

August 2014

Setting price controls for 2015-20
Draft price control determination notice:
company-specific appendix – Southern Water



OFWAT

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Overview

This appendix sets out the details of the draft determination of price controls that are specific to Southern Water. Our draft determination is based on Southern Water's business plan as submitted by 27 June and its responses to our subsequent queries.

Southern Water made a number of changes to its business plan following the outcome of the risk-based review. We are encouraged that Southern Water has responded to our feedback in relation to its wholesale wastewater costs and has provided sufficient evidence to enable us to accept a number of its cost claims, including its claim for national environment programme expenditure. However, there are still some areas of concern where we are intervening to protect the interests of consumers. The most significant of these is around reconciling 2010-2015 performance, where we have specific concerns regarding a number of serviceability measures and have therefore applied a material shortfall. Other areas of further intervention include outcomes and the associated delivery incentives which are common to all companies.

It should be noted that in order for the price controls to protect the interests of consumers, we consider that – in accordance with their licence obligations – companies must act in an economic and efficient manner in all circumstances. For the avoidance of doubt, this obligation overrides any individual incentive element.

This draft determination sets out the draft allowed revenues and K factors for Southern Water, along with what they mean for average customer bills. We have summarised this information in the 'draft determination at a glance section'. The draft determination also sets out:

- the outcomes we expect the company to deliver under each price control;
- the costs we are assuming the company will incur and, where appropriate, the assumptions we have made to arrive at the allowed revenue for each price control;
- the adjustments we are making to the wholesale water and wastewater price controls to reflect the company's performance in 2010-15; and
- our assumptions on risk and reward, including the uncertainty mechanisms that form part of each price control.

As part of this price review, we stated in '[Setting price controls for 2015-20 – final methodology and expectations for companies' business plans](#)' (our 'final methodology statement') that we would be setting separate price controls for wholesale and retail elements of the appointee business. We explained that these separate controls would be binding, confirmed through the modifications made to the price setting elements of companies' licence conditions.

This means that the companies cannot recover more revenue than allowed under each specific price control. The revenue allowance for each price control is determined by the costs specific to that particular price control. Companies cannot cross-subsidise between controls in terms of

costs or revenues. This delivers important benefits for customers by providing more effective incentives. It also supports the development of the relevant markets and in particular those provided for by the Water Act 2014.

We have made this draft determination in accordance with our final methodology statement and our statutory duties. We have also had regard to relevant guidance from the UK Government, and where appropriate Welsh Government, and the principles of best regulatory practice to be transparent, accountable, proportionate, consistent and targeted.

This draft determination is structured on an element-by-element basis and is separated into:

- wholesale water;
- wholesale wastewater;
- household retail; and
- non-household retail.

In each area, we have set out the relevant information after our interventions – that is, our draft determination. In those areas in which we have intervened, we discuss the difference between our view and the company view further in the specific annexes where appropriate.

At the appointee level, this draft determination sets out our view of the company's financeability over the period 2015-20.

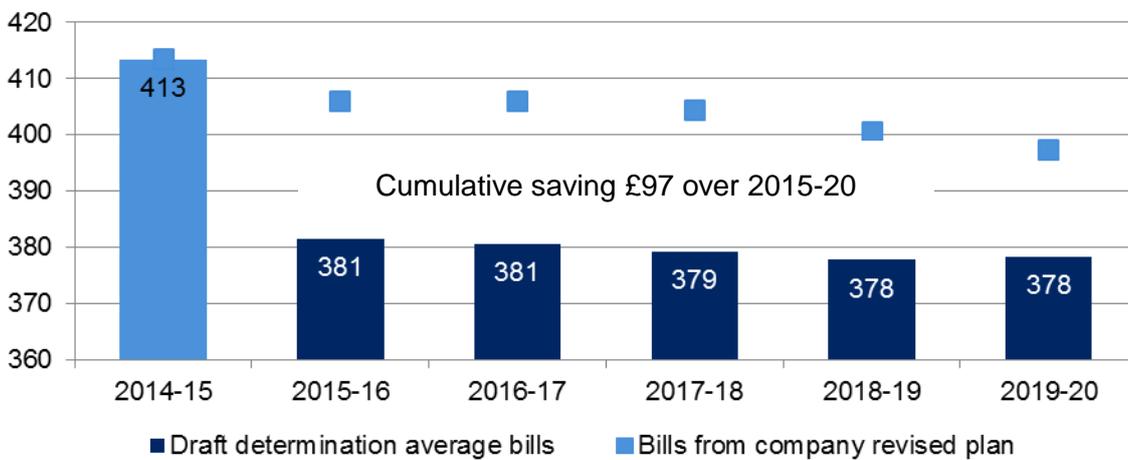
Annexes 1 to 4 form part of the draft price control determination.

A1. Draft determination for Southern Water – at a glance

In this section we set out what the draft determination means:

- for customers, with respect to the average bills they will pay and the outcomes that the company will deliver in return; and
- for the company, with respect to the allowed costs/expenditure, return on regulatory equity (RoRE) range; financial ratios (under the notional structure) and the interventions we made to the company’s revised plan.

Combined average household bill (£)



Note. The “bills from company revised plan” is based on the data submitted by the company in its business plan but projected using our financial model, thereby ensuring consistency with the draft determination projection. As a consequence the company’s proposed bills illustrated above may not necessarily be the same as those described in the revised business plan.

Outcomes

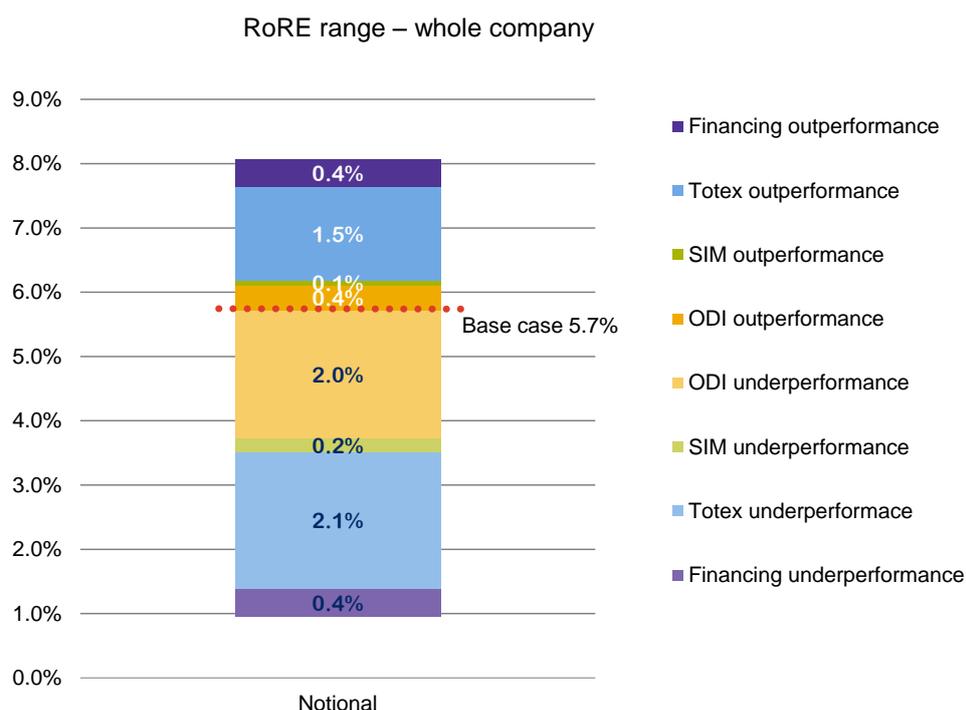
Wholesale water	Wholesale wastewater
A constant supply of high quality drinking water	A reliable wastewater service
Looking after the environment	Looking after the environment
Better information and advice	Better information and advice
Retail	
Responsive customer service	
Better information and advice	
Affordable bills	

Allowed costs/expenditure

Wholesale	Water	Wastewater
Totex – 2015-20 total (£m)	769.1	1,877.8
Allowed weighted average cost of capital (%)	3.70%	3.70%
Allowed wholesale revenue in 2015-20 (£m)	810.9	2,536.6
Retail	Household	Non-household
Cost allowance – 2015-20 total (£m)	250.4	
Margin (%)	1.0%	2.5%
Retail allowed revenue (£m)	284.7	43.7
Average bill per household customer – retail component only (£)	34	

Note: Wholesale figures in 2012-13 prices and retail figures in nominal prices – this is consistent throughout this draft determination unless otherwise stated.

RoRE ranges – appointee



Ofwat's calculations of notional financeability ratios

Financial ratios for notional company	Ofwat calculation (average 2015-20)
Cash interest cover	3.41
Adjusted cash interest cover ratio (ACICR) – base case (average over five years)	1.49
Funds from operations/debt	11.34%
Retained cash flow/debt	8.67%

Financial ratios for notional company	Ofwat calculation (average 2015-20)
Gearing	61.88%
Dividend cover (profit after tax/dividends paid)	0.56
Regulatory equity/regulated earnings for the regulated company	17.71
RCV/EBITDA	10.00

Summary of interventions

<p>Outcomes</p> <ul style="list-style-type: none"> We have imposed an overall cap and collar on outcome delivery incentives of +/- 2% of RoRE <p>Horizontal check:</p> <ul style="list-style-type: none"> We have made three performance level targets more stretching <p>Bottom up analysis:</p> <ul style="list-style-type: none"> We have made one performance level target more stretching We have removed the reward for two ODIs We have intervened to increase penalties in the areas subject to shortfall for performance in 2010-15 	<p>Wholesale costs</p> <ul style="list-style-type: none"> The company proposed wholesale water totex of £816 million in its plan, which is £45 million above our draft determination threshold of £771 million. The company did not include any cost exclusions. The company proposed wholesale wastewater totex of £1988 million in its plan, which is £110 million above our draft determination threshold of £1878 million. We have allowed some of the company's wholesale cost exclusions, and rejected or only partially allowed other exclusions.
<p>Retail</p> <ul style="list-style-type: none"> We have rejected the company's proposed adjustment for bad debt driven by deprivation and bill size (household). We have rejected the company's proposed adjustment for input price pressure. We have calculated the average cost to serve (ACTS) and the company's allowed revenues based on 2012-13 costs and customer numbers as 2013-14 included unrepresentative one off costs. 	<p>Reconciling 2010-15 performance</p> <ul style="list-style-type: none"> We have intervened with adjustments relating to 2010-15 performance which has reduced the revenue requirement by £21.8 million to £152.0 million. We have imposed a shortfall for sewerage non-infrastructure serviceability of £156.7m (£139.3m post-efficiency)
<p>Financeability and affordability</p> <ul style="list-style-type: none"> We have reprofiled bills so that a bill reduction is taken in the first year with broadly flat bills for the remainder of the period. 	<p>Risk and reward</p> <ul style="list-style-type: none"> We have included a 75%:25% uncertainty mechanism for all companies consistent with our prior guidance and earlier draft determinations.

A2. Wholesale water

A2.1 Company outcomes, performance commitments and delivery incentives

A2.1.1 Outcomes, performance commitments and incentives

In the outcomes technical appendix, we discuss our approach to outcomes for the wholesale and retail controls.

We summarise the outcomes, performance commitments and outcome delivery incentives for the wholesale water control for Southern Water in Table A2.1 below.

We are intervening to impose an overall cap and collar on outcome delivery incentives for the 2015-20 period, thereby limiting total rewards and penalties. The maximum rewards for outperformance will be limited to +2% of RoRE and maximum penalties for underperformance are limited to -2% of RoRE. This will help ensure that the overall package of delivery incentives is calibrated to provide meaningful financial incentives and protect customers.

For some performance commitments and incentives types, we have intervened to change the underlying performance level or incentives. These interventions are listed in Table A2.1 below. Full detail of the wholesale water outcomes, performance commitments and incentives is provided in annex 4.

Table A2.1 Wholesale water outcomes, performance commitments and incentives

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
A constant supply of high quality drinking water	Water asset health	Financial penalty	<p>Horizontal check:</p> <p>As a result of comparisons with upper quartile performance we have adjusted the performance levels for discolouration contacts.</p> <p>Bottom-up analysis:</p> <p>We have increased the penalty rate for mains bursts. The company is to be shortfalled for its performance over 2010-15 against a related measure (supply interruptions). We have also changed the ODI mechanism such that asset health penalties are incurred on the first year that performance falls below the deadband.</p>
	Water use restrictions	Financial penalty	<p>Bottom-up analysis:</p> <p>We have changed the form of incentive from an adjustment to regulatory capital value (RCV) to a revenue adjustment.</p>
	Leakage	Financial reward and penalty	<p>Bottom-up analysis:</p> <p>We have increased the penalty collar to align the penalty range with the industry average.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
	Interruptions to supply	Financial penalty	<p>Horizontal check:</p> <p>We have changed the penalty deadband and collar to ensure that the company is incentivised to deliver upper quartile performance.</p> <p>Bottom-up analysis:</p> <p>We have increased the penalty rate in order to ensure that the company is sufficiently incentivised. The company is to be shortfalled for its performance over 2010-15 against this measure.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>
	Drinking water quality	Financial penalty	<p>Horizontal check:</p> <p>We have increased the performance commitment, the deadband and the collar to ensure that the company is incentivised to deliver upper quartile performance.</p> <p>Bottom-up analysis:</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>
	Water pressure	Financial penalty	<p>Bottom-up analysis:</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>
	Awareness of water hardness	Non-financial – Reputational	No intervention.
Looking after the environment	Distribution input	Non-financial – Reputational	No intervention.

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
Better information and advice	Per capita consumption	Financial reward and penalty	<p>Bottom-up analysis:</p> <p>The proposed reward incentive has been removed as the company has not demonstrated that customers are willing to pay more for increased performance in this area.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>

A2.1.2 Outcome delivery and reporting

In the assurance technical appendix, we set out our proposed framework for the form and level of reporting, monitoring and assurance we will seek from companies during the five year regulatory period 2015-20 in relation to the delivery of their commitments for the price review. This sets out three levels of assurance and the opportunities available for a company to improve its category status through the finalisation of the price controls and during the regulatory period itself.

We are satisfied with the company’s proposals for self reporting. But consistent with the commentary in our assurance technical annex, we will need to consider the categorisation of the company for assurance purposes at the final determination.

Southern Water’s proposed approach to the measurement, reporting and governance of outcomes and our assessment of this approach is summarised in annex 4.

A2.2 Calculating the wholesale water price control

A2.2.1 Calculating allowed wholesale water expenditure

Our approach to calculating allowed wholesale expenditure is set out in the wholesale water and wastewater technical appendix. In Southern Water’s revised plan the company proposed wholesale water totex of £816m over 2015-2020 (lower than the expenditure in its December plan). We calculated the draft determination threshold at £771m, giving rise to a difference of £45m or 5.9%. The company did not make any cost exclusion claims. However, we note that the company made

representations to our cost models following the publication of these in April. The representations made and our response are summarised in the wholesale water and wastewater technical appendix.

The actual gap faced by the company against our totex threshold is smaller than that implied by the gap. This is because the use of menus and our approach to setting baselines reduces the difference faced by the company. The difference between the company's plan and the amount it would ultimately recover from customers is only 2.9%.

The wholesale water allowed expenditure for Southern Water is detailed in Table A2.2 below. We provide a further breakdown of some of the calculations in annex 1. Further information about our assessment of each claim is set out in the populated version of draft determination initial cost threshold models.

Table A2.2 Wholesale water allowed expenditure (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total 2015-20
Draft determination cost threshold						770.6
Costs excluded from menu						25.5
Menu cost baseline ¹	150.9	163.4	161.6	146.7	122.5	745.1
Company's view of menu costs ²						790.0
Implied menu choice						106.0
Allowed expenditure from menu	153.1	165.9	164.0	148.9	124.3	756.3
Costs excluded from menu	5.2	5.1	5.1	5.1	5.0	25.5
Total allowed expenditure ³	158.4	171.0	169.1	154.0	129.4	781.8
Less pension deficit repair allowance	2.5	2.5	2.5	2.5	2.5	12.7
Totex for input to PAYG	155.8	168.5	166.6	151.4	126.8	769.1

Notes:

1. Menu baseline is equal to the draft determination threshold less pension deficit recovery costs, third party costs and market opening costs related to 2014-15 (see annex 1).
2. Based on company plan totex minus costs for items excluded from the menu.
3. Includes pension deficit repair allowance.

A2.2.2 Calculation of Revenues: pay as you go (PAYG) and regulatory capital value (RCV)-run off

Table A2.3 shows the company's proposed PAYG ratios and associated totex recovery for wholesale water, which we have used as the basis for this draft determination.

Table A2.3 Southern Water wholesale water PAYG ratios

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Totex (£m)	155.8	168.5	166.6	151.4	126.8	769.1
PAYG %	53.2%	46.3%	47.4%	53.5%	55.5%	51.2%
Resulting PAYG (£m)	82.9	78.0	79.0	81.0	70.4	391.2

Table A2.4 shows the RCV run-off amounts included within the wholesale water charge. This reflects a run-off rate of 4.20% for the RCV as at 31 March 2015 and 24 years for the totex additions to the RCV over 2015-20.

Table A2.4 Southern Water wholesale water RCV run-off (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Run-off of 2015 RCV	29.3	28.1	26.9	25.2	25.3	134.8
RCV run-off of totex additions	1.5	4.9	8.6	11.9	14.6	41.6
Total RCV run-off	30.8	33.0	35.5	37.1	39.9	176.3

A2.2.3 Return on the RCV

Our risk and reward guidance set out a single industry cost of capital for both wholesale water and wastewater services of 3.7%. The company has accepted this guidance and we have used a cost of capital of 3.7% in this draft determination. This results in a return on capital of £150.4 million over 2015-20.

Table A2.5 shows our calculation of the opening RCV at 1 April 2015 taking account of the adjustments for 2010-15 performance discussed in section A2.2.4 below. The average RCV, set out in Note:

1. The adjustment for actual expenditure 2010-15 is explained further in annex 3 as part of the CIS adjustment.

Table A2.6 for each year, takes into account the proportion of totex additions to the RCV determined by the PAYG ratio and RCV run-off.

Table A2.5 Southern Water wholesale water opening RCV (£ million)

	2015-16
Closing RCV 31 March 2015	646.7
Land sales	0.5
Adjustment for actual expenditure 2009-10	-14.4
Adjustment for actual expenditure 2010-15 ¹	130.7
Net adjustment from logging up, logging down and shortfalls	-65.6
Other adjustments	0.0
Opening RCV 1 April 2015	697.9

Note:

2. The adjustment for actual expenditure 2010-15 is explained further in annex 3 as part of the CIS adjustment.

Table A2.6 Southern Water wholesale water return on RCV (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20
Opening RCV	697.9	740.0	797.5	849.5	882.9
RCV additions (from totex)	72.9	90.5	87.6	70.4	56.4
Less RCV run-off	30.8	33.0	35.5	37.1	39.9
Closing RCV	740.0	797.5	849.5	882.9	899.4
Average RCV (year average)	719.0	768.7	823.5	866.2	891.2
Return on capital	26.6	28.4	30.4	32.0	33.0

A2.2.4 Reconciling 2010-15 performance

Our approach to reconciling 2010-15 performance is set out in the wholesale water and wastewater technical appendix.

The company proposed adjustments to the opening RCV and allowed revenue for the wholesale water services to reconcile performance between 2010-15. We have intervened and as a result of our interventions, we have made overall changes to proposed 2010-15 adjustments for the opening RCV and allowed revenues for the wholesale water service. Our interventions have reduced 2010-15 revenue adjustments for wholesale water from £72.7 to £ 67.9 million. We summarise these interventions and quantify the resulting adjustments within this draft determination in Table A2.7 below.

The impact on the opening RCV of 2010-15 adjustments is shown in Table A2.5. As noted in the table, we have applied -£65.6m in (net) adjustments arising from logging up, logging down and shortfalls. It should be noted that the company did not propose a shortfall, however we have intervened and applied a shortfall of -£12.2m (post efficiency) – this relates to unplanned interruption to supply exceeding 12 hours. Further information on our interventions and rationale is set out in annex 3.

Table A2.7 Southern Water wholesale water revenue adjustments to reflect 2010-15 performance (£ million)

Area	Intervention	Why we did it	Total 2010-15
Service incentive mechanism (SIM)	SIM performance penalty has increased.	To reflect updated industry performance in line with the methodology.	-6.3
Revenue correction mechanism (RCM)	We have intervened in the following areas. <ul style="list-style-type: none"> • Back billing • FD09 assumptions. 	We had concerns at the risk-based review with the company's 2013-14 and 2014-15 revenues forecasts because it had projected a widening revenue shortfall that was not explained. We are no longer concerned because the company has updated its 2013-14 data with actuals and updated its 2014-15 forecasts in its June submission and has provided additional evidence to support its 2014-15 revenues forecast. We have not intervened on its 2014-15 revenues	76.7

Area	Intervention	Why we did it	Total 2010-15
		forecast. However we have remaining concerns as to whether the back billing amounts being claimed by the company are compliant with RAG4.04 and IN11/04 and so have disallowed these back billing claims. We also have some minor issues on FD09 assumptions.	
Opex incentive allowance (OIA)	There are no interventions in this area.	n/a	17.4
Capital expenditure incentive scheme (CIS)	There are no interventions in this area.	n/a	-14.3
Other adjustments	We have included an 'other adjustment' of -£5.6m for water.	<p>Southern has proposed to return £5m to customers through the RCM as a result of not delivering its leakage target in 2010-11. It included an adjustment of £5m to the pre-annualised RCM in its RCM calculations to reduce its calculated RCM by £5.6m to £74.084m for water.</p> <p>For our assumptions at the draft determination, we have calculated the company's proposed reductions and included it as an 'other adjustment' of £5.6m and have adjusted the company's view of its RCM.</p> <p>We agree with Southern's decision to reduce the RCM over 2015-20 as a result of a failure to meet its leakage target, it is clearly taking accountability for its actions and is seeking to return value to customers for it shortfalls in performance. We have included an 'other adjustment' of -£5.568m for water.</p>	-5.6

Area	Intervention	Why we did it	Total 2010-15
Total	n/a	n/a	67.9

A2.2.5 Calculation of allowed revenue

We set out the calculation of the allowed revenue for Southern Water's wholesale water control in Table A2.8.

Overall, we consider that the company's wholesale water revenue allowance should be £160.4million in 2015-16, increasing by 2.2% to £163.9 million in 2019-20.

Table A2.8 Southern Water wholesale water allowed revenue (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Totex	155.8	168.5	166.6	151.4	126.8	769.1
PAYG ratio	53.20%	46.30%	47.40%	53.50%	55.50%	-
Totex additions to the RCV	72.9	90.5	87.6	70.4	56.4	377.9
RCV (year average)	719.0	768.7	823.5	866.2	891.2	-
Wholesale allowed revenue build up:						
PAYG ¹	85.4	80.5	81.5	83.6	72.9	403.9
Return on capital	26.6	28.4	30.4	32.0	33.0	150.4
RCV run-off	30.8	33.0	35.5	37.1	39.9	176.3
Tax ²	0.0	0.0	0.0	0.0	0.0	0.0
Income from other sources	-4.8	-4.8	-4.7	-4.7	-4.6	-23.5
Reconciling 2010-15 performance	18.0	18.0	11.6	10.4	10.1	67.9
Ex ante additional menu income	-1.2	-1.3	-1.2	-1.1	-0.9	-5.7

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Wholesale allowed revenue adjustments						
Profiling adjustments ³	-2.3	-0.7	0.9	-2.5	5.2	0.6
Capital contributions from connection charges and revenue from infrastructure charges	8.4	8.0	8.6	8.1	7.9	41.0
Final allowed revenues	160.9	161.3	162.5	162.9	163.4	810.9

Notes:

1. PAYG includes the PAYG calculated from totex and the pension deficit repair allowance.
2. Including tax on adjustments for reconciling 2010-15 performance and ex-ante additional menu income.
3. For the draft determinations we have reprofiled bills as outlined in section A6.4

A2.3 Uncertainty mechanisms

We outline our approach to uncertainty mechanisms in the risk and reward technical appendix. In Table A2.9 below, we set out Southern Water's proposed wholesale water uncertainty mechanisms and our assessment of these proposals.

Table A2.9 Southern Water proposals for wholesale water uncertainty mechanisms

Southern Water's proposals	Our assessment
<p>Southern Water did not propose an uncertainty mechanism for water business rates but did state that if an industry-wide mechanism was constructed it would expect to receive such a mechanism.</p>	<p>We consider that the materiality, comparability and control over risk criteria for water business rates are met. We have included a 75%:25% uncertainty mechanism for all companies consistent with our prior guidance and earlier draft determinations. The specific text of this Notified Item and the rationale for its inclusion in the draft determination is set out in the risk and reward technical appendix.</p>

A3. Wholesale wastewater

A3.1 Outcomes, performance commitments and incentives

In the Outcomes technical appendix, we discuss our approach to outcomes for the wholesale and retail controls.

We summarise the outcomes, performance commitments and outcome delivery incentives for the wholesale wastewater control for Southern Water in Table A3.1 below.

Similar to the wholesale water control, we are intervening to impose an overall cap and collar on outcome delivery incentives for the 2015-20 period, thereby limiting total rewards and penalties. The maximum rewards for outperformance will be limited to +2% of RoRE and maximum penalties for underperformance are limited to -2% of RoRE. This will help ensure that the overall package of delivery incentives is calibrated to provide meaningful financial incentives and protect customers.

In addition, for some performance commitments and incentives types we have intervened to change the underlying performance level or incentives. These interventions are listed in Table A3.1 below. Full detail of the wholesale water outcomes, performance commitments and incentives is provided in annex 4.

Table A3.1 Wholesale wastewater outcomes, performance commitments and incentives

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
A reliable wastewater service	Wastewater asset health	Financial penalty	<p>Horizontal check:</p> <p>We have changed the performance levels for total pollution incidents to ensure that SRN is incentivised to achieve upper quartile performance.</p> <p>Bottom up analysis:</p> <p>The company is to be shortfalled for its performance in 2010-15 for Wastewater Infrastructure and Non-infrastructure. To ensure customers are protected in future, we have increased the penalty rates by 25% to</p>

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
			<p>bring them more into line with the scale of penalties that other companies which have been recently shortfalled are proposing. We have changed the ODI mechanism such that penalties are incurred in the first year that performance falls below the deadband.</p> <p>Bottom up analysis:</p> <p>Performance against the sub-measure 'Wastewater treatment works population-equivalent compliance' has been a particular issue for the company during 2010-15 but the company was proposing not to include it in its Asset Health basket of performance commitments. We have therefore intervened to introduce a performance commitment together with a financial penalty. The existing financial penalty for the 'Wastewater treatment works compliance' PC has been adjusted to keep the total maximum penalty the same as before.</p>
	Internal flooding incidents	Financial reward and penalty	<p>Horizontal check:</p> <p>We have changed the performance levels to ensure that SRN is incentivised to achieve upper quartile performance.</p> <p>Bottom up analysis:</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment</p>
	External flooding incidents	Non-financial – Reputational	No intervention.
	Sewer blockages	Financial penalty	<p>Bottom up analysis:</p> <p>We have increased the penalty rate by 25% as the company is to be shortfalled for its performance over 2010-15 against wastewater asset serviceability measures.</p>

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
			<p>We increased the company's asset health penalties by 25% to bring it more into line with the penalties that other companies which have been recently shortfalled are proposing.</p> <p>We consider the deadband for asset health measures to be unnecessarily wide. We have therefore set the level at that implied in its submission of 27th June 2014.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment because this ensures that the customers who are affected by poor performance are the ones who are compensated for it.</p>
	Odour complaints	Non-financial – Reputational	<p>Bottom up analysis:</p> <p>A financial penalty has been introduced to ensure customers are protected from non-delivery of the proposed improvements.</p>
Looking after the environment	Wastewater treatment works numeric compliance	Financial penalty	<p>Bottom up analysis:We have increased all wastewater asset health penalty rates by 25% as the company is to be shortfalled for its performance over 2010-15 against wastewater asset serviceability. We have also moved 50% of the penalty onto the asset health sub-measure 'WWTW population-equivalent compliance' because the company is to be specifically shortfalled for poor performance in this area and we want customers to be protected in the future.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>
	Proportion of energy from renewables	Non-financial – Reputational	<p>Bottom up analysis:A financial penalty has been introduced to ensure customers are protected from non-delivery of the proposed improvements.</p>

Company proposal			Intervention
Outcome	Performance commitment	Incentive type	
	Beaches with excellent water quality	Financial reward and penalties	We have not intervened on this PC and ODI but, as funding for the proposed improvements has not been allowed, the company may wish to make revised proposals in its response to the draft determination. We did not need to intervene on the structure of the ODI. It was the evidence on the costs which we did not accept.
	Serious pollution incidents	Financial reward and penalties	<p>Bottom up analysis:</p> <p>We have removed the proposed reward because it would have allowed the company to earn rewards while causing serious pollution incidents for which a company could be prosecuted. We do not consider it appropriate for any company to earn rewards in such circumstances.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>
Better information and advice	Avoiding blocked drains	Non-financial – Reputational	No intervention.
Additional performance commitments and ODIs	None	None	<p>Bottom up analysis:</p> <p>We require the company to introduce PCs and ODIs to ensure customers are protected against non-delivery of the following two schemes.</p> <ul style="list-style-type: none"> • Thanet ground water protection. • Millbrook Sludge.

A3.1.1 Outcome delivery and reporting

In the assurance technical appendix, we set out our proposed framework for the form and level of reporting, monitoring and assurance we will seek from companies during the five year regulatory period 2015 -2020 in relation to the delivery of their commitments for the price review. This sets out three levels of assurance and the

opportunities available for a company to improve its category status through the finalisation of the price controls and during the regulatory period itself.

We are satisfied with the company's proposals for self reporting. But consistent with the commentary in our assurance technical annex, we will need to consider the categorisation of the company for assurance purposes at the final determination.

Southern Water's proposed approach to the measurement, reporting and governance of outcomes and our assessment of this approach is summarised in annex 4.

A3.2 Calculating the wholesale wastewater price control

A3.2.1 Calculating allowed wholesale wastewater expenditure

Our approach to calculating allowed wholesale expenditure is set out in the wholesale water and wastewater technical appendix. In Southern Water's revised plan the company proposed wholesale wastewater totex of £1998m over 2015-2020 (lower than the expenditure in its December plan by £42m). We calculated the draft determination threshold at £1878m, giving rise to a difference of £110m or 5.8%. The wholesale wastewater allowed expenditure for Southern Water is detailed in Table A3.2 below, this includes an allowance of £128.6m for the company's NEP5 programme.

The actual gap faced by the company against our totex threshold is smaller than that implied by the gap. This is because the use of menus and our approach to setting baselines reduces the difference faced by the company. The difference between the company's plan and the amount it would ultimately recover from customers is only 2.8%.

A further breakdown of some of the calculations is provided in annex 1. Further information about our assessment of each claim is set out in the populated version of draft determination initial cost threshold models.

Table A3.2 Wholesale wastewater allowed expenditure (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Draft determination cost threshold						1,878.4
Costs excluded from						27.9

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
menu						
Menu cost baseline ¹	354.7	391.8	395.5	371.6	337.1	1850.6
Company's view of menu costs ²						1958.9
Implied menu choice						105.9
Allowed expenditure from menu	359.9	397.5	401.2	377.0	342.1	1877.6
Costs excluded from menu	5.7	5.5	5.5	5.5	5.5	27.9
Total allowed expenditure³	365.6	403.0	406.8	382.5	347.6	1905.5
Less pension deficit repair allowance	5.5	5.5	5.5	5.5	5.5	27.7
Totex for input to PAYG	360.1	397.5	401.2	377.0	342.1	1877.8

Notes:

1. Menu baseline is equal to the draft determination threshold less pension deficit recovery costs, third party costs and market opening costs related to 2014-15 (see annex 1).
2. Based on company plan totex minus costs for items excluded from the menu.
3. Includes pension deficit repair allowance.

A3.2.2 Calculation of Revenues: PAYG and RCV-run off

Table A3.3 shows the company's proposed PAYG ratios and associated totex recovery for wholesale wastewater, which we have used as the basis for this draft determination.

Table A3.3 Southern Water wholesale wastewater PAYG ratios

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Totex (£m)	360.1	397.5	401.2	377.0	342.1	1877.8
PAYG %	47.5%	44.3%	43.4%	43.3%	52.3%	46.2%
Resulting PAYG (£m)	171.0	176.1	174.1	163.2	178.9	863.4

Table A3.4 shows the RCV run-off amounts included within the wholesale wastewater charge. This reflects a run-off rate of 5.75% for the RCV as it stands on 31 March 2015 and 24 years for the totex additions to the RCV over 2015-20.

Table A3.4 Southern Water wholesale wastewater RCV run-off (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Run-off of 2015 RCV	188.7	176.3	169.1	163.4	155.1	852.6
RCV run-off of totex additions	3.9	12.5	21.8	31.0	38.9	108.1
Total RCV run-off	192.6	188.8	191.0	194.5	194.0	960.8

A3.2.3 Return on the RCV

As discussed in section A2.2.3, the company has accepted our risk and reward guidance and so we have used a cost of capital of 3.7% in this draft determination. This results in a return on capital of £614.1million over 2015-20.

Table A3.5 shows our calculation of the opening RCV at 1 April 2015 taking account of the adjustments for 2010-15 performance discussed in section A3.2.4 below. The average RCV, set out in Note:

1. The adjustment for actual expenditure 2010-15 is explained further in annex 3 as part of the CIS adjustment.

Table A3.6 below for each year, takes into account the proportion of totex additions to the RCV determined by the PAYG ratio and RCV run-off.

Table A3.5 Southern Water wholesale wastewater opening RCV (£ million)

	2015-16
Closing RCV 31 March 2015	3537.9
Land sales	2.5
Adjustment for actual expenditure 2009-10	-82.0
Adjustment for actual expenditure 2010-2015 ¹	-15.6
Net adjustment from logging up, logging down and shortfalls	-161.7
Other adjustments	0.0

	2015-16
Opening RCV 1 April 2015	3281.0

Note:

2. The adjustment for actual expenditure 2010-15 is explained further in annex 3 as part of the CIS adjustment.

Table A3.6 Southern Water wholesale wastewater return on RCV (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20
Opening RCV	3281.0	3277.5	3310.1	3346.3	3365.6
RCV additions (from totex)	189.0	221.4	227.1	213.8	163.2
Less RCV run-off	192.6	188.8	191.0	194.5	194.0
Closing RCV	3277.5	3310.1	3346.3	3365.6	3334.7
Average RCV (year average)	3279.3	3293.8	3328.2	3355.9	3350.1
Return on capital	121.3	121.8	123.1	124.1	123.9

A3.2.4 Reconciling 2010-15 performance

Our approach to reconciling 2010-15 performance is set out in the wholesale water and wastewater technical appendix.

The company proposed adjustments to the opening RCV and allowed revenue for the wholesale water services to reconcile performance between 2010-15. We have intervened and as a result of our interventions, we have made changes to proposed 2010-15 adjustments for the opening RCV and allowed revenues for the wholesale wastewater service. Our interventions have reduced 2010-15 revenue adjustments for wholesale wastewater from £101.1 million to £84.1 million. We summarise these interventions in The impact on the opening RCV of 2010-15 adjustments is shown in Table A3.5 above. As noted in the table, we have applied -£161.7m in (net) adjustments arising from logging up, logging down and shortfalls. As part of our draft determination we have applied a shortfall for serviceability; the company did not propose a shortfall, however we have intervened and applied a shortfall of -£141.0m (post efficiency) – this relates to (i) Properties internally flooded in year because of other causes and (ii) Population equivalent (sewage treatment) non-compliance. Further information on our interventions and rationale is set out in annex 3.

Table A3.7, and quantify the resulting adjustments within this draft determination.

The impact on the opening RCV of 2010-15 adjustments is shown in Table A3.5 above. As noted in the table, we have applied -£161.7m in (net) adjustments arising from logging up, logging down and shortfalls. As part of our draft determination we have applied a shortfall for serviceability; the company did not propose a shortfall, however we have intervened and applied a shortfall of -£141.0m (post efficiency) – this relates to (i) Properties internally flooded in year because of other causes and (ii) Population equivalent (sewage treatment) non-compliance. Further information on our interventions and rationale is set out in annex 3.

Table A3.7 Southern Water wholesale wastewater revenue adjustments to reflect 2010-15 performance (£ million)

Area	Intervention	Why we did it	Total 2010-15
Service incentive mechanism (SIM)	SIM performance penalty has increased.	To reflect updated industry performance statistics and application of methodology	-19.7

Area	Intervention	Why we did it	Total 2010-15
Revenue correction mechanism (RCM)	<p>We have intervened in the following areas.</p> <ul style="list-style-type: none"> • Back billing. • FD09 assumptions. 	<p>We acknowledge the change in position since the risk-based review (the provision of actual data for 13-14 demonstrated that the company was closer to our assessment), however we have remaining concerns as to whether the back billing amounts being claimed put forward by the company are compliant with RAG4.04 and IN11/04 and so have disallowed these back billing claims. We also have some minor issues on FD09 assumptions.</p>	110.7
Opex incentive allowance (OIA)	<p>We substituted our view of the logging up opex adjustments for private sewers, based on capping the company's high capex/opex ratio at one standard deviation above the industry average.</p>	<p>For consistency with the methodology we have applied this adjustment to all companies, where appropriate, to ensure that companies do not benefit in (capex terms) from disproportionately high set-up costs that have been incurred.</p>	26.5
Capital expenditure incentive scheme (CIS)	<p>There are no interventions in this area other than those that are as a result of our view of the applicable change protocol amounts.</p>	n/a	-33.4
Other adjustments	<p>There are no interventions in this area</p>	n/a	0
Total	n/a	n/a	84.1

A3.2.5 Calculation of allowed revenue

The calculation of the allowed revenue for Southern Water's wholesale wastewater control is shown in Table A3.8.

Overall, we consider that Southern Water's wholesale wastewater revenue allowance should be £500.3 million in 2015-16, increasing by 2.8 % to £514.3 million in 2019-20.

Table A3.8 Southern Water wholesale wastewater allowed revenue (£ million)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Totex	360.1	397.5	401.2	377.0	342.1	1877.8
PAYG ratio	47.5%	44.3%	43.4%	43.3%	52.3%	-
Totex additions	189.0	221.4	227.1	213.8	163.2	1014.5
RCV (year average)	3279.3	3293.8	3328.2	3355.9	3350.1	-
Wholesale allowed revenue build up:						
PAYG ¹	176.6	181.6	179.7	168.8	184.4	891.1
Return on capital	121.3	121.8	123.1	124.1	123.9	614.1
RCV run-off	192.6	188.8	191.0	194.5	194.0	960.8
Tax ²	0.0	0.0	0.0	0.0	0.0	0.0
Income from other sources	-6.0	-5.9	-5.9	-5.8	-5.7	-29.4
Reconciling 2010-15 performance	18.1	18.1	18.1	18.1	11.5	84.1
Ex ante additional menu income	-2.7	-2.9	-3.0	-2.8	-2.5	-13.9
Wholesale allowed revenue adjustments						
Profiling adjustments ³	-4.7	-3.1	-1.5	7.9	2.4	1.0
Capital contributions from connection charges and revenue from infrastructure charges	5.7	5.5	5.9	5.9	5.7	28.8

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Final allowed revenues	500.9	503.9	507.5	510.7	513.7	2536.6

Notes:

1. PAYG includes the PAYG calculated from totex and the pension deficit repair allowance.
2. Including tax on adjustments for reconciling 2010-15 performance and ex ante additional menu income.
3. For the draft determinations we have reprofiled bills as outlined in section A6.4

A3.3 Uncertainty mechanisms

We outline our approach to uncertainty mechanisms in the risk and reward technical appendix. In Table A3.9 below, we set out Southern Water’s proposed wholesale wastewater uncertainty mechanisms and our assessment of these proposals.

Table A3.9 Southern Water proposals for wholesale wastewater uncertainty mechanisms

Southern Water proposals	Our assessment
Southern Water did not propose any uncertainty mechanisms beyond those that will already form part of the regulatory framework for 2015-20.	n/a

A4. Household retail

A4.1 Company outcomes, performance commitments and delivery incentives

In the outcomes technical appendix, we discuss our approach to outcomes for the wholesale and retail controls.

We summarise the outcomes, performance commitments and outcome delivery incentives for the household retail control for Southern Water in Table A4.1 below.

We have not intervened on any of the company's retail outcomes of performance commitments. Full details of the retail outcomes, performance commitments and incentives are provided in annex 4.

Table A4.1 Household retail outcomes, performance commitments and incentives

Outcome	Performance commitment	Incentive type	Intervention
Responsive customer service	First time resolution of customer contacts	Non-financial – Reputational	No intervention
	Dealing with customers' individual needs – customer survey.	Non-financial – Reputational	No intervention
Better information and advice	Where your money goes – customer survey.	Non-financial – Reputational	No intervention
	Billing queries	Non-financial – Reputational	No intervention
Affordable bills	Take-up of assistance schemes	Non-financial – Reputational	No intervention
	Value-for-money survey	Non-financial – Reputational	No intervention
	Service Incentive Mechanism (SIM)	Financial – reward and penalty	Horizontal check – PC added (industry-wide incentive)

A4.1.1 Outcome delivery and reporting

In the assurance technical appendix, we set out our proposed framework for the form and level of reporting, monitoring and assurance we will seek from companies during the five year regulatory period 2015 -2020 in relation to the delivery of their commitments for the price review. This sets out three levels of assurance and the opportunities available for a company to improve its category status through the finalisation of the price controls and during the regulatory period itself.

We are satisfied with the company's proposals for self reporting. But consistent with the commentary in our assurance technical annex, we will need to consider the categorisation of the company for assurance purposes at the final determination.

Southern Water's proposed approach to the measurement, reporting and governance of outcomes and our assessment of this approach is summarised in annex 4.

A4.2 Costs

Our approach to the household retail control is set out in the household retail technical appendix.

A4.2.1 Allocation of costs

In Table A4.2 below, we summarise our assessment of Southern Water's cost allocation methodology.

Table A4.2 Our assessment of Southern Water's cost allocation methodology

Area assessed	Assessment
No potential material misallocations	Fail
Adequate assurance provided	Fail
Reconciliation to Regulatory accounts and December business plan provided	Pass
Correct price base used	Pass

The company has submitted information to suggest that it has allocated most of its costs in line with our guidance. In our draft determination, we have used the company's cost allocations between retail and wholesale and between household and non-household.

The company had not provided us with a copy of its external assurance report over its cost allocations and the allocation of its doubtful debt was between household and non-household was not in accordance with our guidance. The scores in the table above reflect this position.

We wrote to the company on 30 July highlighting some concerns that we had with its cost allocation submission. In response to this letter, the company provided us with a copy of the external assurance report over its cost allocations and with further workings to support its allocation of doubtful debt.

We confirm that, subject to ratification by Ofwat Board post draft determination and subject to any views Ofwat’s Board has in the period to publication of the draft determination, we are now satisfied with the company’s doubtful debt allocation.

We have reviewed the company’s external assurance report. We are satisfied that it gives us assurance over new and changed data since the December submission, but it does not give us any assurance over any areas which are not new or have not changed since the December submission. This is of concern to us as the company did not obtain any assurance over the cost allocations in its December submission.

A4.2.2 Adjustments

In

Table A4.3 below, we outline Southern Water’s proposed ACTS adjustments and our assessment of these proposals. The adjustments proposed by Southern Water and Ofwat are quantified in

Table A4.4 Our approach to assessing adjustment claims is set out in the household retail technical appendix.

Table A4.3 Southern Water proposals for ACTS adjustments

		Adjustment assessment criteria			
Adjustment	Total value over 2015-20 (£m)	Materiality	Beyond efficient management control	Impact company in materially different way	Value of adjustment appropriate
Bad debt	12.3	Pass	Pass	Fail	Fail

Input price pressure	12.9	Pass	Fail	Efficiency benchmarking evidence: Fail	Fail
				Upper quartile: Fail	

Bad debt

Southern Water sought an ACTS adjustment for bad debt based on the level of deprivation and bill size faced by its customers. The total value of the adjustment was £12.3m.

We reject Southern Water’s proposal for an ACTS adjustment for bad debt based on deprivation and bill size. When considered in the round and compared to other companies, Southern Water’s evidence suggests some room for improvement in terms of management efficiency and also suggests that it is not affected in a materially different way compared to other companies when looking at both relative levels of bills and deprivation, rather than just bills alone. Therefore, we conclude that Southern Water’s evidence does not support an adjustment for bad debt.

Southern Water’s proposed bad debt adjustment is material and its revised modelling analysis and evidence is sufficient and convincing to demonstrate that deprivation and bill size is beyond management control but this modelling evidence is a necessary but not sufficient condition. Southern Water also provides a good level of evidence on its debt prevention and management policies and procedures, although the evidence suggests the existence of some gaps and room for improvement (much of which is currently planned by Southern Water).

Southern Water provided insufficient evidence to demonstrate that bills affect it in a materially different way to other companies and that these factors are beyond ‘efficient’ management control.

Southern Water has below average levels of deprivation across all measures of deprivation and, although Southern Water has relatively high bills, the third highest in the sector, its position can be compared against:

- Wessex Water, which has higher bills than Southern Water (but lower doubtful debts per customer) and it has not sought a bad debt adjustment;
- Anglian Water, which has slightly lower bills than Southern Water, slightly lower doubtful debts per customer but slightly higher deprivation, and it has also not sought a bad debt adjustment; and

- South West Water, which has been allowed an adjustment for bad debt, but it has considerably higher bills (the highest in the country) and higher levels of deprivation than Southern Water.

Consequently, when considered in the round and alongside the evidence from other companies, Southern Water's evidence overall provides insufficient justification for a bad debt adjustment in particular because its position relative to other companies suggests to us that there is further scope for efficiency improvement.

Input price pressure

Southern Water sought an ACTS adjustment for input price pressure. The adjustment was based on two elements – £4.52m for input price pressure between 2013-14 and 2015-16 and £8.4m for input price pressure in the period 2015 – 2020.

We reject Southern Water's proposal for an ACTS adjustment for input price pressure. Southern Water does not show that these costs are outside of efficient management control or demonstrate that it is affected in a materially different way to other companies.

Overall we do not consider that the evidence provided on management practices is sufficient and convincing that the company manages its costs to the extent that future cost increases are outside of efficient management control.

Southern Water's evidence on relative efficiency, including benchmarking, shows that Southern Water is inefficient. Southern Water's argument is built on the premise that the level of catch-up it will be expected to achieve is excessive. We do not consider this to be a convincing argument that the company is affected in a materially different way to other companies. In coming to this conclusion we have considered evidence on the efficiency improvements achieved by companies in other sectors, and regulatory precedent in the size of efficiency challenges given to companies. This evidence shows that efficiency improvements of a similar magnitude have been achieved by other companies and so we conclude that the catch up efficiency challenge proposed for Southern Water is not excessive.

Although we do not consider that an adjustment for input price pressure is appropriate for Southern Water, for completeness we have assessed the evidence provided on the size of an adjustment. Southern Water's evidence to support the size of the adjustment is based on its argument regarding the relative catch-up efficiency and so we do not consider this to be an appropriate method of calculation.

Table A4.4 Household retail adjustments (£ million, nominal prices)

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Adjustments proposed in Southern Water's business plan						
Bad and doubtful debt	2.414	2.434	2.454	2.475	2.494	12.271
Input price pressure (over 2010-15)	0.883	0.912	0.907	0.911	0.909	4.522
Input price pressure (over 2015-20)	0.744	0.650	1.497	2.347	3.139	8.377
Pension deficit repair costs	0.761	0.742	0.723	0.705	0.687	3.618
Adjustments included in business plan	4.802	4.737	5.581	6.438	7.229	28.787
Adjustments included in draft determination						
Pension deficit repair costs	0.755	0.755	0.755	0.755	0.755	3.775
Adjustments included in draft determination	0.755	0.755	0.755	0.755	0.755	3.775

Note:

There will be no indexation for retail price controls.

A4.2.3 New costs

Southern Water did not propose any household retail new costs.

Table A4.5 New household retail costs (£/customer)

	Value
Modification made to 2013-14 CTS for ACTS calculation	n/a

Note:

There will be no indexation for retail price controls from this 2012-13 price base.

A4.3 Calculating the allowed revenues

Using the average industry allowances per customer, and the projected customer numbers in the company's revised business plan, we have calculated the total allowed household retail revenues, including the efficiency challenge and the household retail net margin.

In calculating the ACTS we have used Southern Water's costs per customer for 2012-13 instead of 2013-14 figures. This is because Southern Water's retail costs were significantly higher in 2013-14 compared to the prior year – about £8.5m or 10% higher.

In response to a query, Southern Water explained that this was mainly due to some specific one-off expenses that had been incurred in 2013-14. These one off costs make Southern Water's 2013-14 costs look inconsistent with both its historic and forecast costs. It would be unreasonable to include these one off costs in Southern Water's cost base for the purposes of calculating the ACTS as they are not representative of ongoing costs and would push up the company's allowed revenues and ACTS and hence not be in the best interests of customers. We have therefore used the company's 2012-13 costs and customer numbers to calculate the ACTS.

A4.3.1 Net margins

The table below shows the household retail net margin over 2015-20.

Table A4.2 Household retail net margins (%)

	2015-16	2016-17	2017-18	2018-19	2019-20
Household retail net margin	1.00%	1.00%	1.00%	1.00%	1.00%

Table A4.7 below sets out the components of the allowed household retail revenue.

Table A4.7 Components of the allowed household retail revenue (nominal prices)

	2013-14	2015-16	2016-17	2017-18	2018-19	2019-20
Company cost to serve (£/customer)						
Unmetered single service customers	26.48					

	2013-14	2015-16	2016-17	2017-18	2018-19	2019-20
Unmetered water and wastewater customers	34.42					
Metered water only customers	33.88					
Metered wastewater only customers	31.18					
Metered water and wastewater customers	40.30					
Industry average cost to serve (£/customer)						
Unmetered single service customers						20.73
Unmetered water and wastewater customers						26.78
Metered water only customers						24.04
Metered wastewater only customers						33.21
Metered water and wastewater customers						26.95
Allowed cost to serve¹ (£/customer)						
Unmetered single service customers		21.99	20.97	19.98	18.94	19.37
Unmetered water and wastewater customers		28.58	27.26	25.97	24.63	25.18
Metered water only customers		25.55	24.53	23.25	22.22	22.43
Metered wastewater only customers		26.34	24.98	23.63	22.26	22.68
Metered water and wastewater customers		32.31	30.97	29.36	28.00	28.33
Total allowed (£ million)						
Cost to serve (excluding net margin)		53.4	51.5	49.4	47.4	48.7

	2013-14	2015-16	2016-17	2017-18	2018-19	2019-20
Forecast household wholesale charge (including forecast RPI ²) ³		709.7	738.3	768.7	798.9	828.6
Household retail revenue (including an allowance for the net margin) ⁴		60	58	56	55	56

Notes:

There will be no indexation for retail price controls.

1. Allowed cost to serve includes pension deficit repair costs.
2. The household wholesale charge includes forecast RPI so that the total household retail revenue can be displayed on the same price base as other retail costs.
3. The allocation of allowed wholesale revenue to different wholesale charges will be at the company's discretion, subject to charging rules and licence conditions.
4. This number is indicative as allowed revenue will depend upon actual customer numbers.

A4.4 Uncertainty mechanisms

We outline our approach to uncertainty mechanisms in the risk and reward technical appendix. In Table A4.8 below, we set out Southern Water's proposed household retail uncertainty mechanisms and our assessment of these proposals.

Table A4.8 Southern Water proposals for household retail uncertainty mechanisms

Southern Water's proposals	Our assessment
Southern Water did not propose any uncertainty mechanisms beyond those that will already form part of the regulatory framework for 2015-20.	n/a

A5. Non-household retail

In the [non-household retail technical appendix](#), we outline our overall approach to the non-household retail price control. Further information regarding our observations on companies' proposals for their non-household retail price controls is set out in [Information Note 14 – 2014 price review – non-household customer engagement ahead of draft determination representations](#).

In this chapter, we provide details of Southern Water's non-household retail draft determination.

A5.1 Indicative non-household retail total revenue

Table A5.1 below shows the indicative total of non-household allowed revenue. The table is indicative, as it does not assume any gains or losses from competition or impacts from the company charging customers at levels different to the relevant default tariffs for the projected customers in each customer type.

Table A5.1 Indicative non-household retail total revenue price control including net margins (£ million, nominal prices)

	2015-16	2016-17	2017-18	2018-19	2019-20
Indicative non-household retail total revenue price control including net margins	8	9	9	9	9

Note:

There will be no indexation for retail price controls from this price base. The non-household wholesale charge includes forecast RPI so that the total non-household retail revenue can be displayed on the same price base as other retail costs. Figures exclude retail services to developers and revenues associated with miscellaneous charges.

A5.2 Net margins

The company proposed net margins that summated in aggregate to 2.5%. This is in line with our risk and reward guidance. We have therefore accepted the company's proposals.

A5.3 Cost proposals

Below we set out our interventions on the company's costs, including for:

- Consistency with existing policy, including for example ensuring that companies cost information is presented in a consistent price base and pension deficit costs are presented as per our stated policy; and
- Cost escalation, including for example material new investments or increases in costs or requests for input cost allowances

In ['IN 13/17: Treatment of companies' pension deficit repair costs at the 2014 price review'](#) we explained how we would treat the costs associated with water companies reducing the deficits in its defined benefit pension schemes at the 2014 price review. Where companies' proposals have differed from our calculations we have over-written its proposals in line with our overall approach.

This resulted in the company's proposals being adjusted from £0.295 million over the control period, to £0.605 million.

Overall the company's proposed costs do not increase by more than our non-household retail materiality threshold of 5.3% between 2015 and 2020. We have therefore accepted the company's cost proposals (after the pension deficit recovery adjustment).

In total, this resulted in the company's proposed costs being adjusted from £25.014 million over the control period to £25.324 million.

A6. Appointee

In this section, we discuss at an appointee level:

- bills and k factors;
- return on regulated equity;
- financeability; and
- affordability.

A6.1 Bills and K factors

Table A6.1 below sets out the allowed revenues we have assumed in our draft determination for Southern Water to deliver its:

- statutory duties;
- outcomes; and
- associated performance commitments.

It also sets out the average customer bills on the basis of the draft determination.

Table A6.1 Southern Water’s draft determination – K factors, allowed revenues and customer¹

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Wholesale water – allowed revenues (£m) ¹	160.9	161.3	162.5	162.9	163.4	810.9
Wholesale water – K (%) ²	0.00%	0.25%	0.90%	0.00%	0.13%	-
Wholesale wastewater – allowed revenues (£m)	500.9	503.9	507.5	510.7	513.7	2,536.6
Wholesale wastewater ² – K (%)	0.00%	0.61%	0.81%	0.45%	0.40%	-
Retail household allowed revenue (£m)	59.8	58.1	56.3	54.5	56.0	284.7

	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Retail non-household expected revenue (£m)	8.5	8.6	8.7	8.9	9.0	43.7
Average household bill – water (£)	148	147	146	145	145	-
Average household bill – wastewater (£)	253	252	251	250	251	-
Average household bill – combined (£) ^{3, 4}	381	381	379	378	378	-

Notes:

1. Wholesale figures in 2012-13 prices and retail figures in nominal prices.
2. The allowed revenue for our draft determination is based on an implied menu choice. The company will have the opportunity to make its own menu choice, which will impact on its allowed revenues and customers' bills.
3. As discussed in the wholesale water and wastewater technical appendix, K is set to zero for 2015-16 for wholesale water and wastewater because there are no directly equivalent wholesale revenues for 2014-15 (on account of the new price review structure). As such, there is no reference point against which to express a change in K.
4. The average combined household bill is not equal to the sum of the average household water bill and the average household wastewater bill due to the use of the economies of scope factor in the household retail price control.
5. It should be noted the average household bill illustrated above reflects a notional allocation (by Ofwat but based on the company's split of household and non-household customers) of the overall wholesale revenue requirement across Southern Water's household and non-household customer base. In practice, this will depend upon the structure of wholesale charges implemented by Southern Water.

We note that customer bills in the regulatory period from 2020 will be affected by Southern Water's performance in the forthcoming regulatory period in relation to costs and the regulatory incentives in place for performance delivery and revenue projection performance.

A6.2 Return on regulated equity range

We set out our approach to calculating the expected range in RoRE in the risk and reward technical appendix. The whole company RoRE range, based on RoRE information provided by Southern Water, and reflecting our interventions on ODIs, is shown in Table A6.2 below.

Table A6.2 Whole company RoRE range

	Lower bound (%) (appointee)	Upper bound (%) (appointee)
Overall	-4.7%	+2.3%
ODIs	-2.0%	+0.4%
Totex	-2.1%	+1.5%
Financing	-0.4%	+0.4%
SIM	-0.2%	+0.1%

Commentary

The whole company RoRE range is from 1.0% to 8.1%, with a base case of 5.7%. This translates to a downside impact of -4.7% and an upside variance of +2.3% as shown in the table.

Southern Water has modelled totex variance by applying a Monte Carlo methodology to detailed data about its underlying cost drivers and to macro-economic variables. We consider its approach to be robust and the resultant RoRE impacts, ranging from -2.1% to +1.5%, are broadly in line with other companies. We have not adjusted its estimate to account for our totex interventions.

The ODI range proposed by Southern Water was from -1.4% to +0.5%. We have adjusted this range to -2.0% to +0.4% to take account of our interventions discussed in annex 4.

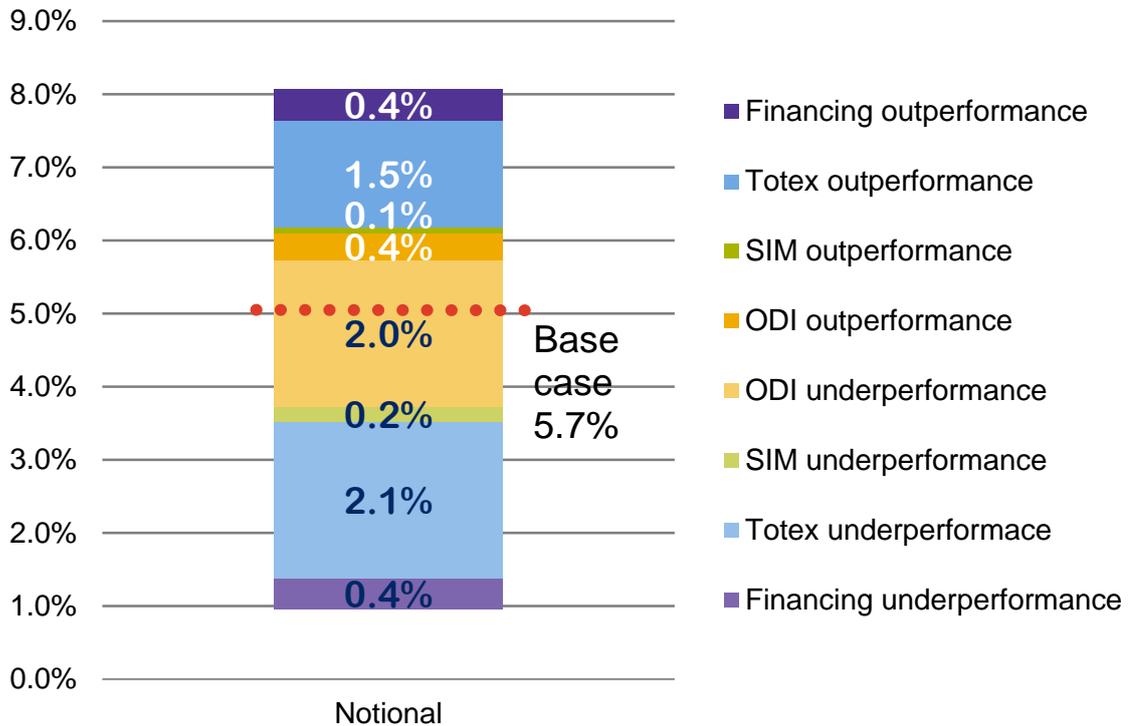
This takes into account the cap on ODI rewards and penalties. Without the cap, the ODI range would be -2.4% to +0.4%.

Southern Water has modelled financing risk based on past variation in the risk free rate and the spread paid by investment-grade corporate borrowers, applying a Monte Carlo methodology. This resulted in a financing risk range of $\pm 0.4\%$, which is consistent with other companies.

Southern Water has assumed a relatively low degree of SIM risk, which is appropriate given that Southern Water considers it is likely to continue to rank below average in the SIM tables.

The composition of the RoRE range for Southern Water at an appointee level is shown in Figure A6.1 below.

Figure A6.1 Southern Water RoRE range – appointee



Source:

Ofwat calculations based on information from Southern Water.

A6.3 Financeability

As part of assessing Southern Water’s evidence of its financeability, we have compared the financial ratios provided by Southern Water and our calculation of its financial ratios implied by the company’s business plan proposals submitted on 27 June, when both are prepared on a notional basis. We illustrate these in Table A6.3 below. The final column of Table A5.3.3 sets out the financeability ratios based on our draft determination revenues and costs.

Table A6.3 Company and Ofwat financial ratio calculations based on the company business plan and financial ratios based on our draft determination

Financial ratios for notional company	Financial ratio calculations based on the company business plan (average 2015-20)		Financial ratio calculations based on our draft determination (average 2015-20)
	Company calculation	Ofwat calculation	
Cash interest cover (ICR)	3.43	3.35	3.41
Adjusted cash interest cover ratio (ACICR) – base case (average over five years)	1.50	1.46	1.49
Funds from operations(FFO)/debt	11.42%	11.09%	11.34%
Retained cash flow/debt	8.76%	8.45%	8.67%
Gearing	61.43%	62.63%	61.88%
Dividend cover (profit after tax/dividends paid)	0.71	0.63	0.56
Regulatory equity/regulated earnings for the regulated company	17.71	17.52	17.71
RCV/EBITDA	10.00	10.03	10.00

Commentary

Financial ratios: The company has targeted a ratio of A3/A- . The company provided evidence of Board assurance that the company would be financeable under both its actual and a notional capital structure. The low dividend cover reflects the company's decision to lower RCV run off towards industry average while it still has high depreciation rates on an IFRS basis (relative to rest of industry). Our notional ratios are consistent with the company's ratios and so we consider that the company has provided sufficient evidence that it is financeable for the draft determination

PAYG changes: Southern Water has increased PAYG ratios from the company's December plan. The PAYG rate is 100% of opex plus IRE and 107% of opex plus IRE expensed. Southern Water is expensing 75% of its IRE (this has reduced from 90% in the December plan).

Pass through of weighted average cost of capital (WACC) reduction: Southern Water has passed around 40% of the reduction in WACC to customers in 2015-20.

Financial ratios for notional company	Financial ratio calculations based on the company business plan (average 2015-20)		Financial ratio calculations based on our draft determination (average 2015-20)
	Company calculation	Ofwat calculation	

Customer support: The company has consulted on the proposed setting of PAYG and the interaction with legacy incentives. There is no evidence of discussion of the pass through of the reduction in the WACC with its CCG. Southern Water should therefore engage with its CCG on the approach to the pass through of the WACC and the balance between financeability on a notional basis and affordability and why it has proposed to delay the benefits of the reduction in WACC until after 2020 as part of its response to the draft determination.

Conclusion on intervention: We are proposing no intervention on the basis of financeability. As noted we expect Southern Water to engage with its CCG on the benefit of the WACC reduction and why this is in the interests of customers and demonstrate customer support for its proposed pass through in response to the draft determination. Any such engagement should be undertaken on the basis of notional financeability.

Table A6.4 sets out the PAYG and RCV run-off rates which shows if these ratios have been adjusted since December. An increase in these ratios will bring forward revenue compared to the December plan and this impacts on RCV growth and longer term financeability. Southern Water continues to show RCV growth following increase in PAYG and RCV run off rates which suggests that adjustment to PAYG and RCV run offs is consistent with financeability beyond 2020.

Table A6.4 Impact on the longer term

	PAYG rate	RCV run-off	RCV growth % 1 April 2015 to 31 March 2020
Company December plan	46.5%	4.82%	5.0%
Company June plan	48.7%	5.02%	6.7%
Draft determination	48.7%	5.02%	6.4%

A6.4 Affordability

Table A6.5 sets out the change in household bill profile between the company's December and June business plans and the draft determinations.

Table A6.5 Household bill profile

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Company December plan	413	411	413	412	411	406
Company June plan	412	412	410	407	402	399
Ofwat calculation for June plan	413	406	406	404	400	397
Ofwat calculation for draft determinations – pre-reprofiling	413	385	383	379	376	373
Ofwat calculation for draft determinations	413	381	381	379	378	378

Companies have not necessarily used the same method of calculating household bills as Ofwat – for example, we have included economies of scope for household retail when calculating combined water and sewerage bills. So the Ofwat calculations (lines 3 and 4 of Table A6.5) are not directly comparable to the company plans (lines 1 and 2 of Table A6.5). The draft determinations lead to a reduction in bills in 2015-20. In the absence of customer preferences for bill profiles at this level we have reprofiled bills so that there is a bill reduction is taken in the first year with broadly flat bills for the remainder of the period. This equalises the customer benefits across the period.

We invite Southern Water to engage with its customers on its priorities for bill profiles as part of its response to the draft determinations.

Table A6.6 sets out the reasons why this draft determination is assessed as affordable. It describes key changes in relation to Southern Water’s December business plan that we assessed as affordable.

Table A6.6 Business plan affordability assessment

	Commentary
Acceptability	The company conducted robust customer research to support its original December 2013 business plan submission. Its research tested a flat real term bill profile with 90% of customers finding this acceptable. It is reasonable to assume that the further reduction in bills that results from our interventions set out in this draft determination will remain acceptable to the majority of the company's customers.
Identification of affordability issues and appropriate support measures	The company's December submission was assessed as 'exceptional' during our risk-based review in relation to 2015-20. There is no new evidence that the company is planning to alter any of its original submission's proposals to provide measures to ensure the affordability of its bills in 2015-20. These measures include home water efficiency audits, benefits checks, a social tariff and other financial assistance schemes such as the provision of a charitable trust.
Longer-term affordability	<p>During the risk-based review, although the company had engaged with customers on future affordability, we concluded that there appeared to be significant movements in the use of cost recovery tools (particularly PAYG) and that the impact of these movements on customers' bills had not been explained.</p> <p>In its June submission the company has quantified and clearly set out the impact of the different cost recovery tools it has used and importantly how these interact with RCM adjustments that have a significant impact during the 2015-20 period.</p> <p>While the PAYG rates are equal to opex plus IRE the company has reduced run-off rates over 2010-15 from around 8% to around 5%. This is now similar to other companies. We have therefore concluded that longer term affordability has not been compromised by the use of the cost recovery levers in the 2015-20 period.</p>

	Commentary
Acceptability	<p>The company conducted robust customer research to support its original December 2013 business plan submission. Its research tested a flat real term bill profile with 90% of customers finding this acceptable. It is reasonable to assume that the further reduction in bills that results from our interventions set out in this draft determination will remain acceptable to the majority of the company's customers.</p>
Longer-term affordability – ODIs	<p>The company's proposals for maximum ODI regards will not have a negative impact on overall affordability in the longer term as the maximum reward available will be less than the bill reduction now proposed. Therefore, the impact of ODI's is not expected to negatively impact customers' acceptability of the plan as a flat real term bill profile was acceptable to 90% of customers.</p> <p>The company's CCG notes that it is pleased that the ODIs continue to be attached to those things that are important to customers and the company provides evidence of customer support for the concept of rewards for ODIs.</p>

Annex 1 Wholesale costs

Establishing draft determination thresholds

Our approach to establishing draft determination thresholds is outlined in the wholesale water and wastewater technical appendix.

In the tables below, we provide some information on the company-specific numbers that support these calculations.

Further information about our assessment of each claim is set out in the [populated version of draft determination initial cost threshold models](#).

Table AA1.1 Movement from basic cost threshold to draft determination menu threshold for wholesale water totex (£ million)

Basic cost threshold	Policy additions ¹	Unmodelled costs adjustment	Deep dive	Draft determination threshold	Deep dives fully or partially not added ²
695.8	74.8	0.0	0.0	770.6	None

Notes:

1. See Table AA1.2 below.
2. Deep dives are net of implicit allowances. A value of zero means deep dives are wholly covered by IAs

Table AA1.2 Policy additions to the wholesale water basic cost threshold (£ million)

Business rates	Pension deficit payments	Third party costs	Open market costs ¹	Net v gross adjustments	Total
48.9	12.7	12.7	0.5	0.0	74.8

Note:

1. Of this amount, £0.068m relates to 2014-15 open market costs.

Table AA1.3 Comparison of company wholesale water totex with the draft determination threshold and 2010-15 totex (£ million)

Plan	DD threshold	Gap ¹	Plan v 2010-15
816.1	770.6	45.5	-54.9

Note:

1. This gap will not equal the deep dives fully or partially not added in Table AA1.1 if the company's claims for special treatment in the costs thresholds are not equal to the gap.

Table AA1.4 Summary of wholesale water deep dive assessments

Company proposal		Assessment				DD allowance	
Claim	Amount sought	Implicit allowance	Need	CBA	Robust costs	Assessment	Amount allowed
Southern Water did not submit any wholesale water cost exclusions, therefore no deep dives were undertaken.							

Table AA1.5 Movement from basic cost threshold to draft determination threshold for wholesale wastewater totex (£ million)

Basic cost threshold	Policy additions	Unmodelled costs adjustment	Private sewage pumping stations	NEP5	Deep dive	Draft determination threshold	Deep dives fully or partially not added ²
1,521.7	105.9	0.0	20.3	128.6	101.9	1878.4	54

Note:

1. See Table AA1.6 below.
2. Deep dives are net of implicit allowances. A value of zero means deep dives are wholly covered by IAs

Table AA1.6 Policy additions to the wholesale wastewater basic cost threshold (£ million)

Business rates	Pension deficit payments	Third party costs	Open market costs ¹	Net v gross adjustments	Total
76.8	27.7	0.0	1.4	0.0	105.9

Note:

1. Of this amount, £0.203m relates to 2014-15 open market costs.

Table AA1.7 Comparison of company wholesale wastewater totex with the draft determination threshold and 2010-15 totex (£ million)

Plan	DD threshold	Gap ¹	Plan v 2010-15
1,988.0	1,878.4	109.5	61.8

Note:

1. This gap will not equal the deep dives fully or partially not added in in Table AA1.5 if the company's claims for special treatment in the costs thresholds are not equal to the gap.

Table AA1.8 Summary of wholesale wastewater deep dive assessments

Company proposal		Assessment				DD allowance	
Claim	Amount sought	Implicit allowance	Need	CBA	Robust costs	Assessment	Amount allowed
Bathing Waters	52.1	13.1	Pass	Pass	Fail	Reject	0
Eastney	19.9	5.0	Fail	Fail	n/a	Reject	0
NEP 5	138.2	9.5	Pass	Partial Pass	Pass	Accept	128.6
Woolston	40.4	0	Pass	Pass	Partial pass	Partially Accept	36.2
Thanet	59.9	0	Pass	Pass	Partial pass	Partially Accept	37.6
Millbrook Sludge	19.9	2.8	Pass	Pass	Partial pass	Partially Accept	15.4
Peacehaven STW	17.6	0	Pass	n/a	Partial pass	Partially Accept	12.8

Annex 2 Household retail revenue modification

We outline our approach to revenue modification in the household retail price control in the household retail technical appendix.

Table AA2.1 sets out the amount per customer, by customer type, that allowed revenues will be modified by if outturn customer numbers differ from forecast customer numbers and Table AA2.2 sets out the baseline number of customers.

Table AA2.1 Household retail allowed revenue modification factors by class of customer (£/customer)

Revenue modification per:	2015-16	2016-17	2017-18	2018-19	2019-20
Unmetered water only customer	24.62	23.67	22.75	21.79	22.31
Unmetered wastewater only customer	24.62	23.67	22.75	21.79	22.31
Unmetered water and wastewater customer	32.01	30.77	29.58	28.32	29.00
Metered water only customer	28.60	27.69	26.48	25.55	25.83
Metered wastewater only customer	29.49	28.19	26.92	25.59	26.12
Metered water and wastewater customer	36.18	34.95	33.44	32.20	32.63

Note:

There will be no indexation for retail price controls.

Table AA2.2 Assumed number of customers for household retail total revenues (000s)

Number of customers	2015-16	2016-17	2017-18	2018-19	2019-20
Unmetered water only	6.6	6.6	6.6	6.5	6.5
Unmetered wastewater only	347.1	312.1	277.1	242.2	207.2
Unmetered water and wastewater	72.5	72.2	71.8	71.4	71.1
Metered water only	70.6	71.2	71.8	72.5	73.0

Number of customers	2015-16	2016-17	2017-18	2018-19	2019-20
Metered wastewater only	533.2	575.5	618.3	661.5	704.1
Metered water and wastewater	856.2	863.7	871.7	879.2	886.4

Annex 3 Reconciling 2010-15 performance

We set out our methodology for calculating the adjustments to 2015-20 wholesale price controls resulting from the company's actual performance during the 2010-15 period in the wholesale water and wastewater technical appendix.

In this annex, we set out the draft determination adjustments to 2015-20 price controls for Southern Water resulting from the company's actual performance during the 2010-15 period.

As part of the draft determination of the 2010-15 adjustments we have undertaken detailed calculations within our models for the RCM, OIA, CIS and serviceability shortfalls. While we have covered an explanation of our interventions within this annex, each model covers the detail of the specific calculation. Similarly, our detailed calculations behind the midnight adjustments such as land sales (but excluding those relating to the change protocol) are contained within the RCV midnight adjustment model. A copy of any of these models is available on request.

Table AA3.1 below compares the company's view of the required revenue adjustments included in its revised business plan for each of the incentive tools for water and wastewater services, with our own view. Our view reflects our understanding of the company's performance using these incentives, based on information provided in its revised business plan and subsequent query responses. The table also shows other adjustments, such as those relating to tax resulting from the company's actual performance during the 2010-15 period.

Table AA3.1 Revenue adjustments 2015-20 (£ million)

	Water service		Wastewater service	
	Company view	Ofwat view	Company view	Ofwat view
Service incentive mechanism (SIM)	-4.534	-6.347	-14.052	-19.673
Revenue correction mechanism (RCM)	74.084	76.660	119.355	110.654
Opex incentive allowance – post-tax (OIA)	17.442	17.442	24.655	26.494
Capital expenditure incentive scheme (CIS)	-14.271	-14.275	-28.809	-33.352
Tax refinancing benefit clawback	0.000	0.000	0.000	0.000
Other tax adjustments	0.000	0.000	0.000	0.000
Equity injection clawback	0.000	0.000	0.000	0.000
Other adjustments	0.000	-5.568	0.000	0.000
Total wholesale legacy adjustments	72.721	67.911	101.148	84.122

Notes:

Totals may not add up due to rounding.

For the CIS mechanism, there is a corresponding adjustment to the RCV made at 1 April 2015 (part of the 'midnight' adjustments'). The impact on the RCV for both water and wastewater can be seen in Table AA3.15. This adjustment is net of any logging up, logging down or shortfalls. A full reconciliation showing all of the midnight adjustments to the RCV, including the impact of logging up, logging down and shortfalls, can be seen in Table A2.5 and Table A3.5.

Service incentive mechanism (SIM)

We provide our view of each company's SIM reward/penalty in the technical appendix: 'Summary of 2010-15 SIM rewards/penalties for the whole industry'.

Table AA3.2 provides the annualised rewards from the company's SIM performance. The difference of views reflects that we have not accepted the company proposal for a reduced penalty for its improved performance in the third year. The methodology for the SIM clearly states the 'three-year average' will be used in the calculation of the reward and penalty.

Table AA3.2 SIM annualised rewards (£ million)

		2015-16	2016-17	2017-18	2018-19	2019-20	Total
Water	Company view	-0.907	-0.907	-0.907	-0.907	-0.907	-4.534
	Ofwat view	-1.269	-1.269	-1.269	-1.269	-1.269	-6.347
Wastewater	Company view	-2.810	-2.810	-2.810	-2.810	-2.810	-14.052
	Ofwat view	-3.935	-3.935	-3.935	-3.935	-3.935	-19.673

Revenue correction mechanism (RCM)

This draft determination includes our view of the company's RCM annualised adjustment amounts as detailed in Table AA3.3 below.

Table AA3.3 RCM annualised adjustments for 2015-20 (£ million)

		2015-16	2016-17	2017-18	2018-19	2019-20	Total
Water	Company view	14.817	14.817	14.817	14.817	14.817	74.084
	Ofwat view	15.332	15.332	15.332	15.332	15.332	76.660
Wastewater	Company view	23.871	23.871	23.871	23.871	23.871	119.355
	Ofwat view	22.131	22.131	22.131	22.131	22.131	110.654

Southern Water has proposed to return £5m to customers through the RCM as a result of not delivering its leakage target in 2010-11. It included an adjustment of £5m in its RCM calculations to reduce its calculated RCM by £5.6m to £74.084m for water.

For our assumptions at the draft determination, we have calculated the company's proposed reductions and included it as an 'other adjustment' and have adjusted the company's view of its RCM upwards to £79.653m for water. This compares with our view of £76.660m for water. Our assumptions for the draft determination agree with Southern Water's decision to reduce the RCM for the period 2015-20 as a result of a failure to meet its leakage target and so we have included an 'other adjustment' of -£5.568m for water (see Table AA3.17).

Table AA3.3a RCM annualised adjustments for 2015-20 (£ million) – Adjusted company view

		2015-16	2016-17	2017-18	2018-19	2019-20	Total
Water	Company view	14.817	14.817	14.817	14.817	14.817	74.084
	Other adjustments	1.114	1.114	1.114	1.114	1.114	5.568
	Adjusted company view	15.931	15.931	15.931	15.931	15.931	79.653

We had concerns at the risk-based review with the company’s 2013-14 and 2014-15 revenues forecasts because it had projected a widening revenue shortfall that was not explained. We are no longer concerned because the company has updated its 2013-14 data with actuals and updated its 2014-15 forecasts in its June submission and has provided additional evidence to support its 2014-15 revenues forecast. We have not intervened on its 2014-15 revenues forecast.

Table AA3.4 below summarises our interventions in relation to Southern Water’s proposed 2010-15 RCM adjustments.

Table AA3.4 Interventions on proposed 2010-15 RCM adjustments

Area of intervention	What we did	Why we did it
Backbilling amounts	Our assumptions for the draft determination do not include the back billed amounts claimed by the company.	<p>We have concerns as to whether the back billing amounts being claimed by the company are compliant with RAG4.04 and IN11/04.</p> <p>The company has not demonstrated that:</p> <ul style="list-style-type: none"> • it has claimed for back billed amounts where the inaccuracy of the charging is the customer’s fault; and • it has taken a reasonable, fair and appropriate approach for the back-billed amounts claimed.
FD09 assumptions	Our assumptions at the draft determination includes our view of the FD09 assumptions.	There are inconsistencies between the company’s and our view of the FD09 assumptions used in the company’s populated RCM model.

Operating expenditure incentive allowance (OIA)

Table AA3.5 below summarises the company's view and our view of the incentive allowances for 2015-20. Table AA3.6 summarises our interventions in relation to Southern Water's proposed 2010-15 OIA adjustments.

Table AA3.5 Operating expenditure incentive allowances for 2015-20 (£ million)

		2015-16	2016-17	2017-18	2018-19	2019-20	Total
Water service							
Incentive allowance (post-tax)	Company view	7.858	7.858	1.463	0.262	0.000	17.442
	Ofwat view	7.858	7.858	1.463	0.262	0.000	17.442
Wastewater service							
Incentive allowance (post-tax)	Company view	6.164	6.164	6.164	6.164	0.000	24.655
	Ofwat view	6.623	6.623	6.623	6.623	0.000	26.494

Table AA3.6 Interventions on proposed 2010-15 OIA adjustments

Area of intervention	What we did	Why we did it
Private sewers logging up opex	We capped the company’s high capex/opex ratio at one standard deviation above the industry average. This resulted in a larger proportion of opex feeding through into the opex incentive calculation as a logging up adjustment to FD09 expectations.	For consistency with the methodology we have applied to all companies where appropriate, which ensures companies do not benefit in (capex terms) from disproportionately high set-up costs incurred.

Change protocol (logging up, logging down and shortfalls)

Table AA3.8 and Table AA3.8 below summarise Southern Water’s view and our baseline view of total adjustments to:

- capex included in the CIS reconciliation; and
- the FD09 opex assumptions used in the calculation of the opex incentive revenue allowances.

Table AA3.9 summarises our interventions in relation to Southern Water’s proposed change protocol adjustments.

Table AA3.7 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	
	Company view	Ofwat view	Company view	Ofwat view	Company view	Ofwat view
Logging up (two-sided)	0.000	0.000	24.352	20.956	24.352	20.956
Logging down (two-sided)	-53.450	-53.449	-22.096	-36.088	-75.547	-89.537
Shortfalls (one-sided)	0.000	0.000	0.000	-5.585	0.000	-5.585

Notes:

1. Includes two-sided adjustments from the PR09 agreed overlap programme as set out in Table AA3.13.
2. We exclude shortfalls for serviceability from the CIS reconciliation, but instead make direct adjustments to the RCV in 2015-16. We do this to allow the actual capex the company incurred in seeking to maintain serviceability, to be reflected in the rewards or penalties earned through the scheme. But to also ensure customers are not required to pay for the regulatory output the company has failed to deliver.

Table AA3.8 Summary of post-efficiency opex for logging up, logging down and shortfalls included in the opex incentive allowance calculation (£ million)

2009-10 to 2014-15 – post-efficiency opex	Water service		Wastewater service		Total service	
	Company view	Ofwat view	Company view	Ofwat view	Company view	Ofwat view
Logging up	0.000	0.000	3.950	7.570	3.950	7.570
Logging down	0.000	0.000	0.000	0.000	0.000	0.000
Shortfalls	0.000	0.000	0.000	0.000	0.000	0.000

2009-10 to 2014-15 – post-efficiency opex	Water service		Wastewater service		Total service	
	Company view	Ofwat view	Company view	Ofwat view	Company view	Ofwat view
Shortfalls for serviceability	0.000	0.000	0.000	0.000	0.000	0.000

Table AA3.9 Interventions on proposed 2010-15 change protocol adjustments

Area of intervention	What we did	Why we did it
Testwood water supply – logging down	There are no interventions for this scheme. We are accepting the company’s proposed logging down claim	n/a
Private sewers – logging up	<ul style="list-style-type: none"> We have applied a challenge to the capex proposed. We have assessed the capex as £11.276m. In post efficiency terms this value is £10.001m. We have assessed the proposed opex. The value of the opex has increased from the £4.234m proposed by the company to our assessment of £8.063m. In post efficiency terms our assessment of the opex is therefore £7.570m 	<p>We have challenged the company’s private sewers claim at risk-based review because the capex/opex ratio was very high compared with the rest of the industry.</p> <p>The company has not provided any additional evidence in response to our challenge at risk-based review. The revised claim submitted in June has resulted in higher capex and therefore a higher capex/opex ratio.</p> <p>A transfer of 25% of capex to opex effectively caps the ratio at one standard deviation above the industry average and it ensures that the company does not benefit from the high set-up costs it has incurred.</p>

Area of intervention	What we did	Why we did it
Woolston WTW: unfunded NEP obligation – logging up	There are no interventions for this scheme. We are accepting the company’s proposed logging up claim	There are no interventions for this scheme. We are accepting the company’s proposed logging up claim.
Sludge Capacity Enhancement: Millbrook – Logging down	There are no interventions for this scheme. We are accepting the company’s proposed logging down claim	There are no interventions for this scheme. We are accepting the company’s proposed logging down claim.
Sewer flooding: 1 in 10 and 2 in 10 internal outputs – logging down	<ul style="list-style-type: none"> • The company did not propose a legacy adjustment in relation to the under-delivery of the sewer flooding programme • We have reconciled performance over 2010-15 to FD09 and raised a logging down counter-claim for £11.644m capex. In post efficiency terms this value is £10.305m (capex) 	In FD09 the company was set a target of 146. To date, the company has completed 34 outputs. The company forecast that 59 solutions would be delivered in 2014-15. This profile of activity is not supported by the delivery profile in years 2010-14. In our assessment we have assumed a delivery profile of 30 outputs in year five. We have therefore logged down 82 outputs.
Sewer flooding: 1 in 20 internal outputs – logging down	<ul style="list-style-type: none"> • The company did not propose a legacy adjustment in relation to the under-delivery of the sewer flooding programme • We have reconciled performance over 2010-15 to FD09 and raised a logging down counter-claim for £4.157m. In post efficiency terms this value is £3.687m (capex) 	In FD09 the company was set a target of 123. To date, the company has completed 51 outputs. The company forecast that 65 solutions would be delivered in 2014-15. This profile of activity is not supported by the delivery profile in years 2010-14. In our assessment we have assumed a delivery profile of 33 outputs in year five. We have therefore logged down 39 outputs.

Area of intervention	What we did	Why we did it
Enhanced service levels: pollution Incidents – shortfall	<ul style="list-style-type: none"> The company did not propose a legacy adjustment in relation to its under-delivery of the service standards associated with enhanced service levels – pollution incidents We have assessed the outturn and forecast information provided by the company and determined that a shortfall of £6.343m should be applied. In post efficiency terms this value is £5.585m (capex). 	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 has failed to achieve the service standard required for both Cat 1and2s and Cat 3s. Since the allocated FD09 expenditure has not delivered the benefit to customers stipulated we have applied a shortfall adjustment for the full FD09 allowance.

Service standard outputs

The final determination supplementary reports in 2009 contained defined project(s) where the primary output was the service standard specified¹. These outputs were set out to recognise that companies may decide to prioritise investment differently in order to achieve the service output in a more innovative and efficient manner, while still holding the company to account for the benefits to customers and the environment.

¹ In the 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. The service standard output is the primary output. 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.”

Where companies have not reported progress on these service standards, we would have expected them to demonstrate achievement of the service standards to both customers and Ofwat as part of the price review process.

We have considered applying shortfalls equal to the cost of the FD09 project(s) with defined service standards. However, in many cases there is some evidence that the projects and activities have been delivered, but there is a lack of compelling evidence that the service standards specified have been achieved.

For the purposes of these draft determinations, we will not applying shortfalls on this issue conditional upon this information being provided as part of companies’ draft determination representations. We would expect companies to respond to this issue in their representations. If they do not provide adequate evidence to demonstrate achievement of the service standards set out, then they should assume that we will apply a shortfall equal to the costs assumed for the project(s) at FD09 within our final determinations in December 2014.

Serviceability performance

As discussed in our technical appendix A3, serviceability shortfalls are not a revenue adjustment but are applied directly to the RCV as part of the midnight adjustment.

Table AA3.11 below summarises our serviceability assessments for Southern Water and Table AA3.11 quantifies the value and impact of any serviceability shortfall on the RCV. Southern Water did not propose any adjustments for serviceability. Table AA3.12 summarises our interventions in relation to Southern Water’s proposed adjustments for serviceability.

Table AA3.10 Serviceability assessments for 2010-15¹

	2010-11	2011-12	2012-13	2013-14	2014-15 ²
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		2010-11	2011-12	2012-13	2013-14	2014-15 ²
Water infrastructure	Company view	Stable	Stable	Stable	Stable	Stable
	Owat view	Stable	Stable	Marginal	Deteriorating	Deteriorating
Water non infrastructure	Company view	Stable	Stable	Stable	Stable	Stable
	Owat view	Stable	Stable	Stable	Stable	Stable
Wastewater infrastructure	Company view	Marginal	Stable	Stable	Stable	Stable
	Owat view	Marginal	Deteriorating	Deteriorating	Deteriorating	Deteriorating
Wastewater non-infrastructure	Company view	Stable	Stable	Marginal	Stable	Stable
	Owat view	Stable	Deteriorating	Deteriorating	Deteriorating	Deteriorating

Notes:

1. Assessments are based on actual and forecast performance submitted in the company's revised business plans.
2. Assessments for 2014-15 are based on forecast data and are subject to review once actual performance data becomes available.

Table AA3.11 Impact of serviceability shortfalls on the RCV (£ million)

2009-10 to 2014-15		Water	Wastewater	Total
Amount subtracted from RCV	Company view	0.0	0.0	0.0
	Owat view	-12.2	-141.0	-153.2

Table AA3.12 Interventions on proposed 2010-15 serviceability adjustments

Area of intervention	What we did	Why we did it
Unplanned interruption to supply exceeding 12 hours	<p>For the purposes of the draft determination we have assumed a shortfall adjustment of £11.3m (£12.1m post efficiency) for deteriorating performance in this indicator. In accordance with our shortfall calculation methodology^y as applied to all companies we have applied a cap at 2 standard deviations to the shortfall in the years 2012-13 and 2013-14 in order to limit the impact of specific measures and scaling factors². The overall scale of the shortfall does not exceed 50% of the sub-service capital expenditure and therefore no further cap has been applied.</p> <p>We would expect the company to evidence its latest performance as part of its representations and in advance of the final determination in order any shortfall reflects the best information available for the 2014-15 year.</p>	<p>The company has 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 is at the reference level. This does not reflect the current trend in performance. The company has provided evidence to show that the incidents which occurred during 2010-11, 2012-13 and 2013-14 were exceptional. We have accepted the 2010-11 events as exceptional but we have not accepted that the events in the other years were exceptional. We do not consider these events should be excluded from the analysis because they were within the company's control and were events which could have been mitigated. Therefore, for the purposes of the draft determination we have assumed a shortfall adjustment for the deteriorating performance.</p>

² The shortfall calculation methodology is detailed within Appendix 3 Wholesale Water and Wastewater.

Area of intervention	What we did	Why we did it
<p>Properties internally flooded in year because of other causes</p>	<p>For the purposes of the draft determination we have assumed a shortfall adjustment of £3.7m (£3.3m post efficiency) for deteriorating performance in this indicator.</p> <p>In accordance with our shortfall calculation methodology as applied to all companies the shortfall (which has been applied for the years 2012-13, 2013-14 and 2014-15) has not been capped; the scaling factor³ for these years is below 2 standard deviations. The overall scale of the shortfall does not exceed 50% of the sub-service capital expenditure and therefore no further cap has been applied.</p> <p>We would expect the company to evidence its latest performance as part of its representations and in advance of the final determination in order any shortfall reflects the best information available for the 2014-15 year.</p>	<p>The company has 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 has forecast 2014-15 performance to outturn close to the reference level. However, analysis of actual monthly performance to date (provided by the company) shows that current 2014-15 performance is similar to 2013-14 and is likely to outturn close to 2013-14 levels (which is above the upper control limit). Therefore, we have assumed that 2014-15 performance will outturn at same level as 2013-14. For the purposes of the draft determination we have assumed a shortfall adjustment for the deteriorating performance.</p>

³ The shortfall calculation methodology is detailed within Appendix 5 Wholesale Water and Wastewater, within section A5.5.5.

Area of intervention	What we did	Why we did it
<p>Flooding overloaded sewers excluding severe weather</p>	<p>For the purposes of the draft determination we have assumed that no intervention is required. This is conditional upon the performance in 2014-15 being assessed as likely to improve to a position such that it is considered stable. We may consider a shortfall adjustment if this is not achieved.</p> <p>We would expect the company to evidence its latest performance as part of its representations and in advance of the final determination in order that any shortfall reflects the best information available for the 2014-15 year.</p>	<p>The company has had one breach of the upper control limit in 2013-14. The company has forecast 2014-15 to outturn at the reference level. We require the company to demonstrate stable serviceability in 2014-15, if this is not achieved, we may consider a shortfall adjustment.</p>
<p>Pollution incidents (category 1, 2 and 3)</p>	<p>For the purposes of the draft determination we have assumed that no intervention is required. This is conditional upon the performance in 2014-15 being assessed as likely to improve to a position such that it is considered stable. We may consider a shortfall adjustment if this is not achieved.</p> <p>We would expect the company to evidence its latest performance as part of its representations and in advance of the final determination in order that any shortfall reflects the best information available for the 2014-15 year.</p>	<p>The company has 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 has remained above the reference level. The company has forecast 2014-15 performance to outturn at the reference level. We require the company to demonstrate stable serviceability in 2014-15, if this is not achieved we may consider a shortfall adjustment.</p>

Area of intervention	What we did	Why we did it
<p>Population equivalent (sewage treatment) non-compliance</p>	<p>For the purposes of the draft determination we have assumed a shortfall adjustment of £156.7m (£137.7m post efficiency) for deteriorating performance in this indicator. In accordance with our shortfall calculation methodology¹ as applied to all companies we have applied a cap at 2 standard deviations to the shortfall in the years 2011-12, 2012-13 and 2013-14 in order to limit the impact of specific measures and scaling factors⁴ (no shortfall has been applied to 2010-11 in accordance with our methodology). The overall scale of the shortfall does not exceed 50% of the sub-service capital expenditure and therefore no further cap has been applied.</p> <p>We would expect the company to evidence its latest performance as part of its representations and in advance of the final determination in order that any shortfall reflects the best information available for the 2014-15 year.</p>	<p>The company has had breaches of the upper control limit in all four years from 2010-11 to 2013-14. We have reviewed the company's evidence and have accepted some, but not all, of the exclusions the company has identified. We are insufficiently convinced (compared with the exclusions proposed for STW numeric compliance noted below) that the exclusions identified by the company should be taken into account. This is because many of the proposed exclusions relate to matters that are either unaffected by consent changes or are in the company's control, or because they are not trivial sample failures (for example, repeated failures at the works over a longer timeframe). Therefore, for the purposes of the draft determination we do not consider the measure to be stable and have assumed a shortfall adjustment for the deteriorating performance of this indicator.</p> <p>The company has forecast that performance for this indicator will outturn at the reference level for 2014-15. Given past performance this would appear to be an ambitious forecast. Our view of the shortfall currently reflects the 2014-15 forecast at the reference level, should this not be delivered then the scale of the shortfall may increase further.</p>

Area of intervention	What we did	Why we did it
Sewage treatment works numeric non-compliance	<p>For the purposes of the draft determination we have assumed that no intervention is required. This is conditional upon the performance in 2014-15 being improved to a position such that it is considered stable. We may consider a shortfall adjustment for this measure if this is not achieved.</p> <p>We would expect the company to evidence its latest performance as part of its representations and in advance of the final determination in order that any shortfall reflects the best information available for the 2014-15 year.</p>	<p>After taking into account company exclusions relating to iron non-compliance, where the EA has granted new consents for STW numeric compliance, the company has had breaches of the upper control limit in 2011-12 and 2012-13 and performance was above the reference level for 2013-14. The company has forecast that performance for this indicator will outturn at the reference level for 2014-15. Given past performance this would appear to be an ambitious forecast. We would expect the company to demonstrate stable serviceability in 2014-15 as part of its representations; if this is not evidenced we may consider a further shortfall adjustment.</p>

The 2009 agreed overlap programme

As Southern Water did not propose an overlap programme at PR09, our FD09 did not contain any agreed projects that would need to be reviewed in this price review. Therefore, we have not assessed any scheme progress or costs under this mechanism. Table AA3.14 confirms this position and Table AA3.13 below confirms the zero assumptions included in this draft determination.

⁴ The shortfall calculation methodology is detailed within Appendix 5 Wholesale Water and Wastewater, within section A5.5.5.

Table AA3.13 PR09 agreed overlap programme adjustments and assumptions (£ million)

		2010-15		2015-20	
		Two-sided adjustment for inclusion in the CIS		Expenditure forecasts to complete the projects	
		Capex	Opex	Capex	Opex
Water service	Company view	0.000	0.000	0.000	0.000
	Ofwat view	0.000	0.000	0.000	0.000
Wastewater service	Company view	0.000	0.000	0.000	0.000
	Ofwat view	0.000	0.000	0.000	0.000

Table AA3.14 Interventions on proposed 2010-15 PR09 agreed overlap programme adjustments

Area of intervention	What we did	Why we did it
The company did not propose an overlap programme at PR09.	n/a	n/a

Capital expenditure incentive scheme (CIS)

Table AA3.15 provides details of the CIS ratios and performance incentive. It also gives the:

- monetary amounts of the CIS performance reward or penalty;

- true-up adjustment to 2015-20 allowed revenues; and
- midnight adjustment to the closing 2014-15 RCV.

Table AA3.16 then sets out the profiled values of the revenue adjustments in each year 2015-20.

Table AA3.15 Legacy true-up adjustments

		Water service	Wastewater service	Total service
Restated FD09 CIS bid ratio	Company view	124.492	111.991	-
	Ofwat view	124.491	113.803	-
Outturn CIS ratio	Company view	142.506	105.129	-
	Ofwat view	142.512	107.050	-
Incentive reward/penalty (%)	Company view	-8.712	-1.595	-
	Ofwat view	-8.713	-1.915	-
Reward/penalty (£m)	Company view	-35.742	-20.538	-56.281
	Ofwat view	-35.745	-24.213	-59.959
Adjustments to 2015-20 revenue (£m)	Company view	-13.289	-26.826	-40.114
	Ofwat view	-13.292	-31.055	-44.348
CIS adjustment to RCV (£m)	Company view	77.273	-36.331	40.941
	Ofwat view	77.273	-36.331	40.942

		Water service	Wastewater service	Total service
Commentary:				
The company has correctly applied the published Ofwat methodology.				
We have included our view of the applicable change protocol amounts.				

Notes:

The restated FD09 CIS bid ratio takes account of the adjustments for the change protocol and the 2009 agreed overlap programme (Table AA3.13).

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.

The adjustment to 2015-20 revenue values shown in this table assume a single year adjustment in the first year, and do not include the NPV profiling used for the draft determination.

Table AA3.16 Profiled revenue adjustments from the CIS reconciliation (£ million)

		2015-16	2016-17	2017-18	2018-19	2019-20	Total
Water	Company view	-2.854	-2.854	-2.854	-2.854	-2.854	-14.271
	Ofwat view	-2.855	-2.855	-2.855	-2.855	-2.855	-14.275
Wastewater	Company view	-5.762	-5.762	-5.762	-5.762	-5.762	-28.809
	Ofwat view	-6.670	-6.670	-6.670	-6.670	-6.670	-33.352

Other adjustments

Table AA3.17 below confirms the assumptions included in this draft determination with respect to the following adjustments:

- tax refinancing benefit clawback;
- other tax adjustments;
- equity injection clawback; and
- other adjustments.

Table AA3.17 Other adjustments 2015-20 (£ million)

	Water service		Wastewater service		Commentary
	Company view	Ofwat view	Company view	Ofwat view	
Tax refinancing benefit clawback	0	0	0	0	
Other tax adjustments	0	0	0	0	
Equity injection clawback	0	0	0	0	
Other adjustments	0	-5.568	0	0	We agree with Southern Water's decision to reduce the RCM over 2015-20 as a result of a failure to meet its leakage target, it is clearly taking accountability for its actions and is seeking to return value to customers for its shortfalls in performance. We have included an 'other adjustment' of -£5.6m for water.

Annex 4 Outcomes, performance commitments and outcome delivery incentives

This chapter sets out in detail the performance commitments and outcome delivery incentives (ODIs) for the company's wholesale water, wholesale wastewater and household retail outcomes, presented in that order.

The two figures below first provide an overview of these performance commitments and ODIs. Table AA4.1 shows the balance between reward and penalty, penalty only and reputational incentives in the package of incentives for the company and Table AA4.2 shows the potential financial impact of each of the financial incentives.

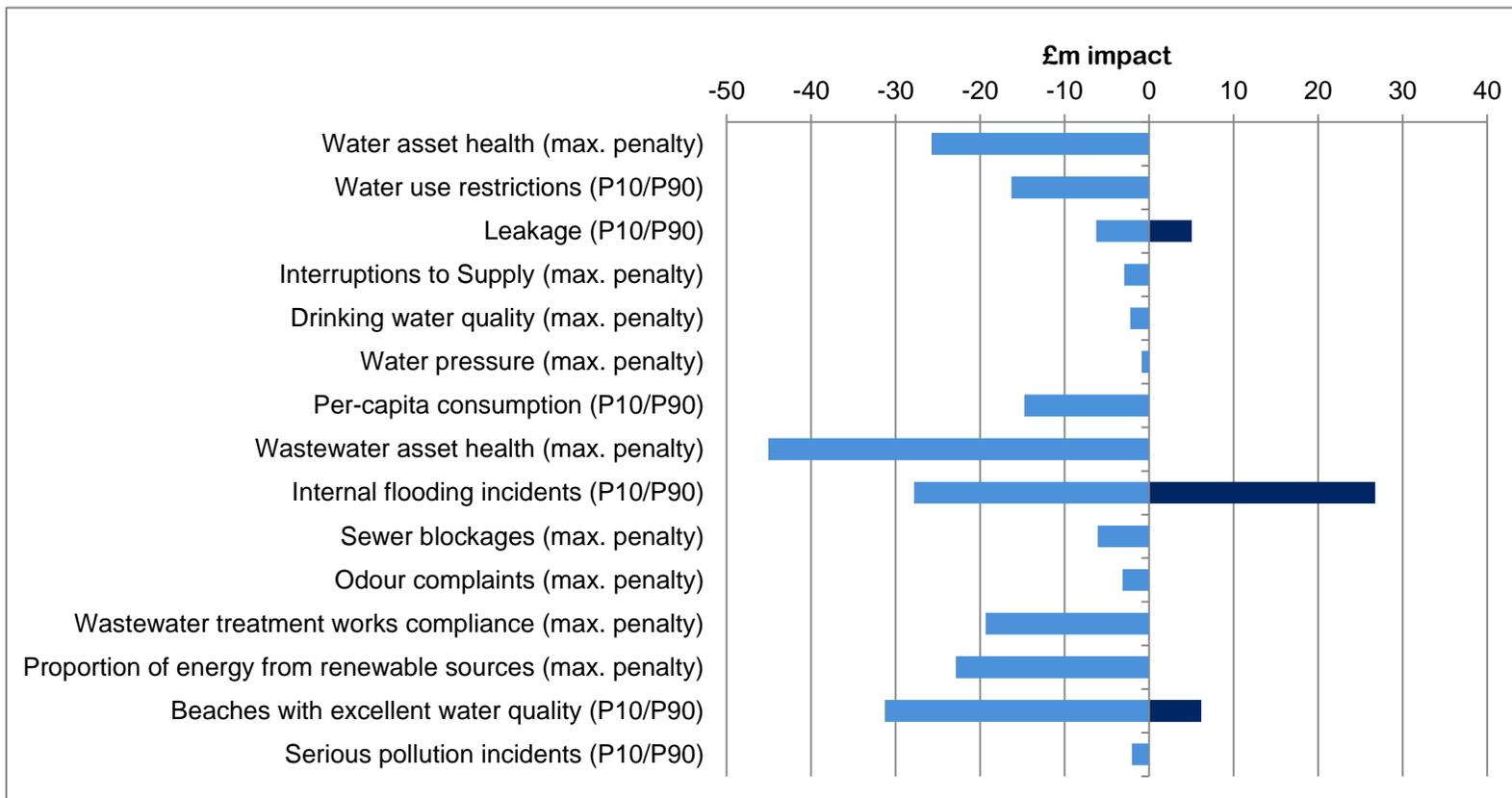
Table AA4.1 The composition of the proposed package of ODIs

ODI type	Reward and Penalty	Penalty only	Non-financial incentive
Wholesale Water	1	6	2
Wholesale Wastewater	2	6	2
Household Retail	1	0	6
Total Number of PCs	4	12	10

The following graph shows the potential financial consequences of the individual financial ODIs. Where the relevant data is available the figures represent the penalties and rewards associated with the p10 and p90 scenarios over the five years (2015-16 to 2019-20). This means there is a 10% chance of performance being higher and a 10% chance of performance being lower than these assumed levels. In most cases the potential maximum will be bigger but is very unlikely to occur and the p10 and p90

scenarios therefore represent a more realistic estimate of potential financial impacts. Where the p10/p90 data is not available the maximum penalties have been used. A greater proportion of ODIs are expressed as maximum penalties for Southern Water due to the company’s approach to asset health-related penalties.

Figure AA4.2 Overview of financial ODIs



Note: figure AA4.2 does not include SIM.

As explained in the Technical Appendix on Outcomes, we are proposing the introduction of an aggregate cap on rewards and collar on penalties from the outcome delivery incentives. Details of how the cap/collar will operate are set out in section A5 of the Outcomes Technical Appendix.

There are a small number of specific exclusions from the cap/collar. For Southern Water, the exclusions are as follows:

- Thanet groundwater protection
- Millbrook sludge

Tables AA4.2, AA4.3 and AA4.4 set out a more detailed explanation of our interventions in the company’s wholesale water, wholesale wastewater and household retail outcomes.

Table AA4.2 Summary of interventions on wholesale water outcomes, performance commitments and incentives

PC/ODI affected	What we did	Why we did it
Water Asset Health	<p>We have increased the penalty rate for mains bursts by 25% and have changed the ODI mechanism such that penalties are incurred on the first year that performance falls below the deadband.</p> <p>We have adjusted the performance levels for the discolouration contacts sub-</p>	<p>The company is to be shortfalled for its performance over 2010-15 for Interruptions. We have increased penalty rates for related measures and adjusted the ODI mechanism to ensure customers are protected in future.</p> <p>Following a review of Water Quality Contacts measures across all companies we have intervened to ensure that Southern Water is incentivised to achieve upper quartile performance.</p>

PC/ODI affected	What we did	Why we did it
	measure consistent with the methodology shown in the outcomes technical appendix.	
Water use restrictions	We have changed the form of incentive from an adjustment to RCV to a revenue adjustment	As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.
Leakage	<p>We have increased the collar on the ODI penalty consistent with the methodology shown in the outcomes technical appendix.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment</p>	<p>Following a review of leakage measures across all companies we have intervened to increase the collar to align with the industry average penalty range (10%).</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>
Interruptions to supply	<p>We have increased the penalty rate by 25%.</p> <p>We have adjusted the deadband and collar for the ODI penalty consistent with the methodology shown in the outcomes technical appendix.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment</p>	<p>The company is to be shortfalled for its performance over 2010-15 for Interruptions. We have increased penalty rates for related measures to ensure customers are protected in future.</p> <p>Following a review of supply interruptions measures across all companies we have intervened to ensure that SRN are incentivised to achieve upper quartile performance</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>

PC/ODI affected	What we did	Why we did it
Drinking water quality	<p>We have increased the performance commitment, and adjusted the deadband and collar on the ODI penalty consistent with the methodology shown in the outcomes technical appendix.</p> <p>We have changed the form of incentive from an adjustment to RCV to a Revenue Adjustment</p>	<p>Following a review of water quality compliance measures across all companies we have intervened to ensure that Southern Water is incentivised to achieve upper quartile performance and that all companies have a Performance Commitment of 100% for 2018-19 and 2019-20.</p> <p>The Company has defined Outcome Delivery Incentives for drinking water quality compliance with a penalty at less than 100%. This penalty represents an incentive to the company to not reduce its compliance with water quality measures. This threshold represents the point at which financial incentives will be applied to the company through the price setting process. All companies are subject to drinking water quality obligations regulated by the DWI, which are the overriding statutory obligations that a water company must comply with as part of its Section 37 Water Industry Act 1991 obligations. The company’s Board has confirmed as part of its business plan submission that it will comply with all relevant statutory obligations.</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>

PC/ODI affected	What we did	Why we did it
Water pressure	We have changed the form of incentive from an adjustment to RCV to a revenue adjustment	As this measure directly impacts customers its' financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.
Per-capita consumption	The proposed reward incentive has been removed.	The company has not demonstrated that customers are willing to pay more for over-performance in this area.

Table AA4.3 Summary of interventions on wholesale wastewater outcomes, performance commitments and incentives

Table AA4.3 Summary of interventions on wholesale wastewater outcomes, performance commitments and incentives

PC/ODI affected	What we did	Why we did it
Wastewater Asset Health	<p>We have increased all wastewater asset health penalty rates by 25% and have changed the ODI mechanism such that penalties are incurred in the first year that performance falls below the deadband.</p> <p>We have re-introduced a sub-measure for 'Wastewater treatment works population-equivalent compliance' together with a financial penalty. The</p>	<p>The company is to be shortfalled for its performance over 2010-15 in Wastewater Infrastructure and Non-infrastructure. We have increased the penalty rates and adjusted the ODI mechanism to ensure customers are protected in future.</p> <p>The company is to be shortfalled for its 'Wastewater treatment works population-equivalent compliance' performance. This metric has been added to the asset health measure to ensure the company remains incentivised to perform in this area.</p> <p>Following a review of performance measures for pollution incidents across all companies we have intervened to ensure that Southern Water is incentivised to achieve upper quartile performance</p>

PC/ODI affected	What we did	Why we did it
	<p>existing financial penalty for the PC 'Wastewater treatment works compliance' has been adjusted to keep the total maximum penalty the same as before our intervention.</p> <p>We have adjusted the performance levels for pollution incidents (cat 1 to 3) sub-measure consistent with the methodology shown in the outcomes technical appendix</p> <p>We have changed the ODI mechanism such that penalties are incurred on the first year that performance falls below the deadband</p>	
Internal flooding incidents	<p>We have changed the performance levels in accordance with the methodology in the outcomes technical appendix such that the proposed improvements are delivered earlier.</p> <p>We have changed the form of</p>	<p>Following a review of performance measures for pollution incidents across all companies we have intervened to ensure that Southern Water is incentivised to achieve upper quartile performance.</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>

PC/ODI affected	What we did	Why we did it
	incentive from an adjustment to RCV to a revenue adjustment	
Sewer blockages	<p>We have increased the penalty rate by 25%</p> <p>We have reduced the deadband and collar.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue Adjustment.</p>	<p>The company is to be shortfalled for its performance over 2010-15 in Wastewater Infrastructure and Non-infrastructure. Penalty rates have been increased to ensure customers are protected in future.</p> <p>We consider the asset health deadband to be unnecessarily wide. We have therefore set the level at that implied in its submission of 27 June 2014.</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>
Odour complaints	<p>We have introduced a financial penalty-only ODI.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>	<p>A penalty has been introduced to ensure customers are protected from non-delivery of the proposed improvements. It has been calculated using the company's data on incremental totex from Table S1 and calibrated for totex efficiency sharing. If the penalty exactly matched the costs, the company would effectively be financially indifferent to whether the work was done or not. So a 25% uplift has been added to ensure customers are protected.</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>

PC/ODI affected	What we did	Why we did it
<p>Wastewater treatment works numeric compliance</p>	<p>We have transferred 50% of the penalty to the Asset Health PC.</p> <p>We have increased the remaining penalty by 25%.</p> <p>We have changed the form of incentive from an adjustment to RCV to a revenue adjustment.</p>	<p>50% of the maximum penalty has been transferred to the new Asset Health sub-measure (see Asset Health above)</p> <p>The company is to be shortfalled for its performance over 2010-15 in Wastewater Infrastructure and Non-infrastructure. Penalty rates have been increased by 25% to ensure customers are protected in future.</p> <p>The company is to be shortfalled for its performance over 2010-15 in Wastewater Infrastructure and Non-infrastructure. Penalty rates have been increased by 25% to ensure customers are protected in future.</p> <p>As this measure directly impacts customers its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>
<p>Proportion of energy from renewables</p>	<p>We have introduced a financial penalty-only ODI.</p>	<p>The penalty has been introduced to ensure customers are protected from non-delivery of the proposed improvements. It has been calculated using the company's data on incremental totex from Table S1 and calibrated for totex efficiency sharing. A 25% uplift has not been applied in this instance because there are sufficient other incentives for the company for this PC.</p>
<p>Beaches with excellent water quality</p>	<p>We have not intervened on this PC and ODI but anticipate that the company will wish to make revised proposals in its response to the draft determination.</p>	<p>Funding relating to the PC did not pass our wholesale costs tests due to the level of uncertainty with the estimated costs. Because of the high priority placed on improvements by customers we have not made any changes to the PC or ODI but the company may wish to make revised proposals in its response to the draft determination.</p>

PC/ODI affected	What we did	Why we did it
Serious pollution incidents	<p>We have removed the reward from this PC.</p> <p>We have changed the form of incentive from an adjustment to RCV to a Revenue Adjustment</p>	<p>We commend the company on its ambition to reduce the number of serious pollution incidents to zero over 2015-20. The effect of this ODI, however, is to reward the company even though it may still be causing serious pollution incidents. We do not consider this to be appropriate and have therefore removed the reward.</p> <p>As this measure directly impacts customers, its financial impact should be felt as soon as possible after the period of over- or under-performance. We therefore do not consider it appropriate to have an RCV adjustment for this measure.</p>
Additional performance commitments and ODIs	<p>We require the company to introduce PCs and ODIs to ensure customers are protected against non-delivery of the following two schemes.</p> <ul style="list-style-type: none"> • Thanet ground water protection. • Millbrook Sludge. 	<p>The existing package of PCs and ODIs do not provide sufficient protection for customers against non-delivery of these schemes. We require the company to address this in its response to the draft determination. The company should propose new PCs and ODIs that ensure the costs allowed for these schemes are returned to customers if the benefits are not delivered within the proposed timescales.</p>

Table AA4.4 Summary of interventions on household retail outcomes, performance commitments and incentives

PC/ODI affected	What we did	Why we did it
	We have added a performance commitment for the Service Incentive Mechanism (SIM).	

Outcome delivery and reporting

In the outcomes technical appendix, we outline a framework against which we have assessed Southern Water’s proposals in relation to outcome delivery and reporting.

The table below summarises Southern Water’s proposed approach to the measurement, reporting and governance of outcomes and our assessment of this approach.

Table AA4.5 Southern Water’s proposals for outcome delivery and reporting

Southern Water proposals	Our assessment
<p>Southern Water’s proposals are described in detail in its business plan submission of 27 June 2014.</p> <ul style="list-style-type: none"> • For wholesale water – chapter 2, Test 2, Criteria 2.8, pg 452. • For wholesale wastewater –chapter 3, Test 2, Criteria 2.8, pg 359. • For household retail – chapter 4, Test 2, Criteria 2.8, pg 208. <p>The company has summarised its approach to performance over 2015-20 reporting as follows.</p> <ul style="list-style-type: none"> • A focus on reporting against the customer promises in our business plan (our performance commitments), together with a set of asset health performance measures. • Targeted reporting of promise delivery at a “community” level; for example “localised” reporting by county, water resource zone or drainage catchment and to relevant special interest groups such as anglers, surfers and parish councils. • Enhanced transparency to meet our aspiration to lead the water industry in providing customers with information they want on the financial performance of our business, including how much profit we make, tax we pay, the levels of our shareholder distributions and the amount of cost efficiency we deliver. • Enhancing our internal assurance processes by commissioning independent, external assurance to provide public certification of the accuracy and reliability of our business performance reporting. • Strengthening our customer advisory group to build on the success of our Customer Challenge Group (CCG). We will launch a new Customer Advisory Panel with the role of providing independent scrutiny and challenge on our performance. We want the Customer Advisory Panel to be 	<p>We have reviewed in detail the company’s proposed approach and consider it to be appropriate and sufficient.</p>

Southern Water proposals	Our assessment
recognised by stakeholders and customers as a model for consumer representation in the water industry.	

In the remainder of this section, we provide the following information on each performance commitment we are proposing as part of this draft determination.

In the remainder of this section, we provide the following information on each performance commitment we are proposing as part of this draft determination.

- The name and detailed definition of the performance commitment.
- The type of incentive.
- The performance commitment level.
- For financial incentives:
 - the limits on rewards and penalties (caps and collars) and neutral zones (deadbands) as applicable⁵; and
 - the incentive rates.
- Additional details on the measure.
- where Ofwat has not accepted the company’s proposals, the nature of the intervention made is also explained.

Appendix 1 of our final methodology statement contains a number of worked examples that illustrate how the different incentive types will operate.

We have intervened in relation to a number of performance commitments proposed by the company. Where we have amended the company’s proposed incentive but retained the performance commitment, we have intentionally set out our interventions below using a ~~strike through~~. What this means is that we have rejected the proposal that has been struck through and instead we have either used a different value or not included a value at all (for example, in the case of some rewards).

Southern Water will be able to finalise its proposed menu choice and affected ODI calibrations following our consideration of responses to these proposals.

⁵ In general, the cap or collar is the level of service at which the maximum penalty or reward occurs and a deadband is the level of service at which the incentive first applies. However, where a greater than or less than symbol precedes the figure this denotes that the maximum or initial incentive only occurs if service is greater than or less than this level.

We have not removed any performance commitments proposed by the company, or added any new performance commitments to the draft determination.

Table AA4.6 Performance commitments that we have added to this draft determination

Performance commitment	Reason for its addition						
Household retail							
Service Incentive Mechanism (SIM)	We note the Southern Water did not include SIM in its revised business plan. SIM is one of the mandatory performance commitments, along with leakage, and therefore we are including it in the company's draft determination.						
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
	PC		Ofwat methodology				
	Penalty Collar		Ofwat methodology				
	Penalty deadband		Ofwat methodology				
	Reward cap		Ofwat methodology				
	Reward deadband		Ofwat methodology				

Wholesale water outcome 1: A constant supply of high quality drinking water

Performance commitment 1: Water asset health

Detailed definition of performance measure: Composite measure, consisting of the following components.

- Number of mains bursts per year.
- Number of supply interruptions per year.
- TIM distribution index.
- Low water pressure – number of properties on DG2 register.
- Number of discolouration contacts per year.
- Mean zonal compliance.
- Coliform compliance at WSW.
- Coliform compliance at WSR.
- Turbidity compliance.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC			Stable	Stable	Stable	Stable	Stable
Penalty Collar			See individual parameters below (Lower performance level)				
Penalty Deadband			See individual parameters below (higher performance level)				

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate
	Lower	Upper	
Mains bursts	2865 bursts	2383 bursts	£4,170 £5,213 per burst per year

Incentive type	Performance levels (No.)		Incentive rate
Interruptions	19 mins/property	14 mins/property	£94,200 per minute/property/year Penalty ODI has been moved to individual PC for clarity
TIM	99.74%	99.82%	£115,875 per 0.01% per year
Low pressure (DG2)	336 properties	296 properties	£4,450 per property per year Penalty ODI has been moved to individual PC for clarity
Discolouration contacts (nr/1000)	4.5 1.21 (but see individual table below for profile)	4.19 0.74 (but see individual table below for profile)	£5,710 per contacts/1000 per year
Coliform compliance WSW (%)	99.88%	99.92%	£97,500 per 0.01% per year
Coliform compliance WSR (%)	98%	99%	£250,000 per % per year
Turbidity (nr of sites)	10	6	£195,000 per site per year
Mean zonal compliance (%)	99.91%	99.93%	£225,000 per 0.01% per year Penalty ODI has been moved to individual PC for clarity

Additional profile for discolouration contacts following horizontal review of companies' proposals

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Discolouration Contacts PC	No./1000 properties	0.90	0.85	0.80	0.74	0.74	0.74
Penalty Collar			1.21	1.21	1.05	1.05	1.05
Penalty Deadband			0.90	0.90	0.74	0.74	0.74

Additional details

Necessary detail on measurement units	Stable performance means that performance for all components of the ODI is better than below-the higher performance levels. Measurement to follow guidelines as defined for the Ofwat KPIs in 'Key performance indicators – guidance', IN 13/03.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply for underperformance (below higher performance level) for all years that performance in a measure falls below the higher performance level/deadband shown above. In this scenario, the penalty incentive rates will apply for performance between the deadband and collar in both underperforming years.
Form of reward/penalty	RCV adjustment Revenue-based penalty which is to be funded through an equivalent adjustment to the RCV.
Any other information or clarifications relevant to correct application of incentive	The components of this performance measure will be assessed individually. An overall penalty will then be imposed against the water asset health measure based on the combined performance against these individual commitments.

Performance commitment 2: Water use restrictions

Detailed definition of performance measure: The number of ~~customers~~ properties affected by temporary use bans between 2015-16 and 2019-20, before two dry winters.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting	Committed performance levels
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		level					
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Properties per year		0	0	0	0	0
Penalty Collar	Properties per year						1,095,338
Penalty Deadband	Properties per year		0	0	0	0	0

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£/property per year)
	Lower	Upper	
Penalty	1,095,338	0	14.85

Additional details

Necessary detail on measurement units	The number of customers properties affected by temporary use bans before two consecutive dry winters between 2015-16 and 2019-20. A dry winter is defined as less than 85% of the long-term average annual rainfall level.
Frequency of PC measurement and any use of averaging	Performance will be measured and published annually and at the end of the AMP period.
Timing and frequency of rewards/penalties	Penalties for underperformance will apply at the end of the AMP period. Penalties will apply for every year that the outturn is greater than the deadband.
Form of reward/penalty	RCV Adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 3: Leakage

Detailed definition of performance measure: The total level of leakage, including customer supply pipe leakage, expressed in megalitres per day (MI/day).

Incentive type: Financial – Reward and penalty.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	MI/d	88					87
Penalty Collar	MI/d						90.4 96
Penalty Deadband	MI/d						87
Reward Deadband	MI/d						85
Reward Collar	MI/d						83.6

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£/MI/d per year)
	Lower	Upper	
Penalty	90.4 96.0	87.0	139,007
Reward	87.0	83.6	112,304

Additional details

Necessary detail on measurement units	Measure to be as defined for the Ofwat KPI in IN 13/03.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually and at the end of the AMP period as a five-year average.

Timing and frequency of rewards/penalties	Rewards and Penalties apply at the end of the AMP based on performance against the five-year average target.
Form of reward/penalty	RCV adjustment Revenue adjustment,
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 4: Interruptions to supply

Detailed definition of performance measure: Average minutes per property lost through water supply interruptions of greater than three hours between 2015-16 and 2019-20.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Minutes per property	9	9	9	9	9	9
Penalty Collar			19-20	19-20	19-20	19-20	19-20
Penalty Deadband			14-10	14-10	14-10	14-10	14-10

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£ per minute/property per year)
	Lower	Upper	
Penalty	19-20	14-10	94,200 58,875

Additional details

Necessary detail on measurement units	Measurement of performance will follow the guidelines as defined for the Ofwat KPIs in 'Key performance indicators – guidance', IN 13/03 . The impact of severe weather conditions will be taken into account. As with the previous serviceability mechanism, any extreme weather will be adjusted for after the event, and any adjustments will be independently assured.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	Rewards and penalties apply at the end of the AMP period. Penalties will apply for every year that the outturn is greater than the deadband.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	This measure also forms part of the overall asset health measure for water.

Performance commitment 5: Drinking water quality

Detailed definition of performance measure: Compliance with the Drinking Water Inspectorate (DWI) regulations as measured by Mean Zonal Compliance.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	99.94	99.95	99.95	99.95 100	99.95 100	99.95 100

Penalty Collar			99.91	99.91	99.91 99.94	99.91 99.94	99.91 99.94
Penalty Deadband			99.93	99.93	99.93 99.96	99.93 99.96	99.93 99.96

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£/0.01% per year)
	Lower	Upper	
Penalty	99.91	99.93 99.96	£225,000

Additional details

Necessary detail on measurement units	Performance against this measure is published by the DWI.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply for every year that performance is less than the deadband.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	This measure also forms part of the overall asset health measure for water.

Performance commitment 6: Water pressure

Detailed definition of performance measure: Number of properties on the DG2 low water pressure register.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Number of properties	257	257	257	257	257	257
Penalty Collar			336	336	336	336	336
Penalty Deadband			296	296	296	296	296

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£/property per year)
	Lower	Upper	
Penalty	336	296	4,450

Additional details

Necessary detail on measurement units	Measurement of performance will follow the guidelines as defined for the Ofwat KPIs in 'Key performance indicators – guidance', IN 13/03 .
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply for every year that the outturn is greater than the deadband.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	This measure also forms part of the overall asset health measure for water.

Performance commitment 7: Awareness of water hardness measures

Detailed definition of performance measure: The proportion of customers with awareness of how to deal with hard water, measured by surveys.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	67.1	Improve	Improve	Improve	Improve	Improve

Additional details

Necessary detail on measurement units	Performance to be measured by customer surveys, the first of which was carried out in 2013-14. Targets to 'improve' on 2013-14 estimated performance of 67.1%. This estimate will be retested following the June business plan update and the performance commitments will be updated if necessary.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Wholesale water outcome 2: Looking after the environment

Performance commitment 8: Distribution input

Detailed definition of performance measure: The average daily amount (MI/d) of potable water entering the distribution system in a year.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	MI/d	533.97	525.48	525.06	525.77	526.79	526.39

Additional details

Necessary detail on measurement units	The average daily amount (MI/d) of potable water entering the distribution system in a year
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Wholesale water outcome 3: Better information and advice

Performance commitment 9: Per capita consumption

Detailed definition of performance measure: Average per-capita consumption between 2015-16 and 2019-20 in litres/head/day. Per-capita consumption is the average amount of water used by each of the Company's household consumers each day, measured as litres per head per day (l/h/d).

Incentive type: Financial – ~~Reward~~ and Penalty.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Litres/head/day	147.2					133.7
Penalty Collar							135.7
Penalty Deadband							133.7
Reward Deadband							133.7
Reward Collar							131.7

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£ per l/head/day per year)
	Lower	Upper	

Incentive type	Performance levels (No.)		Incentive rate
Penalty	133.7	135.7	1,095,913
Reward	133.7	131.7	1,095,913

Additional details

Necessary detail on measurement units	The unit of measurement is post-Maximum Likelihood Estimation weighted average litres per person per day on average over the year.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually and at the end of the AMP period as a five-year average. Annual performance will also be measured and published.
Timing and frequency of rewards/penalties	Rewards and Penalties apply at the end of the AMP based on performance against the five-year average target.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	

Wholesale wastewater outcome 1: A reliable wastewater service

Performance commitment 1: Wastewater asset health

Detailed definition of performance measure: Composite measure, consisting of the following components.

- Sewer collapses.
- Sewer blockages.
- Pollution incidents (category 1 to 3).
- Wastewater treatment works compliance.
- External flooding – other causes.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC			Stable	Stable	Stable	Stable	Stable
Penalty Collar			See individual parameters below (Lower performance level)				
Penalty Deadband			See individual parameters below (higher performance level)				

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate
	Lower	Upper	

Incentive type	Performance levels (No.)		Incentive rate
Sewer collapses	392 collapses	368 collapses	£56,250 £70,313 per collapse
Sewer blockages	27,703 blockages	25,394 blockages	£411 per blockage Penalty ODI has been moved to individual PC for clarity
Pollution incidents (cat 1 to 3)	563 460 incidents (but see profile below)	458 156 incidents (but see profile below)	£20,571 £25,713 per incident
WWTW compliance	96.8%	97.7%	£688,889 per 0.1% Penalty ODI has been moved to individual PC for clarity
WWTW population equivalent compliance	99.8	99.9	£3.875m per 0.1%
External flooding (other causes)	13,004 incidents	10,974 incidents	£296 £370 per incident

Additional profile for pollution incidents (cat 1 to 3) following horizontal review of companies' proposals

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Pollution Incidents	Number	355	289	223	156	156	156
Penalty Collar			460	460	261	261	261
Penalty Deadband			355	355	156	156	156

Additional details

Necessary detail on measurement units	Stable performance means that performance for all components of the ODI is better than below-the higher performance levels. Measurement to follow guidelines as defined for the Ofwat KPIs in 'Key performance indicators – guidance', IN 13/03.
Frequency of PC measurement	Performance will be measured and reported annually.

and any use of averaging	
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply for underperformance (below higher performance level) for all years that performance in a measure falls below the higher performance level/deadband shown above. In this scenario, the penalty incentive rates will apply for performance between the deadband and collar in both underperforming years.
Form of reward/penalty	RCV adjustment Revenue-based penalty which is to be funded through an equivalent adjustment to the RCV.
Any other information or clarifications relevant to correct application of incentive	The components of this performance measure will be assessed individually. An overall penalty will then be imposed against the water asset health measure based on the combined performance against these individual commitments.

Performance commitment 2: Internal flooding incidents

Detailed definition of performance measure: The total number of internal flooding incidents (all causes, including private sewers) between 2015-16 and 2019-20.

Incentive type: Financial – Reward and penalty.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC (annual profile)	Number of incidents	551	446	436	414	392	382
Five-year total	Incidents (5 yr total)	2755					2070

Penalty Collar						2440
Penalty Deadband						2215
Reward Deadband						2000
Reward Collar						1700

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£/incident)
	Lower	Upper	
Penalty	2440	2215	75,260
Reward	2000	1700	72,228

Additional details

Necessary detail on measurement units	The number of flooding incidents will be produced in accordance with the JR11 regulatory reporting requirements for table 3a and will include severe weather related incidents and private sewers. The only incidents that will be excluded are those associated with 'Exceptional' weather conditions. This would apply only where the costs were treated as exceptional items in our accounts, meaning the event is outside the normal course of business.
Frequency of PC measurement and any use of averaging	Performance to be measured and reported annually and at the end of the AMP as a five-year total.
Timing and frequency of rewards/penalties	Rewards and penalties apply at the end of the AMP based on performance against five-year total target.
Form of reward/penalty	RCV adjustment Revenue Adjustment
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 3: External flooding incidents

Detailed definition of performance measure: The number of external flooding incidents, annually, between 2015-16 and 2019-20.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Incidents	9694	9694	9694	9694	9694	9694

Additional details

Necessary detail on measurement units	The number of flooding incidents will be produced in accordance with the JR11 regulatory reporting requirements for table 3a and includes all incidents from all causes.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	This measure also forms part of overlaps with the 'external flooding – other causes' metric within the overall asset health PC for wastewater.

Performance commitment 4: Sewer blockages

Detailed definition of performance measure: The number of blockages per km of sewer length, annually between 2015-16 and 2019-20.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Blockages per km	0.58	0.58	0.58	0.58	0.58	0.58
Penalty Collar			0.70 0.65	0.70 0.65	0.70 0.65	0.70 0.65	0.70 0.65
Penalty Deadband			0.64 0.59	0.64 0.59	0.64 0.59	0.64 0.59	0.64 0.59

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£M per blockages/km per year)
	Lower	Upper	
Penalty	0.70 0.65	0.64 0.59	16.276 20.345

Additional details

Necessary detail on measurement units	Measurement of performance will follow the guidelines as defined for the Ofwat KPIs in 'Key performance indicators – guidance', IN 13/03 .
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply for every year that the outturn is greater than the deadband. In this scenario, the penalty incentive rates will apply for performance between the deadband and collar in both underperforming years.
Form of reward/penalty	RCV adjustment Revenue adjustment.

Any other information or clarifications relevant to correct application of incentive

This measure also forms part of the overall asset health measure for wastewater.

Performance commitment 5: Odour complaints

Detailed definition of performance measure: The number of customer complaints relating to odour from treatment works, annually, between 2015-16 and 2019-20.

Incentive type: ~~Reputational~~ **Financial – Penalty only.**

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Number	423	423	423	423	403	403
Penalty Collar			423	423	423	423	423
Penalty Deadband			423	423	423	403	403

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£M per complaint per year)
	Lower	Upper	
Penalty	423	403	0.079

Additional details

Necessary detail on measurement units	WWTW Compliance is reported by the Environment Agency on MD109.
Frequency of PC measurement	Performance will be measured and reported annually.

and any use of averaging	
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply for 2018-19 and 2019-20 if the outturn is greater than the deadband.
Form of reward/penalty	Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	

Wholesale wastewater outcome 2: Looking after the environment

Performance commitment 6: Wastewater treatment works compliance

Detailed definition of performance measure: Compliance with wastewater treatment works regulation as reported by the Environment Agency on MD109.

Incentive type: Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	98.6	98.6	98.6	98.6	98.6	98.6
Penalty Collar	%		96.8	96.8	96.8	96.8	96.8
Penalty Deadband	%		97.7	97.7	97.7	97.7	97.7

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£ per 0.1% per year)
	Lower	Upper	
Penalty	97.7	96.8	£688,889 430,556

Additional details

Necessary detail on measurement units	WWTW Compliance is reported by the Environment Agency on MD109.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of	Penalties apply at the end of the AMP period.

rewards/penalties	Penalties will apply for every year that performance is less than the deadband. In this scenario, the penalty incentive rates will apply for performance between the deadband and collar in both underperforming years.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	This measure also forms part of the overall asset health measure for wastewater.

Performance commitment 7: Proportion of energy from renewable sources

Detailed definition of performance measure: The proportion of total energy consumption from renewable sources.

Incentive type: ~~Reputational~~ Financial – Penalty only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	14.5					16.5
Penalty Collar							14.5
Penalty Deadband							16.5

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£M per % per year)
	Lower	Upper	

Incentive type	Performance levels (No.)		Incentive rate
Penalty	14.5	16.5	2.288

Additional details

Necessary detail on measurement units	The percentage of renewable energy sourced out of total operational energy used in the financial year
Frequency of PC measurement and any use of averaging	Performance will be measured and published annually.
Timing and frequency of rewards/penalties	Penalties apply at the end of the AMP period. Penalties will apply if performance in 2019-20 is less than the deadband.
Form of reward/penalty	Revenue adjustment
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 8: Beaches with ‘excellent’ water quality

Detailed definition of performance measure: The number of beaches with ‘excellent’ water quality as defined under the Water Framework Directive.

Note: Costs associated with the delivery of this PC have been disallowed due to the level of uncertainty of the overall estimate. We do, however, recognise that there is strong customer support and willingness to pay for improving water quality at beaches and anticipate that the company will wish to revise its proposals in its response to the draft determination.

Incentive type: Financial – Rewards and penalties.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-	2016-17	2017-18	2018-19	2019-20

			16				
PC	Number	41	41	41	41	41	48
Penalty Collar			37	37	37	37	39
Penalty Deadband			41	41	41	41	48
Reward Deadband			41	41	41	41	48
Reward Collar			47	47	47	47	49

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£ per beach per year)
	Lower	Upper	
Penalty 1	37	41	291,500
Penalty 2	41	48	3,724,000
Reward	41	49	246,750

Additional details

Necessary detail on measurement units	Measurement of performance against the Bathing Water Directive is published by Defra.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually and at the end of the AMP as a five-year total.
Timing and frequency of rewards/penalties	Rewards and penalties apply at the end of the AMP based on performance against the annual AMP targets.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 9: Serious pollution incidents

Detailed definition of performance measure: The number of category 1 and 2 pollution incidents, as reported by the Environment Agency on MD109.

Incentive type: Financial – ~~rewards and~~ penalties only.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Number	7	8	6	4	2	0
Penalty Collar							
Penalty Deadband			8	6	4	2	0
Reward Deadband			8	6	4	2	0
Reward Collar			0	0	0	0	0

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate (£ per incident per year)
	Lower	Upper	
Penalty 1	No collar	0	137,423
Reward	8	0	137,423

Additional details

Necessary detail on measurement units	Measurement of performance will reflect the incidents reported by the Environment Agency on MD109.
Frequency of PC measurement and any use of averaging	Performance will be measured and reported annually.
Timing and frequency of	Rewards and penalties apply at the end of the AMP,

rewards/penalties	based on performance against annual commitments.
Form of reward/penalty	RCV adjustment Revenue adjustment.
Any other information or clarifications relevant to correct application of incentive	

Wholesale Wastewater outcome 3: Better information and Advice

Performance commitment 10: Avoiding blocked drains

Detailed definition of performance measure: The proportion of customers who are aware of measures to avoid blocked drains, measured by surveys.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	75	75	76	76	77	78

Additional details

Necessary detail on measurement units	Performance to be measured by customer surveys, the first of which was carried out in 2013-14. The target is to improve to 78% by 2019-20 on current estimate of 75%. This estimate will be retested following the June Business Plan update and the performance commitments will be updated if necessary.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Household retail outcome 1: Responsive customer service

Performance commitment 1: First time resolution of customer contacts

Detailed definition of performance measure: The proportion of customer contacts resolved first time, as measured by a third party.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	80	Improve	Improve	Improve	Improve	Improve

Additional details

Necessary detail on measurement units	This commitment will be externally measured using an approach which was developed for our Business Plan and was used to measure our 2013-14 performance level of c.80%.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 2: Dealing with customers' individual needs

Detailed definition of performance measure: The proportion of customers agreeing with the statement that we 'dealt with their individual needs and those of their community', measured by surveys.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	75.9%	Improve	Improve	Improve	Improve	Improve

Additional details

Necessary detail on measurement units	Performance to be measured by customer surveys, the first of which was carried out in 2013-14. Targets to 'improve' on 2013-14 estimated performance of 75.9%. This estimate will be retested following the June business plan update and the performance commitments will be updated if necessary.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Household retail outcome 2: Better Information and Advice

Performance commitment 3: Where your money goes

Detailed definition of performance measure: The proportion of customers with awareness of ‘where your money goes’, measured by surveys.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	35.1%	Improve	Improve	Improve	Improve	Improve

Additional details

Necessary detail on measurement units	Performance to be measured by customer surveys, the first of which was carried out in 2013-14. Targets to ‘improve’ on 2013-14 estimated performance of 35.1%. This estimate will be retested following the June business plan update and the performance commitments will be updated if necessary.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 4: Billing queries

Detailed definition of performance measure: Number of customer queries related to understanding of their bills.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	No.	49,000	Decrease	Decrease	Decrease	Decrease	25,000

Additional details

Necessary detail on measurement units	Measurement will follow the guidelines from the June Return reporting requirements and definitions manual. Targets to decrease over AMP from 2013-14 level at c.49, 000 to 25,000 by 2019-20.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Household retail outcome 3: Affordable bills

Performance commitment 5: Take up of assistance schemes

Detailed definition of performance measure: The number of customers who are receiving support through one of our financial assistance schemes.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	No.	105,100	129,500	149,900	172,300	194,700	217,100

Additional details

Necessary detail on measurement units	Measurement of this commitment will be based on the number of customers who are enrolled on one of our financial assistance schemes.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 6: Value-for-money

Detailed definition of performance measure: The proportion of customers who feel they get value-for-money from our services, measured by surveys.

Incentive type: Reputational.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	%	53%	Improve	Improve	Improve	Improve	Improve

Additional details

Necessary detail on measurement units	Performance to be measured by customer surveys, the first of which was carried out in 2013-14. Targets to 'improve' on 2013-14 estimated performance of 53%. This estimate will be retested following the June business plan update and the performance commitments will be updated if necessary.
Frequency of PC measurement and any use of averaging	Performance against this measure will be published annually.
Timing and frequency of rewards/penalties	
Form of reward/penalty	
Any other information or clarifications relevant to correct application of incentive	

Performance commitment 7: Service Incentive Mechanism (SIM)

Detailed definition of performance measure: SIM score as defined in Ofwat's SIM guidance and updated in IN13/03.

Incentive type: Reward and penalty.

Performance commitments

	Unit	Starting level	Committed performance levels				
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
PC	Score	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology
Penalty Collar		Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology
Penalty Deadband		Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology
Reward Deadband		Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology
Reward Collar		Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology	Ofwat methodology

Incentive rates

Incentive type	Performance levels (No.)		Incentive rate
	Lower	Upper	

Incentive type	Performance levels (No.)		Incentive rate
Penalty	Ofwat methodology	Ofwat methodology	Ofwat methodology
Reward	Ofwat methodology	Ofwat methodology	Ofwat methodology

Additional details

Necessary detail on measurement units	SIM score as defined in Ofwat's SIM guidance and updated in IN13/03.
Frequency of PC measurement and any use of averaging	Annually.
Timing and frequency of rewards/penalties	Annual assessment in AMP6, rewards or penalties applied to AMP7 revenue.
Form of reward/penalty	Adjustment to revenue at PR19.
Any other information or clarifications relevant to correct application of incentive	

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We are responsible for making sure that the water sector in England and Wales provides customers with a good quality and efficient service at a fair price.



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