

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 Southern 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 Southern 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			Wastewater service		
	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR
Revenue adjustments						
RCM	79.833	n/a	84.188	116.960	n/a	111.611
CIS	-12.939	n/a	-13.691	-28.463	n/a	-32.150
Total revenue adjustments ²	66.894	n/a	70.498	88.497	n/a	79.461
RCV adjustments						

	Water service			Wastewater service		
	FD position	Company BYR view	Ofwat BYR	FD position	Company BYR view	Ofwat BYR
Elements of CIS:						
Adjustment for actual expenditure 2010-15	99.432	n/a	107.117	-113.726	n/a	-98.203
Adjustment for change protocol – logging up/down	-53.449	-62.200	-62.200	-1.140	1.226	-0.904
Adjustment for change protocol – shortfalls	0.000	0.000	0.000	-5.585	-5.585	-5.585
Adjustment to overlap	0.000	0.000	0.000	0.000	0.000	0.000
CIS total ^{2 3}	45.983	n/a	44.917	-120.451	n/a	-104.693
Serviceability shortfall	0.000	0.000	0.000	-54.902	0.000	-54.192
Total RCV adjustments ^{2 3}	45.983	n/a	44.917	-175.353	n/a	-158.885

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 Southern Water.

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

	Water service	Wastewater service	Total
FD position	79.833	116.960	196.793
Impact of RPI changes ¹	-1.101	-3.629	-4.730
Impact of updated data from company	5.456	-1.720	3.736
Impact of other adjustments	0.000	0.000	0.000
Impact of Ofwat intervention	0.000	0.000	0.000
Ofwat BYR	84.188	111.611	195.799
Change from FD position	4.356	-5.349	-0.993

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
FD09 assumptions – Measured non-households’ revenue for the measured non-household group immediately above and below the 50 megalitre (MI) 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 MI tariff basket threshold originated from the company’s FD09 revenue forecasts that come from the tariff basket model, which we used for PR09.	There were small 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 information on reconciling 2010-15 performance'.	There has been no change from the final determination.	There has been no change from the final determination.
Back-billing amounts	Our assumptions for the final determination included the	We did not receive sufficient evidence at the draft determination that the back-	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
	<p>updated back-billed amounts claimed by the company.</p>	<p>billing amounts being claimed by the company were compliant with RAG4.04 and IN11/04. We reviewed our DD intervention on this area based on the additional information submitted by Southern in its DD representation. The company updated its back-billing claim and excluded claims for cases: where the company was at fault; and where there is insufficient evidence to determine fault. It provided us with external assurance on the cases it has claimed for. We considered that the company demonstrated in its DD representation that it had not claimed for back-billed amounts where the inaccuracy of the charging is the company's fault and it had taken a reasonable, fair and appropriate approach for the back-billed amounts claimed.</p>		

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.

In its blind year submission the only significant change made by the company was to submit a new logging down claim for £7.6m in respect of fewer meters than anticipated being delivered under its Universal Metering Programme.

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	20.956	23.322	21.192	20.956	23.322	21.192
Logging down (two-sided) ^{1, 2}	-53.449	-62.200	-62.200	-22.096	-22.096	-22.096	-75.545	-84.296	-84.296
Shortfalls (one-sided) ^{1, 2}	0.000	0.000	0.000	-5.585	-5.585	-5.585	-5.585	-5.585	-5.585

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
Private sewer transfer – logging up (sewerage service)	We applied a challenge to the company's proposed capex and assessed it as £11.3 million. In post efficiency terms, this was £10.0 million. We assessed the company's proposed opex and increased the value from £4.2 million to £8.1 million. In post efficiency terms, our assessment of the opex was £7.6 million.	We challenged the company's private sewers claim at the risk-based review because the capex/opex ratio was very high compared with the rest of the industry. The company had not provided any additional evidence in response to our challenge at the risk-based review. The revised business plan submitted in June resulted in higher capex and therefore an even higher capex/opex ratio. A transfer of 25% of capex to opex effectively capped the ratio at one standard deviation above the industry average and ensured that the company did not benefit from the high set-up costs it had incurred.	The company marginally increased the capex claim from £15.105 million to £15.173 million pre efficiency. The company did not provide any additional evidence in its PR14 blind year reconciliation submission to justify its very high capex / opex ratio which remains an industry outlier.	<p>We have intervened to challenge the reported actual capex in 2014-15 using the methodology employed at FD14. Specifically, due to the high capex /opex ratio we transferred capex to opex, capping the capex / opex ratio at one standard deviation above the industry average as determined at FD14 to ensure the company does not benefit from the disproportionately high set-up costs it has incurred. A slight variance in actuals for 2014-15 compared to the company's previous forecast has resulted in a 25.31% transfer of capex to opex compared with 25.35% at FD14.</p> <p>We also corrected an error in the pre-efficiency capex we used in our calculations at FD14 which affected the first four years of AMP5.</p> <p>Following our intervention and the error correction, our</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
				assessment of the total amount of capex to be logged up is £12.773m pre efficiency which is £11.328m post efficiency.
Sewer flooding: 1 in 10 and 2 in 10 internal outputs – logging down (sewerage service)	Following representations and a query response provided by the company, we concluded that the variance to FD09 was below the triviality threshold. We therefore removed this intervention and did not make any further adjustments. For the final determination, we removed the logging down adjustment of £10.3 million applied at the draft determination.	The company provided updated actuals and forecast information. It also provided representations regarding a programme of work to reduce groundwater infiltration. This was not a specific output at FD09 but the company maintained that this complimented the management of the sewer network by reducing the flows within the sewers. The company provided clear information about the activities undertaken and the benefits the work will deliver. The company had also completed additional surface water management plans. We considered that the additional benefits brought the adjustment below the triviality threshold for logging down.	The company did not submit a claim in this area.	As in the final determination, we have not intervened in this area.
Sewer flooding: 1 in 20 internal outputs – logging down (sewerage service)	Following representations and a query response provided by the company, we concluded that the variance to FD09 was	The company provided updated actuals and forecast information. It also provided representations regarding a	The company did not submit a claim in this area.	As in the final determination, we have not intervened in this area.

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>below the triviality threshold. We therefore removed this intervention to impose a logging down adjustment applied at draft determinations and did not make any further adjustments. For the final determination, we removed the logging down adjustment of £3.7 million applied at the draft determination.</p>	<p>programme of work to reduce groundwater infiltration. This was not a specific output at FD09 but the company maintained that this complimented the management of the sewer network by reducing the flows within the sewers. The company provided clear information about the activities undertaken and the benefits the work will deliver. The company had also completed additional surface water management plans. We considered that the additional benefits brought the adjustment below the triviality threshold for logging down.</p>		
<p>Enhanced service levels: pollution incidents – shortfall (sewerage service)</p>	<p>The company did not propose an adjustment in relation to its under-delivery of the service standards associated with enhanced service levels – pollution incidents. We assessed the outturn and forecast information provided by the company and determined that a shortfall of £6.3 million should be applied. In post efficiency terms, this value was £5.6 million (capex).</p>	<p>In FD09, the enhanced service level programme for pollution incidents was assigned both activity outputs and service standards outputs. We set out in FD09 that the service standard was the primary output. The company had not achieved the service standard required for both Cat 1 and 2s and Cat 3s. Since the allocated FD09 expenditure had not delivered the benefit to customers</p>	<p>In response to the Ofwat initiated pre-efficiency shortfall claim of £6.343 million in the final determination for service standards not met for pollution category 1, 2 and 3 incidents, the company submitted a shortfall claim of the same value in its blind year submission. The company confirmed that the number of service standards not met in 2014-15 for category 3 incidents was 101 rather than</p>	<p>We have not intervened because the company's claim matches the shortfall we applied at the PR14 final determination.</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
		stipulated, we applied a shortfall adjustment for the full FD09 allowance.	the conservative estimate of 127 we had assessed for the final determination.	
Universal Metering Programme – logging down (water service)			This is a new pre-efficiency logging down claim of £8.311 million submitted by the company for 40,906 fewer meters delivered under its 2010-15 Universal Metering Programme. The value of the claim is based on the unit cost per meter of £173.20 (2007-08 prices) stated in the FD09 Supplementary Report (page 78), indexed by RPI average. Ofwat guidance states that COPI should be used which would give a logging down value of £7.225 million.	There are no interventions for this new claim. We accept the company's logging down adjustment using RPI rather than COPI as it is in customers' favour.

We have not intervened for the following claims:

- Testwood Water Supply (Logging down – water service)
- Universal Metering Programme (Logging down – water service)
- Woolston STW – unfunded NEP obligation (Logging up – sewerage service)
- Sludge capacity enhancement – Millbrook (Logging down – sewerage service)
- Enhanced service levels – pollution incidents (shortfall – sewerage service).

3.3 Service standard outputs

Service standards are regulatory outputs that we set out in FD09 supplementary reports¹. 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 PR09 service standards had been met in relation to exceptional items outputs (sewerage service) and enhanced service levels (odour from sewerage). Therefore, we did not intervene for these service standards. This remains our view for this final reconciliation.

In our PR14 final determination we intervened to apply a shortfall for under delivery on the number of pollution incidents. In its blind year submission the company has reflected this in a shortfall claim which we have accepted and therefore in our proposals we have not intervened.

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.

¹In 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."

The only change compared to our final determination, is a small reduction in the amount of shortfall value due to better performance in flooding other causes than included in the final determination.

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

Post-efficiency shortfall		2010-15
Water service	FD position	0.000
	Company view	0.000
	Ofwat BYR	0.000
Wastewater service	FD position	-54.902
	Company view	0.000
	Ofwat BYR	-54.192

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 interruption to supply exceeding 12 hours	For the purposes of the final determination, we removed the shortfall of £12.1 million applied at the draft determination for this indicator. This was based on additional information supplied by the company, which enabled	The company had three breaches of the upper control limit in 2010-11, 2012-13 and 2013-14. The company forecast for the performance of this indicator in 2014-15 was at the reference level.	The actual performance for 2014-15 is better than forecast (210 vs 303 properties) and lies within the control limits.	As in the final determination, we have not intervened in this area.

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>events to be excluded from the assessment as they were outside management control.</p>	<p>In its representation, the company provided additional evidence related to interruption events. Based on this evidence we have excluded a severe weather related incident that occurred in 2013 in the Isle of Wight affecting over 1,500 properties. The company was able to demonstrate that all four lines of resilience in the area affected failed. We are satisfied by this evidence from the company and have accepted that the incident should be excluded. After removing this incident, the performance in 2013-14 was below the upper control limit. On this basis, we removed the shortfall applied at the draft determination for this indicator.</p>		
<p>Wastewater infrastructure - Properties internally flooded in year because of other causes</p>	<p>For the purposes of the final determination we assumed a shortfall adjustment of £3.3 million (post efficiency) for deteriorating performance in this indicator. In accordance with our shortfall calculation methodology as applied to all companies the shortfall (which was applied for the years 2012-13, 2013-14 and 2014-15) was not capped; the</p>	<p>The company had three breaches of the upper control limit in 2010-11, 2012-13 and 2013-14. Performance in the remaining year (2011-12) was also close to the upper control limit. The company forecast 2014-15 performance close to the reference level. The company provided analysis showing how the 2014-15 predicted performance was</p>	<p>The actual performance is better than forecast for 2014-15 (253 vs 260 properties) and below the upper control limit of 290.</p>	<p>Our final determinations included a shortfall adjustment for 2014-15 based on our analysis and for the protection of customers. As the company's actual performance in 2014-15 is better than we had assumed in the shortfall calculation and is below the upper control limit, we have removed that part of shortfall. This results in reduction of</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>scaling factor for these years was below 1 standard deviations. The overall scale of the shortfall does not exceed 50% of the sub-service capital expenditure and therefore no further cap was applied.</p>	<p>calculated. We considered that the extrapolation used did not reflect historical performance for the remaining months of the year. To protect customers we did not apply an assumption around improving performance particularly as we were only part way through 2014-15. We noted that if the company did deliver an improved performance, we would take this into account.</p> <p>The company also provided additional evidence that it considers demonstrates that some events should be excluded due to extreme weather. However, we considered that the rainfall analysis presented did not appear to have a direct correlation between the extreme weather events and the number of properties flooded (as the statistical correlation is not significant).</p> <p>The information provided by the company on sewerage system inundation also did not demonstrate the link between high levels of groundwater and the flooding experienced. We</p>		<p>£0.710 million from £3.254 million (post efficiency) applied in the final determination to £2.545 million.</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
		therefore did not accept the exclusions proposed by the company.		
Wastewater infrastructure - Flooding overloaded sewers excluding severe weather	For the purposes of the final determination, there was no intervention for this indicator. This was conditional upon the performance in 2014-15 being improved to a position such that it is considered stable. We noted we would consider a shortfall adjustment if this was not achieved.	The company had one breach of the upper control limit in 2013-14. The company forecast 2014-15 to outturn at the reference level. We required the company to demonstrate stable serviceability in 2014-15, and noted that if this was not achieved we may consider a shortfall adjustment.	The actual performance for 2014-15 is worse than forecast (33 vs 22 properties) but significantly below the upper control limit.	There is one breach of the upper control limit in 2013-14 and performance is below the upper control limit for 2014-15. We are not applying any shortfall adjustment for this indicator.
Pollution incidents (category 1, 2 and 3)	For the purposes of the final determination, there was no intervention for this indicator. This was conditional upon the performance in 2014-15 being improved to a position such that it is considered stable. We noted we would consider a shortfall adjustment if this was not achieved.	The company had two breaches of the upper control limit in 2010-11 and 2011-12. Performance for this indicator has improved in the last two years but it remained above the reference level. The company forecast 2014-15 performance to outturn at the reference level. We required the company to demonstrate stable serviceability in 2015; we noted that if this was not achieved we would consider a shortfall adjustment.	The actual performance for 2014-15 is better than forecast (141 vs 150 pollution incidents) and lies within the control limits.	As in the final determination, we have not intervened in this area.
Wastewater non-infrastructure - Sewage treatment	For the purposes of the final determination, there was no intervention for this indicator. This was conditional upon the	After taking into account company exclusions relating to iron noncompliance, where the Environment Agency had	The actual performance for 2014-15 is worse than forecast (1.02% vs 0.34%). However, this actual performance lies	As in the final determination, we have not intervened in this area.

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
works numeric non-compliance	performance in 2014-15 being improved to a position such that it is considered stable. We noted we would consider a shortfall adjustment if this was not achieved.	granted new consents for STW numeric compliance, the company had breaches of the upper control limit in 2011-12 and 2012-13 and performance was also above the reference level for 2013-14. Additional evidence provided by the company showing actual performance up to September 2014 demonstrated that there had been only one failure in the calendar year, therefore we accepted that performance in 2014-15 was likely to outturn at or below the reference level. However, we required the company to confirm this improved performance in 2015. If this was not achieved, we noted we could apply a shortfall as part of the reconciliation.	within the control limits and below the reference level of 1.40.	
Wastewater non-infrastructure - Population equivalent (sewage treatment) non-compliance	For the purposes of the final determination we assumed a shortfall for deteriorating performance in this indicator. In accordance with our shortfall calculation methodology the shortfall applied for the years 2011-12, 2012-13 and 2013-14 was capped at 1 standard deviation. We also applied a multiplication factor of 0.75 to	The company had breaches of the upper control limit in all four years from 2010-11 to 2013-14. We reviewed the company's evidence in its representation and accepted some additional exclusions from our position at the draft determination. Further detail regarding the exclusions we applied is provided below.	The actual performance is same as forecast for 2014-15.	The actual performance for 2014-15 is the same as forecast and therefore there is no change in the shortfall adjustment applied in the 2014 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
	<p>the final shortfall value to mitigate the impact of the volatile nature of this indicator. The value of the assumed shortfall adjustment was £51.7 million (post efficiency). The overall scale of the shortfall did not exceed 50% of the sub-service capital expenditure and therefore no further cap was been applied.</p>	<p>Coldwaltham (2011-12): We accepted the company's position that this failure was included in error by the company. We therefore excluded this from our assessment.</p> <p>Cuckfield (2013-14): We accepted the company's position that this failure was included in error by the company. We therefore excluded this from our assessment.</p> <p>Westfield (2013-14): We accepted the company's position that this failure was included in error by the company. We therefore excluded this from our assessment.</p> <p>Hailsham North (2012-13): At draft determination, we excluded Hailsham North from the assessment on the basis that it was an iron failure attributable to maintaining phosphorus compliance. However, following an analysis of company representations and query responses we came to understand that the failure</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>at Hailsham North was actually related to suspended solids. We issued a query to the company to understand this issue further. Within the query response, the company considered that the failure was due to an illegal discharge of clay sediment from a developer. We reviewed, in detail, the company's evidence regarding Hailsham North and considered that it should not be excluded from the assessment. The evidence provided by the company did not sufficiently demonstrate that the company had undertaken sufficient actions in order to mitigate risk of further failures following the first incident (as there were a further four sample failures later in the year). The evidence provided did not sufficiently demonstrate that the subsequent performance of the sand filters could be directly attributable in their entirety to this singular problem with the clay slurry discharge at the construction site. We are concerned that the third stage filters were not protected from such a failure</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>as part of the treatment works design.</p> <p>Faversham (2011-12): We did not excluded this failure from our assessment. The evidence provided did not sufficiently demonstrate that the failures were directly related to the trader in question. The company did not provide evidence that demonstrated it had appropriately engaged with the trader in question to manage and reduce the impact on the environment.</p> <p>Lidsey (2011-12 and 2012-13): We considered the exclusion of the numerous copper failures at Lidsey sewage treatment works. While we agreed that there was a change in the consent after the reference level and control limits were set in the final determination 2009, it is important that the company manages changes in regulatory requirements.</p> <p>We assessed the impact on the scale of the shortfall by assessing the shortfall with and without the failures at</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>Lidsey. In both cases, the aggregate failures across all sites are above the one standard deviation cap within the calculation as a result of failures at other treatment works. The scale of the shortfall calculation is therefore not sensitive to the inclusion of the Lidsey works. (both Faversham and Hailsham North failures already exceed the applied cap).</p> <p>While we accepted a number of the exclusions that the company proposed, the company's performance remained above the upper control limit for all four years between 2010-11 and 2013-14.</p> <p>Therefore, for the purposes of the final determination we applied a shortfall for deteriorating performance in this indicator.</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
Wastewater 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	Wastewater service	Total service
Restated FD09 CIS bid ratio ¹	FD position	124.491	112.709	n/a
	Ofwat BYR	124.959	112.619	n/a
Out-turn CIS ratio	FD position	142.512	106.019	n/a
	Ofwat BYR	144.907	107.193	n/a
Incentive reward/penalty (%) ²	FD position	-8.713	-1.756	n/a
	Ofwat BYR	-9.027	-2.040	n/a
Reward/penalty (£m)	FD position	-35.745	-22.414	-58.159
	Ofwat BYR	-36.355	-26.063	-62.418
Adjustments to 2015-20 revenue (£m) ³	FD position	-12.939	-28.463	-41.402
	Ofwat BYR	-13.691	-32.150	-45.840

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	77.273	-36.331
Impact of indexation correction	-31.290	-84.120
Corrected FD position	45.983	-120.451

	Water service	Wastewater service
Impact of updated actuals	-1.066	15.758
Ofwat BYR	44.917	-104.693

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 have 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 have 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 have included our view of the applicable change protocol amounts for water and wastewater.	We have 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	10.200	1.498	1.498
Wastewater service	13.768	14.255	14.255

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	4.356	-5.349
Total adjustment revenue carry forward to PR19	-0.897	-4.400
Total adjustment RCV carry forward to PR19	-1.273	19.654

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).