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 Severn Trent 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.

Contents

1. Introduction 3

2. Summary of 2010-15 final reconciliation adjustments 6

3. Adjustments by 2010-15 incentive mechanism 8

4. Implementing the changes 29

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 Severn Trent 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 the change protocol as set out in section 3.2 and 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			Wastewater service		
	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR
Revenue adjustments						
RCM	12.350	n/a	-1.330	-24.698	n/a	-38.580
CIS	-42.468	n/a	-47.777	-19.190	n/a	-17.979
Total revenue adjustments[2]	-30.118	n/a	-49.107	-43.888	n/a	-56.559

	Water service			Wastewater service		
	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR
RCV adjustments						
Elements of CIS:						
Adjustment for actual expenditure 2010-15	-56.449	n/a	-29.244	-188.662	n/a	-186.764
Adjustment for change protocol – logging up/down	0.000	0.000	0.000	13.089	22.916	11.887
Adjustment for change protocol – shortfalls	-24.418	-31.900	-33.758	-12.810	-12.810	-12.810
Adjustment to overlap	0.000	0.000	0.000	0.000	0.000	0.000
CIS total[2 3]	-80.867	n/a	-63.002	-188.383	n/a	-187.687
Serviceability shortfall	-24.870	-27.742	-34.827	-23.401	0.000	-23.401
Total RCV adjustments[2 3]	-105.737	n/a	-97.829	-211.784	n/a	-211.088

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 Severn Trent Water.

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

	Water service	Wastewater service	Total
FD position	12.350	-24.698	-12.348
Impact of RPI changes[1]	-4.102	-4.544	-8.646
Impact of updated data from company	-9.578	-9.339	-18.917
Impact of other adjustments	0.000	0.000	0.000
Impact of Ofwat intervention	0.000	0.000	0.000
Ofwat BYR	-1.330	-38.580	-39.910
Change from FD position	-13.680	-13.882	-27.563

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
Back-billing amounts	Our assumptions for the final determination did not include the back-billed amounts claimed by the company.	We had not received sufficient evidence that the back-billing amounts being put forward by the company were compliant with RAG4.04 and IN11/04. The company did not demonstrated that: a. it had calculated the amounts in accordance with the overall principal that it is the lesser of: i. the future extra revenue billed up to March 2015 as a result of correcting historical under billing; or ii. the associated back-billing; b. it had received all outstanding back-billed amounts due from the customer; c. it had claimed for back-billed amounts where the inaccuracy of the charging is not the company's fault; or d. it had taken a reasonable fair and appropriate approach	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
		for the back-billed amounts claimed.		
Tax	Our assumptions for the final determination included our view of the way tax is taken into account in the RCM model as per previously published documents on the RCM. Our assumptions for the corporation tax rate applied in the RCM model were the same as HMRC's published tax rates for each year.	The company did not agree with our approach on tax in the RCM. It made an adjustment to deduct tax from the billing incentive element of the RCM. It also applied a corporation tax rate of 20% across all years in its populated RCM model. For our assumptions for the draft determination, we did not accept the company's proposed alternative approach on how tax is taken into account in the RCM model. Our approach on tax in the RCM remained unchanged from previously published documents on the RCM. Our assumptions for the corporation tax rate applied in the RCM model at the draft determination are the same as HMRC's published tax rates for each year. We carefully reviewed the company's representations and evidence provided in the accompanying independent reports. Our more substantive comments on the issues identified in these reports	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
		were set out in policy chapter 4. We considered that the interventions we applied at the draft determination remained appropriate for the final determination.		
FD09 assumptions – Measured non-households' revenue for the measured non-household group immediately above and below the 50ML 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 50 Ml tariff basket threshold originated from the company's FD09 revenue forecasts that came from the tariff basket model, which we used for PR09.	We carefully reviewed the company's representations. We considered that the intervention we applied at the draft determination remained appropriate for the final determination. 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 50ML 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'.		
FD09 assumptions – PR09 discount rate	Our assumptions included our view of the FD09 assumptions. Our view of the company's PR09 discount rate is 4.5%.	We carefully reviewed the company's representations and evidence provided in the accompanying independent reports. We considered that the interventions we applied at the draft determination remained appropriate for the final determination. The company used a PR09 discount rate of 5.1% which is not consistent with its FD09 where the rate was 4.5% for the company. Our assumptions for the final determination included the FD09 discount rate in accordance with our published methodology 'Setting price controls for 2015-20 – further information on reconciling 2010-15 performance'.	There has been no change from the final determination.	There has been no change from the final determination.
Number of household billed	Our assumptions for the final determination used the data the company submitted in its updated business plan table R3 in response to a query to calculate our view of the RCM adjustment. For 2009-10 and 2010-11 we used the data as	The company submitted an updated business plan table R3 in response to a query on its representation. For the final determination we used the updated R3 data instead of the numbers that the company originally proposed	The company has submitted updated numbers for table R3 for 2014-15.	We have carried forward the intervention that we applied in 2010-11 because the company did not provide any new information for 2010-11. We have accepted the company's submission for

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
	per the June return numbers because Severn Trent Water did not provide updated numbers in R3 in its response to a query.	in its populated RCM model. However, we intervened on the 2010-11 value because we were concerned that it did not comply with the reporting requirements. We intervened and applied the value as submitted in the June return.		2014-15, and have not intervened on the updated numbers.

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.

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			Wastewater service			Total service		
	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR
Logging up (two-sided)[1, 2]	0.000	0.000	0.000	32.788	42.637	31.608	32.788	42.637	31.608
Logging down (two-sided)[1, 2]	0.000	0.000	0.000	-19.699	-19.721[3]	-19.721	-19.699	-19.721	-19.721

2009-10 to 2014-15 – post-efficiency capex	Water service			Wastewater service			Total service		
	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR
Shortfalls (one-sided)[1, 2]	-24.418	-31.900	-33.758	-12.810	-12.810	-12.810	-37.228	-44.710	-46.568

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.
3. Excludes the logging up adjustment in 2009-10 of £3.977m (post efficiency) relating to the additional sewer flooding outputs in 2005-10 logged down at PR09. In the PR14 final determination, we treated this outside the CIS reconciliation as an adjustment to the RCV.

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
Transfer of private sewers and drains - logging up (sewerage service)	We applied a 28% challenge to the collapse related capex. We applied a challenge (£2.2 million) to the capex associated with upgrading pumping stations. We excluded employment costs linked to mandatory build standards from 2014-15 (£0.3 million). We reduced opex by £1.4 million over the last 3.5 years. In post efficiency terms the	We reduced the collapse related capex by 28% in order to bring normalised capex/collapse to the industry (unweighted) average. We applied a challenge to the capex in relation to upgrading pumping stations for 2014-15 based on our view of a more realistic estimate of the number of pumping stations to be upgraded. We assumed 105	Although the company's return for this logging up item in Table S13 of its blind year reconciliation submission did not change, a reduction in the number of private sewer collapses from that previously forecast increases the unit cost of repair which results in a change in the Ofwat view for 2014-15.	We have carried forward Ofwat's PR14 final determinations view of the efficient level of capex in the first four years. We have applied a 41.8% challenge to the collapse related capex in 2014-15 to bring the capex / collapse ratio to the industry unweighted average as determined at FD14. This has the effect of reducing the capex logged up from £32.788 million at the final determination to £31.608 million.

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
	logging up claim comprised £32.8 million (capex) and £31.6 million (opex).	pumping stations which was the same as the number forecast by the company in each of the years 2015-16 to 2019-20. We reduced opex by £1.4 million over the last 3.5 years in order to reflect savings arising from avoided abortive visits. We excluded employment costs linked to mandatory build standards from 2014-15 (£0.3 million). These adjustments were consistent with the approach we applied in our 2013 Interim Determination of K for Thames Water.		Our challenge based on the number of pumping stations upgraded remained the same as the final determination.
Sewer flooding outputs not delivered - logging down (sewerage service)	The company proposed a £19.9 million (pre efficiency) log down for sewer flooding outputs not met (register position). This was offset by additional outputs in the period 2005-10 that were logged down at PR09. We accepted the company's proposed logging down claim, however, the additional outputs in the period 2005-10 (valued at	We accepted the proposed adjustment to the log down at PR09 in order to reflect improved performance in the period 2005-10. This was reflected as a midnight RCV adjustment (£4.3 million pre-efficiency (£34.0 million post efficiency)) – see Table A3.6 FD14 company specific appendix.	The company has marginally increased the value of the pre-efficiency logging down claim from £19.887 million to £19.909 million to take account of actual outputs in 2014-15. In a query response the company also restated the total number of undelivered outputs from 393 to 405, with assurance provided by Atkins.	As in the final determination, we have not intervened in this area. We accept the company's final claim for this item. The RCV midnight adjustment of £4.321 million was dealt with in full at FD14 and requires no further consideration in the blind year submission.

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
	£4.3 million (pre-efficiency)) were reflected as a midnight RCV adjustment. (This explained the difference between the company view and the Ofwat view in the logging down line in Table AA3.8 FD14 company specific appendix).			
SEMD Output delays – shortfall (water service)	We applied a challenge to the shortfall proposed by the company. We included opex in our assessment. The company proposed a shortfall of £1.558 million (capex). We assessed the total shortfall to be £1.576 million (capex) and £0.020 million (opex). In post efficiency terms these values were £1.314 million (capex) and £0.019 million (opex).	The shortfall represents the variance to FD09 assumptions for the SEMD programme, in particular, for delays to the Alarm Monitoring Centre. These delays mean that the outputs would not be delivered until after 2015. Our assessment was based upon values assumed for FD09 indexed (using COPI for capex and RPI for opex) to 2012-13 prices.	As a result of assurance carried out on 2014-15 data, the company has increased the pre-efficiency capex value of the shortfall from £1.558 million to £3.266 million. This revised figure includes a further scheme at Clough House which is delayed - the DWI have been advised of a revised delivery date. It also includes four further SEMD schemes which are only part complete. The company's shortfall claim therefore includes the non-delivery of 3 schemes and the proportion of costs for further 4 schemes not delivered in the 2010-15 period.	As in the final determination we have intervened in this area and have now applied a pre efficiency capex shortfall of £5.480 million (£4.587 million post efficiency). Our revised shortfall uses our assessment of the expenditure included in price limits at PR09 indexed (using COPI for capex) to 2012-13 prices. The variance between the company's claim and our assessment results from differences in the pre efficiency capex assumed at FD09 for the Elan Valley Aqueduct upgrade (£3.969 million compared to the company's view of £0.230 million) and Derwent Valley Aqueduct SEMD upgrade (£3.683 million compared to the company's view of £1.328 million). These schemes

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
				were over 60% completed in the 2010-15 period and so the shortfall is for the proportion that was not delivered. We have also taken into account a different view of the split of infrastructure and non-infrastructure capex and included proportions of 0.4% and 99.6% respectively (compared to the company's view of 1.0% and 99.0%) based on the PR09 values.
Worcester growth in demand - originally input as a logging down item in the company's business plan but was reclassified as a shortfall in the company's blind year submission (water service)	Logging down claim was not accepted on the basis of triviality.	Logging down claim was not accepted on the basis of triviality.	In light of further revisions to the planned growth activity in Worcester, the company has reclassified this claim as a shortfall and included a pre efficiency shortfall of £3.596 million. The original scheme was to deliver 15km of main to supply 15,000 properties but this was significantly altered with the company required to provide capacity for 776 new properties by laying 770m of new main. Assurance of the scheme by Atkins confirmed that 450m of the 770m has been complete in 2010-15, representing 3% of the original 15km. The company has proposed a shortfall for 97% of FD09 funded capex.	We would not normally have considered that this required a shortfall as it was not a scheme that was not required. If the investment had been incurred it would not have been in the interests of customers. We only normally consider changes in circumstances such as for logging down that are more than 2% of service turnover. However, we recognise the importance of companies owning their business and only intervene where it is in the interests of customers. We have therefore accepted the claim.

We have not intervened for the following claims:

- WTW and the strategic grid: Frankley / EVA (shortfall);
- Newark sewerage strategy delays (shortfall);
- Cockbury service reservoir & Worcester Growth in demand (shortfall); and
- Groundwater Resilience – Far Baulkner & Rufford (shortfall).

3.3 Service standard outputs

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

At PR09 Severn Trent Water was subject to service standards in respect of operational expenditure savings, odour from sewage, pollution incidents and resilience. In our PR14 final determination we were satisfied that that the service standards for operational expenditure savings, odour from sewage and resilience had been achieved. However, we considered that the service standard for pollution incidents had not been achieved, and applied a shortfall of £13.5 million. We have maintained this intervention – further details are provided in table A8 below.

[1] 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.”

In relation to the resilience service standards, we noted at the PR14 final determination that there were 24 resilience schemes grouped according to resilience type. There were six groups: strategic grid schemes, borehole resilience, flood resilience, power resilience, fluvial resilience and sewage treatment works related resilience. In conducting our assessment we considered the overall net customer benefit holistically according to these groupings. At individual scheme level, some schemes over-delivered on the customer benefit set out in FD09 and some under delivered on the customer benefit set out in FD09, but the net benefit to customers was positive, so we did not apply a shortfall.

In its blind year submission, the company submitted a new pre-efficiency shortfall claim for the delayed Groundwater Resilience - Far Baulker & Rufford BHs Deficit Solution scheme which the company has not delivered in 2010-15.

We would not have applied a shortfall as the net customer benefit was achieved overall. But, because the company has submitted a claim in its blind year submission, in the interest of customers, we have accepted a claim for this item.

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 change we have made in the blind year reconciliation work compared to our final determination, is to increase the amount of shortfall value due to worsening 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	-24.870
	Company view	-27.742

Post-efficiency shortfall		2010-15
	Ofwat BYR	-34.827
Wastewater service	FD position	-23.401
	Company view	0.000
	Ofwat BYR	-23.401

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
Water infrastructure - Unplanned supply interruptions >12hours	For the final determination we removed the £11.1 million (post efficiency) shortfall applied at the draft determination. This was conditional upon the performance in 2014-15 being improved to a position such that it could be considered as stable. We set out we would consider a shortfall adjustment if this was not achieved.	The company has had one breach of the upper control limit in 2011-12 and has forecast to do so in 2014-15. With exclusions applied performance in 2012-13 and 2013-14 is near the reference level. In its response to a query, the company provided additional information relating to interruption events. Based on this information one event in 2012-13 was considered to be outside of the company's control (a landslip which caused a main to burst) and was excluded. A second event in 2013-14 (a power failure)	Actual performance for 2014-15 for this indicator is worse than forecast (3,365 vs 3,000 properties), and above the upper control limit. In response to a query, the company stated that it did not consider any associated events to be outside its control.	In the final determination company specific appendix, we warned the company that "2014-15 performance is at risk of a marginal assessment and potential shortfall. This will be reviewed again in 2015 and a shortfall applied if performance is not considered stable." The company has informed us that this indicator was above the upper control limit in 2014-15 and that there were no events outside of its control. We have explained in the main consultation document

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
		was also excluded as the company was able to demonstrate all reasonable actions were undertaken to restore supplies (back-up generators failed and attempted rezoning also failed). As a result of these exclusions, performance in 2013-14 was considered stable; hence no shortfall was applied at the final determination. However, we noted 2014-15 performance was at risk of a marginal assessment and potential shortfall applied at the next price review if performance is not considered stable.		our reasons for applying a shortfall where there are breaches of the upper control limit in years 2011-12 and 2014-15. Therefore we have applied a shortfall of £10.0 million for this indicator.
Water non-infrastructure – coliforms at water treatment works	For the purposes of the final determination we assumed a shortfall for deteriorating performance in this indicator. In accordance with our shortfall calculation methodology (see Policy Chapter A4 of PR14 FD), the shortfall applied for the years 2011-12, 2013-14 and 2014-15 was been capped at 1 standard deviation. We also applied a multiplication factor of 0.875 to the final shortfall value to mitigate the impact of the volatile nature of this	The company exceeded the upper control limit in 2011-12, 2013-14 and the 2014-15 forecast. The company did not proposed to apply any exclusions to the assessment, they acknowledged performance as marginal and offered a shortfall. However, we did not consider the company's own valuation of the shortfall to be sufficient for the level of failure. Therefore, for the purposes of the final determination we assumed a higher shortfall adjustment.	Actual performance for 2014-15 for this indicator is worse than forecast (0.10% vs 0.09%) and above the upper control limit	While performance in 2014-15 was worse than forecast we had already applied a cap to the shortfall in accordance with our methodology. Therefore we have applied the same shortfall adjustment of £24.9 million (post efficiency) as for 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
	indicator. The company proposed a shortfall of £20 million; however, the value of the shortfall adjustment is £24.9 million (post efficiency). The overall scale of the shortfall does not exceed 50% of the sub-service capital expenditure and therefore no further cap has been applied. Our final determination shortfall was £20.2 million lower than the shortfall we applied at the draft determination.			
Wastewater infrastructure - Pollution incidents	For the purposes of the final determination we assumed a shortfall adjustment of £13.5 million (post efficiency) for not achieving the target for this indicator by 2015. This was unchanged from the draft determination.	The company did not offer a shortfall for failing to achieve the target by 2015 with respect to pollution incidents. At FD09 we assumed £13.6 million (pre-efficiency) for a target of 181 by 2015. The company position for 2013-14 is 292 and the company is forecasting 242 for 2014-15 which does not reflect the current trend in performance. Therefore, for the purposes of the final determination we have assumed a shortfall adjustment for the recovery of all FD09 allowed expenditure.	Actual performance in 2014-15 for this indicator was better than forecast (225 vs 242 incidents), however this is still above the enhanced levels of standards of 181.	Although the actual performance for 2014-15 is better than forecast, it still does not reflect the improvement expected at FD09. We have therefore maintained the same shortfall adjustment as FD14.

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
Wastewater infrastructure - Sewer blockages	For the purposes of the final determination we assumed a shortfall adjustment of £9.8 million (post efficiency) for marginal performance in this indicator. In accordance with our shortfall calculation methodology the shortfall (which was been applied for the years 2011-12, 2012-13) was been capped at 1 standard deviation. The overall scale of the shortfall did not exceed 50% of the sub-service capital expenditure and therefore no further cap was applied.	The company exceeded the upper control limit from 2010-11 to 2012-13. Performance was also close to the upper control limit in 2013-14. This was after removing the impact from transferred private drains and sewers (PDaS) which the company stated accounted for around 25% of all blockages. Forecast performance for 2014-15 was expected to be below the reference level (after exclusion of PDaS impact). The company acknowledged performance was marginal but did not offer a shortfall. After taking into account the quantified impact from PDaS on performance, we applied a shortfall adjustment. This was because we did not consider the methodology and data for quantification of the impact to be sufficiently robust. We required the company to demonstrate an improved understanding of the impact from PDaS on blockage performance for this final reconciliation and how this varies beyond the initial transfer of responsibilities. We	In response to a query, the company demonstrated improved understanding of the impact of PDaS on blockage performance. Having taken account of this, actual performance for 2014-15 is worse than forecast (17,617 vs 17,294); an increase of 323 sewer blockages, but below the upper control limit	We have applied the same shortfall adjustment of £9.9 million (post efficiency) as for the final determination for the years 2011-12 and 2012-13.

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
		noted that if the company failed to demonstrate an improved, assured understanding, that we may revise the shortfall adjustment based on the impact of PDaS provided by other companies which is significantly less than the 25% impact suggested by the company.		

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
Wastewater service	FD position	0.000
	Company BYR view	0.000

		2010-15
		Two-sided adjustments for inclusion in the CIS
	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	Wastewater service	Total service
Restated FD09 CIS bid ratio[1]	FD position	104.308	103.868	n/a
	Ofwat BYR	105.088	103.946	n/a
Out-turn CIS ratio	FD position	107.442	98.952	n/a
	Ofwat BYR	109.473	98.696	n/a
Incentive reward/penalty (%)[2]	FD position	-1.953	0.376	n/a
	Ofwat BYR	-2.433	0.452	n/a

		Water service	Wastewater service	Total service
Reward/penalty (£m)	FD position	-21.539	5.188	-16.352
	Ofwat BYR	-26.724	6.264	-20.460
Adjustments to 2015-20 revenue (£m)[3]	FD position	-42.468	-19.190	-61.658
	Ofwat BYR	-47.777	-17.979	-65.756

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	Wastewater service
FD position	-7.718	-98.501
Impact of indexation correction	-73.148	-89.882
Corrected FD position	-80.867	-188.383
Impact of updated actuals	17.865	0.696
Ofwat BYR	-63.002	-187.687

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
Basis of inflation indexation	For final determination we made no change to the treatment of inflation	The company made representations that we use different approaches to adjust for price inflation in different parts of the CIS model. For the reasons discussed in policy chapter A4 (PR14 FD), we considered that it would not be appropriate to change the established CIS approach for final determinations.	We have updated the CIS model to implement our decision on the CIS reconciliation issue after consulting on our preferred option for addressing the issue.	We have updated the CIS model to implement our decision on the CIS reconciliation issue after consulting on our preferred option for addressing the issue. For further information refer to Update to the PR14 reconciliation rulebook policy document
NPV and treatment of tax	We corrected an error in our modelling. As a result, our final determination revenues were £1.3 million higher.	The model used at draft determination determined the NPV of the ex post penalties/incentives from 2010-15 using a pre-tax cost of capital. However, when the incentives are unwound through 2015-20, the NPV effects are calculated using a post-tax cost of capital. We accepted that this was an error in the modelling and corrected it for final determinations. As explained in policy chapter A4.6.4.2 (PR14 FD), we changed the methodology in the CIS model with respect to the discount rate used when calculating the future value of the revenue adjustment in the 2010-15 period.	There has been no change since the PR14 final determination.	There has been no change since the PR14 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
Change protocol adjustments	We included our view of the applicable change protocol amounts for water and wastewater.	We applied Ofwat's published methodology.	See section 3.2 and section 3.5 above.	See section 3.2 and section 3.5 above.

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)

Net capital expenditure	FD position	Company BYR view	Ofwat BYR
Water service	5.527	10.792	10.792
Wastewater service	0.000	0.000	0.000

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	Wastewater service
RCM revenue adjustment[1]	-13.680	-13.882
Total adjustment revenue carry forward to PR19	-6.336	1.446
Total adjustment RCV carry forward to PR19	9.437	0.831

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 WFRIM 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).