

## About this document

In '[Consultation on the final 2010-15 reconciliation](#)' we invite comments on our proposals for reconciling the incentive arrangements for companies' performance and expenditure for the 2010-15 period now that actual information is available for the complete period, including 2014-15 the last year of the price review 2009 (PR09) price control.

To the extent that the adjustments we propose are different to the assumptions we made as part of the price review 2014, the differences will mainly be taken into account at the next price review in 2019, although one, in respect of the revenue correction mechanism, could be adjusted through revenue in the period 2015-2020.

In this appendix, we set out the proposals in respect of Dee Valley Water. It shows how we have assessed the claims the company has made, and the basis for our proposals.

We are also publishing detailed spreadsheets containing calculations of the adjustments for each company alongside the consultation.

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## 1. Introduction

At PR09 Ofwat included a number of incentive arrangements designed to protect customers by encouraging companies to improve and deliver their services more efficiently over the period 2010-2015. The mechanisms also were intended to help companies manage uncertainty.

Many of these mechanisms required data for the last year of the price control period, 2014-15 (the blind year) to assess the final outturn for the benefit of customers, or companies, as the case may be. When PR14 was completed in December 2014, this financial year had not finished. Consequently, companies provided forecast data, which Ofwat considered and adjusted as necessary, for inclusion in the PR14 final determination.

Companies have now provided complete information and final audited spend and performance data for the whole 2010-2015 period, which we have used to update our analysis.

In reaching our proposals on the 2010-15 reconciliation, we have applied an approach that follows that previously consulted on and set out in the PR14 Reconciliation Rulebook. In ‘Consultation on the final 2010-15 reconciliation’, we:

- Recap on the approach we used at PR14 to reconcile companies’ proposed adjustments to 2015-20 price controls given companies’ performance against incentive mechanisms put in place at the last price control review (PR09); and
- Explain how and why these adjustments differ from those we made in our PR14 final determinations, and those proposed by companies.

In this appendix, we set out our proposals of the blind year reconciliation adjustments for Dee Valley Water resulting from the company’s actual performance during the period 2010-2015, reflecting actual data for 2014-15.

We have structured this appendix to begin in section 2 with a summary of the adjustments. In section 3 we explain each of the adjustments in turn:

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

In addition to the incentive arrangements listed above, we also cover the 2014-15 transition mechanism in section 3.7. We summarise how and when our proposed adjustments will be implemented in section 4.

For each mechanism we outline:

- Our position as set out in PR14 final determination;
- How our proposals differ from decisions taken at PR14; and
- How our proposals differ from companies' proposals.

There are a number of other PR09 incentive mechanisms not listed above, in particular the service incentive mechanism (SIM), the opex incentive allowance (OIA) and other revenue adjustments. For these mechanisms we expected all information to be available at PR14 and so did not include these in the scope of this final reconciliation. In any case we are not aware of any reason to change these adjustments. This document makes no further reference to these.

In order to calculate the blind year adjustments, we have undertaken detailed calculations within our models for the RCM, CIS and serviceability shortfalls and the PR14 reconciliation rulebook legacy blind year model. While we provide an explanation of our interventions within this appendix, each model contains the detail of the specific calculation.

Populated models for the blind year update proposals are published alongside the consultation.

All monetary values stated in this document are in 2012-13 prices unless otherwise stated.

## 2. Summary of 2010-15 final reconciliation adjustments

Table A1 below sets out for each of the incentive tools for water and wastewater services a quantification of:

- PR14 final determination (FD) position;
- the company's view of the required adjustment (if stated in its blind year update submission); and
- our view resulting from the blind year reconciliation (BYR)

The main difference between the company and our view relates to serviceability shortfalls as set out in section 3.4.

The table shows adjustments made through revenue and those made through the RCV separately. This is because the PR09 incentive mechanisms are adjusted for in different ways. Mainly, they are adjusted through an adjustment to the RCV, however the RCM and the penalty / reward element of the CIS adjustment are both made through revenue.

**Table A1 Revenue and RCV adjustments 2015-20 (£ million)**

	Water service		
	FD position	Company BYR view	Ofwat BYR
<b>Revenue adjustments</b>			
RCM	5.009	n/a	4.553
CIS	-0.945	n/a	-0.867
Total revenue adjustments <sup>2</sup>	4.064	n/a	3.687
<b>RCV adjustments</b>			

	<b>Water service</b>		
	<b>FD position</b>	<b>Company BYR view</b>	<b>Ofwat BYR</b>
Elements of CIS:			
Adjustment for actual expenditure 2010-15	-5.479	n/a	-5.453
Adjustment for change protocol – logging up/down	0.370	0.381	0.381
Adjustment for change protocol – shortfalls	0.000	0.000	0.000
Adjustment to overlap	0.000	0.000	0.000
CIS total <sup>2 3</sup>	-5.109	n/a	-5.072
Serviceability shortfall	-0.666	0.000	-0.892
Total RCV adjustments <sup>2 3</sup>	-5.775	n/a	-5.964

## Notes:

1. The revenue and RCV adjustments are added for comparison against the materiality threshold in the PR14 reconciliation rulebook blind year model.
2. Totals may not add up due to rounding.
3. The FD position has been updated for the RCV indexation correction that will be applied separately at PR19.

The adjustments for the Change protocol and 2009 agreed overlap programme are considered separately, but both are implemented through the CIS.

### 3. Adjustments by 2010-15 incentive mechanism

#### 3.1 Revenue correction mechanism

Our view for the revenue correction mechanism (RCM) adjustment is detailed in table A2 below. This shows the components of the movement from the RCM adjustment included in the PR14 final determination.

Table A3 summarises our interventions in relation to the 2010-15 RCM adjustments.

For the RCM, we apply the PR14 vanilla wholesale WACC (real; pre-tax cost of debt, post-tax cost of equity) as the discount rate. As in the final determination, the PR14 discount rate is 3.6% for Dee Valley Water.

**Table A2 RCM total adjustments for 2015-20 (£ million)**

	Water service
FD position	5.009
Impact of RPI changes <sup>1</sup>	-0.196
Impact of updated data from company	-0.260
Impact of other adjustments	0.000
Impact of Ofwat intervention	0.000
Ofwat BYR	4.553
Change from FD position	-0.456

Note:

1. The calculated movement from the RCM adjustment included in the PR14 final determination relates to actual RPI being lower than forecast at PR14 for 2014-15.

The changes shown in table A2 above will be implemented in the PR14 reconciliation rulebook legacy blind year model as discussed in section 4.

**Table A3 Interventions on proposed 2010-15 RCM adjustments**

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
Forecast 2014-15 tariff basket revenue	We restricted the revenue shortfall in 2014-15 to the level recorded in 2013-14.	The company did not explain the reasons for a widening difference between its 2014-15 forecasted revenue and its final determination 2009 (FD09) revenues forecast compared to previous years variances seen in 2013-14 and earlier years.	The company has submitted updated numbers for table W17 for 2014-15.	We have accepted the company's submission, and have not intervened.
FD09 assumptions – Measured non-households' revenue for the measured non-household group immediately above and below the 250ML threshold	Our assumptions included our view of the FD09 assumptions. Our view of the company's revenue assumptions for the measured non-household group immediately below and above the 250 ML tariff basket threshold originated from the company's FD09 revenue forecasts that came from the tariff basket model, which we used for PR09.	There were differences between the company's and our view of the FD09 assumptions used in the company's populated RCM model. The company applied different assumptions for 'FD09 Measured non-households' revenue for the measured non-household group immediately above and below the 250ML threshold' compared with our view of its FD09 assumptions. Our assumptions for the final determination included the FD09 revenue forecasts as contained in the PR09 tariff basket model in accordance with our published methodology 'Setting price controls for 2015-20 – further	There has been no change from the final determination.	There has been no change from the final determination.

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
		information on reconciling 2010-15 performance’.		
Number of households billed	Our assumptions for the final determination used the data the company submitted in business plan table R3 to calculate our view of the RCM adjustment.	There were inconsistencies with the number households billed between business plan table R3 and the company’s populated RCM model. Our assumptions for the final determination were based upon the data within the company business plan table R3.	The company has submitted updated numbers for table R3 for 2014-15.	We have accepted the company's submission, and have not intervened.
Net revenue movement out of tariff basket in 2009-10	Our assumption for the final determination used the data the company submitted in business plan table W17 to calculate our view of the RCM adjustment.	There were inconsistencies with the amount submitted between business plan table W17 and the company’s populated RCM model. Our assumptions for the final determination were based upon the data within the company business plan table W17.	There has been no change from the final determination.	There has been no change from the final determination.
Number of non-households billed	Our assumptions for the final determination used the data the company submitted in business plan table W17 to calculate our view of the RCM adjustment.	There were inconsistencies with the number of non-households billed between business plan table W17 and the company’s populated RCM model. Our assumptions for the final determination were based upon the data within the company business plan table W17.	The company has submitted updated numbers for table W17 for 2014-15.	We have accepted the company's submission, and have not intervened.

### 3.2 Change protocol (logging up, logging down and shortfalls)

Table A4 below summarises the company's view and our baseline view of total adjustments to capex included in the CIS reconciliation.

Table A5 summarises our interventions in relation to the company's proposed change protocol adjustments.

There is a minor change from our final determination but there are no interventions in this area.

**Table A4 Summary of post-efficiency capex for logging up, logging down and shortfalls included in the CIS reconciliation (£ million)**

2009-10 to 2014-15 – post-efficiency capex	Water service		
	FD position	Company BYR view	Ofwat BYR
Logging up (two-sided) <sup>1, 2</sup>	0.370	0.381	0.381
Logging down (two-sided) <sup>1, 2</sup>	0.000	0.000	0.000
Shortfalls (one-sided) <sup>1, 2</sup>	0.000	0.000	0.000

Notes:

1. We exclude serviceability shortfalls from the numbers above as they are not part of the CIS reconciliation. Instead we make direct adjustments to the RCV.
2. Changes relating to 2009-10 were implemented in full in the opening RCV at PR14 final determination.

The changes for the five years 2010-15 included in table A4 are implemented through the CIS.

**Table A5 Interventions on proposed 2010-15 change protocol adjustments**

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
There are no interventions in this area.				

### 3.3 Service standard outputs

Service standards are regulatory outputs that we set out in FD09 supplementary reports<sup>1</sup>. Where relevant companies reported their performance for 2014-15 on these service standards as part of their submissions for the blind year reconciliations.

In our PR14 final determination, we were satisfied that the company had or would have achieved all of its service standards relating to exceptional items and flooding resilience by 2014-15 as set out in the 2009 final determination and therefore we did not apply a shortfall. This remains our view for this final reconciliation.

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<sup>1</sup>In the 2009 final determination supplementary reports we said: “Both the project activity (as proposed in your final business plan) and the service standard are the defined output. You must demonstrate delivery of the stated service standard output through the June return. We recognise that companies may decide to prioritise activity differently in order to achieve the service output in a more efficient manner. All material changes to the project activity must be reported and explained through your June return.”

### 3.4 Serviceability performance

Table A6 quantifies the value and impact of any serviceability shortfall on the RCV. Table A7 summarises our interventions in relation to the company's proposed adjustments for serviceability.

The changes we have made in the 2010-15 final reconciliation compared to our final determination, are a very small positive adjustment to the final determination for better than forecast performance in discolouration contacts and an additional shortfall adjustment due to poor performance in unplanned supply interruptions exceeding 12 hours.

**Table A6 post-efficiency serviceability shortfall value (£ million)**

Post-efficiency shortfall		2010-15
Water service	FD position	-0.666
	Company view	0.000
	Ofwat BYR	-0.892

The changes between our PR14 final determination and our proposals shown in table A6 above will be implemented in the PR14 reconciliation rulebook legacy blind year model at PR19, discussed in section 4.

**Table A7 Impact of serviceability shortfalls on the RCV**

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
Serviceability – water infrastructure	For the final determination, we applied a shortfall adjustment of £0.7m (post efficiency) for deteriorating performance in	The company experienced discolouration contacts above the upper control limit for the whole of the 2010-15 period.	Actual performance for 2014-15 is better than forecast (2.27 vs 2.38 discolouration)	Although the company has improved its performance for 2014-15 it is above the upper control limit. Overall

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
<p>Discolouration contacts (orange/brown/black)</p>	<p>this indicator. In accordance with our shortfall calculation methodology the shortfall (which was been applied for the years 2011-12, 2012-13, 2013-14, 2014-15) was capped to 1 standard deviations for each of those years. The overall scale of the shortfall did not exceed 50% of the subservice capital expenditure and therefore no further cap was been applied.</p>	<p>The cause of this discolouration was linked to raw water deterioration at the input to the treatment works (in the village of Legacy) resulted in increased manganese levels being output from the treatment works. The company entered into an undertaking with the Drinking Water Inspectorate (DWI) to respond to this issue within the 2010-15 period. The company undertook trunk main and distribution main cleaning in accordance with the DWI undertaking and completed this by December 2013. We recognised this activity through the change protocol and logged up this expenditure.</p> <p>At the draft determination, we did not apply a serviceability shortfall for this indicator, as there was insufficient time series performance data available to determine whether the activity undertaken by the company was sufficient to return performance below the upper control limit. There was evidence that improvements had occurred but it was unclear whether these</p>	<p>contacts). However, this is still above the upper control limit.</p>	<p>performance is above the upper control limit for the whole of the 2010-15 period. We have therefore retained our assessment that the indicator cannot be judged stable in any year in the 2010 to 2015 period. We therefore consider a serviceability shortfall is appropriate. The shortfall of £0.642m is slightly less than that applied at PR14 final determinations because of the improvement in actual performance for 2014-15 compared to forecast.</p>

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
		<p>improvements would be sufficient to achieve a stable position. Our decision at draft determination was caveated upon the performance of discolouration being improved to stable within the 2014-15 period.</p> <p>Based upon the latest information provided by the company at the time of final determinations 2014 (up to the end of September 2014), while there was an improvement in discolouration performance from January 2014 onwards, performance in 2014 was forecast to out-turn above the upper control limit. Therefore, we did not consider that these improvements have been sufficient to achieve stable serviceability.</p> <p>A late representation noted that its performance over the year April 2014 to March 2015 would be better than the calendar year 2014 that we use for the indicator in 2014-15. In response to this, we noted that the definition of the indicator clearly refers to calendar years. The company</p>		

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
		<p>was above the upper control limit for every calendar year in the price review process. We did not consider that the indicator could be judged stable on the latest information we had in any year in the 2010 to 2015 period. We therefore considered a serviceability shortfall was appropriate.</p> <p>For the final determination, we therefore applied a shortfall adjustment for this indicator.</p>		
<p>Serviceability – water infrastructure</p> <p>Unplanned interruptions to supply exceeding 12 hours</p>	-	-	<p>Actual performance for 2014-15 is worse than forecast (135 vs. 16 properties) and it is above the upper control limit. The forecast of 16 properties was below the upper control limit at PR14 final determinations.</p> <p>In response to a query, the company has provided evidence it considers shows that one event was outside management control. This relates to an incident at a canal bridge at Mollington, which affected 109 properties. After the loss of supply was reported, the company was unable to find the leak for over 5 hours, after which it was</p>	<p>At the 2014 final determination, the company forecast 2014-15 performance to lie within the control limits. Therefore we did not apply a shortfall. The actual performance for 2014-15 is now reported as above the upper control limit, and we did not find compelling the company's evidence that the loss of supply at Mollington was outside the company's management control.</p> <p>From the query response we are not satisfied that this particular section of the main had been sufficiently well assessed for its criticality in terms of being a single supply</p>

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
			<p>unable to obtain speedy permission from the local authority to excavate the bridge and effect a repair.</p>	<p>main. Given the location of the main in the bridge, the company should have understood the criticality of the asset and should have identified, and put in place, appropriate measures in advance to maintain continuous service to customers.</p> <p>It took the company more than 5 hours to locate the leak. We consider that the company ought to have put in place measures which could have located the leak more quickly and maintained service despite the leak occurring. For example, the company could have identified and installed monitoring points for leakage identification or could have installed hydrants on the downstream side of the bridge in order to maintain supplies. Alternatively, the company could have taken measures to ensure it could quickly provide overland supply pipes. We didn't find any evidence that the company had taken such measures in the company's response.</p>

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
				<p>We also consider that the company ought to have put in measures to increase the speed and effectiveness of its operational response. For example, the company could have put in place 'in principle' permission from the local authority to excavate and/or an effective communication strategy with third parties to ensure swift action during such an incident.</p> <p>There are two breaches of the upper control limits in the last four years of AMP5. As explained in the main consultation document, it is appropriate in this situation that we apply a shortfall adjustment. We are applying a shortfall adjustment of £0.250 million.</p>

### 3.5 The 2009 agreed overlap programme

Table A8 below confirms the 2009 agreed overlap programme assumptions. There are no changes from our final determination.

**Table A8 PR09 agreed overlap programme adjustments and assumptions (£ million)**

		2010-15
		Two-sided adjustments for inclusion in the CIS
Water service	FD position	0.000
	Company BYR view	0.000
	Ofwat BYR	0.000

### 3.6 CIS

Table A9 provides details of the CIS ratios and performance incentive. It also gives the monetary amounts of the CIS performance reward or penalty and true-up adjustments to allowed revenues.

Table A10 provides details of the RCV adjustments and quantifies the impact of this final 2010-15 reconciliation compared to the PR14 final determination position (updated for the indexation correction we decided to implement in February 2016).

In table A11 we summarise our interventions in relation to the company's CIS adjustments.

#### Table A9 CIS true-up adjustments

		Water service
Restated FD09 CIS bid ratio <sup>1</sup>	FD position	98.956
	Ofwat BYR	98.956
Out-turn CIS ratio	FD position	96.763
	Ofwat BYR	96.232
Incentive reward/penalty (%) <sup>2</sup>	FD position	1.006
	Ofwat BYR	1.170
Reward/penalty (£m)	FD position	0.356
	Ofwat BYR	0.416
Adjustments to 2015-20 revenue (£m) <sup>3</sup>	FD position	-0.945
	Ofwat BYR	-0.867

## Notes:

1. The restated FD09 CIS bid ratio takes account of the adjustments for the change protocol (table A4) and the 2009 agreed overlap programme (Table A8).
2. The reward/(penalty) is adjusted for the additional income included in the 2010-15 determination and the financing cost on the difference between actual spend and capital expenditure assumed in the 2010-15 determination to derive the value of the adjustment to 2015-20 revenue.
3. The adjustment to 2015-20 revenue values shown in this table assumes a single year adjustment in the first year, and does not include the NPV profiling used for the final determination.

**Table A10 CIS RCV adjustments (£ million)**

	Water service
FD position	-2.817
Impact of indexation correction	-2.292
Corrected FD position	-5.109
Impact of updated actuals	0.037
Ofwat BYR	-5.072

The changes to revenue shown in table A9 and the impact of updated actuals for the RCV shown in table A10 above will be implemented through the PR14 reconciliation rulebook legacy blind year model at PR19, discussed in section 4. The indexation correction will be applied separately at PR19.

**Table A11 Interventions on proposed CIS adjustments**

Area of intervention	What we did at FD	Why we did it at FD	What has changed in BYR	What we have done for BYR and why
Methodology	We used the post-tax basis of the PR09 cost of capital for the discount rate when calculating the future value of the revenue adjustment in the 2010-15 period.	As explained in policy chapter A4 (PR14 FD), we changed the methodology in the CIS model.	Updated to reflect 2014-15 actual expenditure, RPI and COPI.	We have used the company's updated data and therefore have not intervened.
Change protocol adjustments	In carrying out our assessment we included our view of the applicable change protocol amounts.	We applied Ofwat's published methodology.	See section 3.2 and section 3.5 above.	See section 3.2 and section 3.5 above.
Data inconsistencies	In carrying out our assessment we used the values submitted in table A9.	We identified some minor inconsistencies between the indexation inputs in the company's populated CIS model and table A9 of the revised business plan.	Updated to reflect actual RPI and COPI.	Updated to reflect actual RPI and COPI.

### 3.7 The 2014-15 transition programme

Table A12 confirms the company's proposed transition programme. There are no interventions in this area.

**Table A12 Transition programme in 2014-15 (£ million)**

<b>Net capital expenditure</b>	<b>FD position</b>	<b>Company BYR view</b>	<b>Ofwat BYR</b>
Water service	0.513	0.081	0.081

## 4. Implementing the changes

Our PR14 reconciliation rulebook describes how we will implement the changes between our PR14 final determination and our proposals. This includes the application of the £10,000 materiality threshold to the aggregate of the revenue and RCM adjustments.

The PR14 reconciliation rulebook legacy blind year model draws together the RCM, CIS and serviceability shortfall adjustments applied in the final determination and from the blind year update, calculates the differences, performs the materiality test and preserves the present value of the blind year adjustments for those that will be implemented at PR19. Table A13 shows the output values from the legacy blind year adjustment model.

**Table A13 adjustments to be implemented (£ million)**

	Water service
RCM revenue adjustment <sup>1</sup>	-0.456
Total adjustment revenue carry forward to PR19	0.094
Total adjustment RCV carry forward to PR19	-0.225

Note:

1. To allow companies to manage potential volatility in customer bills, we have given them the option of implementing the RCM revenue adjustment through WRFIM in either 2017-18, 2018-19, 2019-20 or in PR19. We expect companies' responses to this consultation to propose how they want RCM adjustments to apply taking account of customer interests.

The CIS RCV indexation correction is not included in the RCV carry forward in table A13 above because it will be applied separately at PR19 in accordance with the PR14 reconciliation rulebook (section 7.2 process for adjusting CIS for both indexation and the blind year).