secured 36.84 km from the AIM element of the measure as river flows at the four AIM sites did not drop below the AIM threshold flows.
- In 2016/17 we delivered the remaining FY17 scheme (Swindale). We also accelerated delivery of seven sediment management schemes which were due for delivery in FY20 (representing 9 NEP entries) – we decided to undertake these ourselves which provided us with greater control over the speed of the project and allowed us to be efficient in our delivery. As a result we have been able to complete these studies earlier than we anticipated. We also completed an investigation of our Thirlmere tributary abstractions (6UUWR0042), again ahead of its FY20 NEP date. Together these secured a total of 45.70 km of river improved through delivery of NEP schemes in 2016/17.
- We also secured 36.84 km from the AIM element of the measure as river flows at the four AIM sites did not drop below the AIM threshold flows.
- In 2017/18 we delivered a further investigation in to our Haweswater tributary abstractions (representing 3 NEP entries: 6UUWR0036, 6UUWR0038 and 6UUWR0040) which was originally due in FY20. This secured 0.02 km river improved.
- The AIM flow threshold was reached at Ennerdale during 2017/18 resulting in 34.83 km river improved secured from the AIM element of the measure.
- In 2018/19 we delivered the River Calder scheme (6UUWR0034 and 6UUF022), an eel trap and truck investigation (representing 8 NEP entries: 6UUF002, 6UUF003, 6UUF004, 6UUF005, 6UUF006, 6UUF011, 6UUF013 and 6UUF015) and a River Lune eel investigation (6UUF010a), securing a total of 5.89 km of river improved through delivery of NEP schemes in 2018/19.
- Due to the dry summer of 2018 we hit the AIM flow triggers at three of the four AIM sites resulting in a slightly negative AIM performance of -1.14 km river improved in 2018/19.
- In 2019/20 we achieved 85.48km of rivers improved through delivery of NEP schemes. We failed to deliver three schemes totalling 18.72 km of river improved (14.40 km for the Windermere eel scheme (6UUF012):1.51 km for the Marchnant flow scheme (6UUWR0005): 2.81 km for the Conwy flow scheme (6UUWR0004)).

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Appendix C Delivery or our AMP6 outputs

- The original Windermere eel protection (14.40 km) scheme agreed with the Environment Agency was to provide “possible strobe light deterrent” with a delivery date of “2021”. Construction of a strobe light solution was therefore, included within the AMP6 ODI Rivers Improved (Water) programme, with a delivery date of 31 March 2020. On 17 January 2019, the Environment Agency informed UU that strobe lights were no longer considered as an effective deterrent and that the site should be subject to full review against the Environment Agency Eel Manual to establish the appropriate solution, which should comply with best practice.
- Discussions are ongoing between UU and the Environment Agency to agree a revised solution, with the revised solution is likely to require more substantial work and incur additional cost than the strobe light solution. Although we have failed to meet the ODI deadline we had hoped to the NEP delivery date (December 2020) was still achievable, although non-essential construction work has been put on hold as a result of the coronavirus pandemic.
- The Marchnant flow scheme (1.51 km) and Conwy flow scheme (2.81 km) are owned and operated by Severn Trent Water although United Utilities hold the abstraction licence. Therefore we were funded for the NEP scheme to implement a new downstream flow provision at the intake (as this will require the abstraction licence to be altered) but Severn Trent Water are delivering the work on site. The scheme has been delayed due to multiple factors including a delay in getting Natural Resources Wales approval for the impounding licences required to complete the work; addressing local residents concerns over flooding; storm damage in early 2020 and more recently, coronavirus pandemic causing work on site being stopped.
- In addition, three schemes were removed from the NEP by the EA. However these schemes were included in the ODI and so contribute 3.71 km in total towards the missed target (1.43 km for the River Ellen flow scheme: 0.74 km for the Old Water flow scheme: 1.54 km for the Forge weir north bank eel scheme). Together these six schemes would have contributed 22.43 km river improved.
- During FY20 river flow at Ennerdale (one of the three AIM sites) hit its AIM trigger. As we abstracted less water compared to the historic period this results in an over-performance for AIM of 22.39 km (line A2).

Calculation of the Outcome Delivery Incentive

The incentive payments for this measure are calculated on an annual basis with the rivers improved length used in the calculation being the sum of NEP schemes delivered plus the impact of AIM. Details of performance against the abstraction incentive element of this performance commitment are set out in our 2020 Annual Performance Report.

As the combined value of the rivers improved plus AIM equalled the performance commitment target for 2019/20 no additional penalty or reward was due for the year.

C.7 Accommodating development S-D1: Protecting rivers from deterioration

This section covers one performance commitment.

S-D1: Protecting rivers from deterioration due to population growth - Measure description

This measure seeks to protect rivers from deterioration as a result of an increase in population. It consists of a programme of work to enhance the capability of wastewater treatment works to ensure that the additional flow and load arriving at the works as a result of development with the works catchments does not cause any deterioration in river water quality. The programme is flexible in both delivery timescales for individual projects and the number and location of wastewater treatment works identified for investment providing that overall the project(s) deliver at least the defined cumulative km for each year of the AMP. This allows the programme to respond to the changing growth needs within the North West.

This measure has a penalty only financial incentive which is designed to ensure that customers are protected and revenue is returned to customers if the assumed levels of development do not occur or if the overall scale and benefit from the programme reduces.

AMP6 performance commitment

Table 15: Regulatory targets for the 'protecting rivers from deterioration due to population growth' performance commitment

Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
Km of river protected	=>1.8	=>1.8	=>190.1	=>316.7	=>346.6

Year 1, 2 and 3 performance

Table 16 – Comparison between planned and actual programme delivery

Project	Planned delivery date	Actual/LBE delivery date	Actual/LBE delivery year	Actual Km river protected
Kingsmill	31/03/2016	N/A	N/A	N/A
Moston West	N/A	31/03/2016	FY16	48.0
Davyhulme	31/03/2018	05/03/2018	FY18	125.5
Cockermouth	31/03/2018	23/03/2018	FY18	15.2
Brigham (transfer to Cockermouth)	31/03/2018	23/03/2018	FY18	1.3
Papcastle (transfer to Cockermouth)	31/03/2018	23/03/2018	FY18	0.6
Chorley	31/03/2018	28/04/2017	FY18	18.9
Wetheral and Great Corby	31/03/2018	29/03/2018	FY18	1.0
Whalley	31/03/2018	N/A	N/A	N/A
Macclesfield	31/03/2018	N/A	N/A	N/A

During 2015/16 in response to changes to the location of development, we delivered a scheme at Moston West where growth had occurred rather than the originally planned scheme at Kingsmill where the demand had not materialised. The rivers projected length associated with the Moston West project is 48.0 Km ahead of the performance commitment target of 1.8 km.

We did not plan to and did not deliver any schemes in 2016/17, with the cumulative river length remaining at 48.0 Km ahead of the performance commitment target of 1.8 km.

In 2017/18 we delivered six schemes ahead of or in line with the originally assumed delivery dates, including the major scheme at Dayhulme, our largest WwTW.

The scheme at Whalley which was originally planned for 2017/18 delivery. The project was delayed until 2019/20 in our 2018 PR14 reconciliation due to the slower pace of development than had been assumed and has now been reprioritised for delivery in AMP7.

PR14 Reconciliation

Appendix C Delivery of our AMP6 outputs

Delivery of these schemes increased the cumulative rivers protected length to 210.5km ahead of the performance commitment target of 190.1 km.

Year 4 performance

Table 17 - Comparison between planned and actual programme delivery

Project	Planned delivery date	Actual/LBE delivery date	Actual/LBE delivery year	Actual Km river protected
Burscough	31/03/2019	N/A	N/A	N/A
Silloth	31/03/2019	29/06/2018	FY19	7.7
Dearham	31/03/2019	01/02/2019	FY19	10.0
Clitheroe	31/03/2019	N/A	N/A	N/A
Alsager	31/03/2019	N/A	N/A	N/A
Sandbach	31/03/2019	09/01/2019	FY19	8.6
Endmoor	31/03/2019	17/12/2018	FY19	11.0
Barton	N/A	31/03/2019	FY19	25.8
Bootle	31/03/2019	16/08/2018	FY19	29.8
Winsford	31/03/2019	07/08/2018	FY19	14.6
Partington	31/03/2019	N/A	N/A	N/A
Cuddington (transfer to Northwich)	31/03/2020	31/03/2019	FY19	4.3
Oakmere (transfer to Northwich)	31/03/2020	31/03/2019	FY19	0.6

Four of the ten projects identified in the FBP to deliver in financial year 2018/19 are no longer required in AMP6:

- Burscough WwTW (27.2 km) and Clitheroe WwTW, (10.9 km) have sufficient capacity to accommodate the new development.
- Alsager WwTW (5.4 km) has been deferred until AMP7, due to the pace of development.
- The risk identified at Partington WwTW (1.4 km) will no longer have an impact at that works.

An additional project was added to the programme. This is a project to protect Barton WwTW (25.8 km) from substantial new development.

Schemes to address risks at two additional works Cuddington WwTW (4.3 km) and Oakmere WwTW (0.6 km), which were originally planned to be delivered by March 2020, were completed by 31/03/2019 as part of the Lower Weaver Rationalisation Project, which transferred the flow from these works to Northwich WwTW

Year 5 Performance

Table 18 - Comparison between planned and actual programme delivery

Project	Planned delivery date	Actual/LBE delivery date	Actual/LBE delivery year	Actual Km river protected
Knutsford	31/03/2020	N/A	N/A	N/A
Crewe	N/A	31/03/2020	FY20	42.6

We were originally planning to deliver three schemes in 2019/20, the schemes at Cuddington and Oakmere were delivered early in 2018/19. Development at the third works, Knutsford, did not materialise at the pace or scale anticipated.

In 2019/20 we delivered a new scheme at Crewe, where additional work was required. Delivery of this schemes would deliver an addition 42.6km and increase the cumulative rivers protected length to 365.5 km, ahead of the performance commitment target of 346.6 km.

Calculation of the Outcome Delivery Incentive

This performance commitment is penalty only and we have outperformed the cumulative performance commitment target in each year of the period.

Therefore no penalty has been applied for this measure.

C.8 DWI and other water service commitments

Commitments made to the DWI

We have made a number of commitments to the DWI for the AMP6 period, as these are covered by legal instruments and the DWI are able to take enforcement action if required, they are not also covered by a specific performance commitment and outcome delivery incentive.

Delivery of these commitments and associated reduction in risk to water quality will however, impact on a number of the operational performance or customer service performance commitments described within our APR.

There are also two “delivery” performance commitments for the water service, these are “resilience of impounding reservoirs” and “Thirlmere to West Cumbria transfer”. Performance against these two measures is reported later in this Appendix.

Year 1, 2, 3 and 4 performance

Table 19 Legal instruments that were agreed with the DWI through the price review at PR14.

	Legal Instrument Reference	Driver	Status of Legal Instrument
Sweetloves WTW	UUT3311	Taste and Odour	Work completed and LI revoked
Loveclough WTW	UUT3312	Taste and Odour	Work completed and LI revoked
Wayoh WTW	UUT3313	Pesticides	Work completed and LI revoked
Lead – High Risk Zones	UUT3314	Lead	Work ongoing and on track
River Dee catchment	UUT3236	MCPA, Mecoprop, Metaldehyde and Total Pesticides	Work completed and completion report submitted to DWI, further 3 months data required to be submitted 31 August 2019
Hurleston WTW (Llangollen canal)	UUT3235	Metaldehyde and Total Pesticides	Work completed and LI revoked

Table 20 Legal instruments that were agreed with the DWI at PR09, where the work was due to be completed in AMP6.

	Legal Instrument Reference	Driver	Status of Legal Instrument
Cumwhinton to Carlisle Trunk main and WSZ cleaning	UUT2793	Iron and Manganese	Annex 4 change request document to be submitted to the DWI, outlining the required project delay due to unforeseen circumstances.
Lytham Trunk main and WSZ cleaning	UUT2798	Iron and Manganese	Construction work completed. Awaiting reporting to DWI before LI to be revoked
Hapsford Trunk Main and WSZ cleaning	UUT2795	Iron and Manganese	Work completed and LI revoked
Crosshill Trunk main and WSZ cleaning	UUT2792	Iron and Manganese	Work completed and LI revoked
Birkenhead Trunk Main and WSZ cleaning	UUT2789	Iron and Manganese	Work completed and LI revoked

PR14 Reconciliation

Appendix C Delivery or our AMP6 outputs

	Legal Instrument Reference	Driver	Status of Legal Instrument
Oswestry WTW	UUT2801 (now UUT3477)	Raw water deterioration and reduction in discolouration	Annex 4 change request document to be submitted to the DWI, outlining the required project delay due to unforeseen circumstances. This will confirm the programme of work and final date for the completion of the process improvements at Oswestry WTW

As can be seen from the tables above, apart from the Annex 4 change requests at Cumwhinton and Oswestry, we have delivered all the schemes that were required to be delivered by the end of AMP6, by the Drinking Water Inspectorate (DWI) in line with the legal agreements that we have in place with them.

During AMP6, and following the significant events at Franklaw WTW and Sweetloves WTW, we have been working closely with the DWI to agree and implement a water quality transformation programme. This transformation programme has been incorporated into additional legal instruments and is ongoing, the delivery of that programme of work has not adversely influenced any of the commitments agreed with DWI at either PR09 or PR14.

The water transformation programme covered improvements in processes, assets and people to drive reduction in risk to water quality and an improved water quality awareness and culture. The key deliverables within the transformation programme include the:

- Improvements to our site specific disinfection policies and approach to backwash water management.
- delivery of shut down and start up to waste capacity at the majority of our WTWs in AMP6 and the delivery of the remaining more complex sites in early AMP7.
- Inspection with our industry leading flood testing approach of all our service reservoirs and subsequent repair and cleaning.
- Rollout of our innovative approach to risk assessment (HAZREV) across all our WTWs.
- Acceleration of mains cleaning in areas where discolouration contact rates were elevated.
- Additional targeted technical training for our front line operational staff.

C.9 W-B5 Resilience of impounding reservoirs

Measure description

The measure relates to our duty to maintain our statutory reservoirs and represents the resilience of these reservoirs using a total score from risk assessments. We are continually reviewing the potential risks at our reservoirs with the programme being flexible to ensure that we can reduce societal reservoir risks to even lower levels in line with best practice. The scores are calculated using current international best practice and in compliance with Health and Safety Executive guidelines.

The measure is based upon a starting performance score of 151.86, with work undertaken to reduce risk levels increasing the performance score. The higher the performance score the greater the reduction in risk, and therefore the better the performance. So the target is to be at or above the performance target in each year of the period.

This measure has a penalty only financial incentive.

AMP6 performance commitment

Table 21: Regulatory targets for the 'resilience of impounding reservoirs' performance commitment

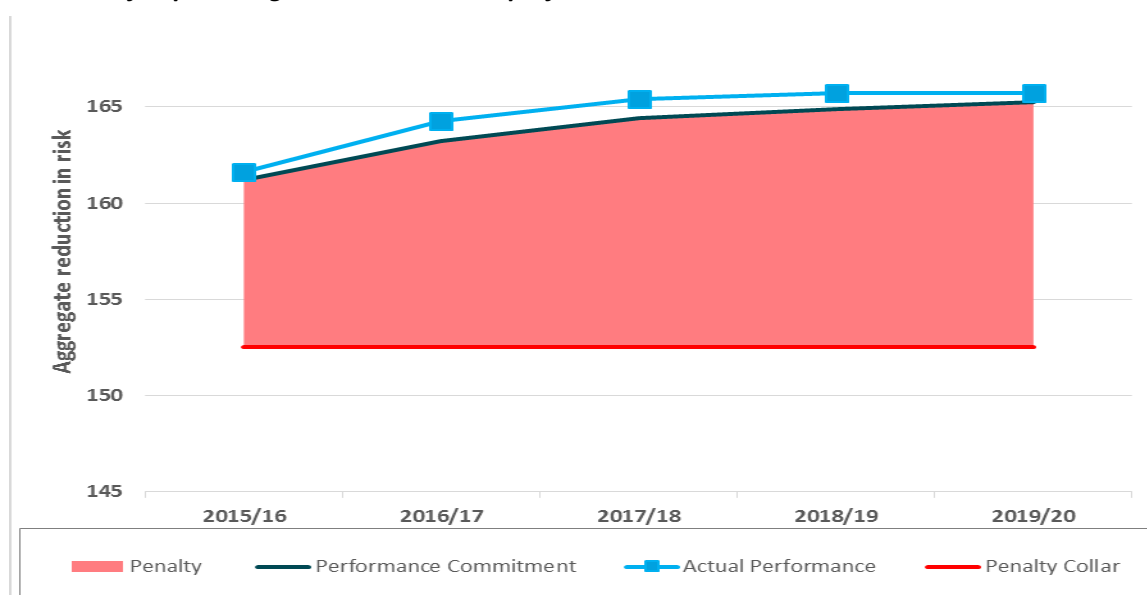
Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
reduction in risk	161.20	163.21	164.44	164.87	165.27

AMP6 performance

Table 22: Actual and forecast performance for the 'resilience of impounding reservoirs' performance commitment

AMP6 financial position	Actual				
	2015/16	2016/17	2017/18	2018/19	2019/20
£m	161.61	164.25	165.42	165.72	165.72

Figure 4 Resilience of impounding reservoirs - AMP6 performance



How have we performed against this measure?

The Final Determination starting position for AMP6 included some schemes that were completed at the end of AMP5 after the performance commitment target was set. These schemes are included in the table below, which shows the initially assumed project delivery dates and risk reduction and the actual or planned projects, delivery dates and risk reduction.

The table demonstrates the level of change to the programme.

PR14 Reconciliation

Appendix C Delivery of our AMP6 outputs

Table 23 - Comparison between planned and actual programme delivery

Project	Planned delivery year	Planned delivery year	Planned risk reduction	Actual/LBE delivery date	Actual/LBE delivery year	Actual risk reduction	Comments
Hollingworth Lake	Pre-AMP	Pre-AMP	0.46	10/09/2014	Pre-AMP	0.39	Delivered as original plan
Denton 1 & 2	Pre-AMP	Pre-AMP	0.19	07/04/2015	FY16	0.18	Delivered as original plan
Overwater	FY16	FY16	5.25	11/12/2015	FY16	5.25	Delivered as original plan
Crummock	FY16	FY16	1.00	14/10/2015	FY16	1.09	Delivered as original plan
Whiteholme	FY16	FY16	0.42	14/12/2015	FY16	1.57	Delivered as original plan
Chelburn	FY16	FY16	1.12	31/01/2018	FY18	1.17	Delayed
Sunnyhurst	FY16	FY16	0.58	30/08/2016	FY17	0.59	Delayed
Earnsdale	FY16	FY16	0.33	14/09/2016	FY17	0.38	Delayed
Hurst	N/A	N/A	N/A	30/09/2014	Pre-AMP	0.00	Additional scheme delivered
Hayeswater	N/A	N/A	N/A	30/09/2014	Pre-AMP	0.01	Additional scheme delivered
Readycon Dean	N/A	N/A	N/A	09/03/2015	Pre-AMP	0.14	Additional scheme delivered
Borrans	N/A	N/A	N/A	17/01/2017	FY17	0.14	Additional scheme delivered
Ridgegate	FY17	FY17	0.38	07/11/2014	Pre-AMP	0.38	Delivered through early start
Blackstone Edge	FY17	FY17	0.45	13/10/2015	FY16	0.46	Accelerated
Springs	FY17	FY17	0.26	23/02/2017	FY17	0.73	Delivered as original plan
Hollingworth Lake	FY17	FY17	0.41	N/A	N/A	N/A	Scheme removed from programme
Central quarry	FY17	FY17	0.43	N/A	N/A	N/A	Scheme removed from programme
Warland	FY17	FY17	0.08	N/A	N/A	N/A	Scheme removed from programme
Clowbridge	N/A	N/A	N/A	23/02/2017	FY17	0.44	Additional scheme delivered
Swinden	FY18	FY18	0.17	30/09/2015	FY16	0.13	Accelerated
Bottoms Macc	FY18	FY18	0.08	17/01/2017	FY17	0.07	Accelerated
Coldwell	FY18	FY18	0.20	N/A	N/A	N/A	Scheme removed from programme
Arnfield	FY18	FY18	0.11	N/A	N/A	N/A	Scheme removed from programme
Fisher Tarn	FY18	FY18	0.18	N/A	N/A	N/A	Scheme removed from programme
Crosshills	FY18	FY18	0.10	N/A	N/A	N/A	Scheme removed from programme
Yeoman Hey	FY18	FY18	0.10	N/A	N/A	N/A	Scheme removed from programme
Woodgate Hill no.2	FY18	FY18	0.29	N/A	N/A	N/A	Scheme removed from programme
Teggsnose	FY19	FY19	0.07	17/01/2017	FY17	0.07	Accelerated
Rumworth	FY19	FY19	0.10	17/01/2017	FY17	0.10	Accelerated
Simpson Ground	FY19	FY19	0.15	16/10/2015	FY16	0.13	Accelerated
High Bullough	FY19	FY19	0.04	17/01/2017	FY17	0.06	Accelerated
Cloughbottom	FY19	FY19	0.07	17/01/2017	FY17	0.07	Accelerated
Moorside	FY19	FY19	0.02	N/A	N/A	N/A	Scheme removed from programme
Hanging Lees	FY20	FY20	0.06	08/03/2019	FY19	0.31	Accelerated
Laneshaw	FY20	FY20	0.05	31/03/2020	FY20	0.15	Delayed
Heaton Park	FY20	FY20	0.09	N/A	N/A	N/A	Scheme removed from programme
crag holes	FY20	FY20	0.10	N/A	N/A	N/A	Scheme removed from programme
leadbeaters	FY20	FY20	0.05	N/A	N/A	N/A	Scheme removed from programme
Delph	FY20	FY20	0.06	N/A	N/A	N/A	Scheme removed from programme

Due to early completion of key projects, implementation of operational solutions, and the reduction in cumulative risk following the completion of site surveys and analysis by the Risk Estimation Team (this includes members of our Reservoir Safety Team and independent, government appointed, Panel Engineers), we have exceeded the cumulative target risk reduction in each year of the period.

Calculation of the Outcome Delivery Incentive

This performance commitment is penalty only and we have outperformed the cumulative performance commitment target in each year of the period.

Therefore no penalty has been applied for this measure.

C.10 W-B6: Thirlmere transfer into West Cumbria

Measure description

This measure reflects our progress in delivering the Thirlmere transfer project which will allow abstraction from Ennerdale Water to cease by providing a transfer main new wastewater treatment works and associated assets to allow water from Thirlmere reservoir to be supplied to the West Cumbria area.

As the project will deliver its final outcome in the AMP7 period, the measure is based upon the earned value of delivering key milestones within the project with the performance commitment being based upon 82% of the earned value of the project being delivered by the end of the AMP6 period.

Penalty and reward incentives for this measure are applied based upon the position at the end of FY20 to reflect any slippage out of or acceleration into the AMP6 period and therefore ensure that customers are protected from any delay or that UuW is appropriately recompensed for the additional costs in the period that would be associated with acceleration of the project.

AMP6 performance commitment

Table 24: Regulatory targets for the 'Thirlmere transfer into West Cumbria' performance commitment

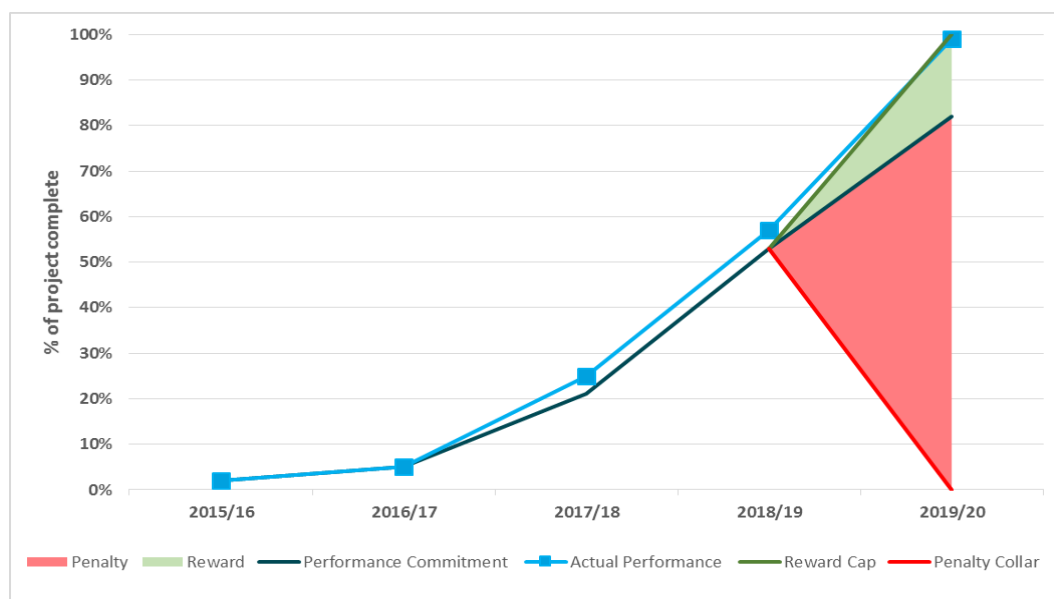
Unit of measure	2015/16	2016/17	2017/18	2018/19	2019/20
% or project complete (based on earned value tied to milestones)	2	5	21	53	82

AMP6 performance

Table 25: Actual and forecast performance for the 'Thirlmere transfer into West Cumbria' performance commitment

AMP6 financial position	Actual				
	2015/16	2016/17	2017/18	2018/19	2019/20
+£21.60m	2	5	25	57	99

Figure 5: Thirlmere transfer into West Cumbria - AMP6 actual and forecast performance against performance commitment and financial incentives



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Appendix C Delivery of our AMP6 outputs

Year 1, 2, 3 and 4 performance

Our commercial strategy of splitting the project into five contracts and the setting up of a dedicated commercial team has enabled the project team to make good progress on this project.

- In 2015/2016 we achieved the two planned milestones of 'tenders issued' and 'planning application submitted'. This amounted to 2% of project completion in line with the performance commitment target.
- In 2016/2017 we achieved the two planned milestones of 'contracts awarded' and 'planning application approved'.
- In 2017/2018 we delivered the two planned milestones of 'construction started on site' and 'first 23.12% of main in the ground'. We also delivered the milestone of 'Thirlmere Bridge End construction works complete'. This work delivered a total earned value for the three years to date of 24.68%, which is ahead of the of project completion in line with the performance commitment target of 21%.
- In 2018/2019 we delivered the three milestones scheduled in the year, with the substructure of the Water Treatment Works (WTW) and service reservoirs completed and the next 27.27% of mains being laid. We have completed the superstructure of the WTW earlier than originally planned. This took the total earned value up to 58.86%.
- In 2019/20 we delivered the one milestone scheduled in the year, '27.27% of main in the ground' and we delivered one milestone that we had planned to deliver the previous year, 'superstructure of WTW complete'. Further mains laying meant we delivered two future milestones early.

Table 26 - Comparison between planned and actual milestone delivery

Completed milestones	Planned delivery year	Actual delivery year	Earned Value (%)	Early/Late
Tender documents (scope book) submitted to bidders	FY16	FY16	1.0	On time
Planning application submitted	FY16	FY16	1.0	On time
Contract awarded	FY17	FY17	1.50	On time
Planning application approved	FY17	FY17	1.50	On time
Construction started on site	FY18	FY18	7.66	On time
First 23.12% of main in the ground	FY18	FY18	8.34	On time
Thirlmere Bridge End connection works complete	FY20	FY18	3.68	Early
Substructure of WTW complete	FY19	FY19	0.85	On time
Substructure of SRs complete	FY19	FY19	0.85	On time
Next 29.64% of main in the ground	FY19	FY19	30.30	On time
Next 27.27% of main in the ground	FY20	FY20	25	On time
Superstructure of WTW complete	FY21	FY20	2.18	Early
Next 12.54% of main in the ground	FY21	FY20	7.82	Early
Final 7.3% of main in the ground	FY22	FY20	6.7	Early
Total earned value of the project delivered to date			99	

Note - copies of the output in use certificates for the milestones delivered up to March 2019 have been provided to Ofwat within document UUW_016_AFPD Output in use certificates. Output in use certificated for 2020 outputs are available on request.

PR14 Reconciliation

Appendix C Delivery or our AMP6 outputs

Calculation of the Outcome Delivery Incentive

The reward for this measure applies for outperformance at the end of AMP6, with the ODI reported and calculated to the nearest %. By FY20 we anticipate we will have delivered 99% (98.7%) of the project against a target of 82%.

This is an outperformance of 17% (99-82)

The reward is equal to the outperformance multiplied by the reward rate of £1.271m/earned value %.

ODI Reward = 17% * £1.271m/% = £21.607m

Appendix D: Supporting spreadsheets

The information used within this document is derived from the following PR19 tables:

Table Number	Title
App9	Adjustments to RCV from disposals of interest in land
App23	Inflation measures
App25	PR14 reconciliation adjustments summary
App27	PR14 reconciliation – financial outcome delivery incentives summary
WS13	PR14 wholesale revenue forecast incentive mechanism for the water service
WS15	PR14 wholesale total expenditure outperformance sharing for the water service
WS17	PR14 water trading incentive reconciliation
WWS13	PR14 wholesale revenue forecast incentive mechanism for the wastewater service
WWS15	PR14 wholesale total expenditure outperformance sharing for the wastewater service
R9	PR14 reconciliation of household retail revenue

PR14 Reconciliation

AppendixD Supporting spreadsheets

App9 Adjustments to RCV from disposals of interest in land

Line description	Item reference	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2014-20
A RCV midnight adjustment - land sales water											
1	Forecast at previous review	A7001W	£m	3	Outturn (nominal)						
2	Actual and current forecast sales	BT39301PW	£000	3	Outturn (nominal)					1539.3729	
3	Impact of 50% of proceeds	A7003W	£m	3	Outturn (nominal)					0.770	
4	WACC - fully post tax on notional structure	A7004AW	%	2	-					3.60%	
5	RPI: Financial year average year on year %	A7004BW	%	2	-					2.52%	
6	Discount rate (nominal)	A7004W	%	2	-					6.12%	
7	Years for discounting purposes	A7005YR	nr	0	-	-3	-2	-1	0	1	2
8	Discount factor	A7005W	ratio	2	-					1.13	
9	PV effect of 50% of proceeds from disposals of interest in land	A7006W	£m	3	2017-18 FYA (RPI)					0.683	
10	NPV effect of 50% of proceeds from disposals of interest in land	A7010W	£m	3	2017-18 FYA (RPI)						-5.952
11	Water ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	A7011W	£m	3	2017-18 FYA (CPIH deflated)						-6.079
B RCV midnight adjustment - land sales wastewater											
12	Forecast at previous review	A7001WW	£m	3	Outturn (nominal)						
13	Actual and current forecast sales	BT39301PS	£000	3	Outturn (nominal)					161.136522	
14	Impact of 50% of proceeds	A7003WW	£m	3	Outturn (nominal)					0.081	
15	WACC - fully post tax on notional structure	A7004AWW	%	2	-					3.60%	
16	RPI: Financial year average year on year %	A7004BWW	%	2	-					2.52%	
17	Discount rate (nominal)	A7004WW	%	2	-					6.12%	
18	Years for discounting purposes	A7005YR	nr	0	-	-3	-2	-1	0	1	2
19	Discount factor	A7005WW	ratio	2	-					1.13	
20	PV effect of 50% of proceeds from disposals of interest in land	A7006WW	£m	3	2017-18 FYA (RPI)					0.072	
21	NPV effect of 50% of proceeds from disposals of interest in land	A7010WW	£m	3	2017-18 FYA (RPI)						-0.429
22	Wastewater ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	A7011WW	£m	3	2017-18 FYA (CPIH deflated)						-0.438
C RCV midnight adjustment - land sales for the dummy control											
23	Forecast at previous review	A7001DMMY	£m	3	Outturn (nominal)						
24	Actual and current forecast sales	BT39301PTTT	£000	3	Outturn (nominal)						
25	Impact of 100% of proceeds	A7003DMMY	£m	3	Outturn (nominal)						
26	WACC - fully post tax on notional structure	A7004ADMMY	%	2	-						
27	RPI: Financial year average year on year %	A7004BDMMY	%	2	-						
28	Discount rate (nominal)	A7004DMMY	%	2	-						
29	Years for discounting purposes	A7005YR	nr	0	-	-3	-2	-1	0	1	2
30	Discount factor	A7005DMMY	ratio	2	-						
31	PV effect of 100% of proceeds from disposals of interest in land	A7006DMMY	£m	3	2017-18 FYA (RPI)						
32	NPV effect of 100% of proceeds from disposals of interest in land	A7010DMMY	£m	3	2017-18 FYA (RPI)						
33	Wastewater ~ NPV effect of 100% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	A7011DMMY	£m	3	2017-18 FYA (CPIH deflated)						

PR14 Reconciliation

AppendixD Supporting spreadsheets

App23 Inflation measures

Line description	Item reference	Units	DPs	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	
A Retail price index													
1	RPI: Months of actual data for Financial Year	PB00000	nr	0	12	12	12	12	12	12	12	12	
2	Retail Price Index for April	BB3805AL	nr	1	234.4	242.5	249.5	255.7	258.0	261.4	270.6	279.7	288.2
3	Retail Price Index for May	BB3805MY	nr	1	235.2	242.4	250.0	255.9	258.5	262.1	271.7	280.7	289.2
4	Retail Price Index for June	BB3805JN	nr	1	235.2	241.8	249.7	256.3	258.9	263.1	272.3	281.5	289.6
5	Retail Price Index for July	BB3805JL	nr	1	234.7	242.1	249.7	256.0	258.6	263.4	272.9	281.7	289.5
6	Retail Price Index for August	BB3805AT	nr	1	236.1	243.0	251.0	257.0	259.8	264.4	274.7	284.2	291.7
7	Retail Price Index for September	BB3805SR	nr	1	237.9	244.2	251.9	257.6	259.6	264.9	275.1	284.1	291.0
8	Retail Price Index for October	BB3805OR	nr	1	238.0	245.6	251.9	257.7	259.5	264.8	275.3	284.5	290.4
9	Retail Price Index for November	BB3805NR	nr	1	238.5	245.6	252.1	257.1	259.8	265.5	275.8	284.6	291.0
10	Retail Price Index for December	BB3805DR	nr	1	239.4	246.8	253.4	257.5	260.6	267.1	278.1	285.6	291.9
11	Retail Price Index for January	BB3805JY	nr	1	238.0	245.8	252.6	255.4	258.8	265.5	276.0	283.0	290.6
12	Retail Price Index for February	BB3805FY	nr	1	239.9	247.6	254.2	256.7	260.0	268.4	278.1	285.0	292.0
13	Retail Price Index for March	BB3805MH	nr	1	240.8	248.7	254.8	257.1	261.1	269.3	278.3	285.1	292.6
B Consumer price index (including housing costs)													
14	CPIH: Months of actual data for Financial Year	PB00003	nr	0	12	12	12	12	12	12	12	12	
15	Consumer Price Index (with housing) for April	BB3905AL	nr	1	93.3	95.9	98.0	99.6	99.9	100.6	103.2	105.5	107.6
16	Consumer Price Index (with housing) for May	BB3905MY	nr	1	93.5	95.9	98.2	99.6	100.1	100.8	103.5	105.9	107.9
17	Consumer Price Index (with housing) for June	BB3905JN	nr	1	93.5	95.6	98.0	99.8	100.1	101.0	103.5	105.9	107.9
18	Consumer Price Index (with housing) for July	BB3905JL	nr	1	93.5	95.7	98.0	99.6	100.0	100.9	103.5	105.9	108.0
19	Consumer Price Index (with housing) for August	BB3905AT	nr	1	93.9	96.1	98.4	99.9	100.3	101.2	104.0	106.5	108.3
20	Consumer Price Index (with housing) for September	BB3905SR	nr	1	94.5	96.4	98.7	100.0	100.2	101.5	104.3	106.6	108.4
21	Consumer Price Index (with housing) for October	BB3905OR	nr	1	94.5	96.8	98.8	100.1	100.3	101.6	104.4	106.7	108.3
22	Consumer Price Index (with housing) for November	BB3905NR	nr	1	94.7	97.0	98.8	99.9	100.3	101.8	104.7	106.9	108.5
23	Consumer Price Index (with housing) for December	BB3905DR	nr	1	95.0	97.3	99.2	99.9	100.4	102.2	105.0	107.1	108.5
24	Consumer Price Index (with housing) for January	BB3905JY	nr	1	94.7	97.0	98.7	99.2	99.9	101.8	104.5	106.4	108.3
25	Consumer Price Index (with housing) for February	BB3905FY	nr	1	95.2	97.5	99.1	99.5	100.1	102.4	104.9	106.8	108.6
26	Consumer Price Index (with housing) for March	BB3905MH	nr	1	95.4	97.8	99.3	99.6	100.4	102.7	105.1	107.0	108.6
C Indexation rate for index linked debt percentage increase													
27	Indexation rate for index linked debt percentage increase	A9001	%	2							3.43%	3.13%	
D Financial year average indices													
28	RPI: Financial year average indices	PB00113BP	nr	1	237.3	244.7	251.7	256.7	259.4	265.0	274.9	283.3	290.6
29	CPIH: Financial year average indices	PB00200	nr	1	94.3	96.6	98.6	99.7	100.2	101.5	104.2	106.4	108.2
E Year on year % change													
30	RPI: November year on year %	APP23001	%	2		2.98%	2.65%	1.98%	1.05%	2.19%	3.88%	3.19%	2.25%
31	RPI: Financial year average indices year on year %	APP23002	%	2		3.09%	2.88%	1.96%	1.08%	2.14%	3.74%	3.06%	2.59%
32	RPI: Financial year end indices year on year %	APP23003	%	2		3.28%	2.45%	0.90%	1.56%	3.14%	3.34%	2.44%	2.63%
33	CPIH: November year on year %	APP23004	%	2		2.43%	1.86%	1.11%	0.40%	1.50%	2.85%	2.10%	1.50%
34	CPIH: Financial year average indices year on year %	APP23005	%	2		2.41%	2.09%	1.14%	0.44%	1.37%	2.63%	2.13%	1.70%
35	CPIH: Financial year end indices year on year %	APP23006	%	2		2.52%	1.53%	0.30%	0.80%	2.29%	2.34%	1.81%	1.50%
36	Wedge between RPI and CPIH	APP23007	%	2		0.68%	0.80%	0.82%	0.64%	0.77%	1.11%	0.93%	0.89%
F Long term inflation rates													
37	Long term RPI inflation rate	APP23008	%	2									
38	Long term CPIH inflation rate	APP23009	%	2									

PR14 Reconciliation

AppendixD Supporting spreadsheets

App25 PR14 reconciliation adjustments summary

Line description	Item reference	Units	DPs	Price base	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
A Further 2010-15 reconciliation adjustments										
1	Water ~ Total Adjustment RCV carry forward to PR19	C00572_L021	£m	3	2012-13 FYA (RPI)					31.834
2	Water ~ Total Adjustment Revenue carry forward to PR19	C00578_L021	£m	3	2012-13 FYA (RPI)					-10.150
3	Wastewater ~ Total Adjustment RCV carry forward to PR19	C00579_L021	£m	3	2012-13 FYA (RPI)					45.924
4	Wastewater ~ Total Adjustment Revenue carry forward to PR19	C00585_L021	£m	3	2012-13 FYA (RPI)					-10.356
5	Water ~ CIS RCV inflation correction	APP25001	£m	3	2012-13 FYA (RPI)					-69.718
6	Wastewater ~ CIS RCV inflation correction	APP25002	£m	3	2012-13 FYA (RPI)					-118.073
7	Water ~ Total Adjustment RCV carry forward to PR19 at 2017-18 FYA CPIH deflated price base	APP25003	£m	3	2017-18 FYA (CPIH deflated)					36.533
8	Water ~ Total Adjustment Revenue carry forward to PR19 at 2017-18 FYA CPIH deflated price base	APP25004	£m	3	2017-18 FYA (CPIH deflated)					-11.648
9	Wastewater ~ Total Adjustment RCV carry forward to PR19 at 2017-18 FYA CPIH deflated price base	APP25005	£m	3	2017-18 FYA (CPIH deflated)					52.703
10	Wastewater ~ Total Adjustment Revenue carry forward to PR19 at 2017-18 FYA CPIH deflated price base	APP25006	£m	3	2017-18 FYA (CPIH deflated)					-11.884
11	Water ~ CIS RCV inflation correction at 2017-18 FYA CPIH deflated price base	APP25007	£m	3	2017-18 FYA (CPIH deflated)					-80.008
12	Wastewater ~ CIS RCV inflation correction at 2017-18 FYA CPIH deflated price base	APP25008	£m	3	2017-18 FYA (CPIH deflated)					-135.501
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	A7011W_CPY	£m	3	2017-18 FYA (CPIH deflated)					-6.079
14	Wastewater ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017-18 FYA CPIH deflated price base	A7011WW_CPY	£m	3	2017-18 FYA (CPIH deflated)					-0.438
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	APP27040_CPY	£m	3	2017-18 FYA (CPIH deflated)					0.000
16	ODI end of period revenue adjustment ~ Total net revenue adjustment at 2017~18 FYA CPIH deflated price base	APP27047_CPY	£m	3	2017-18 FYA (CPIH deflated)					-6.069
17	ODI end of period RCV adjustment ~ Total net adjustment at 2017~18 FYA CPIH deflated price base	APP27052_CPY	£m	3	2017-18 FYA (CPIH deflated)					50.662
D Wholesale total expenditure outperformance sharing										
18	Water: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	WS15026_CPY	£m	3	2017-18 FYA (CPIH deflated)					50.041
19	Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	WS15027_CPY	£m	3	2017-18 FYA (CPIH deflated)					108.842
20	Wastewater: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	WWS15021_CPY	£m	3	2017-18 FYA (CPIH deflated)					10.030
21	Wastewater: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	WWS15022_CPY	£m	3	2017-18 FYA (CPIH deflated)					65.477
E Wholesale revenue forecasting incentive mechanism										
22	WRFIM Total reward / (penalty) at the end of AMP6 ~ water network plus	WS13027_CPY	£m	3	2017-18 FYA (CPIH deflated)					-13.561
23	WRFIM Total reward / (penalty) at the end of AMP6 ~ wastewater network plus	WWS13027_CPY	£m	3	2017-18 FYA (CPIH deflated)					12.930
F Reconciliation of household retail revenue										
24	Residential retail revenue adjustment at 2017-18 FYA CPIH deflated price base	R9046_CPY	£m	3	2017-18 FYA (CPIH deflated)					4.943
G Water trading incentive reconciliation										
25	Total value of export incentive - water resources at 2017-18 FYA CPIH deflated price base	WS17028_CPY	£m	3	2017-18 FYA (CPIH deflated)					0.000
26	Total value of export incentive - water network plus at 2017-18 FYA CPIH deflated price base	WS17029_CPY	£m	3	2017-18 FYA (CPIH deflated)					0.000
27	Total value of export incentive to be paid after PR19 at 2017-18 FYA CPIH deflated price base	WS17030_CPY	£m	3	2017-18 FYA (CPIH deflated)					0.000
28	Total value of import incentive - water resources at 2017-18 FYA CPIH deflated price base	WS17031_CPY	£m	3	2017-18 FYA (CPIH deflated)					0.000
29	Total value of import incentive - water network plus at 2017-18 FYA CPIH deflated price base	WS17032_CPY	£m	3	2017-18 FYA (CPIH deflated)					0.000
H Service incentive mechanism										
30	SIM forecast revenue adjustment at 2017-18 FYA CPIH deflated price base	R10009_CPY	£m	3	2017-18 FYA(CPIH deflated)					

PR14 Reconciliation

AppendixD Supporting spreadsheets

App27 PR14 reconciliation – financial outcome delivery incentives summary

Line description	Item reference	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	APP27001	£m	3						
2 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Wholesale wastewater	APP27002	£m	3						
3 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Retail (household)	APP27003	£m	3						
4 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Retail (non-household)	APP27004	£m	3						
5 Total net performance payment / (penalty) applied to revenue for in-period ODI adjustments – PR14 controls	APP27005	£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	APP27006	£m	3						
7 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Wholesale wastewater	APP27007	£m	3						
8 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Retail (household)	APP27008	£m	3						
9 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Retail (non-household)	APP27009	£m	3						
10 Total net performance payment / (penalty) applied to revenue for end of period ODI adjustments – PR14 controls	APP27010	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
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	APP27011	£m	3						
12 Net performance payment / (penalty) applied to RCV for end of period ODI adjustments – Wholesale wastewater	APP27012	£m	3						
13 Net performance payment / (penalty) applied to RCV for end of period ODI adjustments – Thames Tideway	APP27013	£m	3						
14 Total net performance payment / (penalty) applied to RCV for end of period ODI adjustments – PR14 controls	APP27014	£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	APP27015	£m	3					0.000	0.000
16 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Water network plus	APP27016	£m	3					0.000	0.000
17 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Wastewater network plus	APP27017	£m	3					0.000	0.000
18 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Bioresources	APP27018	£m	3					0.000	0.000
19 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Residential retail	APP27019	£m	3					0.000	0.000
20 Net performance payment / (penalty) applied to revenue for in-period ODI adjustments – Business retail	APP27020	£m	3					0.000	0.000
21 Total net performance payment / (penalty) applied to revenue for in-period ODI adjustments – PR19 controls	APP27021	£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	APP27022	£m	3					0.000	0.610
23 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Water network plus	APP27023	£m	3					20.647	-1.249
24 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Wastewater network plus	APP27024	£m	3					0.000	0.000
25 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Bioresources	APP27025	£m	3					0.000	0.000
26 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Residential retail	APP27026	£m	3					-4.649	-4.649
27 Net performance payment / (penalty) applied to revenue for end of period ODI adjustments – Business retail	APP27027	£m	3					0.000	0.000
28 Total net performance payment / (penalty) applied to revenue for end of period ODI adjustments – PR19 controls	APP27028	£m	3	0.000	0.000	0.000	0.000	15.998	-5.288
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	APP27029	£m	3					0.000	0.000
30 Net performance payment / (penalty) applied to RCV for end of period ODI adjustments – Water network plus	APP27030	£m	3					0.000	0.000
31 Net performance payment / (penalty) applied to RCV for end of period ODI adjustments – Wastewater network plus	APP27031	£m	3					0.469	44.146
32 Net performance payment / (penalty) applied to RCV for end of period ODI adjustments – Thames Tideway	APP27032	£m	3					0.000	0.000
33 Total net performance payment / (penalty) applied to RCV for end of period ODI adjustments – PR19 controls	APP27033	£m	3	0.000	0.000	0.000	0.000	0.469	44.146
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	APP27034	£m	3						0.000
35 ODI in-period revenue adjustment – Water network plus at 2017-18 FYA CPIH deflated price base	APP27035	£m	3						0.000
36 ODI in-period revenue adjustment – Wastewater network plus at 2017-18 FYA CPIH deflated price base	APP27036	£m	3						0.000
37 ODI in-period revenue adjustment – Bioresources at 2017-18 FYA CPIH deflated price base	APP27037	£m	3						0.000
38 ODI in-period revenue adjustment – Residential retail at 2017-18 FYA CPIH deflated price base	APP27038	£m	3						0.000
39 ODI in-period revenue adjustment – Business retail at 2017-18 FYA CPIH deflated price base	APP27039	£m	3						0.000
40 ODI in-period revenue adjustment – Total net revenue adjustment at 2017-18 FYA CPIH deflated price base	APP27040	£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	APP27041	£m	3						0.700
42 ODI end of period revenue adjustment – Water network plus at 2017-18 FYA CPIH deflated price base	APP27042	£m	3						-1.434
43 ODI end of period revenue adjustment – Wastewater network plus at 2017-18 FYA CPIH deflated price base	APP27043	£m	3						0.000
44 ODI end of period revenue adjustment – Bioresources at 2017-18 FYA CPIH deflated price base	APP27044	£m	3						0.000
45 ODI end of period revenue adjustment – Residential retail at 2017-18 FYA CPIH deflated price base	APP27045	£m	3						-5.335
46 ODI end of period revenue adjustment – Business retail at 2017-18 FYA CPIH deflated price base	APP27046	£m	3						0.000
47 ODI end of period revenue adjustment – Total net revenue adjustment at 2017-18 FYA CPIH deflated price base	APP27047	£m	3						-6.069
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	APP27048	£m	3						0.000
49 ODI end of period RCV adjustment – Water network plus at 2017-18 FYA CPIH deflated price base	APP27049	£m	3						0.000
50 ODI end of period RCV adjustment – Wastewater network plus at 2017-18 FYA CPIH deflated price base	APP27050	£m	3						50.662
51 ODI end of period RCV adjustment – Thames Tideway at 2017-18 FYA CPIH deflated price base	APP27051	£m	3						0.000
52 ODI end of period RCV adjustment – Total net adjustment at 2017-18 FYA CPIH deflated price base	APP27052	£m	3						50.662

PR14 Reconciliation

AppendixD Supporting spreadsheets

WS13 PR14 wholesale revenue forecast incentive mechanism for the water service

Line description	Item reference	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
A Company details for WRFIM model											
1	Company name		text	-							UU
2	Company type	BF200	Nr	0							2
3	Company has accepted WRFIM licence modification	WS13003	Boolean	0							TRUE
B WRFIM model parameters											
4	Penalty rate scaling minimum threshold (+/-)	WS13004	%	2	-						2.00%
5	Penalty rate scaling maximum threshold (+/-)	WS13005	%	2	-						3.00%
6	Penalty rate (+/-)	WS13006	%	2	-						3.00%
7	Specified discount rate	WS13007	%	2	-						3.60%
8	Threshold for additional variance analyses (+/-)	WS13008	%	2	-						6.00%
C Allowed revenue											
9	Allowed revenue - water	WS13009	£m	3	Outturn (nominal)						
10	Actual RPI: November index year on year change	AFF23001_CPY	%	2	-						3.19%
11	K ~ water	WS13011	nr	2	-						0.76
12	Total revenue forecast ~ water	WS13012	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	0.000	810.290
D AMP5 RCM blind year adjustment											
13	RCM blind year 14/15 adjustment for implementing via WRFIM ~ water	C00052_L021	£m	3	2012-13 FYA						
14	Percentage of RCM adjustment by year ~ water	WS13014	%	2	-						33.33%
E Revenue recovered											
15	Water: Unmeasured ~ household	CR581	£m	3	Outturn (nominal)						341.039
16	Water: Unmeasured ~ non-household	CR583	£m	3	Outturn (nominal)						3.459
17	Water: Measured ~ household	CR582	£m	3	Outturn (nominal)						233.749
18	Water: Measured ~ non-household	CR584	£m	3	Outturn (nominal)						201.879
19	Water: Third party revenue ~ household	W9008HH	£m	3	Outturn (nominal)						0.000
20	Water: Third party revenue ~ non-household	W9008NH	£m	3	Outturn (nominal)						4.711
21	Water: Revenue collected from household and non-household	WS13029	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000		784.838
22	Water: Grants and contributions	BC11274IN	£m	3	Outturn (nominal)						20.003
23	Water: Revenue recovered	WS13030	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000		804.841
F Variance analysis of grants and contributions											
24	Water: Capital contributions from connection charges and revenue from int	C_ES_000660_A001	£m	3	2012-13 prices						10.282
25	Water: Grants and contributions	BC11274_CPY	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000		20.003
26	Water: Grants and contributions variance	WS13028	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000		7.789
G Penalties											
27	Main revenue adjustment as incurred ~ water	WS13023	£m	3	Outturn (nominal)						
28	Penalty adjustment as incurred ~ water	WS13024	£m	3	Outturn (nominal)						
29	WRFIM adjustment as incurred ~ water	WS13025	£m	3	Outturn (nominal)						
30	WRFIM Total reward / (penalty) at the end of AMP6 ~ water	WS13026	£m	3	Outturn (nominal)						-13.745
31	WRFIM Total reward / (penalty) at the end of AMP6 ~ water network plus	WS13027	£m	3	2017-18 FYA (CPH deflated)						-13.561

PR14 Reconciliation

AppendixD Supporting spreadsheets

WS15 PR14 wholesale total expenditure outperformance sharing for the water service

Line description	Item reference	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
A Company details											
1	Company type	BF200	Nr	0							2
2	Is company enhanced?	WS15001	text	0							No
3	Financing rate	WS15003	%	2							3.60%
B Menu choices											
4	Water: Implied menu choice	C00729_W004	Nr	1	0						100.5
5	Water: FD pension deficit recovery costs allowance	C00558	£m	3	2012-13 FYA (RPI)					8.229	
6	Water: Final menu choice	WS15006	nr	1	-						100.5
C TOTEX											
7	Water: Baseline Totex	C00007_W011	£m	3	2012-13 FYA (RPI)					459.200	
8	Water: FD allowed totex inclusive of menu cost exclusions, less PDRC allowance	C00772_A001	£m	3	2012-13 FYA (RPI)					460.448	
9	Water: Actual Totex	W3026MTIN	£m	3	Outturn (nominal)					665.061	
D Adjustments to TOTEX											
10	Water: Third party services (opex)	BM323TASIN	£m	3	Outturn (nominal)					1.648	
11	Water: Third party services (capex)	BM333TASIN	£m	3	Outturn (nominal)					0.000	
12	Water: Pension deficit recovery costs	CRW003	£m	3	Outturn (nominal)					39.967	
13	Water: Other cash items	WS15028	£m	3	Outturn (nominal)					0.000	
14	Water: Disallowables	WS15014	£m	3	Outturn (nominal)					-0.579	
15	Water: Transition expenditure	BP767NTIN	£m	3	2012-13 FYA (RPI)						
E PAYG											
16	Water: PAYG ratio	C00766_A001	%	2	-					70.35%	
F Business rates IDoK											
17	Company specific water business rate sharing rate	WS15017	%	2	-						
18	Menu Cost Sharing Rate	WS15018	nr	2	-						0.50
19	Menu Choice Expenditure Factor	WS15019	%	2	-						100.00%
20	Water business rate constant 2017, 2018, 2019	WS15020	nr	3	2012-13 FYA (RPI)						
21	Water business rate constant 2017, 2018, 2019	WS15021	nr	3	Outturn					0.000	0.000
22	Applicable Water Business Rate Costs	WS15022	nr	3	Outturn						
23	Water: IDoK Business rates adjustment	WS15023	nr	3	Outturn						
G Totex menu adjustments											
24	Water: revenue adjustment from totex menu model	WS15024	£m	3	2012-13 FYA (RPI)					43.605	
25	Water: RCV adjustment from totex menu model	WS15025	£m	3	2012-13 FYA (RPI)					94.843	
26	Water: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	WS15026	£m	3	2017-18 FYA (CPIH deflated)					50.041	
27	Water: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	WS15027	£m	3	2017-18 FYA (CPIH deflated)					108.842	

PR14 Reconciliation

AppendixD Supporting spreadsheets

WWS13 PR14 wholesale revenue forecast incentive mechanism for the wastewater service

Line description	Item reference	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
A Company details for WRFIM model											
1	Company name	SYS01	text	0							UU
2	Company type	BF200	Nr	0							2
3	Company has accepted WRFIM licence modification	WWS13003	Boolean	0							TRUE
B WRFIM model parameters											
4	Penalty rate scaling minimum threshold (+/-)	WWS13004	%	2	-						2.00%
5	Penalty rate scaling maximum threshold (+/-)	WWS13005	%	2	-						3.00%
6	Penalty rate (+/-)	WWS13006	%	2	-						3.00%
7	Specified discount rate	WWS13007	%	2	-						3.60%
8	Threshold for additional variance analyses (+/-)	WWS13008	%	2	-						6.00%
C Allowed revenue											
9	Allowed revenue - wastewater	WWS13009	£m	3	Outturn (nominal)						
10	Actual RPI: November index year on year change	APP23001_CPY	%	2	-					3.19%	
11	K ~ wastewater	WWS13011	nr	2	-					0.27	
12	Total revenue forecast ~ wastewater	WWS13012	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	0.000	959.429
D AMP5 RCM blind year adjustment											
13	RCM blind year 14/15 adjustment for implementing via WRFIM ~ wastewater	C00053_L021	£m	3	2012-13 prices						
14	Percentage of RCM adjustment by year ~ wastewater	WWS13014	%	2	-					33.33%	
E Revenue recovered											
15	Wastewater: Unmeasured ~ household	CR881	£m	3	Outturn (nominal)					372.525	
16	Wastewater: Unmeasured ~ non-household	CR883	£m	3	Outturn (nominal)					4.441	
17	Wastewater: Measured ~ household	CR882	£m	3	Outturn (nominal)					257.438	
18	Wastewater: Measured ~ non-household	CR884	£m	3	Outturn (nominal)					305.145	
19	Wastewater: Third party revenue ~ household	S9008HH	£m	3	Outturn (nominal)					0.000	
20	Wastewater: Third party revenue ~ non-household	S9008NH	£m	3	Outturn (nominal)					0.000	
21	Wastewater: Revenue collected from household and non-household	WWS13029	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	939.549	
22	Wastewater: Grants and contributions	BC11374IN	£m	3	Outturn (nominal)					14.064	
23	Wastewater: Revenue recovered	WWS13030	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	953.613	
F Variance analysis of grants and contributions											
24	Wastewater: Capital contributions from connection charges and revenue from infrastructure charges (PR14 FD)	C_ES_000830_A001	£m	3	2012-13 prices					5.701	
25	Wastewater: Grants and contributions	BC11374_CPY	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	14.064	
26	Wastewater: Grants and contributions variance	WWS13028	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	7.292	
G Penalties											
27	Main revenue adjustment as incurred ~ wastewater	WWS130023	£m	3	Outturn (nominal)						
28	Penalty adjustment as incurred ~ wastewater	WWS130024	£m	3	Outturn (nominal)						
29	WRFIM adjustment as incurred ~ wastewater	WWS13025	£m	3	Outturn (nominal)						
30	WRFIM Total reward / (penalty) at the end of AMP6 ~ wastewater	WWS13026	£m	3	Outturn (nominal)					13.105	
31	WRFIM Total reward / (penalty) at the end of AMP6 ~ wastewater network plus	WWS13027	£m	3	2017-18 FYA (CPIH deflated)					12.930	

PR14 Reconciliation

AppendixD Supporting spreadsheets

WWS15 PR14 wholesale total expenditure outperformance sharing for the wastewater service

Line description	Item reference	Units	DPs	Price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
A Company details											
1	Company type	BF200	Nr	0	-						2
2	Is company enhanced?	WWS15001	text	0	-						Yes
3	Financing rate	WWS15003	%	2	-						3.60%
B Menu choices											
4	Sewerage: Implied menu choice	C00728_S004	Nr	1	-						106.2
5	Sewerage: FD pension deficit recovery costs allowance	C00559	£m	3	2012-13 FYA (RPI)					7.697	
6	Sewerage: Final menu choice	WWS15006	nr	1	-						106.2
C TOTEX											
7	Sewerage: Baseline Totex	C00008_S011	£m	3	2012-13 FYA (RPI)					539.656	
8	Sewerage: FD allowed totex inclusive of menu cost exclusions, less PDRC allowance	C00768_A001	£m	3	2012-13 FYA (RPI)					548.074	
9	Sewerage: Actual Totex	S3040MTIN	£m	3	Outturn (nominal)					658.189	
D ADJUSTMENTS TO TOTEX											
10	Sewerage: Third party services (opex)	BM823TASIN	£m	3	Outturn (nominal)					0.213	
11	Sewerage: Third party services (capex)	BM833TASIN	£m	3	Outturn (nominal)					0.000	
12	Sewerage: Pension deficit recovery costs	CRS003	£m	3	Outturn (nominal)					37.383	
13	Sewerage: Other cash items	WWS15028	£m	3	Outturn (nominal)					0.000	
14	Sewerage: Disallowables	WWS15014	£m	3	Outturn (nominal)					1.090	
15	TTT control: logging up / (down) of scope swaps	WWS15015	£m	3	Outturn (nominal)						
16	TTT control: Land - 100:0 (customer: company) cost sharing factor	WWS15016	£m	3	Outturn (nominal)						
17	Sewerage: Transition expenditure	BP867NTIN	£m	3	2012-13 FYA (RPI)						
E PAYG											
18	Sewerage: PAYG ratio	C00770_A001	%	2	-						54.13%
F Business rates IDoK - Not applicable to wastewater service											
G Totex menu adjustments											
19	Wastewater: revenue adjustment from totex menu model	WWS15019	£m	3	2012-13 FYA (RPI)						8.740
20	Wastewater: RCV adjustment from totex menu model	WWS15020	£m	3	2012-13 FYA (RPI)						57.055
21	Wastewater: Totex menu revenue adjustment at 2017-18 FYA CPIH deflated price base	WWS15021	£m	3	2017-18 FYA (CPIH deflated)						10.030
22	Wastewater: Totex menu RCV adjustment at 2017-18 FYA CPIH deflated price base	WWS15022	£m	3	2017-18 FYA (CPIH deflated)						65.477

PR14 Reconciliation

AppendixD Supporting spreadsheets

R9 PR14 reconciliation of household retail revenue

Line description	Item reference	Units	DPS	Price base	2015-16	2016-17	2017-18	2018-19	2019-20	2015-20
A Forecast customer numbers										
1	Unmetered water-only customer	R9001	nr	0						47,109
2	Unmetered wastewater-only customer	R9002	nr	0						28,269
3	Unmetered water and wastewater customer	R9003	nr	0						1,459,174
4	Metered water-only customer	R9004	nr	0						24,575
5	Metered wastewater-only customer	R9005	nr	0						14,968
6	Metered water and wastewater customer	R9006	nr	0						1,418,178
B Reforecast customer numbers										
7	Unmetered water-only customer	R9007	nr	0						42,393
8	Unmetered wastewater-only customer	R9008	nr	0						22,880
9	Unmetered water and wastewater customer	R9009	nr	0						1,577,972
10	Metered water-only customer	R9010	nr	0						29,798
11	Metered wastewater-only customer	R9011	nr	0						52,500
12	Metered water and wastewater customer	R9012	nr	0						1,306,869
C Actual customer numbers										
13	Unmetered water-only customer	R9013	nr	0						43,069
14	Unmetered wastewater-only customer	R9014	nr	0						23,372
15	Unmetered water and wastewater customer	R9015	nr	0						1,584,787
16	Metered water-only customer	R9016	nr	0						29,262
17	Metered wastewater-only customer	R9017	nr	0						52,012
18	Metered water and wastewater customer	R9018	nr	0						1,297,576
D Actual revenue collected										
19	Unmetered water-only customer	R3017RR	£m	3	Outturn (nominal)					1.064
20	Unmetered wastewater-only customer	R3019RR	£m	3	Outturn (nominal)					0.474
21	Unmetered water and wastewater customer	R3021RR	£m	3	Outturn (nominal)					52.653
22	Metered water-only customer	R3018RR	£m	3	Outturn (nominal)					0.616
23	Metered wastewater-only customer	R3020RR	£m	3	Outturn (nominal)					0.702
24	Metered water and wastewater customer	R3022RR	£m	3	Outturn (nominal)					47.701
E Revenue sacrifice										
25	Unmetered water-only customer	R9025	£m	3	Outturn (nominal)					0.011
26	Unmetered wastewater-only customer	R9026	£m	3	Outturn (nominal)					0.001
27	Unmetered water and wastewater customer	R9027	£m	3	Outturn (nominal)					12.853
28	Metered water-only customer	R9028	£m	3	Outturn (nominal)					0.003
29	Metered wastewater-only customer	R9029	£m	3	Outturn (nominal)					0.000
30	Metered water and wastewater customer	R9030	£m	3	Outturn (nominal)					3.999
F Actual revenue collected (net)										
31	Unmetered water-only customer	R9031	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	1.075
32	Unmetered wastewater-only customer	R9032	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	0.475
33	Unmetered water and wastewater customer	R9033	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	65.506
34	Metered water-only customer	R9034	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	0.619
35	Metered wastewater-only customer	R9035	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	0.702
36	Metered water and wastewater customer	R9036	£m	3	Outturn (nominal)	0.000	0.000	0.000	0.000	51.700
G Modification factor										
37	Unmetered water-only customer	C00739_A001	£	2						28.83
38	Unmetered wastewater-only customer	C00740_A001	£	2						28.83
39	Unmetered water and wastewater customer	C00741_A001	£	2						37.47
40	Metered water-only customer	C00736_A001	£	2						34.12
41	Metered wastewater-only customer	C00737_A001	£	2						33.17
42	Metered water and wastewater customer	C00738_A001	£	2						42.78
H Materiality threshold for financing adjustment										
43	Materiality threshold	R9043	%	2						2.00%
44	Discount Rate	R9044	%	2						3.74%
I Total reward / (penalty) at the end of AMP6										
45	Residential retail revenue adjustment at the end of AMP6	R9045	£m	3	Outturn (nominal)					5.151
46	Residential retail revenue adjustment at 2017-18 FYA CPIH deflated price base	R9046	£m	3	2017-18 FYA (CPIH deflated)					4.943

Appendix E: Table commentary

This appendix provides a commentary on the 2020 data tables. Details of the methodologies that were used to develop the values and incentives used for each mechanism are set out in Section 2 of this document.

Details of the way that we have taken on board the feedback within the FR is set out in Appendix F.

We also provide a commentary on the new ODI reconciliation model and the blind year ODI difference model.

Table Number	Title
App9	Adjustments to RCV from disposals of interest in land
App23	Inflation measures
App25	PR14 reconciliation adjustments summary
App27	PR14 reconciliation – financial outcome delivery incentives summary
WS13	PR14 wholesale revenue forecast incentive mechanism for the water service
WS15	PR14 wholesale total expenditure outperformance sharing for the water service
WS17	PR14 water trading incentive reconciliation
WWS13	PR14 wholesale revenue forecast incentive mechanism for the wastewater service
WWS15	PR14 wholesale total expenditure outperformance sharing for the wastewater service
R9	PR14 reconciliation of household retail revenue
	PR14 reconciliation – Financial outcome delivery incentives summary

E.1 Table commentaries

Table App9 Adjustments to RCV from disposals of interest in land

Lines 1 and 12 – Forecast at previous review ~ land sales water & wastewater

The forecast of 2014-15 proceeds at previous review has been taken from our PR14 submission.

Lines 2 and 13 – Actual and current forecast sales ~ land sales water & wastewater

All historic information about proceeds has been taken from the published Regulatory Reporting Table 2E's from 2015/16, 2016/17, 2017/18 and 2018/19. The 2019/20 information has been taken from the Annual Performance Report Table 2E for 2019/20.

Lines 11 and 22 – Water ~ NPV effect of 50% of proceeds from disposals of interest in land at 2017/18 FYA CPIH deflated price base ~ land sales water & wastewater.

NPV effect of 50% of proceeds from disposals of interest in land at 2017/18 FYA CPIH deflated price base is an output from the RCV adjustments model.

The actual value of land sales in 2019/20 was £1,539m in Water and £161m in Wastewater, this compared to our predicted sale of £1,972m and £290m. Sales are therefore £433m lower than anticipated in Wastewater and £129m lower in Water. The impact on the RCV adjustment in 17/18 prices for Wastewater is a reduction from £6.255m to £6.079m and from £0.495m to £0.438m in Water.

PR14 Reconciliation

Appendix E Table commentaries

Table App23 Inflation measures

The source data for most of this table is external. Therefore, while we ensure we only use data from reputable sources, the accuracy of this data depends on the accuracy of the external forecasts we use.

Data Sources

Inflation data for the majority of the affected period was provided by Ofwat.

RPI/CPIH data for the final two quarters has been obtained from the Office for National Statistics (ONS).

PR14 Reconciliation

Appendix E Table commentaries

Table App25 PR14 reconciliation adjustments summary

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.

Lines 1-4

Ofwat definition: 2010-15 reconciliation adjustments at 2012/13 FYA (RPI) price base:

- Water ~ Total Adjustment RCV carry forward to PR19
- Water ~ Total Adjustment Revenue carry forward to PR19
- Wastewater ~ Total Adjustment RCV carry forward to PR19
- Wastewater ~ Total Adjustment Revenue carry forward to PR19

These are the further adjustments arising from the update to take account of actual 2014-15 performance.

Prepopulated cells as per definition.

Lines 5-6

Ofwat definition: 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.

- Water ~ CIS RCV inflation correction
- Wastewater ~ CIS RCV inflation correction

Both at 2012/13 FYA (RPI) price base.

Prepopulated cells as per definition.

Line 7

Line 1, "Water ~ Total Adjustment RCV carry forward to PR19", inflated to 2017/18 prices. This is an output from the RCV adjustments model.

Line 8

Line 2, "Water ~ Total Adjustment Revenue carry forward to PR19", inflated to 2017/18 prices. This is an output from the revenue adjustments model.

Line 9

Line 3, "Wastewater ~ Total Adjustment RCV carry forward to PR19", inflated to 2017/18 prices. This is an output from the RCV adjustments model.

Line 10

Line 4, "Wastewater ~ Total Adjustment Revenue carry forward to PR19", inflated to 2017/18 prices. This is an output from the revenue adjustments model.

Line 11

Line 5, "Water ~ CIS RCV inflation correction", inflated to 2017/18 prices. This is an output from the RCV adjustments model.

Line 12

Line 6, "Wastewater ~ CIS RCV inflation correction", inflated to 2017/18 prices. This is an output from the RCV adjustments model.

PR14 Reconciliation

Appendix E Table commentaries

Table App27 PR14 reconciliation – financial outcome delivery incentives summary

This table shows the net performance payments/penalties earned in each PR14 price control for the 2015-2020 period for all financial outcome delivery incentives (ODIs), and how these amounts are to be applied to the PR19 price controls.

The data in this table is consistent with the data provided in the new ODI reconciliation model which has replaced App5 and App6 for this year's submission.

We have completed the assessment of our performance commitments and associated outcome delivery incentives for the 2015-20 period using Ofwat's reconciliation feeder model in accordance with the guidance set out in the October 2016 publication 'Ofwat PR14 reconciliation rulebook'. We have:

- Input all PR14 final determination information using the source specified within the Ofwat PR14 reconciliation rulebook.
- Utilised the recalibrated ODI rates due to our menu choices rather than those stated in the PR14 final determination that assumed 50% customer/company sharing rates.
- Updated our (final determination) performance commitments in line with the published corrigenda¹⁸. Further details about the wastewater contribution to rivers improved performance commitment are set out within **Appendix C**.
- Used actual performance levels for each year of the 2015-20 period (for both calendar and financial year performance commitments), which are consistent with the audited data published within our Annual Performance Report.
- Rounded both actual performance to the specific number of decimal places which is set out within the performance commitment definitions and APR table 3A.
- Adjusted the output of the ODI feeder model to comply with the statements in the company specific appendix of the PR14 final determination whereby we *"calculate a cumulative net penalty or reward for all of U UW's financial measures within a price control. Where a cumulative net penalty is calculated for a price control, this will be applied as a revenue adjustment to ensure customers are fully compensated for any underperformance. Where a cumulative net reward for a price control is calculated, this will be applied as an upward adjustment to the RCV, to minimize the short-term impact on customer bills."* (Ofwat, Ofwat PR14 reconciliation rulebook, 2016). Allocations to a price control are based on the individual ODI measures.
- This approach was set out in an email from James Bullock (United Utilities Strategy and Regulation Director) to Keith Mason (Ofwat) dated 9 November 2015 and confirmed by Andrew Chesworth (Ofwat) in an email dated 21 June 2016.
- Identified the resulting reward/penalty for each price control based on performance up to the end of the period in line with our final determination.
- Claimed the full net reward or penalty implied by the automatic operation of our ODIs.
- Input the resulting adjustments at 2012/13 prices to the RCV and revenue feeder models to calculate the adjustments at FY18 CPIH prices to be applied at PR19.

App 27 Lines 1-5 In-period ODI revenue adjustments by PR14 price control units (2012/13 prices)

In the template provided this year from Ofwat, the first 3 sections are greyed out as these relate to numbers at PR14 price control unit and are therefore not relevant to this year's submission.

¹⁸ <https://www.ofwat.gov.uk/publication/united-utilities-company-specific-appendix-corrigenda/>

PR14 Reconciliation

Appendix E Table commentaries

App 27 Lines 6-10 End of period ODI revenue adjustments by PR14 price control units (2012/13 prices)

In the template provided this year from Ofwat, the first 3 sections are greyed out as these relate to numbers at PR14 price control unit and are therefore not relevant to this year's submission.

App 27 Lines 11-14 End of period ODI RCV adjustments by PR14 price control units (2012/13 prices)

In the template provided this year from Ofwat, the first 3 sections are greyed out as these relate to numbers at PR14 price control unit and are therefore not relevant to this year's submission.

App 27 Lines 15-21 In-period ODI revenue adjustments allocated to PR19 price controls (2012/13 prices)

United Utilities has no in-period ODIs, therefore the value in these lines is nil.

App 27 Lines 22-28 End of period ODI revenue adjustments allocated to PR19 price controls (2012/13 prices)

These lines show how the net performance payments/penalties applied to revenue for end of period ODI adjustments are split across the six PR19 price controls; Water Resources, Water network plus, Wastewater network plus, Bioresources, Residential retail and Business retail, as well as the overall total net performance payment/penalty applied to revenue for end of period ODI adjustments. The allocation of performance commitments to PR19 price controls is set out in the ODI reconciliation model.

Each line shows how the net payment/penalty is accrued across the 2015-2020 period and the total to be applied to PR19 price controls. The lines use actual data for each year of the 2015-2020 period. These are inputs to the revenue adjustment feeder model.

PR14 Reconciliation

Appendix E Table commentaries

App 27 Lines 29-33 End of period ODI RCV adjustments allocated to PR19 price controls (2012/13 prices)

These lines show how the net performance payments/penalties applied to RCV for end of period ODI adjustments are split across the three relevant wholesale PR19 price controls; Water Resources, Water network plus and Wastewater network plus, as well as the overall total net performance payment/penalty applied to RCV for end of period ODI adjustments. There is no RCV adjustment applied to the Bioresources price control. The allocation of performance commitments to PR19 price controls is set out in the ODI reconciliation model.

Each line shows how the net payment/penalty is accrued across the 2015-2020 period and the total to be applied to PR19 price controls. The lines use actual data for each year of the 2015-2020 period. These are inputs to the RCV adjustment feeder model.

App 27 Lines 34-40 In-period ODI revenue adjustments input to PR19 financial model (2017/18 prices)

United Utilities has no in-period ODIs therefore the value in these lines is nil.

App 27 Lines 41-47 End of period ODI revenue adjustments input to PR19 financial model (2017/18 prices)

These lines show the total performance payments/penalties to be applied to revenue at PR19 for end of period ODI adjustments at 2017/18 FYA CPIH deflated price base. These are outputs from the revenue adjustment feeder model and are inputs to the PR19 financial model.

For Line 45, the Retail (household) adjustment relates to our ODI for the Customer Experience Programme. The value directly output from the revenue adjustment feeder model is £5.560m at FY18 CPIH prices. This value when inflated to average AMP7 prices using CPIH and applied as an even adjustment across the AMP7 period generates the required outturn adjustment of £5.335m, which is the value generated through the ODI. The details of this indexation process are set out within the "Revenue adjustment Feeder model" on the "retail adjustment factors" tab.

App 27 Lines 48-52 End of period ODI RCV adjustments input to PR19 financial model (2017/18 prices)

These lines show the total performance payments/penalties to be applied to RCV at PR19 for end of period ODI adjustments at 2017/18 FYA CPIH deflated price base. These are outputs from the RCV adjustment feeder model and are inputs to the PR19 financial model.

PR14 Reconciliation

Appendix E Table commentaries

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

All historical revenue data has been sourced directly from the Annual Performance Report Table 2I (Revenue analysis & wholesale control reconciliation).

Lines 1-31

1. 2015/16 water revenues were £9.1m (1.3%) higher than allowed under the wholesale price control. No penalty was incurred since the variance was within 2%.
2. 2016/17 water revenues were £1.7m (0.2%) higher than allowed under the wholesale price control. No penalty was incurred since the variance was within 2%.
3. 2017/18 revenues were £2.8m (0.4%) higher than allowed under the wholesale price control. This is within the penalty tolerance threshold of 2%.
4. 2018/19 revenues were £11.5m (1.5%) higher than allowed under the wholesale price control. This is within the penalty tolerance threshold of 2%.
5. 2019/20 revenues were £7.6m (1.0%) higher than allowed under the wholesale price control. This is within the penalty tolerance threshold of 2%. We have accelerated the return of £6.1m relating to estimated 2018/19 out-performance and have adjusted allowed revenues for 2019/20 by this amount.

For Water, the total WRFIM adjustment of £13.745m is made up from an adjustment for 2018/19 over recovery of £12.254m offset by accelerated return of £6.137m of 2018/19 revenues within 2019/20 charges plus an adjustment of £7.628m for over recovery of 2019/20 revenues.

PR14 Reconciliation

Appendix E Table commentaries

Table WS15 PR14 total expenditure outperformance sharing for the water service

Lines 1-27

Both the table and associated feeder models have been populated with actual expenditure levels for 2015/16 to 2019/20. It has also been populated in line with the guidance provided in the Ofwat PR14 reconciliation rulebook (Ofwat, Ofwat PR14 reconciliation rulebook, 2017) and the line definitions provided within the PR19 data table.

We have not sought an IDoK to correct for any differences in assumptions to those made at PR14 as a result of the recent water business rates revaluation and therefore have left this section of the table blank which results in error flags within the completion check. We believe that this check does not apply and that value entries to remove the validation check would be incorrect. Similarly, we have left this section of the totex menu feeder model blank in order to prevent any incorrect adjustments being made.

A detailed assessment of expenditure levels during the AMP6 period and the resulting adjustments can be found in section [2.3 Totex menu reconciliation](#).

Table WS17 PR14 water trading incentive reconciliation

We do not participate in water trading as defined by this incentive mechanism.

PR14 Reconciliation

Appendix E Table commentaries

Table WWS13 PR14 wholesale revenue forecast incentive mechanism for wastewater service

All historical revenue data has been sourced directly from the Annual Performance Report Table 2I (Revenue analysis & wholesale control reconciliation).

Lines 1-31

1. 2015/16 wastewater revenues were £0.1m (0.0%) lower than allowed under the wholesale price control. No penalty was incurred since the variance was within 2%.
2. 2016/17 wastewater revenues were £2.0m (0.2%) higher than allowed under the wholesale price control. No penalty was incurred since the variance was within 2%.
3. 2017/18 wastewater revenues were £2.0m (0.2%) lower than allowed under the wholesale price control. This is within the penalty tolerance threshold of 2%.
4. 2018/19 revenues were £5.5m (0.6%) lower than allowed under the wholesale price control. This is within the penalty tolerance threshold of 2%.
5. 2019/20 revenues were £5.2m (0.5%) lower than allowed under the wholesale price control. This is within the penalty tolerance threshold of 2%. We have accelerated the return of £2.1m relating to estimated 2018/19 out-performance and have adjusted allowed revenues for 2019/20 by this amount.

For Wastewater, the total WRFIM adjustment of £13.105m is made up from an adjustment for 2018/19 under recovery of £5.829m, plus a further 18/19 adjustment for assumed outperformance of £2.099m which did not materialise, plus an adjustment of £5.177m for under recovery of 2019/20 revenues.

PR14 Reconciliation

Appendix E Table commentaries

Table WWS15 PR14 total expenditure outperformance sharing for the wastewater service

Lines 1-22

Both the table and associated feeder models have been populated with actual expenditure levels for 2015/16 to 2019/20. It has also been populated in line with the guidance provided in the Ofwat PR14 reconciliation rulebook (Ofwat, Ofwat PR14 reconciliation rulebook, 2017) and the line definitions provided within the PR19 data table.

A detailed assessment of expenditure levels during the AMP6 period and the resulting adjustments can be found in section [2.3 Totex menu reconciliation](#).

PR14 Reconciliation

Appendix E Table commentaries

Table R9 reconciliation of household retail revenue

A Forecast Customer Numbers; Lines 1-6

Definition: Forecast customer numbers as set out in the PR14 final determination company specific appendix.

These numbers are taken from the “Final price control determination notice: company-specific appendix – United Utilities” (PR14 Annex 2, Table AA2.3).

B Reforecast Customer Numbers; Lines 7-12

Definition: Reforecast customer numbers for each customer type at the beginning of each year from company regulatory reporting.

These numbers are taken from the forecast charge multipliers at the beginning of each year (those used in setting the tariffs for the relevant year). Future year forecast customer numbers by category are consistent with other parts of the plan, and are based on the assumptions within the water resources management plan 2020 (including the same total new connections as the plan, but re-profiled to reflect management view of when these will actually happen).

C Actual Customer Numbers; Lines 13-18

Definition: Actual customer numbers for each customer type each year from company regulatory reporting. Number of customers – RAG Proforma 2F.

The actual customer numbers reported as measured water are in line with those reported through the annual performance reporting (APR). Future year forecast customer numbers by category are consistent with other parts of the plan, and are based on the assumptions within the water resources management plan 2020 (including the same total new connections as the plan, but re-profiled to reflect management view of when these will actually happen).

D Actual Revenue Collected; Lines 19-24

Definition: The revenue that each company actually collected per customer type from company regulatory reporting. Retail revenue per customer type – RAG Proforma 2F.

The actual retail revenues in each reporting category are in line with those reported through the annual performance reporting (APR). The forecast retail revenues by category are consistent with underlying customer numbers used in other parts of the plan, and are based on the assumptions within the water resources management plan 2020 (including the same total new connections as the plan, but re-profiled to reflect management view of when these will actually happen).

E Revenue Sacrifice; Lines 25-30

Definition: Revenue sacrifice. Revenue voluntarily foregone by companies, for example through customer discounts from company regulatory reporting.

The revenues in each reporting category are based on actual revenue sacrifice due to offering support and social tariffs to customers who require financial assistance. This has been calculated based on the difference between an average full bill for these customers, compared to what they were actually billed on the support or social tariff. For the support tariff 100% of the difference is treated as revenue sacrifice. In line with social tariff customer mandates, the discount is split 50:50 between UU and customers up to the point where this adds 43 pence on to customer bills – any discount above this threshold is funded by customers until the point where it adds £1.80 to customer bills. Forecast revenue sacrifice numbers are consistent with underlying customer numbers used in other parts of the plan.

F Actual Revenue Collected (Net); Lines 31-36

Definition: Actual revenue collected (Net). The revenue that each company actually collected per customer type less any forgone revenue. Calculated.

PR14 Reconciliation

Appendix E Table commentaries

Calculated cell using above actual revenue collected, and revenue sacrifice figures.

G Modification Factor; Lines 37-42

Definition: Modification Factors. Each company has a specific modification factor for each customer type each year from PR14 final determination company specific appendix.

These numbers are taken from the “Final price control determination notice: company-specific appendix – United Utilities” (PR14 Annex 2, Table AA2.2)

H Materiality Threshold for Financing Adjustment; Line 43 Materiality

Definition: Materiality threshold is specified at 2% of revenue expected from actual customers from AMP6.

Prepopulated cell as per definition

H Materiality Threshold for Financing Adjustment; Line 44 Discount Rate

Definition: 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.

Populated with the AMP6 appointee WACC, 3.74% in real terms (RPI stripped)

I Total reward / (penalty) at the end of AMP6; Line 45 Total reward / (penalty) at the end of AMP6 (outturn (nominal))

Definition: 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.

Calculated figure taken from the Ofwat provided model titled “Household Retail PR14 Reconciliation”, once the above sections A-H have been fed into the input sheet in that workbook. A calculated reward or penalty is linked to from the calc sheet within that workbook.

I Total reward / (penalty) at the end of AMP6; Line 46 Total reward / (penalty) at the end of AMP6 (2017-18 FYA (CPIH deflated))

Definition: Output item from revenue adjustments model. The value entered is prior to profiling.

Once all other sections of Table R9 above are completed, these feed into the Ofwat provided model titled “PR19-Revenue-adjustments-feeder-model”, which provides the output feeding into this line.

PR14 Reconciliation

Appendix E Table commentaries

Blind year ODI models

In this year's PR14 reconciliation update, we are required to update two new models from Ofwat which relate to our various performance commitments. These new models replace App5 and App6 that we have updated in previous submissions. Our interpretation of these models has been agreed with Ofwat in their feedback on the 28th May. Where there were minor changes suggested by Ofwat, we have incorporated this feedback into our updated version of the models.

PR19 Blind year ODI performance model

This model uses information on each AMP6 performance commitment and through various input and calculation tabs generates a reward/penalty output for each ODI for the final year of the AMP (2019-20). This reward/penalty is then allocated to a business area (e.g. Water Resources) and an overall position across all performance commitments is generated.

InpCompany tab

This input tab enters basic company information and details of the RCV limits for each area.

InpPerformance tab

The InpPerformance tab contains the majority of the input detail on the performance commitments. The information here is what would have been set out in App5 and App6 in previous submissions.

The detail of each ODI comes from the APR, where these numbers have went through a formal sign-off process. The information on caps, collars and deadbands is the same as what has been used throughout the AMP for each performance commitment. For two performance commitments we have entered a manual override for non-standard calculations. The details of the reasoning for this can be found in the submitted non-standard ODI proforma, as per the guidance of Ofwat.

Performance tab

This tab is a calculation tab based on the inputs into the inputs in the InpCompany and InpPerformance tab.

Aggregate calculations tab

This is a calculation tab based on the outputs of the performance tab.

Model outputs

This is an output summary based upon the aggregate calculations tab.

Blind year ODI difference model

This model calculates the difference between the ODI payments for 2019-20 based on performance assumed at FD19 and those payments based on actual performance. The inputs to this model are from two versions of the PR19 blind year ODI performance model, one with 2019-20 performance assumed at FD19 and the other with actual 2019-20 performance.

Inputs tab

The inputs tab takes two versions of the PR19 Blind year ODI performance model, one with performance at FD and one with actual performance. These outputs per function area are then subtracted from one another and a difference between the FD and actual data is established.

Indexation

This tab uses RPI and CPI information from the inputs tab, to generate a RPI inflation factor from 2013-2020 and CPIH deflation factor from 2020-2018.

PR14 Reconciliation

Appendix E Table commentaries

Calculations tab

This is a calculation tab based upon the inputs tab and using the relevant inflation factor's from the indexation tab.

Model outputs tab

This is an output summary based upon the calculations tab.