May 2014

## Setting price controls for 2015-20

# Draft price control determination notice: company-specific appendix – Northumbrian Water

OFWAT

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# A1. Overview

This appendix sets out the details of the draft determination of price controls that are specific to Northumbrian Water. On 6 May, we confirmed that Northumbrian Water would receive an early draft determination ('IB 09/14 Ofwat to proceed with early draft determination for Northumbrian Water and Dŵr Cymru'). Our draft determination is based on Northumbrian Water's business plan as submitted on 2 May and its responses to our subsequent queries.

Although in many areas this is a high quality business plan, we have not been able to accept Northumbrian Water's revised business plan in the round. Instead there are a limited number of areas where we consider it necessary to intervene to protect the interests of consumers. These are summarised in Section 1.2.

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 Northumbrian Water, along with what they mean for average customer bills. It also sets out:

- the outcomes we expect Northumbrian Water 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 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. In our methodology 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. This means that companies cannot cross-subsidise between controls in terms of costs or revenues, which provides important benefits for providing more effective incentives and supports the development of the relevant markets and in particular those provided for by the Water Act 2014.

We have developed these draft determinations 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.

Accordingly the draft determinations are structured on an element by element basis and are 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.

For the non-household retail price control, this document does not set out a draft determination for Northumbrian Water's default tariffs. Instead, it sets out the assumptions we have made about the non-household control for the purposes of assessing the financeability of the appointed business as a whole. As discussed in, 'Draft price control determination notice: technical appendix' published alongside the draft determinations for enhanced companies in April 2014 (the 'enhanced DD technical appendix'), we will be setting out our draft determinations for default tariffs for all companies in August once companies have resubmitted their proposed default tariffs to us.

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 provide more detail on the following areas of our draft determination and form part of the draft price control determination.

- Annex 1 – outcomes, performance commitments and outcome delivery incentives.
- Annex 2 – wholesale costs.
- Annex 3 – household retail price control.
- Annex 4 – reconciling 2010-15 performance.

All figures are in 2012-13 average prices except where otherwise stated.

Written representations on this draft determination should be provided to us by **4 July 2014**.

## A1.1 Bills and K factors

The table below sets out the allowed revenues we have assumed in our draft determination for the company to deliver its statutory duties, its outcomes and its associated performance commitments. It also sets out the average customer bills on the basis of the draft determination.

This draft determination will lead to a combined average household customer bills for water and sewerage customers across the Northumbrian and Essex and Suffolk regions of £362 by 2019-20 (excluding the impact of inflation). This represents a £6 saving per customer when prices are compared between 2019-20 and 2014-15. Bills will also be £6 lower than the company proposed in its December plan.

We assessed the proposed bill level for 2015-20 in the December business plan (which set out higher average customer bills) as affordable. This was based on:

(i) the evidence of engagement with customers including an overall customer acceptability rating of 75%;
(ii) identification of affordability issues among its customer base; and
(iii) measures to address affordability issues for these customers.

We accepted the December plan as affordable in future periods based on proposed adjustments to pay as you go (PAYG) to maintain flat bills after 2020 after taking account of impact of legacy incentives in 2015-20 period.

The profile of revenue, and therefore average bills, reflects the profile proposed by the company in its revised business plan. The company chose to smooth the profile by adjusting its PAYG ratio (see section A2.2.3 and A3.2.3). The PAYG ratio is the proportion of the total expenditure (totex) allowance that will be recovered in period

(2015-20). The remainder of the totex allowance is added to the regulatory capital value (RCV) and so will be recovered over future periods. Our draft determination reflects this approach.

We note that by increasing the PAYG ratio (in comparison to its December plan) Northumbrian Water (hereafter referred to as Northumbrian) has changed the balance of recovery between current and future periods, choosing to recover a higher proportion from customers in the 2015-20 period and so share the benefits arising from the lower cost of capital between 2015-20 and beyond this period. We consider that a best practice approach would have been to test with customers their preferences for different bill profiles over the short and long term. The customer challenge group (CCG) reluctantly accepted Northumbrian's proposed approach and there is no evidence on whether Northumbrian discussed with the CCG alternative approaches to PAYG rates and the consequences for customer bills in 2015-20 and beyond and financeability. Even so, we have adopted Northumbrian's proposed approach for the draft determination, based on the need to balance bill reductions in 2015-20 with the need to maintain financeability. We expect that Northumbrian will take the opportunity of the consultation period on the draft determination to engage with their customers on the proposed bill reduction and the balance between the benefit of the lower cost of capital and other changes to their business plan between the 2015-20 period and future periods and any trade-offs with financeability.

It should be noted that, as in the enhanced draft determinations, the average customer bill illustrated above reflects a notional allocation (by Ofwat but based on the company's split of household and non-household) of the overall revenue requirement across Northumbrian's customer base. In practice, companies will have some flexibility about how they recover the revenue requirement from different types of charges.

**Table A1 Northumbrian Water's draft determination K's, allowed revenues and customers' bills (in 2012-13 average prices)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Wholesale water – allowed revenues (£m)[1] | 379.9 | 381.0 | 382.1 | 383.3 | 384.4 | 1,910.7 |
| Wholesale water – K (%)[2] | 0.00% | 0.30% | 0.40% | 0.11% | 0.11% | - |

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Wholesale wastewater – allowed revenues (£m) | 274.9 | 275.9 | 276.8 | 277.8 | 278.7 | 1,384.1 |
| Wholesale wastewater[2] – K (%) | 0.00% | 0.35% | 0.44% | 0.15% | 0.15% | - |
| Retail household allowed revenue (£m) | 55 | 56 | 57 | 57 | 58 | 283 |
| Retail non-household expected revenue (£m)[3] | 10 | 10 | 10 | 11 | 11 | 51 |
| Average customer bill – water (£) | 184 | 184 | 184 | 184 | 184 | - |
| Average customer bill – wastewater (£) | 196 | 196 | 196 | 196 | 196 | - |
| Average customer bill – combined (£)[4,] | 362 | 362 | 362 | 362 | 362 | - |

**Notes:**

1. 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.
2. 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 to express a change in K against.
3. We have not made a draft determination for the company's non-household retail control. We will do this following the resubmission of proposed default tariffs by companies to us.
4. The average combined customer bill is not equal to the sum of the average water bill and the average wastewater bill due to the use of the economies of scope factor in the household retail price control.

## A1.2 Interventions

In many areas the plan submitted by Northumbrian is high quality. However, we have intervened in relation to a limited number of areas to protect customers. These areas are summarised in the table below and are discussed in more detail throughout this document.

**Table A1.2 Interventions in Northumbrian Water's revised Business Plan**

| Area of intervention | What we did | Why we did it |
|---|---|---|
| **Outcomes** | We have intervened in relation to a limited number of performance commitments and ODIs. Specifically:<br>• we increased the performance commitment for overall drinking water compliance;<br>• We removed the reward aspect related to some financial incentives;<br>• we have amended company proposed 'deadbands' for a number of delivery incentives; and<br>• We excluded the proposed reputational only incentives related to: (i) maintaining the necessary credit rating; and (ii) efficient and innovative company. | Consistent with our final methodology, we have intervened to ensure that performance commitments – and associated rewards – are sufficiently stretching for the company.<br>We do not consider than an incentive mechanism on credit rating is necessary; for consistency with other companies who have not proposed such an incentive, it has been excluded<br>Similarly the outcome for an "efficient and innovative company" is a means to delivering its business plan not an outcome in itself |
| **Reconciling 2010-15 performance** | We have intervened by reducing the adjustments related to 2010-15 performance. This has the effect of reducing the revenue requirement by £21 million.<br>Northumbrian proposed (revenue) adjustments of approximately £96 million; however we adopted a different position in relation to the revenue correction mechanism, opex incentive allowance and CIS. The impact is that we have determined legacy adjustments of £75m<br>We have also made adjustments to the RCV (and revenue requirement) in relation to a | We disagreed with the way the company calculated a number of adjustments.<br>In relation to the revenue correction mechanism, the company did not provide sufficient evidence on the need and justification to rebase property numbers due to reporting changes<br>In relation to the opex incentive allowance, we intervened because there is no sustained outperformance associated with 1 of the schemes.<br>We have made the interventions in relation to FD09 because either (i) some of the outputs are no longer |

| Area of intervention | What we did | Why we did it |
|---|---|---|
| | number of outputs from our final determination in 2009 (FD09). | required; or (ii) we do not think, based on current evidence, that Northumbrian Water will deliver all the outputs they were funded to deliver. |
| **Retail** | We did not adjust the cost to serve for new costs by the full amount the company proposed. | The company did not clearly demonstrate that the new costs were the most cost-beneficial or efficient |
| **Risk and reward** | We removed the uncertainty mechanism proposed by the company for new statutory obligations.<br>We amended the company proposal for an uncertainty mechanism for water business rate charges so that [only] 75% of efficient qualifying cost variations assessed in an interim would be passed through to customers. | Protects customers from bearing risks that are not well justified or substantiated. |

# A2. Wholesale water

## A2.1 Company outcomes, performance commitments and delivery incentives

### A2.1.1 The PR14 focus on outcomes

As we set out in our final methodology statement, **outcomes** are one of the key innovations in PR14. Company business plans have been focused on outcomes rather than outputs. This ensures that companies are incentivised to deliver efficiently what customers and society need, want and are willing to pay for, and helps to legitimise their role in providing important public services.

Companies have engaged directly with their customers CCGs to develop a set of outcomes, together with the associated **performance commitments** and **outcome delivery incentives**. The performance commitments set out in detail the levels of performance that the companies commit to achieve within the five-year period from April 2015 to March 2020. The incentives set out what happens if companies over- or under-deliver against the committed performance levels.

The creation of delivery incentives directly linked to the outcomes encourages strong performance on a continuous basis. The incentives give the best-performing companies the opportunity to earn improved returns from financial rewards where there is evidence customers have indicated their support. The incentives also ensure that customers are protected against poor performance, with less well-performing companies held to account where performance falls below the committed performance levels, and where the incentive is financial, paying money back to customers.

Our final methodology statement set out a framework that gives companies a choice of three incentive types (financial reward and penalty, financial penalty only or reputational) and also considerable flexibility in how the financial incentives are calibrated. This includes the possibility of using limits on incentives (caps on rewards and collars on penalties) as well as neutral zones or deadbands within which the incentive is 'switched off'. Following our initial review of the companies' business plans, we provided further guidance on the alignment of performance commitments with effective financial incentives in 'Setting price controls for 2015-20 – risk and reward guidance' (our 'risk and reward guidance'). Further details of the approach to outcomes are set out in our enhanced DD technical appendix.

### A2.1.2 Outcomes, performance commitments and incentives

The outcomes, performance commitments and outcome delivery incentives for the wholesale water control for Northumbrian are summarised in table A2 below. A number of outcomes and performance commitments are relevant to all controls and so are included across water, wastewater and retail controls.

The company has proposed a relatively broad set of performance commitments (PCs) and outcome delivery incentives (ODIs) incentives which provide good coverage of its activities and have been accepted by customers. For the majority of the proposed service levels and incentives, we have adopted the company's proposals.

For some performance commitments and incentives types we have intervened to change the underlying performance level or incentives. These interventions are reflected in the information presented table A2 and are explained in detail in Annex 1.

**Table A2 Wholesale water outcomes, performance commitments and incentives**

| Outcome | Performance commitment | Incentive type |
|---|---|---|
| We deliver water and sewerage services that meet the needs of current and future generations in a changing world | Asset health measures – water | Financial – penalty only* |
| We supply clean, clear drinking water that tastes good | Satisfaction with taste and odour of tap water | Financial – reward and penalty |
| | Overall drinking water quality compliance* | Financial – penalty only** |
| | Discoloured water complaints | Financial – penalty only* |
| We provide a reliable and sufficient supply of water | Interruptions to water supply for more than 3 hours (average time per property) | Financial – reward and penalty |
| | Properties experiencing poor water pressure | Financial – penalty only* |
| | Water mains bursts | Financial – penalty only* |

| Outcome | Performance commitment | Incentive type |
|---|---|---|
| | Leakage (ML/d) NW | Financial – reward and penalty** |
| | Leakage (ML/d) ESW | Financial – reward and penalty** |
| We provide excellent service and impress our customers | NWL independent overall customer satisfaction score | Reputational |
| | Service Incentive Mechanism (SIM) | Financial – reward and penalty |
| | Domestic customer satisfaction, net promoter score | Reputational |
| Our customers are well informed about the services they receive and the value of water | NWL independent survey on keeping customers informed | Reputational |
| We protect and enhance the environment in delivering services, leading by example | Greenhouse gas emissions | Reputational |
| | Annual environmental performance report | Reputational |

**Note:**

*Denotes we have adjusted the company's revised business plan proposal for our draft determination (performance commitment or incentive type)

**Denotes we have adjusted the company's revised business plan proposal for our draft determination (incentive parameters)

In assessing the proposals against the requirements of the methodology, we have identified a limited number of important issues. Accordingly to protect the interests of customers we have intervened in a small number of areas associated with the levels of some of the company's proposed PCs and ODIs.

What this means in practice is that we have taken action to ensure that incentives are effective, with appropriate penalties where necessary, and that any rewards are earned only after the company delivers stretching performance and where there is good evidence that customers are willing to pay for outperformance. We describe the rationale for each of the interventions below. Further details of the specific changes on the individual incentives are also set out in Annex 1.

## Intervention: performance levels for performance commitment not sufficiently stretching

The company's revised proposals submitted on 2 May contained one instance in wholesale water where the proposed performance levels showed a marked deterioration compared to those in its original business plans. This was subject to close examination given the potential impacts on customers if compliance targets were not achieved, or if the company was allowed to deliver a lower standard of performance without compensating adjustments to the level of funding it receives.

Our concern related to the PC for compliance with the overall drinking water quality standard. The company proposed performance level for mean zonal compliance was reduced from 99.94% in the original business plan to 99.92% in the 2 May submission. This would be the lowest performance level across all the companies.

The company responded to our request for clarification by explaining that its revised proposal reflected a better understanding of the new Drinking Water Inspectorate (DWI) lead standard. It also proposed a partial reversion to an incentive performance level of 99.93% (which would be the second worst across all companies).

We did not find the company's justification that a new DWI lead standard justified a lower service level to be convincing. The lead standard applies to all companies and has been known about since The Water Supply (Water Quality) Regulation 2000. Further, at the 2009 price review (PR09), the company was allowed almost £17m (2007-08 prices) to replace lead pipes and improve compliance with drinking water standards. In view of these factors and the importance of this compliance target, we have returned the incentive target for overall drinking water quality standard to the company's original proposed level of 99.94%.

In addition, we have deleted the deadband which the company suggested. The revised target for drinking water quality will still leave the company as one of the bottom two companies in the industry, and projecting flat performance during the five year period. Other companies have very limited deadbands. For example, Affinity Water pays a penalty if performance declines by 0.01%. South West Water does have a deadband, but its committed performance level is firmly upper quartile at 99.98%. We recognise that this represents a substantial sharpening of the incentive, but given the crucial importance of this standard and the company's unambitious proposed performance levels, we think that this is appropriate to ensure that customers are protected.

### Intervention: rewards for three performance commitments not sufficiently justified

The company's revised business plan includes three performance commitments where it has not sufficiently justified the design of the reward incentive (two in water wholesale and one in wastewater wholesale). The two performance commitments affected in water wholesale are:

- leakage in the Northumbrian Water (NW) area; and
- leakage in the Essex & Suffolk Water (ESW).

The way the company has designed the reward incentives for the two leakage measures means that it could gain a reward for delivering higher (that is, worse) levels of leakage than it has delivered in the last 3 years. We accepted the company's arguments that recent performance had been lower than would be efficient in the longer term due to temporary circumstances on the networks, and that the future performance commitment level should therefore not be set as low as the company's best performance. However, we remain concerned that gaining rewards at levels of performance the company has already achieved does not represent a stretching future performance level. A reward for repeating recent performance would also not fit with the water resources planning guidance which states, for companies wholly or mainly in England, '**[the UK Government] expect[s] all companies to take action to ensure that total leakage (Ml/d) does not rise at any point in the planning period.**' (p13, Water resources planning guideline – guiding principles, June 2012).

As a result, we have reset the reward deadband for both leakage measures so that the company needs to deliver greater reductions in leakage to gain a reward. We have done this by setting the reward deadband at 2% below the average of the last three years' performance, that is, 131Ml/d for NW and 56Ml/d for ESW. Northumbrian had previously set the reward deadband at only 2% below its own less stretching target. This change is much more consistent with the approach followed by Affinity Water, where it gains a reward on leakage only once it has exceeded its best ever performance.

The company did not gather information on whether its own customers were willing to pay for reductions in leakage. As a result, it was forced to use an incentive rate based on the average willingness to pay (WTP) of the four other companies for which data was available. As we have widened the reward deadbands considerably we have accepted this proposal to use the willingness to pay of the four other

companies, although we note that it is surprising that the company did not gather its own information on an issue which is such a high customer priority.

We have continued to use the company's own approach to set the reward cap for the two leakage measures. We have set the Northumbrian Water leakage cap at 20 Ml/d below the reward deadband and the Essex & Suffolk Water leakage cap at 10 Ml/d below the reward deadband.

### Intervention: asset health for water and wastewater

The company has proposed asset health indices for both wholesale water and wastewater, to replace the previous serviceability approach. Each index has a similar structure, incorporating four individual performance commitments into an overall index. The company proposes to determine incentives by assessing delivery against each of the performance commitments and then, dependent on the balance of performance across them, apply only one reward or penalty for water and one for wastewater. This effectively creates a package approach, which is one of the incentive types that the methodology for outcomes recognised in our July methodology statement.

For three of the PCs in each index, the company is able to earn rewards, dependent on the level of performance across all sub-measures. For wholesale water, these are discoloured water complaints, poor water pressure and mains bursts. The fourth PC, drinking water compliance has no reward aspect.

We recognise the potential benefits of the overall approach that the company is proposing. The indices could provide useful replacements for the previous serviceability approach, with a combination of elements linking directly to service enhancements and others directly ensuring that elements of asset condition are maintained. The package dimension is also useful, ensuring that potential rewards require overall standards in other areas to be maintained. This would prevent a company becoming over-focused on one specific area in the quest for a reward. However, while recognising the potential of the proposed approach, we do have some important concerns about the way in which the company is now proposing to implement it.

In its 2 May resubmission the company proposed to strengthen rewards and penalties applied to the overall index by basing them on 25% of the capital maintenance expenditure, as opposed to aligning them with SIM as in the original proposals in its business plan. Of concern is that the company did not use WTP information to set the incentive rates.

Based on the importance of the PCs that make up each asset health index, the company has provided some evidence that it may be appropriate to include the potential for rewards across some of the measures. However, the company has not yet provided evidence to justify the setting of incentive rates for financial rewards. It has also provided insufficient evidence to justify the inclusion of potential rewards for reducing the risk of mains bursts and sewer collapses.

We therefore consider that for the potential for rewards to be allowed, the company needs to undertake further work to evidence the tangible benefits of delivering levels of service beyond the performance commitments and to provide clearer evidence that customers are willing to pay for these improved levels of service.

The company has demonstrated that there are benefits to considering incentives as a package, not solely as individual PCs, due to the long-term indications they give on overall performance of the asset base. However, we consider the company needs to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring that penalties are applied where the company fails to deliver the performance commitment for the most important sub-PCs (for example, drinking water compliance).

For the draft determination, we have therefore deleted the reward elements of the indices for asset health in both water and wastewater. We have not intervened on the penalty elements of the asset health indices.

### Intervention: PC on credit rating not appropriate

The company proposed a reputational only incentive related to maintaining the necessary credit rating. The PCs and ODIs do not take the place of the companies' legal obligations as water or sewerage undertaker. The company is already subject to a licence obligation to use all reasonable endeavours to maintain an investment grade credit rating. In addition, the company has provided Board Assurance of the financeability of its business plan. Therefore, we do not consider that an incentive mechanism on credit rating is necessary and for consistency with other companies who have not provided such an incentive, it has been excluded.

### Intervention: PCs focused on inputs rather than outcomes for customers

The company proposed two reputational incentives associated with the 'we are an efficient and innovative company' outcome, related to the efficiency assessment of the company and to its EFQM 5 star status. We do not consider that the proposed

incentives are appropriate as they are a means to delivering the company's business plan, rather than outcomes that customers want.

Annex 1 sets out the detail of the outcomes, performance commitments and incentives on which we are consulting as part of our draft determination.

### A2.1.3 Outcome delivery and reporting

In our methodology statement we set out our expectation that companies should demonstrate that their proposed PCs can be measured and recorded consistently and that they will have the appropriate governance and quality assurance processes in place to achieve this. We also expect companies to be transparent with customers about their performance against their outcomes and commitments.

In its business plan submitted in May, Northumbrian states that it has developed quality-controlled data methodologies for all its performance commitments. The company proposes to measure performance commitment data using the existing processes and procedures established for current regulatory KPI reporting. The company has designated a formal data owner, data reviewer and senior manager reviewer for each performance commitment. The performance commitments will be monitored and managed using monthly and quarterly company scorecards, and will be reviewed by the Board, Executive Management Team and Water Forum (CCG). The Board Audit Committee will oversee the reporting assurance processes, and performance data and incentive calculations will be subject to internal audit scrutiny and independent technical assurance.

To keep customers informed of the progress they are making, the company will publish an annual performance review. This will set out performance against each measure. This report will also detail the rewards the company has earned for outperformance and similarly the penalties that they have incurred for underperformance.

We have accepted the company's proposal. In time, we may develop further information requirements with regard to outcomes, as we review and change current requirements relating to performance indicators and each company's annual risk and compliance statement.

## A2.2 Calculating the wholesale water price control

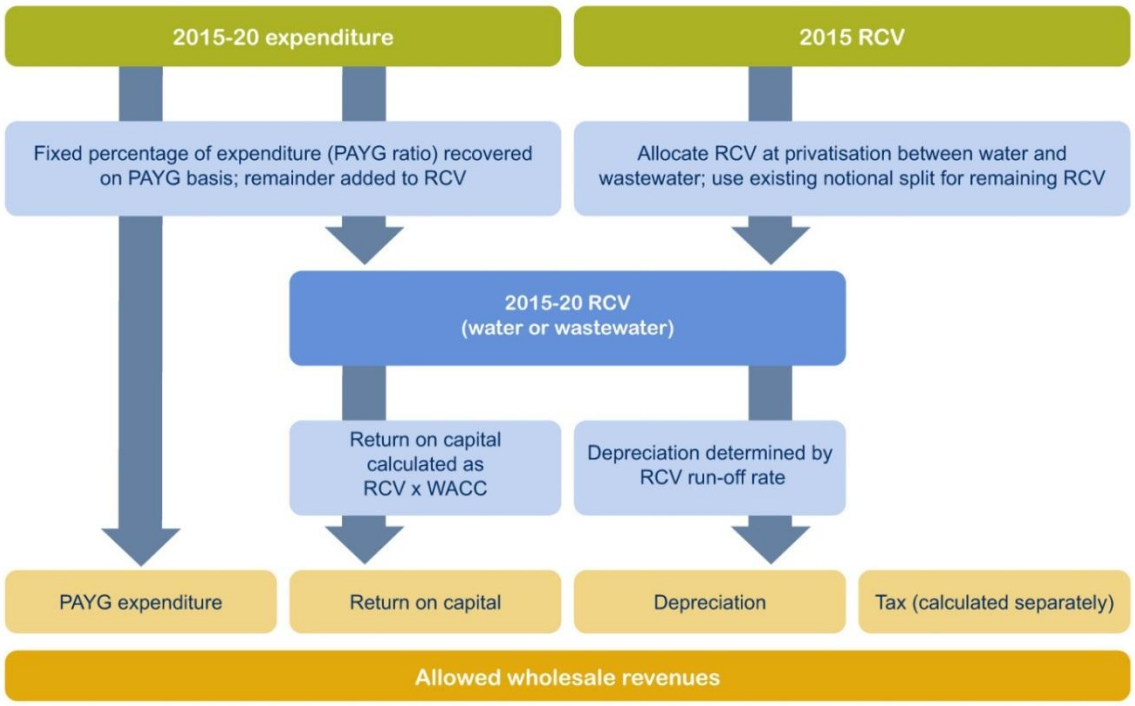
### A2.2.1 Structure of the wholesale water price control

As we set out in our final methodology statement, the wholesale water price control puts an overall limit on the revenue from charges and cash receipts from connection and infrastructure charges. We also set out that we would retain an RCV approach to the setting allowed revenue, but that we would make a number of improvements including:

- using a totex approach, where no distinction is made between operating and capital expenditure;
- introducing totex menus, which would provide an additional incentive for companies to reveal accurate information and some scope for managing risks and rewards through the cost sharing factor; and
- providing companies with additional flexibility over cost recovery by allowing them to choose what proportion of their expenditure is recovered through the RCV, and through setting the level of depreciation (also known as the RCV run-off).

Figure A1 shows how the wholesale revenues are derived.

**Figure A1 Approach to allowed wholesale revenue**




The key components of the allowed wholesale revenue are as follows.

- Totex baselines for water and wastewater, which represent our own assessment of the efficient level of capital and operating expenditure for each company in the 2015-20 period.
- The PAYG ratio, which represents the allocation between totex which is recovered in the 2015 to 2020 period and that which is added to the RCV.
- The RCV, which is composed of the RCV at the start of the period plus additions from totex that is not recovered in the 2015-20 period minus depreciation.
- The return on the RCV, which reflects the vanilla wholesale weighted average cost of capital (WACC) applied to the RCV during the 2015-20 period.
- A number of adjustments reflecting the impact of incentive tools from the 2010-15 period, such as the revenue correction mechanism (RCM) and capital expenditure incentive scheme (CIS).
- The corporation tax charge, which is calculated using the forecast accounting profits.
- Income from other sources relating to the activities of the regulated business (‘other operating income’, ’other income’ and third party income), which are

taken into account to reduce the revenue required from household and non-household water customers.

Capital contributions, which form the other component of the control, are cash receipts from connection and infrastructure charges.

Subject to our charging rules (as provided for in the Water Act 2014) companies will have some flexibility to adjust charges within the control period, for example to allow them to manage unexpected changes in demand.

We are currently consulting on potential approaches to incentivise companies to accurately forecast their revenues. This consultation closes on 4 June 2014.

### A2.2.2 Calculation of allowed wholesale water expenditure

The wholesale water price control baseline represents our view of the efficient level of expenditure.

Our approach to setting wholesale cost thresholds is summarised in Annex 2. In broad terms we have developed benchmarking models to set base cost allowances and then adjusted these for items excluded from our benchmarking and certain company specific factors. Where appropriate, these include special factors that companies set out in business plans or in response to the summary information published at the end of the risk-based review.

In order to set the price controls, it is necessary to convert the cost thresholds into menu baselines, total allowed expenditure and expenditure to be allowed on a PAYG basis rather than added to the RCV. Our menu baselines exclude those costs and allowances where cost sharing incentives would not be appropriate – including defined benefit pension deficit recovery costs, third party costs and 2014-15 market opening costs.

To convert the menu baseline to a totex allowance for the purpose of this draft determination, we have calculated an implied menu choice, which is the ratio of the company's view of cost and our menu baseline. We set out the menu we have used for the draft determination in Table A2 of 'Setting price controls for 2015-20 – policy and information update' and this table is reproduced in Annex 2. The company's implied menu choice for wholesale water is **98.2** (see table A3 below). Northumbrian will have the opportunity to finalise its menu choice within the range of 80 to 130 which will impact on its allowed revenues and customer bills. This will impact the company's allowed expenditure and additional income and consequently its allowed

revenue and bills. The allowed revenue is based on a weighted average of our view of the baseline (75%) and the company's menu choice (25%).

The calculation of totex allowances is shown in table A3. Separate revenue allowances are made for pension deficit recovery costs and third party costs which are excluded from the menu baselines, as are 2014-15 market opening costs.

We have calculated pension deficit repair allowances in line with the approach that we outlined in 'IN 13/17: Treatment of companies' pension deficit repair costs at the 2014 price review'. We have allocated costs between the different controls as set out in the IN with the exception of wholesale pension deficit costs between water and wastewater which we have allocated using the company split given in Table 7 of the August 2013 data submission. This is consistent with the allowance made in PR09, with the remaining deficit repair costs borne by shareholders. We have also made some minor corrections to the application of efficiency to the pension deficit repair costs set out in the IN. We have therefore included our updated figures in this draft determination.

In arriving at the totex allowances in table A3, we have phased the timing of the menu baseline expenditure using the company plan totex profile. We have phased the timing of our view of the menu exclusions expenditure with our menu baseline expenditure profile.

**Table A3 Wholesale water allowed expenditure (£ million)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | AMP6 total |
|---|---|---|---|---|---|---|
| Menu cost baseline[1] | 259.0 | 273.4 | 282.8 | 253.9 | 239.5 | 1,308.6 |
| Company's view of menu costs[2] | | | | | | 1,285.5 |
| Implied menu choice | | | | | | 98.2 |
| Allowed expenditure from menu | 257.8 | 272.2 | 281.5 | 252.8 | 238.4 | 1,302.8 |
| Costs excluded from menu | 9.4 | 9.1 | 9.1 | 9.1 | 9.1 | 45.7 |
| Total allowed expenditure[3] | 267.2 | 281.3 | 290.6 | 261.9 | 247.5 | 1,348.5 |

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | AMP6 total |
|---|---|---|---|---|---|---|
| Less pension deficit repair allowance | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 17.8 |
| Totex for input to PAYG | 263.7 | 277.7 | 287.0 | 258.3 | 243.9 | 1,330.7 |

**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 2).
2. Based on company plan totex minus costs for items excluded from the menu.
3. Includes pension deficit repair allowance.

In section A2 of our enhanced DD technical appendix we highlighted that '**where the expenditure within companies' business plans is below our cost thresholds we need to consider whether the threshold is an appropriate baseline for setting prices. This approach will help to ensure that customers' interests are protected.**' We also noted, in respect of other, non-enhanced companies, that '**we may need to adapt our initial cost thresholds for use in menu baselines, in particular where other companies business plan forecast levels of totex were significantly below the initial risk-based review cost threshold levels**'.

Northumbrian is relatively close to the top of the cost thresholds for water. We do not consider the difference significant enough to warrant extra intervention to protect the interests of customers and therefore have not substituted the company's forecasts of its water explanatory variables in our calculations.

### A2.2.3 Calculation of PAYG rates and depreciation

To determine the allowed revenue, the wholesale water totex allowance is allocated between the amount recovered in 2015-20 PAYG (referred to as the pay as you go amount) and the amount added to the RCV to be recovered in future periods. A significant proportion of company expenditure is in long life assets, which benefit current and future customers. The allowed revenue will also include RCV depreciation and the return on the RCV as set out in figure A1 above.

Consistent with our methodology, we have allowed all companies to propose their own PAYG ratios and levels of RCV depreciation. The company has revised its proposed PAYG ratios from its original business plan to reflect our risk and reward guidance and its position relative to the allowed wholesale cost baselines but has otherwise left its original RCV depreciation proposals unchanged. The effect of this

adjustment is that it has partially offset the lower WACC by bringing more cash forward from future control periods, thus reducing the cost future customers' bear. While we have adopted Northumbrian's proposed approach for the draft determination, we consider that a best practice approach would have been to test with customers their preferences for different bill profiles over the short and long term.

Table A4 shows the company's updated proposed PAYG ratios and associated totex recovery for wholesale water, which we have used as the basis for this draft determination.

**Table A4 Northumbrian Water wholesale water PAYG ratios**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Totex (£ m) | 263.7 | 277.7 | 287.0 | 258.3 | 243.9 | 1330.7 |
| PAYG % | 48.1% | 55.2% | 54.5% | 61.1% | 64.8% | - |
| Resulting PAYG (£ m) | 126.8 | 153.4 | 156.5 | 157.7 | 158.0 | 752.4 |

Table A5 shows the depreciation amounts included within the wholesale water charge. The depreciation rates reflect a run-off rate of 6.65% for the RCV as at 31 March 2015 and 68 years for the totex additions to the RCV over 2015-20.

**Table A5 Northumbrian Water wholesale water depreciation (£ million)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Depreciation on 2015 RCV | 121.1 | 121.1 | 121.1 | 121.1 | 121.1 | 605.5 |
| Depreciation on totex additions | 1.0 | 2.9 | 4.8 | 6.5 | 7.9 | 23.1 |
| Total depreciation | 122.1 | 124.0 | 125.9 | 127.6 | 129.0 | 628.6 |

### A2.2.4 Return on the RCV

Companies receive a return on the RCV to compensate them for capital value that has not been recovered prior to and in the 2015-20 period. Our risk and reward guidance set out a single industry allowed return for both wholesale water and wastewater services of 3.7%. The company has accepted this guidance and so we

have used an allowed return of 3.7% in this draft determination. This results in a return on capital of approximately £340 million over 2015-20.

The return on capital is calculated by applying the cost of capital to the average RCV for the year. Table A6 shows our calculation of the opening RCV at 1 April 2015. This is around £19 million lower than the company view, which is primarily driven by differences about the appropriate adjustments relating to 2010-15 performance. In particular for a number of tools, such as change protocol, we have adopted a different view to Northumbrian and have intervened. We explain these adjustments and in particular our interventions in Annex 4 'Reconciling 2010-15 performance'.

The average RCV, set out in table A7 below for each year, takes into account totex additions to the RCV and depreciation.

**Table A6 Northumbrian Water wholesale water opening RCV (£ million)**

| | 2015-16 |
|---|---|
| Closing RCV 31 March 2015 | 1,964.6 |
| Land sales | -2.8 |
| 2009-10 performance | 8.4 |
| Capital incentive scheme | -145.4 |
| Net adjustment from logging up, logging down and shortfalls | -3.6 |
| Other adjustments | 0.0 |
| Opening RCV 1 April 2015 | 1,821.2 |

**Table A7 Northumbrian Water wholesale water return on RCV (£m)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|
| Opening RCV | 1821.2 | 1835.9 | 1836.2 | 1840.9 | 1813.9 |
| RCV additions (from totex) | 136.8 | 124.3 | 130.6 | 100.6 | 86.0 |
| Less depreciation | 122.1 | 124.0 | 125.9 | 127.6 | 129.0 |
| Closing RCV | 1835.9 | 1836.2 | 1840.9 | 1813.9 | 1770.9 |
| Average RCV (year average) | 1828.6 | 1836.1 | 1838.6 | 1827.4 | 1792.4 |
| Return on capital | 67.6 | 67.9 | 68.0 | 67.6 | 66.3 |

### A2.2.5 Corporation tax

The allowed revenues of the wholesale water and wastewater services include the recovery of the appropriate tax, taking into account complexities such as tax losses arising at the appointee level. To help achieve this aim, wholesale tax has first been calculated at the wholesale level for both services combined, and then apportioned to the water and wastewater services for the separate allowed revenues concerned. As set out in our final methodology statement, our approach to calculating tax is similar to the method used for PR09, but with a simplified and less data-intensive approach.

We have used companies' average capital allowance writing-down rates by service for both the brought forward expenditure pools and for new expenditure. We have used Northumbrian's estimates of the proportion of base expenditure on underground assets, which is treated as operating expenditure in the statutory accounts.

We have based the tax calculation on projected corporation tax rates, profits and assumed levels of tax relief. We have taken account of debt interest payments by using the higher of:

- companies' actual proportion of debt financing; and
- the proportion of debt financing assumed in our notional capital structure.

### A2.2.6 Income from other sources

Income from other sources related to activities of the regulated business is made up of 'operating income', 'other income' and third party income. These are revenues that companies charge but do not form part of the regular water and wastewater bills that customers pay. These revenues are based on the company's forecasts, which are consistent with recent trends, and are set out in table A9 in section A2.2.9.

### A2.2.7 Capital contributions from connection charges and revenue from infrastructure charges

This is comprised of revenue and capital contributions from connection and infrastructure charges (including requisitions and self-lay). These revenues are based on the company's forecasts, which we regard as reasonable, and are set out in table A9 in section A2.2.9.

### A2.2.8 Reconciling 2010-15 performance

We confirmed in our final methodology statement that, for a number of incentive tools, we would make appropriate adjustments to allowed revenues for 2015-20 to reflect companies' actual performance, costs and revenues when compared to our PR09 assumptions. Table A8 below summarises the revenue adjustments we are making to the company's 2015-20 wholesale water price control to reflect its performance over 2010-15.

As a result of our interventions we have made overall changes to proposed 2010-15 adjustments for the water service from £70.5 million to £57.2 million. These interventions are as a result of:

- a reduction in the scale of SIM reward as a result of our comparative analysis across the industry
- a reduction in RCM adjustments resulting from our review (relating to the application of the number of household billed properties and other adjustments)
- a reduction of opex incentive allowance (OIA) adjustments relating to the exclusion of the Dagenham common supplies programme from the OIA.
- a reduction of capex incentive scheme (CIS) rewards as a result of a number of adjustments within the water programme.
- our decision to include a shortfall concerning the trunks mains cleaning project as we do not consider that the benefits of this programme will be fully delivered by the company by 2014-15.

Annex 4 provides more detail on our draft determination in this area. In particular it sets out the company's view of each incentive tool along with our view.

**Table A8 Northumbrian Water wholesale water revenue adjustments to reflect 2010-15 performance (£m)**

| £ million | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Service incentive mechanism (SIM) | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 4.3 |
| Revenue correction mechanism (RCM) | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 25.7 |
| Opex incentive allowance (OIA) | 3.9 | 3.9 | 0.0 | 0.0 | 0.0 | 7.9 |

| £ million | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Capital expenditure incentive scheme (CIS) | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 |
| Other adjustments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 15.0 | 9.9 | 6.0 | 6.0 | 6.0 | 42.9 |

### A2.2.9 Calculation of allowed revenue

The calculation of the allowed revenue for Northumbrian's wholesale water control is shown in table A9. Allowed revenue is principally built up from PAYG totex, the return on RCV, depreciation and an allowance for corporation tax. Within this table we have included the profiling adjustments we have made to ensure that, following our interventions, the bill profile is consistent with that submitted by Northumbrian in its revised business plan.

Overall, we consider that the company's wholesale water revenue allowance should be £379.9 million in 2015-16, increasing by 1.2% to £384.4million in 2019-20.

**Table A9 Northumbrian Water wholesale water allowed revenue (£ million)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Totex | 263.7 | 277.7 | 287.0 | 258.3 | 243.9 | 1330.7 |
| PAYG ratio | 48.10% | 55.24% | 54.51% | 61.06% | 64.76% | - |
| Totex additions to the RCV | 136.8 | 124.3 | 130.6 | 100.6 | 86.0 | 578.3 |
| RCV (year average) | 1828.6 | 1836.1 | 1838.6 | 1827.4 | 1792.4 | - |
| **Wholesale allowed revenue build up:** | | | | | | |
| PAYG[1] | 130.4 | 157.0 | 160.0 | 161.3 | 161.5 | 770.3 |
| Return on capital | 67.6 | 67.9 | 68.0 | 67.6 | 66.3 | 337.3 |
| Depreciation | 122.1 | 124.0 | 125.9 | 127.6 | 129.0 | 628.6 |
| Tax[2] | 39.4 | 21.5 | 21.1 | 21.8 | 22.5 | 126.4 |
| Income from | -7.5 | -7.5 | -7.5 | -7.5 | -7.5 | -37.3 |

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| other sources | | | | | | |
| Reconciling 2010-15 performance | 15.0 | 9.9 | 6.0 | 6.0 | 6.0 | 42.9 |
| Ex ante additional menu income | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 2.9 |
| **Wholesale allowed revenue adjustments** | | | | | | |
| Revenue solving adjustment | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Profiling adjustments[3] | 4.1 | -0.6 | -0.1 | -2.1 | -2.0 | -0.6 |
| Manual adjustments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Capital contributions from connection charges and revenue from infrastructure charges** | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 40.3 |
| **Final allowed revenues** | **379.9** | **381.0** | **382.1** | **383.3** | **384.4** | **1910.7** |

**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. The allowed revenues have been adjusted so that the bill profile is flat – and so matches the profile in the company's plan.

## A2.3 Uncertainty mechanisms

In our risk and reward guidance, we acknowledged that all companies face uncertainty about future costs and revenues. We consider that appropriate risk sharing mechanisms provide companies with incentives to reduce costs and provide better services.

Companies already have access to a range of uncertainty mechanisms which share risks between companies and customers. In our final methodology statement, we noted that additional risk should only be fully transferred to customers when companies are unable to influence the impact on their business. As set out in our risk and reward guidance, when a company is able to materially influence the probability or magnitude of impacts, or mitigate the effect efficiently, then the risk should remain with the company, at least in part. This provides companies with strong incentives to manage risks. In our risk and reward guidance, the one area where we did consider an uncertainty mechanism was appropriate was for the revaluation of wholesale water business rates in 2017, although we considered that companies should retain a residual incentive, in order to argue for reasonable treatment in the rating review on behalf of customers.

Consistent with the risk and reward guidance, Northumbrian has proposed a notified item for water business rates. Northumbrian has proposed that 100% of the change in water business rates should be passed through to customers. Affinity and South West Water proposed that 75% and 80% of costs, respectively, would be passed to customers.

In our draft determination for the enhanced companies we considered that the proposed sharing rates should provide sufficient incentives to minimise costs (with South West's incentives to minimise costs to customers enhanced by its 'Water Share' mechanism). We do not consider that the absence of cost risk for the company (once it has reached the IDoK threshold) would provide sufficient incentives on Northumbrian to work hard to minimise costs for customers. Consequently, in the absence of a formal gain sharing mechanism with customers (such as South West's), we consider that Northumbrian's notified item sharing rate for water business rates should be 75%/25% customer/company once IDoK criteria has been met as this will provide the appropriate balance between protecting the company from material risks, providing sufficient incentives for the company to minimise costs and protecting customers' interests.

Northumbrian has also proposed that logging up for new statutory obligations is continued into AMP6. This would be in addition to the mechanisms in the company's

license – namely the IDoK which can be triggered by a Relevant Change in Circumstances (RCC) which encompasses changes to legislation. Northumbrian has not quantified the impact of continuing with logging up and has stated it is to deal with the “unknown unknowns”. Northumbrian states that logging up/down will avoid potential perverse incentives if there was a cost shock from a statutory obligation equivalent to 9% of turnover, compared to a 10% threshold for an IDoK.

We do not consider that Northumbrian has justified a logging up/down mechanism for new statutory obligations as:

- there is already significant protection provided by existing arrangements such as totex sharing, ODIs and IDoK (which can be triggered by new legislative requirements). This protection was recognised by both Affinity and South West , both of which were willing to bear the risks of new statutory obligations;
- Northumbrian has not provided evidence to justify the magnitude of these risks, why Northumbrian requires specific protection from these risks, that Northumbrian has little or no control over these risks and that these risks should be borne by customers; and
- any costs subject to an IDoK are subject to a "prudential management action" clause which would prevent a company from artificially inflating costs to reach the IDoK threshold – and thus addresses the point raised by Northumbrian above about a perverse incentive of the RCC route.

Therefore, in this draft determination, we do not include an additional uncertainty mechanism for new statutory obligations for Northumbrian.

Northumbrian has withdrawn its earlier proposals for notified items on the traffic management act, bad debts and the introduction of retail competition.

## A2.4 Return on regulated equity

As set out in our final methodology statement, we are taking a systematic and quantitative approach to analysing how companies are managing their risks and its allocation between companies’ investors and customers. We have used an approach based on scenario modelling to analyse risk and explore the overall balance of risks to return on regulatory equity (RoRE).

Consistent with our risk and reward guidance, as part of its revised business plan submission, Northumbrian conducted detailed scenario analyses to assess the potential RoRE range at the company level. This submission included a populated

version of the Ofwat risk assessment tool which has been used to derive the overall RoRE range for wholesale water, shown in figure A2. This is split into the constituent risk components, such as totex and outcome delivery incentive under- and outperformance. The risk range is expressed on a P10/P90 basis such that there is a 10% probability of an outturn occurring below the charted range and an equal likelihood of achieving a return above the charted range.

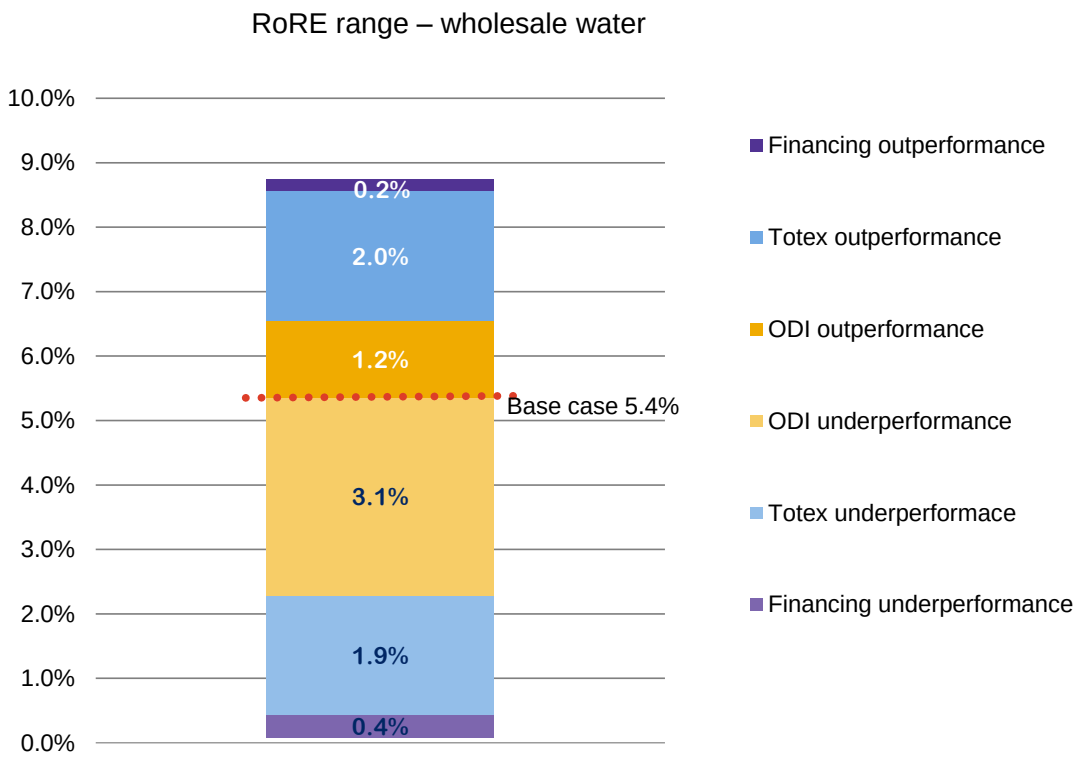
The RoRE ranges reflect Northumbrian's view of the RoRE range and take account of the impact of our interventions on ODIs.

For wholesale water, the RoRE range is from 0.1% to 8.7%, with a base case of 5.4% (the base case relates to the forecast performance level in the business plan). This is a wider range compared to the overall appointee range of 0.6% to 8.9%. The base case of 5.4% is lower than the base case of 5.8% for the whole company reflecting the lower expected return for wholesale as the remaining return is required to compensate risks in retail.

The ODI risk range for wholesale water is -3.1% to +1.2%, which is wider than the whole company ODI range and the guidance (±1 to ±2%). It reflects the higher level of rewards and penalties that Northumbrian has attributed to water than wastewater and is underpinned by customer support for higher value water service ODIs, as well as our interventions, which had the effect of reducing the rewards more than the penalties. While this ODI range exceeds the range suggested in our risk and reward guidance on the down side, we consider that this is appropriate in order to ensure that customers are compensated appropriately in cases of underperformance. Specifically, as set out in section A2.1.2, we intervened in order to make sure that rewards and deadbands are not allowed unless they are justified by evidence, and that reputational ODIs are not used unless a financial ODI would be inappropriate.

Risk ranges for the remaining elements (totex and financing) are consistent with our risk and reward guidance. The SIM risk is attributed to the retail rather than wholesale control.

## Figure A2 Northumbrian Water RoRE range – wholesale water




**Source: Ofwat calculations based on information from Northumbrian Water**

# A3. Wholesale wastewater

## A3.1 Company outcomes, performance commitments and delivery incentives

In section A2.2.1, we discuss how, as we set out in our final methodology statement, outcomes, and the associated performance commitments and incentives are one of the key innovations in PR14.

The outcomes, performance commitments and outcome delivery incentives we are adopting for the wholesale wastewater control are summarised in table A10 below. Similar to the water wholesale control, for some performance commitments and incentives types we have intervened to change the underlying performance level or incentives. These interventions are reflected in the information presented table A10 and are explained in detail in Annex 1.

**Table A10 Wholesale wastewater outcomes, performance commitments and incentives**

| Outcome | Performance commitment | Incentive type |
|---|---|---|
| We deliver water and sewerage services that meet the needs of current and future generations in a changing world | Asset health measures - wastewater | Financial – penalty only* |
| We provide a sewerage service that deals effectively with sewage and heavy rainfall | Properties flooded externally | Financial – reward and penalty** |
| | Properties flooded internally | Financial – reward and penalty** |
| | Repeat sewer flooding* | Financial – penalty only* |
| | Sewer collapses | Financial – penalty only* |
| | TDS internal sewer flooding* | Financial – penalty only*,** |
| | TDS external sewer flooding* | Financial – penalty only*,**; |
| | TDS sewer collapses* | Reputational |

| Outcome | Performance commitment | Incentive type |
|---|---|---|
| We help to improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife | Sewage treatment works discharge compliance | Financial – penalty only |
| | Pollution incidents (category 3) | Financial – penalty only* |
| | Bathing water compliance | Financial – penalty only* |
| We provide excellent service and impress our customers | NWL independent overall customer satisfaction score | Reputational |
| | Service Incentive Mechanism (SIM) | Financial – reward and penalty |
| | Domestic customer satisfaction, net promoter score | Reputational |
| Our customers are well informed about the services they receive and the value of water | NWL independent survey on keeping our customers informed | Reputational |
| We protect and enhance the environment in delivering our services, leading by example | Greenhouse gas emissions | Reputational |
| | Annual environmental performance and activity | Reputational |

*Denotes we have adjusted the company's revised business plan proposal for our draft determination (performance commitment or incentive type)

** Denotes we have adjusted the company's revised business plan proposal for our draft determination (incentive parameters)

Similar to our approach for wholesale water outcomes, we have intervened in a small number of areas associated with some of the company's proposed Performance Commitments (PCs) and Outcome Delivery Incentives (ODIs), which we discuss below.

### Intervention: performance levels for small number of performance commitments not sufficiently stretching

The company's revised proposals submitted on 2 May contained one instance in wastewater wholesale where the proposed performance levels showed a marked deterioration compared to those in its original business plans

In relation to the PC for repeat sewer flooding, in its original business plan submission the company excluded the 2012-13 performance as an outlier. However, after further reflection, the company decided that it should be included in the relevant performance data which had the effect of worsening the target level of performance by over 80%. The revised proposal had the target performance level stable at this worse level throughout the price control period. The company responded to the request for clarification by suggesting that the change in the target level compared to the business plan should be reduced 35% of the way back to its original, better, target.

We did not find the evidence provided by the company as to why it was now appropriate to include what had been seen as an outlier convincing. The company indicated that it was concerned that as there had been a very high outturn in a recent year, the number of properties that were potential candidates for instances of repeat flooding had risen. However, it did not provide a convincing justification as to why the new proposal was set at the appropriate level. As a result, we have returned the incentive target to the level originally proposed by the company in its December business plan.

In relation to **transferred assets,** the company's original proposals excluded transferred assets (that is, private sewers and lateral drains that were transferred to the ownership of the regulated sewerage companies in England and Wales in 2011) from the definition of some of its PCs. In response to requests for clarification, the company subsequently proposed to introduce three additional PCs covering these assets. The proposed incentives were non-financial, and also included deadbands of +/- two standard deviations.

We welcome the company's recognition that these important assets should be covered by PCs and incentives. Customers who are impacted by sewer flooding events will not be concerned as to whether the flood came from a pre-existing or transferred asset. However, the evidence presented by the company did not sufficiently justify the proposed structure and calibration of the incentive, and so we set out a number of changes.

Firstly, for two of the three measures (internal sewer flooding on transferred assets and external sewer flooding on transferred assets), we have changed the incentive type from reputational only to a financial penalty only incentive.

The company expressed a view that it does not have sufficient historic data to apply financial incentives and suggested that it would be in a position to apply financial incentives from 2020-21 and beyond. Although we recognise that data on transferred

assets may not yet be as robust as that for pre-existing assets, companies do have information from the period since transfer and the preparations undertaken prior to transfer. We also note that the company's original proposals would require data to determine whether an event should be included or excluded and that other companies have felt able to include such assets within financial incentives.

Taking into account these factors, since customers are already affected by performance issues relating to the transferred assets, we consider that the incentives should have financial penalties. In line with our final methodology statement, we have calculated penalties based on the information provided by the company for pre-existing assets. In respect of the third measure (sewer collapses) we have accepted the proposed reputational incentive because it is not a directly customer-facing issue.

Secondly, we have set out changes to the committed performance levels for each of the three measures. The company proposed performance targets set at the average of the last three years and remaining flat until 2019-20. However, in each case, the three years show improving performance. Since the incentives also have deadbands before any penalty would apply, we have set the incentive based on maintaining performance at the best performance achieved in the three years.

Finally, in regard to the proposed deadbands, we accept that a deadband is appropriate given the potential for performance to be influenced by factors over which the company has only limited influence and the questions over data robustness. However, the company's proposed deadband of two standard deviations effectively means that the incentive would be 'switched off' over a wide range of performance. We have set the penalty deadband based on 1.5 standard deviations (applied to the proposed performance level) to create a more effective incentive but still deal with the variability in performance and data uncertainties.

Details of the specific changes to the three measures are set out in Annex 1.

### Intervention: rewards for one performance commitment not sufficiently justified

The company's resubmission includes one performance commitment in wastewater wholesale where it has not sufficiently justified the design of the reward incentive – the bathing water compliance measure.

The company has not provided evidence that its customers are willing to pay more for improvements to bathing waters to be delivered early. In order to protect

customers we have removed the reward incentive for this performance commitment. The company is still committed to deliver full compliance by the end of the price control period.

### Intervention: asset health for wastewater

As explained in relation to water wholesale, the company has proposed asset health indices to replace the previous serviceability approach. For wholesale wastewater the three PCs able to earn rewards are repeat sewer flooding, pollution incidents and sewer collapses. For sewage treatment works discharge compliance (wastewater), no reward aspect is available.

Whilst we recognise the potential benefits of the overall approach that the company is proposing, our concern is that the company did not use WTP to set the incentive rates. We therefore consider that for the potential for rewards to be allowed, the company need to undertake further work to evidence the tangible benefits of delivering levels of service beyond the performance commitments and provide clearer evidence that customers are willing to pay for these improved levels of service. For the draft determination, we have deleted the reward elements of the proposed indices for asset health in both water and wastewater.

### Intervention: deadbands for several performance commitments too wide

Northumbrian has set the deadbands on several of its incentives in such a way that the financial aspect of the incentive mechanism is effectively switched off over an extremely wide range of performance. This particularly affects properties flooded externally and properties flooded internally.

For properties flooded externally, the company set wide deadbands (three standard deviations on both rewards and penalties, which on the penalty side is 60% above the PC target level of 1,318 incidents per year). In response to a clarification request, the company proposed to reduce the penalty deadband by 5% of the proposed level and increase the reward deadband by 5% of the proposed level. Whilst the direction of these changes is welcome, they would still imply that performance could deteriorate by 50% before any financial penalty was incurred.

External sewer flooding was identified as a high priority issue by customers and customers could suffer a potential detriment of £9m over five years based on the company's evidence if there were to be under delivery against the committed performance level. In order to ensure that the incentive works to protect customers,

we have tightened (that is, reduce) the penalty deadband to 1,497 incidents per year and tightened the reward deadband to 1,139 incidents per year.

The basis of these proposals is that we used the company's approach and data but set the deadbands at one standard deviation away from the performance commitment level rather than three standard deviations. These tighter deadbands allow for rewards or penalties where larger variations occur, but still avoid the company being rewarded or penalised for small variations in its performance. Had this incentive applied historically, this would have meant that the company received a reward in one of the last 10 years and was penalised in three of the last 10 years.

The company adopted a similar approach to deadbands for properties flooded internally. Northumbrian originally set its penalty deadband at two standard deviations from the performance commitment and following our request for clarification it reduced the penalty deadband to two standard deviations minus 20% (489 incidents per year compared to a PC target level of 300). We consider that this size of the proposed penalty deadband significantly reduces the incentive on the company to deliver its performance commitment. We calculate there is a potential detriment to customers over the 5 years of approximately £20m for under-delivery of reductions in internal sewer flooding based on the company's information. This is based on a conservative estimate of willingness to pay. As Northumbrian recognises that its current performance is bottom quartile in the industry, it is essential for the company to be properly incentivised to reduce internal sewer floods.

We have tightened the penalty deadband to 426 incidents per year. We have set the deadband at one standard deviation away from the performance commitment level to be consistent with the approach to external sewer flooding and the company's method for setting deadbands for the two sewer flooding performance commitments.

### Intervention: remove PC on credit rating

The company proposed a reputational only incentive related to maintaining the necessary credit rating. The PCs and ODIs do not take the place of the companies' legal obligations as water or sewerage undertaker. The company is already subject to a licence obligation to use all reasonable endeavours to maintain an investment grade credit rating. In addition, the company has provided Board Assurance of the financeability of its business plan. Therefore, we do not consider that an incentive mechanism on credit rating is necessary and for consistency with other companies who have not provided such an incentive, it has been excluded.

#### Intervention: remove 'we are an efficient and innovative company' outcome and associated PCs

The company proposed two reputational incentives associated to the 'we are an efficient and innovative company' outcome, related to the efficiency assessment of the company and to its EFQM 5 star status. We do not consider that the proposed incentives are appropriate are a means to delivering the company's business plan, rather than outcomes that customers want.

Further detail on the specific changes to these two incentives is presented in Annex 1.

### A3.1.1 Outcome delivery and reporting

We set out our approach to outcome delivery and reporting, and Northumbrian's wholesale water proposals, in section A2.1.3. The same approach applies for wholesale wastewater.

## A3.2 Calculating the allowed wholesale wastewater control

### A3.2.1 Structure of wholesale wastewater control

The wholesale wastewater control is structured in the same way as the wholesale water control. We have set out the structure of the wholesale water control in section A2.2.1

### A3.2.2 Calculation of allowed wholesale wastewater expenditure

The wholesale wastewater price control baseline represents our view of the efficient level of expenditure.

Our approach to setting wholesale cost thresholds is summarised in Annex 2. In broad terms we have developed benchmarking models to set base cost allowances and then adjusted these for items excluded from our benchmarking and certain company specific factors. Where appropriate these include special factors that companies set out in business plans or in response to the summary information published at the end of the risk-based review.

In order to set the price controls it is necessary to convert the cost thresholds into menu baselines, total allowed expenditure and expenditure to be allowed on a PAYG

basis rather than added to the RCV. Our menu baselines exclude those costs and allowances where cost sharing incentives would not be appropriate – including defined benefit pension deficit recovery costs, third party costs and 2014-15 market opening costs.

To convert the menu baseline to a totex allowance for the purpose of this draft determination, we have calculated an implied menu choice, which is the ratio of the company's view of cost and our menu baseline. We set out the menu we have used for the draft determination in Table A2 of 'Setting price controls for 2015-20 – policy and information update' and this table is reproduced in annex 2. The company's implied menu choice for wholesale wastewater is **96.2**. Northumbrian will have the opportunity to finalise its menu choice within the range of 80 to 130, which will impact on its allowed revenues and customers' bills. This will impact the company's allowed expenditure and additional income and consequently its allowed revenue and bills. The allowed revenue is based on a weighted average of our view of the baseline (75%) and the company's menu choice (25%).

The calculation of totex allowances is shown in table A11. Separate revenue allowances are made for pension deficit recovery costs and third party costs which are excluded from the menu baselines, as are 2014-15 market opening costs.

We have calculated pension deficit repair allowances in line with the approach we outlined in section A2.2.2.

**Table A11 Wholesale wastewater allowed expenditure (£m)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Menu cost baseline[1] | 202.5 | 203.3 | 211.1 | 206.0 | 176.1 | 999.0 |
| Company's view of menu costs[2] | | | | | | 961.4 |
| Implied menu choice | | | | | | 96.2 |
| **Allowed expenditure from menu** | 200.6 | 201.4 | 209.1 | 204.1 | 174.5 | 989.6 |
| Costs excluded from menu | 5.6 | 5.3 | 5.3 | 5.3 | 5.2 | 26.6 |
| **Total allowed expenditure[3]** | 206.1 | 206.7 | 214.4 | 209.3 | 179.7 | 1016.2 |

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Less pension deficit repair allowance | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 11.4 |
| **Totex for input to PAYG** | 203.8 | 204.4 | 212.1 | 207.0 | 177.4 | 1004.9 |

**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 2).
2. Based on company plan totex minus costs for items excluded from the menu.
3. Includes pension deficit repair allowance.

In arriving at the totex allowances in table A11 above, we have phased the timing of the menu baseline expenditure using the company plan totex profile. We have phased the timing of our view of the menu exclusions expenditure with our profile. As explained in section A2.2.2, we have not substituted the company's forecasts of its water explanatory variables into our calculations.

### A3.2.3 Calculation of PAYG rates and depreciation

To determine the allowed revenue, the wholesale wastewater totex allowance is allocated between the amount recovered in 2015-20 (referred to as the PAYG amount) and the amount added to the RCV to be recovered in future periods. A significant proportion of company expenditure is in long life assets, which benefit current and future customers. The allowed revenue will also include RCV depreciation and the return on the RCV, as set out in figure A1 above.

Consistent with our methodology, we have allowed all companies to propose their own PAYG ratios and levels of RCV depreciation. The company has modestly increased its proposed PAYG ratios from its original business plan to reflect the risk and reward guidance we published in January 2014 and its position relative to the allowed wholesale cost baselines, but has left its original RCV depreciation proposals unchanged. The effect of this adjustment is that it has partly offset the lower WACC by bringing more cash forward from future control periods, reducing the cost future customers' bear. We have adopted this approach for the draft determination; however, consistent with section A2.2.3, we consider that a best practice approach would have been to test with customers their preferences for different bill profiles over the short and long term.

Table A12 shows the company's updated proposed PAYG ratios and associated totex recovery for wholesale wastewater, which we have used as the basis for this draft determination.

**Table A12 Northumbrian Water wholesale wastewater PAYG ratios**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Totex (£m) | 203.8 | 204.4 | 212.1 | 207.0 | 177.4 | 1004.9 |
| PAYG % | 38.4% | 43.2% | 42.2% | 42.8% | 49.7% | - |
| Resulting PAYG (£m) | 78.2 | 88.2 | 89.6 | 88.6 | 88.3 | 432.8 |

Table A13 shows the depreciation amounts included within the wholesale wastewater charge. The depreciation rates reflect a run-off rate of 5.45% for the RCV as it stands on 31 March 2015 and average life of 68 years for the totex additions to the RCV over 2015-20.

**Table A13 Northumbrian Water wholesale wastewater depreciation (£ million)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Depreciation on 2015 RCV | 96.0 | 96.0 | 96.0 | 96.0 | 96.0 | 480.0 |
| Depreciation on totex additions | 0.9 | 2.7 | 4.5 | 6.3 | 7.8 | 22.2 |
| Total depreciation | 96.9 | 98.7 | 100.5 | 102.3 | 103.8 | 502.2 |

### A3.2.4 Return on the RCV

Companies receive a return on the RCV, equal to the vanilla WACC, to compensate them for capital value that has not been recovered prior to and in the PR14 period. Our risk and reward guidance set out a single industry allowed return for both wholesale water and wastewater services of 3.7%. The company has accepted this guidance and so we have used an allowed return of 3.7% in this draft determination. This results in a return on capital of around £335 million over 2015-20.

The return on capital is calculated by applying the cost of capital to the average RCV for the year. Table A14 shows our calculation of the opening RCV at 1 April 2015. This is around £24 million lower than the company view. We have removed the direct

adjustment proposed by the company relating to the sewer flooding reduction shortfall logging up (£29 million). We have instead included this amount in the calculation of 2009-10 outperformance. The majority of the remaining adjustments relate to 2010-15 performance and are explained in Annex 4 'Reconciling 2010-15 performance'. The average RCV, set out in table A15 below for each year, takes into account totex additions to the RCV and depreciation.

**Table A14 Northumbrian Water wholesale wastewater opening RCV (£m)**

| | 2015-16 |
|---|---|
| Closing RCV 31 March 2015 | 1761.6 |
| Land sales | -2.5 |
| 2009-10 performance | 9.0 |
| Capital incentive scheme | 24.0 |
| Net adjustment from logging up, logging down and shortfalls | -30.8 |
| Other adjustments | 0.0 |
| Opening RCV 1 April 2015 | 1761.3 |

**Table A15 Northumbrian Water wholesale wastewater return on RCV (£ million)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|
| Opening RCV | 1761.3 | 1790.1 | 1807.6 | 1829.7 | 1845.9 |
| RCV additions (from totex) | 125.6 | 116.2 | 122.6 | 118.5 | 89.2 |
| Less depreciation | 96.9 | 98.7 | 100.5 | 102.3 | 103.8 |
| Closing RCV | 1790.1 | 1807.6 | 1829.7 | 1845.9 | 1831.2 |
| Average RCV (year average) | 1775.7 | 1798.8 | 1818.6 | 1837.8 | 1838.6 |
| Return on capital | 65.7 | 66.5 | 67.2 | 68.0 | 68.0 |

### A3.2.5 Corporation tax

The allowed revenues of the wholesale water and wastewater services include the recovery of the appropriate tax, taking into account complexities such as tax losses arising at the appointee level. To help achieve this aim, wholesale tax has first been calculated at the wholesale level for both services combined, and then apportioned

to the water and wastewater services for the separate allowed revenues concerned. As set out in our final methodology statement, our approach to calculating tax is similar to the method used for PR09, but with a simplified and less data-intensive approach.

We have used companies' average capital allowance writing-down rates by service for both the brought forward expenditure pools and for new expenditure. We have used the company's estimates of the proportion of base expenditure on underground assets, which is treated as operating expenditure in statutory accounts.

We have based the tax calculation on projected corporation tax rates, profits and assumed levels of tax relief. We took account of debt interest payments by using the higher of:

- companies' actual proportion of debt financing; and
- the proportion of debt financing assumed in our notional capital structure.

### A3.2.6 Income from other sources

Income from other sources is made up of 'operating income', 'other income' and third party income. These are revenues that companies charge but do not form part of the regular water and wastewater bills that customers pay. These revenues are based on the company's forecasts and are set out in table A17 in section A3.2.9.

### A3.2.7 Capital contributions from connection charges and revenue from infrastructure charges

This comprises revenue and capital contributions from connection and infrastructure charges (including requisitions and self-lay). These revenues are based on the company's forecasts and are set out in table A17 in section A3.2.9.

### A3.2.8 Reconciling 2010-15 performance

We confirmed in our final methodology statement that, for a number of incentive tools, we would make appropriate adjustments to allowed revenues for 2015-20, to reflect companies' actual performance, costs and revenues when compared to our PR09 assumptions. Table A16 below summarises the revenue adjustments we are making to the company's 2015-20 wholesale wastewater control to reflect its performance over 2010-15.

As a result of our interventions we have made overall changes to proposed 2010-15 adjustments for the wastewater service from £26.0 million to £18.0 million. These interventions are as a result of:

- a reduction in the scale of SIM reward as a result of our comparative analysis across the industry
- an increase in RCM adjustments resulting from our review (relating to the application of the number of household billed properties and other adjustments)
- a reduction of OIA adjustments relating a different view of the logging up and down adjustments.
- an increase of CIS penalties as a result of a number of adjustments within the wastewater programme.
- our decision to include a number of adjustments for shortfalling and logging down for:
  - Sedgeletch STW;
  - Newbiggin STWI
  - the Sewer flooding programme; and
  - sewerage infrastructure serviceability.

Annex 4 provides more detail on our draft determination in this area.

**Table A16 Northumbrian Water wholesale wastewater revenue adjustments to reflect 2010-15 performance (£ million)**

| £ million | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Service incentive mechanism (SIM) | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.9 |
| Revenue correction mechanism (RCM) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 29.7 |
| Opex incentive allowance (OIA) | 3.8 | 0.3 | 0.0 | 0.0 | 0.0 | 4.1 |
| Capital expenditure incentive scheme (CIS) | -18.8 | 0.0 | 0.0 | 0.0 | 0.0 | -18.8 |
| Other adjustments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | -8.4 | 6.8 | 6.5 | 6.5 | 6.5 | 18.0 |

### A3.2.9 Calculation of allowed revenue

The calculation of the allowed revenue for Northumbrian's wholesale wastewater control is shown in table A17. Allowed revenue is principally built up from PAYG totex, the return on RCV, depreciation and an allowance for corporation tax.

Overall, we consider that Northumbrian's wholesale wastewater revenue allowance should be £274.9 million in 2015-16, increasing by 1.4% to £278.7 million in 2019-20.

**Table A17 Northumbrian Water wholesale wastewater allowed revenue (£ million)**

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Totex | 203.8 | 204.4 | 212.1 | 207.0 | 177.4 | 1004.9 |
| PAYG ratio | 38.4% | 43.2% | 42.2% | 42.8% | 49.7% | - |
| Totex additions | 125.6 | 116.2 | 122.6 | 118.5 | 89.2 | 572.1 |
| RCV (year average) | 1775.7 | 1798.8 | 1818.6 | 1837.8 | 1838.6 | - |
| **Wholesale allowed revenue build up:** | | | | | | |
| PAYG[1] | 80.5 | 90.5 | 91.8 | 90.8 | 90.5 | 444.1 |
| Return on capital | 65.7 | 66.5 | 67.2 | 68.0 | 68.0 | 335.3 |
| Depreciation | 96.9 | 98.7 | 100.5 | 102.3 | 103.8 | 502.2 |
| Tax[2] | 32.1 | 10.4 | 9.9 | 9.7 | 10.0 | 72.2 |
| Income from other sources | -1.2 | -1.2 | -1.2 | -1.2 | -1.2 | -5.9 |
| Reconciling 2010-15 performance | -8.4 | 6.8 | 6.5 | 6.5 | 6.5 | 18.0 |
| Ex ante additional menu income | 0.9 | 0.9 | 1.0 | 1.0 | 0.8 | 4.6 |
| **Wholesale allowed revenue adjustments** | | | | | | |
| Equity Issuance Cost | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Revenue solving adjustment[3] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Profiling adjustments | 5.5 | 0.3 | -1.8 | -2.2 | -2.6 | -0.8 |

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|
| Manual adjustments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Capital contributions from connection charges and revenue from infrastructure charges** | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 14.4 |
| **Final allowed revenues** | **274.9** | **275.9** | **276.8** | **277.8** | **278.7** | **1384.1** |

**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. The allowed revenues have been adjusted so that the bill profile is flat using the companies demand projections – and so matches the profile in the company's plan.

## A3.3 Uncertainty mechanisms

In our risk and reward guidance, we acknowledged that all companies face uncertainty about future costs and revenues. We consider that good risk sharing mechanisms provide companies with incentives to reduce costs and provide better services.

Companies already have access to a range of uncertainty mechanisms which share risks between companies and customers. In our final methodology statement, we noted that additional risk should only be fully transferred to customers when companies are unable to influence the impact on their business. As set out in our risk and reward guidance, when a company is able to materially influence the probability or magnitude of impacts, or mitigate the effect efficiently, then the risk should remain with the company, at least in part. This provides companies with strong incentives to manage risks.

The company has accepted the risk and reward guidance on uncertainty mechanisms. Consistent with the guidance, it has included an uncertainty mechanism for water business rates. This does not apply to wastewater business rates. Northumbrian withdrew its earlier proposals for notified items, although it proposed that logging up for new statutory obligations continued into AMP6. As set out in section A2.3, we do not consider that Northumbrian has justified a logging up mechanism for new statutory obligations. We have therefore not included any uncertainty mechanisms for the wholesale wastewater control.

## A3.4 Return on regulated equity

We describe our approach to analysing how companies are managing their risks and its allocation between companies' investors and customer in section A2.4.

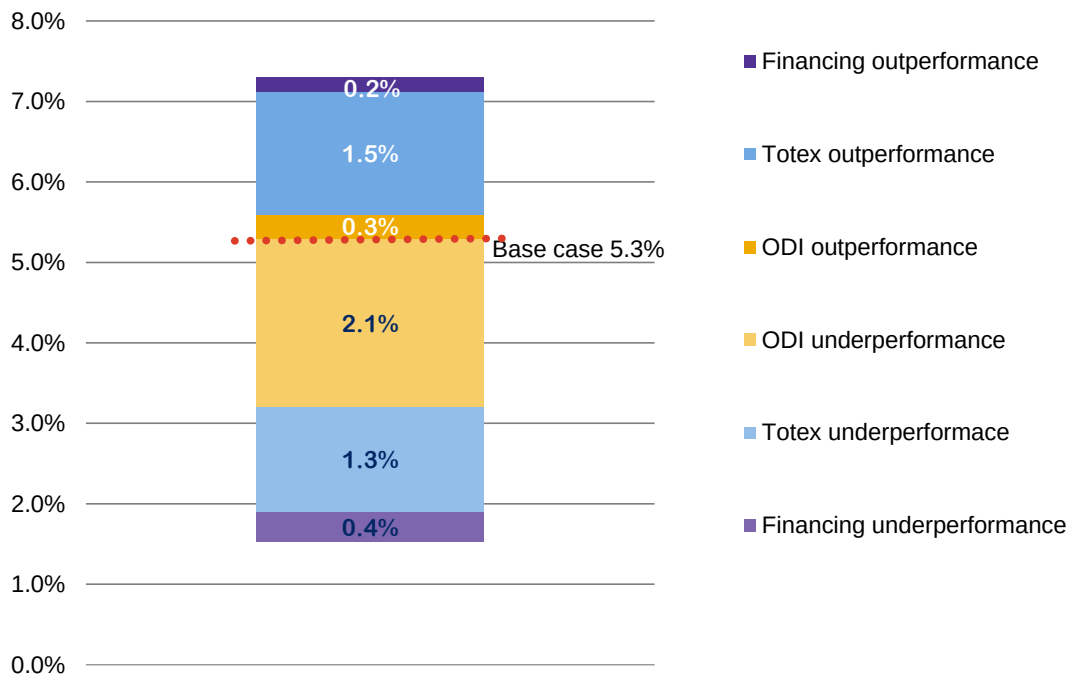
Consistent with this, and based on Northumbrian's assessment as part of its revised business plan submission, which included a populated version of the Ofwat risk assessment tool, we have verified and approved the RoRE range for wholesale wastewater, shown in figure A3. This is split into the constituent risk components such as totex and ODI under and out performance. The RoRE ranges reflect Northumbrian's view of the RoRE range and take account of the impact of our interventions on ODIs.

For wholesale wastewater, the RoRE range is 1.5% to 7.3%, with a base case of 5.3%. This is a narrower range compared with the overall appointee range of 0.7% to 8.9%, with an appointee base case of 5.9%. The wastewater base case reflects the lower expected return for wholesale as the remaining return is required to compensate risks in retail.

The ODI risk range is -2.1% to +0.3%, which is narrower than the whole company ODI range and the guidance (±1 to ±2%). It reflects the lower level of rewards and penalties that Northumbrian has attributed to wastewater than water and is underpinned by customer support for higher value water service ODI's, as well as our interventions, which had the effect of reducing the rewards while increasing the penalties.. While this ODI range exceeds the range suggested in our risk and reward guidance on the down side while being lower on the upside, we consider that this is appropriate in order to ensure that customers are compensated appropriately in cases of underperformance while ensuring that rewards are no higher than willingness to pay. Specifically, as set out in section A3.1, we intervened in order to make sure that rewards and deadbands are not allowed unless they are justified by evidence, and that reputational ODIs are not used unless a financial ODI would be inappropriate.

The totex risk range is -1.3% to +1.5%, which again is narrower than the range for the overall company and the guidance. Northumbrian has assumed a common totex efficiency variance of ±8% in both water and wastewater. This results in a narrower cost risk range in wastewater compared to water due to the differing proportions of totex to RCV within each service. We consider that this is reasonable given the cost risk range for the whole company is -1.9% to +1.9% compared to our guidance of at least ±2% as Northumbrian's historic cost variation is among the lowest of all water and sewerage companies.

## Figure A3 Northumbrian Water RoRE range – wholesale wastewater




**Source: Ofwat calculations based on information from Northumbrian Water**

# A4. Household retail

## A4.1 Company outcomes, performance commitments and delivery incentives

In section A2.2.1, we discuss how, as we set out in our final methodology statement, outcomes and the associated performance commitments and incentives are one of the key innovations in PR14.

The outcomes, performance commitments and outcome delivery incentives we are adopting for the company's household retail control are summarised in table A18 below.

**Table A18 Household retail outcomes, performance commitments and incentives**

| Outcome | Performance commitment | Incentive type |
|---|---|---|
| We provide excellent service and impress our customers | NWL independent overall customer satisfaction score survey | Reputational |
| | Service Incentive Mechanism (SIM) | Financial – reward and penalty; |
| | Domestic customer satisfaction, net promoter score | Reputational |
| Our customers consider the services they receive to be value for money | NWL independent value for money survey | Reputational |
| | Satisfied with value for money of water services NW (The Consumer Council for Water, or CCWater) | Reputational |
| | Satisfied with value for money of sewerage services NW (CCWater) | Reputational |

| Outcome | Performance commitment | Incentive type |
|---|---|---|
| | Satisfied with value for money of water services ESW (CCWater) | Reputational |
| Our customers are well informed about the services they receive and the value of water | NWL independent survey on keeping our customers informed | Reputational |
| We protect and enhance the environment in delivering our services, leading by example | Greenhouse gas emissions | Reputational |
| | Annual environmental performance and activity | Reputational |

### Intervention: remove 'we are an efficient and innovative company' outcome and associated PCs

The company proposed two reputational incentives associated to the 'we are an efficient and innovative company' outcome, related to the efficiency assessment of the company and to its EFQM 5 star status. We do not consider that the proposed incentives are appropriate as they are a means to delivering the company's business plan, rather than outcomes that customers want.

Further information about the outcomes, performance commitments and outcome delivery incentives in set out in Annex 1.

The outcomes we are adopting include the SIM that applies to all companies.

Any SIM incentive reward or penalty due will be determined by comparing company's household SIM performance over four years (2015-16 to 2018-19) to the industry performance. The reward or penalty will range between +6% and -12% of 2019-20 household retail revenues; and we will adjust retail household revenues from 2020-21. The weights attached to the SIM performance measures will comprise 75% from qualitative survey results and 25% from quantitative measures as set out in 'Service incentive mechanism (SIM) for 2015 onwards – conclusions'. The details of these are currently being tested by companies and we will confirm the final methodology before April 2015.

### A4.1.1 Outcome delivery and reporting

We set out our approach to outcome delivery and reporting, and Northumbrian's proposals, in section A2.1.3.

## A4.2 Costs

In our final methodology statement, we confirmed that our household retail price controls would be based on setting a revenue control for each company based on the efficient costs of retail activities (as measured by the average cost to serve, or ACTS) based on customer numbers. Setting household price controls for 2015-20 on the basis of 'average' costs of companies is part of an evolutionary approach that we hope will enable companies to move to an efficient cost to serve over future price controls. As part of this process, we confirmed that we would adjust the ACTS to account for levels of metering. We also confirmed that companies could seek additional adjustments to the ACTS if certain criteria were met, as discussed further below.

### A4.2.1 Adjustments

Our final methodology statement confirmed that companies could seek additional adjustments to their ACTS where they were able to demonstrate with sufficient and convincing evidence that:

- those costs were material to their company;
- that they were driven by factors beyond efficient management control; and
- that they impacted the company in a materially different way to other companies.

Each of these criteria is of equal importance. The first criterion ensures that adjustments to the ACTS are only made for material items. The second criterion ensures that companies needed to provide sufficient and convincing evidence that the particular factor was beyond management control and that there was a clearly evidenced causal relationship between that factor and the costs of providing retail services to household customers in their area. Similarly, companies needed to demonstrate under this criterion that their management practises in this area were efficient, or to reflect their level of inefficiency suitably in their adjustment request. The third criterion ensures that adjustments to the ACTS are only made for items that impact companies in a materially different way to other companies, given that

the ACTS will generally already take account for any items that impact all companies in the same way.

In Northumbrian's December business plan, the company proposed adjustments for:

- doubtful debt driven by deprivation;
- input price pressure;
- third party opex;
- business rates; and
- pension deficit repair costs.

Northumbrian withdrew the proposed adjustments for doubtful debt and input price pressure from their updated business plan submitted in May. No adjustments for these elements are therefore included in this draft determination.

Of the remaining adjustments, we have considered third party opex and business rates as part of the company's new costs. This is because these items relate to changes to the company's cost base, rather than items that meet the three criteria for an adjustment. These are therefore discussed in section A4.2.2 below.

Pension deficit repair costs are automatically allowed for all companies, as set out in IN 13/17 Treatment of companies' pension deficit repair costs at the 2014 price review. We have made some minor corrections to the application of efficiency to the pension deficit repair costs. We have therefore included our updated figures in Northumbrian's draft determination.

### ACTS adjustments – position reflected in Northumbrian's draft determination

The table below shows the adjustments we have included in the draft determination and the adjustments included in the company's revised business plan.

**Table A19 Household retail adjustments (£ million)**

| | Units | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|---|
| Pension deficit repair costs | £m | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 2.730 |
| Third party opex | Not included as adjustment – forms part of new costs | | | | | | |
| Business rates | Not included as adjustment – forms part of new costs | | | | | | |

| | Units | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|---|
| **Adjustments included in draft determination** | **£m** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **2.730** |
| Pension deficit repair costs | £m | 0.743 | 0.743 | 0.743 | 0.743 | 0.743 | 3.715 |
| Third party opex | £m | 0.798 | 0.798 | 0.798 | 0.798 | 0.798 | 3.990 |
| Business rates | £m | 0.172 | 0.172 | 0.172 | 0.172 | 0.172 | 0.860 |
| **Adjustments included in BP** | **£m** | **1.713** | **1.713** | **1.713** | **1.713** | **1.713** | **8.565** |

**Note:**

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

### A4.2.2 New costs

As set out in the enhanced DD technical appendix, our methodology allows for the possibility of a modification to be made to a company's cost to serve for new costs. Northumbrian included new costs for schemes that could result in a modification being made to its cost to serve. These included costs for third party opex and business rates as set out in Table A19 and an investment in a new customer information and billing (CIB) system.

In the enhanced DD technical appendix we included an example to make a modification for positive new costs up to the annualised materiality threshold. The materiality threshold is defined as 2.25% of total business plan retail expenditure over AMP 6. Given that, collectively, third party opex and business rates result in new costs with a value of 1.7% of total business plan retail expenditure over AMP 6; these costs will be included in the calculation of allowed revenues. We have therefore focused our assessment of Northumbrian's new costs on the proposed CIB investment.

We have assessed the additional evidence that Northumbrian provided in their May submission and have concluded that it fails to address a number of the gaps that we identified under the risk-based review.

The company provided some further explanation of the need for the investment, including an explanation of its current systems' shortcomings and some quantification of the impact of its current systems on their SIM scores.

Northumbrian included some options analysis in its May submission, but they neither explain why it has selected these as its preferred options nor provide a sufficient assessment of the different options, including cost benefit analysis of the options. The options analysis only includes a qualitative assessment of the preferred option for a new CIB, and does not discuss the other options that are presented. The preferred option is selected above other, lower cost options without any evidence being provided that it is the most cost beneficial option – no quantitative cost benefit analysis is included.

In addition, we do not think that the quality of the supporting cost information for the preferred option is sufficient. There is no evidence that the majority of these costs are efficient; the company does not provide any supporting benchmarking or other information to demonstrate efficiency.

The assessment of the quantum of the costs focuses only on the preferred option – to fully replace the CIB. No assessment of the other options is included. The assessment of the costs of the CIB replacement option does include a breakdown of the elements of the investment. It also considers the costs of a range of providers of CIB systems. However, because this focuses on the preferred option only, without an assessment of whether this is the most cost beneficial option, this evidence is considered insufficient.

The impact of the new costs on customers is discussed in relation to the need for the investment, and it is linked to a customer outcome to ‘provide excellent service and impress our customer’. However, no explanation is given of how customers would be protected if either the costs are lower or the investment does not deliver the planned service improvements.

The impact of this investment on the operating expenditure of the retail business is quantified for the different CIB options discussed above, but no further assessment of the operating expenditure aspect of these new costs is discussed.

Because of these issues with the supporting evidence, we have decided not to make a modification for the full amount of new costs (including the proposed CIB) included in Northumbrian’s business plan. This affects both the modification to the company’s cost to serve that goes into the calculation of the ACTS, and the new costs considered in cost forecasts for setting Northumbrian’s allowed retail revenue. The modification in the table below therefore reflects only new costs up to the materiality threshold, predominantly associated with third party opex and business rates.

**Table A20 New household retail costs**

| | Units | Value |
|---|---|---|
| Modification made to 2013-14 CTS for ACTS calculation | £/cust | 0.16 |

**Note:**

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

### A4.2.3 Allocation of costs

In our final methodology statement, we set out how we expected companies to allocate their costs between retail and wholesale and between household and non-household in their business plans. Following the risk-based review, we considered it necessary to issue more detailed cost allocation rules for finalising price controls in PR14, to ensure a level playing field for market opening in April 2017 and to ensure that comparative regulatory tools such as the ACTS are applied fairly across companies.

On 24 March we published '2014 price review cost allocation for retail and wholesale price controls'. In this document we set out how we expected companies to allocate their costs between retail and wholesale and between household and non-household for their 2 May and 27 June submissions. We stated that, where possible, companies should allocate their costs directly between retail and wholesale and between household and non-household. Where this was not possible, we prescribed a consistent set of cost drivers that companies must use to allocate their costs between retail and wholesale and between household and non-household.

On 2 May we received revised cost allocation tables from Northumbrian, along with commentary setting out the changes it made to its cost allocation to comply with the 24 March guidance.

We have reviewed the company's cost allocation and are satisfied that, with one exception, it is in accordance with the new guidance on cost allocation. The exception is the allocation of meter reading between household and non-household. The company has allocated this cost based on the number of metered properties. The 24 March guidance states that this cost should be allocated based on timesheets, number of meter reads factored by scheduling an allowance for average time taken or number of meter reads. We also note that the company has not had its revised cost allocations in its May submission externally verified.

We have accepted the company's cost allocations between retail and wholesale and between household and non-household for this draft determination. The company will submit its 2013-14 actuals on 27 June which will be used for its final determination. We have made it clear that for its 27 June submission we expect to see external assurance, the detailed cost allocation tables for 2013-14 (as per a query we raised with the company on 6 January) and meter reading costs allocated between household and non-household in accordance with the 24 March guidance.

## A4.3 Calculating the allowed revenues

We set out our approach to calculating the average cost to serve in the enhanced DD technical appendix. Using the average industry allowances per customer, and the projected customer numbers in the company's revised business plan (see Annex 3), we have calculated the total allowed household retail revenues in 2012-13 prices, including the efficiency challenge and the household retail net margin.

### A4.3.1 Net margins

In our risk and reward guidance, we confirmed that our view of an appropriate net margin was 1% for household retail price controls. The table below shows the household retail net margin over 2015-20.

The retail net margin applies to total household costs and is therefore applied to wholesale charges to supply households, plus allowed household retail costs.

**Table A21 Household retail net margins**

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

The table below sets out the components of the allowed household retail revenue.

### Table A22 Components of the allowed household retail revenue

| | Units | 2013-14 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|---|---|
| Company cost to serve unmeasured single service customers | £/cust | 22.41 | | | | | |
| Company cost to serve unmeasured water and wastewater customers | £/cust | 29.13 | | | | | |
| Company cost to serve measured water-only customers | £/cust | 25.06 | | | | | |
| Company cost to serve measured wastewater-only customers | £/cust | 25.07 | | | | | |
| Company cost to serve measured water and wastewater customers | £/cust | 34.44 | | | | | |
| Allowed cost to serve unmeasured single service customers[1] | £/cust | | 21.30 | 21.30 | 21.34 | 21.36 | 21.42 |
| Allowed cost to serve unmeasured water and wastewater customers[1] | £/cust | | 27.69 | 27.70 | 27.74 | 27.76 | 27.84 |
| Allowed cost to serve measured water-only customers[1] | £/cust | | 23.95 | 23.96 | 23.99 | 24.01 | 24.07 |

| | Units | 2013-14 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|---|---|
| Allowed cost to serve measured wastewater-only customers[1] | £/cust | | 23.96 | 23.96 | 23.98 | 24.01 | 24.08 |
| Allowed cost to serve measured water and wastewater customers[1] | £/cust | | 32.99 | 33.00 | 33.05 | 33.07 | 33.14 |
| Total allowed cost to serve (excluding net margin) | £m | | 49.5 | 49.9 | 50.4 | 50.9 | 51.5 |
| Total household wholesale charge (including forecast RPI)[2] | £m | | 523.8 | 543.9 | 565.7 | 586.8 | 607.7 |
| Total household retail revenue (including net margin) | £m | | 55 | 56 | 57 | 57 | 58 |

**Notes:**

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

1. Allowed cost to serve includes pension deficit repair costs.
2. The household wholesale charge is displayed here including forecast RPI so that the total household retail revenue can be displayed on the same price base as other retail costs, that is, there will be no subsequent indexation of this total household retail revenue.

As we set out in our final methodology statement, we will make a modification to allowed revenues to account for the difference between actual and forecast customer numbers. The details of how this difference is calculated and the modification factors for calculating the value of this modification are set out in Annex 3.

## A4.4 Uncertainty mechanisms

In our risk and reward guidance, we acknowledged that all companies face uncertainty about future costs and revenues. We consider that good risk sharing

mechanisms provide companies with incentives to reduce costs and provide better services.

Companies already have access to a range of uncertainty mechanisms which share risks between companies and customers. In our final methodology statement, we noted that additional risk should only be fully transferred to customers when companies are unable to influence the impact on their business. As set out in our risk and reward guidance, when a company is able to materially influence the probability or magnitude of impacts, or mitigate the effect efficiently, then the risk should remain with the company, at least in part. This provides companies with strong incentives to manage risks.

The company withdrew its earlier proposals for notified items for bad debts and retail competition. The company proposed a continuation of the logging up mechanism for new statutory obligations. For the reasons set out in section A2.3 we do not consider that Northumbrian has justified a continuation of this mechanism. We have therefore not included any additional uncertainty mechanisms for household retail.

## A4.5 Return on regulatory equity

Consistent with the approach set out in our risk and reward guidance, the risk analysis conducted by Northumbrian as part of its revised business plan submission to understand the potential range of returns on equity has been expressed as a margin range for retail elements. Northumbrian's submission included a populated version of the Ofwat risk assessment tool which has been verified and approved as the range for household retail. The RoRE range below reflects the figures from Northumbrian's revised business plan rather than the range for the draft determination.

Northumbrian has adopted a 1% retail household margin in their base case plan, with a low case of -1.3% and a high case of +2.0% (that is, -2.3% to +1.0%). The downside risk reflects a situation which combines a significant retail cost overspend (equivalent to 1.0% of invoiced revenue) and an adverse outcome from SIM (equivalent to 1.3% of invoiced revenue).

The upside variance combines a significant retail cost underspend (equivalent to 0.4% of invoiced revenue) with a favourable outcome from SIM (equivalent to 0.6% of invoiced revenue). We consider the SIM and retail cost risk ranges to be plausible and in line with our guidance on risk and reward.

Northumbrian did not submit any financial ODIs for their retail business (apart from SIM). Given that the national SIM and guaranteed standards scheme (GSS) service quality mechanisms incentivise performance in household retail services, we consider that this is acceptable.

# A5. Non-household retail

## A5.1 Default tariffs

As described in the enhanced DD technical appendix, we have included financial assumptions for an indicative price control for non-household retail to support our appointee-level financeability assessment. This is based on the total non-household retail costs as presented in the company's own revised business plan table A19, and the net margin of 2.5% relevant for the company as set out in our risk and reward guidance.

The retail net margin applies to total non-household costs and is therefore applied to wholesale charges to supply non-households, plus allowed non-household retail costs.

The table below gives the indicative revenues from default tariffs that we have included in this draft determination for financeability assessment purposes. The table assumes an aggregate flat net margin profile for the overall non-household retail business.

Companies are free to propose different net margin profiles for specific default tariffs within the overall business if they consider this to be appropriate, but the non-household margins in aggregate should not be greater than the amounts proposed in our risk and reward guidance, as discussed in 'Setting price controls for 2015-20 – guidance for companies on producing default tariffs'.

**Table A23 Indicative non-household retail total revenue price control including net margins**

| | Units | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|---|
| Indicative non-household retail total revenue price control including net margins | £m | 10 | 10 | 10 | 11 | 11 |

**Note:** There will be no indexation for retail price controls from this price base.

# A6. Appointee financeability

As we set out in our final methodology statement, one of our statutory duties is to ensure that an efficient company is able to finance its functions, in particular by securing reasonable returns on its capital.

Consistent with our wider approach to PR14, we require water companies to demonstrate that their business plans are financeable. As we said in our final methodology statement, our preferred approach is that companies assure themselves of their financeability through:

- an assessment of financeability (and financial ratios) at a whole company level – using aggregated revenues, costs and cash flows associated with regulated activities across all the price controls we set;
- an assessment of financeability on the basis of the appointee having a notional capital structure and associated costs of finance (we set out our view of appropriate cost of finance in our risk and reward guidance);
- companies demonstrating that projected financial ratios are at levels which allow them efficiently to finance their functions; and
- an assessment of whether the activities covered by the retail price controls are financeable in their own right.

In our final methodology statement, we asked companies to demonstrate they can finance their activities by providing financial ratios in their business plans. The financial ratios are similar to those typically reviewed by credit rating agencies for testing credit risk and the risk of default on debt. Further ratios, which are more relevant to equity investors, are also considered.

Under our methodology we consider financeability before adjustments that reflect performance over 2010-15, as this approach preserves incentives on companies and ensures that the focus is on the financeability of the underlying business.

We have compared the financial ratios provided by Northumbrian and our calculation of its financial ratios (before interventions), when both are prepared on a notional basis. These are illustrated in the table below (with the financial ratios from the draft determination considered later in this section).

There are some differences between our assumptions, as set out in IN 14/11: 2014 price review – Ofwat's approach to assessing financeability, and those made by

Northumbrian, and these drive differences in the ratios. They key explanations of the differences between the Northumbrian and Ofwat calculations are as follows:

- The lower gearing in the Ofwat calculation arises from a lower dividend yield, consistent with our allowed cost of equity. Northumbrian has assumed a higher dividend yield, which results in higher gearing. This results in higher FFO/debt and retained cashflow/debt ratios under our calculation.
- The Ofwat calculations assume a higher level of index linked debt, which will tend to increase the financial ratios.
  There are technical differences in the calculations of cash interest cover, adjusted cash interest cover ratios, dividend cover ratio and regulated equity/regulated earnings which further contribute to the differences[1].

**Table A24 Company and Ofwat financial ratio calculations based on company business plan submission**

| Financial ratios for notional company | Company calculation (average 2015-20)[1] | Ofwat calculation (average 2015-20) |
|---|---|---|
| Cash interest cover | 2.95 | 3.53 |
| Adjusted cash interest cover ratio (ACICR) – base case (avg over five years) | 1.33 | 1.32 |
| Funds from operations/debt | 10.33% | 11.78% |
| Retained cashflow/debt | 7.16% | 9.12% |
| Gearing | 64.93% | 61.10% |
| Dividend cover (profit after tax/dividends paid) | 0.22 | 2.12 |
| Regulatory equity/regulated earnings for the regulated company | -22.59 | 90.67 |
| RCV/EBITDA | 8.97 | 8.93 |

[1] Northumbrian provided a late correction to the financial ratios. We have not reflected this in the table.

Northumbrian considers that its revised business plan is financeable. Consistent with our stated methodology, Northumbrian considers that, in principle, financeability should be considered before adjustments that reflect performance over 2010-15. However, Northumbrian has concluded that, taken in the round, a position where some ratios are marginally below required levels before such adjustments but the position improves when they are included is acceptable and represents an appropriate balance of risk between customers and investors.

We consider that the levels of financial ratios are consistent with a credit rating that is investment grade. The adjusted cash interest cover ratio (ACICR) is marginally lower than that consistent with the company's BBB+ target credit rating, however the cash interest cover and funds from operations (FFO)/debt are comfortably meet or are above the requirements for BBB+ rating.

The average ACICR in part reflects a low ratio in 2016-17, largely driven by a large tax payment, Northumbrian considered whether it might use annual PAYG adjustments to smooth ratios across the period, but decided against doing so as it would result in bill volatility that would not be welcomed by customers. In considering financeability, it is important to consider the level and trend in ratios over the period, and consequently we are less concerned with low ratios in an individual year. Northumbrian has a number of options for managing this one-off payment, and we do not consider intervention is required.

Table 25 sets out the financial ratios for the notional structure based on our draft determination (after our interventions). The financial ratios are similar to those submitted by the company in its business plan and at levels that the company has satisfied itself and us would allow an efficient company to finance its functions.

### Table A25 Financeability ratios based on our draft determination

| Financial ratios for notional company | Ofwat calculation (average 2015-20) |
|---|---|
| Cash interest cover | 3.53 |
| Adjusted cash interest cover ratio (ACICR) – base case (avg over five years) | 1.32 |
| Funds from operations/debt | 11.81% |
| Retained cashflow/debt | 9.13% |
| Gearing | 60.82% |
| Dividend cover (profit after tax/dividends paid) | 2.08 |
| Regulatory equity/regulated earnings for the regulated company | 105.79 |
| RCV/EBITDA | 8.98 |

# Annex 1 Outcomes, performance commitments and outcome delivery incentives

This annex sets out in detail the performance commitments and outcome delivery incentives we are proposing for the company's wholesale water, wholesale wastewater and household retail outcomes.

The annex is organised with the wholesale water outcomes and associated performance commitments and delivery incentives presented first, followed by the wastewater outcomes and then the household retail outcomes. It provides the following information on each performance commitment.

- The name and detailed definition of the performance commitment.
- The type of incentive.
- The performance commitment level.
- The limits on rewards and penalties (caps and collars) and neutral zones (deadbands) as applicable[2].
- The incentive rates, if applicable.
- Additional details on the measure.
- Where Ofwat has not accepted the company's proposals, the nature of the intervention made is also explained

Where we have intervened in relation to the above, we have intentionally set out our interventions using a ~~strikethrough.~~ 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).

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

The company has calibrated its ODIs to take account of the interaction with totex efficiency sharing as it is required to do by the price review methodology. In its revised business plan and subsequent adjustments the company has used a 50%

[2] 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

cost sharing rate. This was the example cost sharing rate we used in appendix 1 to our final methodology statement and is consistent with the standard menu provided in Annex 2.

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

For six of its performance commitments Northumbrian proposed making a first assessment of performance in 2014-15. We accept basing rewards and penalties on three-year rolling averages which include 2014-15 data as one of the earlier years in the rolling average. However, it is not appropriate for the company to use 2014-15 data for single year assessments as this would mean a reward and/or penalty would be awarded based only on a year which is not included in the price control period. We have therefore intervened to change the first year of the assessment to 2015-16 for the six performance commitments affected:

- W-B1 Satisfaction with taste and odour of tap water;
- W-C4 Interruptions to water supply;
- W-C4 Leakage (Ml/d) NW;
- W-C5 Leakage (Ml/d) ESW;
- S-B1 properties flooded externally; and
- S-B2 properties flooded internally.

Northumbrian also proposed making in-period adjustments to its RCV to pay penalties and receive rewards for these six performance commitments. We have taken this proposal out of the draft determination. If Northumbrian wants to pursue in-period RCV adjustments it will need to explain how it can make such adjustments under its current licence or propose a licence amendment to make the adjustments possible.

# Wholesale water outcome A: we deliver water and sewerage services that meet the needs of current and future generations in a changing world

## Performance commitment W-A1: asset health – water

### Detailed definition of performance measure

The company's asset health approach replaces serviceability. The asset health measures enable the company to monitor, protect and incentivise the long-term sustainable stewardship of its assets. The company's asset health measures for water service are:

- discoloured water complaints;
- poor water pressure;
- mains bursts; and
- drinking water compliance.

The asset health measure is an overall index that creates a package from the four individual components. Further details of the individual components are provided in the relevant sections below.

### Incentive type

Financial – penalty only.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Penalty~~/ reward~~ | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| Penalty collar | Penalty~~/ reward~~ | | Penalty 2 | Penalty 2 | Penalty 2 | Penalty 2 | Penalty 2 |
| Penalty deadband | Penalty~~/ reward~~ | | Penalty 1 | Penalty 1 | Penalty 1 | Penalty 1 | Penalty 1 |

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| ~~Reward deadband~~ | ~~Penalty/ reward~~ | | ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ |
| ~~Reward cap~~ | ~~Penalty/ reward~~ | | ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate (for the 5 year period) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | Penalty 1 | Penalty 1 | Up to £47,437,500 |
| Penalty 2 | Penalty 2 | Penalty 2 | Including penalty 1, up to £94,875,000 |
| ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ | ~~Up to £31,625,000~~ |
| ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ | ~~Including reward 1, up to £63,250,000~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |
| **Frequency of PC measurement and any use of averaging** | Annually. |
| **Timing and frequency of rewards/penalties** | Annual adjustment of RCV from 2017-18. |
| **Form of reward/penalty** | RCV adjustment. |

| | |
|---|---|
| **Any other information or clarifications relevant to correct application of incentive** | As a measure of long-term asset stewardship, to evaluate asset health the company assesses the three year rolling average scores for each measure in the asset health water basket. The scores are summed to give the water asset health scores which determine the value of any penalties. The first year of performance for asset health financial ODIs will be 2014-15. The first three years' performance to 2016-17 would result in an RCV adjustment arising in 2017-18. There would be three such adjustments during the regulatory period which would be rolled-up with the RCV adjustment occurring in 2020-21. The three potential adjustments will each be based on one third of the total available. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that the PCs that make up this asset health index are important to customers and it may be appropriate to include the potential for rewards across some of the measures. NES has also demonstrated that there are benefits of considering them as a package not solely as individual PCs due to the long-term indications they give on overall performance of the asset base.<br><br>However, NES has provided insufficient evidence to justify the setting of incentive rates. It has also provided insufficient evidence to justify the inclusion of potential rewards for mains bursts.<br><br>We also consider NES needs to undertake further consideration of how the | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where NES fails to deliver the performance commitment for the most important sub-PCs (for example, drinking water compliance) | |

# Wholesale water outcome B: we supply clean, clear drinking water that tastes good

## Performance commitment W-B1: Satisfaction with taste and odour of tap water

### Detailed definition of performance measure

This is the number of complaints received from customers because they are dissatisfied with the taste or odour of their tap water. The measure matches DWI reporting guidance for calculating the number of taste and odour related customer contacts. This includes only counting the first contacts from a customer (repeat contacts and incidents are excluded). The measure is assessed on calendar year performance.

### Incentive type

**Financial – reward and penalty.**

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No./ year | 1402 | 1402 | 1402 | 1402 | 1402 | 1402 |
| Penalty collar | No. of contacts | | 1853 | 1853 | 1853 | 1853 | 1853 |
| Penalty deadband | No. of contacts | | 1724 | 1724 | 1724 | 1724 | 1724 |
| Reward deadband | No. of contacts | | 1080 | 1080 | 1080 | 1080 | 1080 |
| Reward cap | No. of contacts | | 822 | 822 | 822 | 822 | 822 |

## Incentive rates

| Incentive type | Performance levels (no. contacts / year) | | Incentive rate (£/contact/year) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty | 1724 | 1853 | £0.08m |
| Reward | 1080 | 822 | £0.04m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The number of complaints received from customers because they are dissatisfied with the taste or odour of their tap water. The measure matches DWI reporting guidance for calculating the number of taste and odour related customer contacts. This includes only counting the first contacts from a customer (repeat contacts and incidents are excluded). |
| **Frequency of PC measurement and any use of averaging** | The measure is assessed on calendar year performance from 2014. |
| **Timing and frequency of rewards/penalties** | Annually. The first assessment will be made for 2015-16 with an adjustment to RCV in 2016-17. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | Note that the reward elements mentioned here apply via the overall asset health measure W-A1. There is an intervention on W-A1 is to delete those rewards. |

# Performance commitment W-B2: Overall drinking water compliance

## Detailed definition of performance measure

The mean zonal percentage compliance from the regulatory sampling programme, based on current regulation and standards (including the tightening of the lead standard in 2013) as reported to the DWI.

## Incentive type

Financial – penalty only (part of the asset health water incentive).

## Performance commitments

| | Unit | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | ~~99.930~~<br>99.940 | ~~99.930~~<br>99.940 | ~~99.930~~<br>99.940 | ~~99.930~~<br>99.940 | ~~99.930~~<br>99.940 | ~~99.930~~<br>99.940 |
| Penalty collar | % | | ~~<99.853~~<br>99.910 | ~~<99.853~~<br>99.910 | ~~<99.853~~<br>99.910 | ~~<99.853~~<br>99.910 | ~~<99.853~~<br>99.910 |
| Penalty deadband | % | | ~~<99.888~~<br><99.940 | ~~<99.888~~<br><99.940 | ~~<99.888~~<br><99.940 | ~~<99.888~~<br><99.940 | ~~<99.888~~<br><99.940 |

## Incentive rates

| Incentive type | Performance levels (%) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | ~~<99.853~~<br>99.911 | ~~<99.888~~<br><99.940 | Part of asset health - water |
| Penalty 2 | <99.910 | 99.910 | Part of asset health - water |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is based on up to 39 parameters which are determined by the DWI. Samples are collected from defined supply points and customers' taps situated in Water Quality Zones. The percentage compliance score is calculated (to three decimal places) from the number of determinants taken versus the number of determinants that failed the relevant drinking water standard in each Water Quality Zone. It is calculated by averaging the mean zonal percentage compliance from the regulatory sampling programme. Each parameter is weighted equally. The measure of success is based on current regulation and standards (including the tightening of the lead standard in 2013). |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's calendar year performance. |
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Increase the PC level to 99.94%<br>Eliminate the penalty deadband<br>Increase the penalty collar to 99.910% | The company's proposed PC level of 99.93% was the (equal) worst in the industry. However, it would also be the highest level the company has achieved.<br>The company has not provided any supporting evidence from the DWI for its PC level which is lower than the 99.94% it presented in its December | DWI data on drinking water mean zonal compliance.<br>The Water Supply (Water Quality) Regulation 2000.<br>2009 price review settlement for Northumbrian.<br>PR14 proposals from other companies and draft determinations for South West |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | business plan.<br>Whilst the company has cited concerns about the new DWI lead standard, this applies to all companies and companies have known about it since the Water Supply (Water Quality) Regulation 2000.<br>We provided funding for the company at the 2009 price review to replace lead pipes / improve future compliance with drinking water standards. | Water and Affinity Water |

## Performance commitment W-B3: Discoloured water complaints

### Detailed definition of performance measure

This measure is the number of complaints received from customers who are dissatisfied with the appearance of their water because it is discoloured; typically black, orange or brown. This measure does not include complaints related to aerated or ‘milky’ water or creatures in water.

### Incentive type

Financial – penalty only (part of the asset health water incentive).

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No./ year | 4600 | 4600 | 4600 | 4600 | 4600 | 4600 |
| Penalty collar | No./ year | | >7861 | >7861 | >7861 | >7861 | >7861 |
| Penalty deadband | No./ year | | >6230 | >6230 | >6230 | >6230 | >6230 |
| ~~Reward deadband~~ | ~~No./ year~~ | | ~~<2970~~ | ~~<2970~~ | ~~<2970~~ | ~~<2970~~ | ~~<2970~~ |
| ~~Reward cap~~ | ~~No./ year~~ | | ~~<2970~~ | ~~<2970~~ | ~~<2970~~ | ~~<2970~~ | ~~<2970~~ |

## Incentive rates

| Incentive type | Performance levels (no./year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >6230 | 7861 | Part of asset health – water |
| Penalty 2 | >7861 | >7861 | Part of asset health – water |
| ~~Reward~~ | ~~<2970~~ | ~~0~~ | ~~Part of asset health - water~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is aligned to DWI guidance for calculating the number of customer contacts relating to discoloured water, counting the first contact from each customer with repeat contacts being excluded. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's calendar year performance. |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health water. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that this PC which forms part of the asset health index is important to customers and it may be appropriate to include the potential for rewards. NES has also demonstrated that there are benefits of considering this PC as part of a package not solely as an individual PC due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided insufficient evidence to justify the setting of incentive rates.<br>We also consider NES needs to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | NES fails to deliver the performance commitment for the most important sub-PCs (for example drinking water compliance) | |

# Wholesale water outcome C: we provide a reliable and sufficient supply of water

## Performance commitment W-C1: Interruptions to water supply for more than 3 hours (average time per property per year)

### Detailed definition of performance measure

The measure is calculated using the total duration of all water supply interruptions of more than three hours divided by the number of properties the company supplies to give an average interruption time in minutes and seconds per year. The measure includes planned interruptions, unplanned interruptions and interruptions caused by the actions of third parties, for example resulting from a power cut. The measure will be assessed on the company's regulatory year performance.

### Incentive type

Financial – reward and penalty.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Minutes: seconds/ prop/year | 07:17 | 06:50 | 06:23 | 05:56 | 05:29 | 05:00 |
| Penalty collar | Minutes: seconds/ prop/year | | >12:17 | >11:45 | >11:14 | >10:42 | >10:08 |
| Penalty deadband | Minutes: seconds/ prop/year | | >11:38 | >11:11 | >10:44 | >10:17 | >09:48 |
| Reward deadband | Minutes: seconds/ prop/year | | <06:50 | <06:23 | <05:56 | <05:29 | <05:00 |

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Reward cap | Minutes: seconds/ prop/year | | <03:05 | <03:05 | <03:05 | <03:05 | <03:05 |

## Incentive rates

| Incentive type | Performance levels (minutes:seconds/property/year) | | Incentive rate (£/second/year) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >12:17 | >11:38 | 0.530m |
| Reward | <06:50 | <03:05 | 0.090m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measure is calculated using the total duration of all water supply interruptions of more than three hours divided by the number of properties the company supply to give an average interruption time in minutes and seconds per year. The measure includes planned interruptions, unplanned interruptions and interruptions caused by the actions of third parties, for example resulting from a power cut. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed annually on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Annually. The company's first assessment will be made for 2015-16. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The performance levels in the incentive rates table above for penalty and reward are the values for 2015-16. The ODI will reduce between 2015-16 and 2019-20 as can be seen in the first table. |

## Performance commitment W-C2: Properties experiencing poor water pressure

### Detailed definition of performance measure

This measure is the number of properties regularly experiencing water pressure below the minimum standard.

### Incentive type

Financial – penalty only (part of the asset health water incentive).

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. of properties | 257 | 216 | 216 | 216 | 216 | 216 |
| Penalty collar | No. of properties | | >257 | >257 | >257 | >257 | >257 |
| Penalty deadband | No. of properties | | >236 | >236 | >236 | >236 | >236 |
| ~~Reward deadband~~ | ~~No. of properties~~ | | ~~<175~~ | ~~<175~~ | ~~<175~~ | ~~<175~~ | ~~<175~~ |
| ~~Reward cap~~ | ~~No. of properties~~ | | ~~<175~~ | ~~<175~~ | ~~<175~~ | ~~<175~~ | ~~<175~~ |

### Incentive rates

| Incentive type | Performance levels (no. properties/year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >236 | 257 | Part of asset health – water |
| Penalty 2 | >257 | >257 | Part of asset health – water |

| Incentive type | Performance levels (no. properties/year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| ~~Reward~~ | ~~<175~~ | ~~0~~ | ~~Part of asset health – water~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The minimum standard of service is applied on the customer's side of a meter or any other company fittings that are on the customer's side of the main stop tap. The minimum standard for the pressure of mains water is 10m head at a flow of 9 litres per minute for a single property. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Reward and penalty from 2017-18 as part of asset health water. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that this PC that forms part of the asset health index is important to customers and it may be appropriate to include the potential for rewards. NES has also demonstrated that there are benefits of considering this | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | PC as part of a package not solely as an individual PC due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided insufficient evidence to justify the setting of incentive rates.<br>We also consider NES needs to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where NES fails to deliver the performance commitment for the most important sub-PCs (for example drinking water compliance) | |

## Performance commitment W-C3: Water mains bursts

### Detailed definition of performance measure

This is the annual number of water mains bursts and is determined by the number of completed repairs to burst water mains.

### Incentive type

Financial – penalty only (part of asset health water incentive).

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No./year | 4586 | 4586 | 4586 | 4586 | 4586 | 4586 |
| Penalty collar | No./year | | >5366 | >5366 | >5366 | >5366 | >5366 |
| Penalty deadband | No./year | | >4976 | >4976 | >4976 | >4976 | >4976 |
| ~~Reward deadband~~ | ~~No./year~~ | | ~~<3806~~ | ~~<3806~~ | ~~<3806~~ | ~~<3806~~ | ~~<3806~~ |
| ~~Reward cap~~ | ~~No./year~~ | | ~~<3806~~ | ~~<3806~~ | ~~<3806~~ | ~~<3806~~ | ~~<3806~~ |

## Incentive rates

| Incentive type | Performance levels (no. burst / year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >4976 | 5366 | Part of asset health - water |
| Penalty 2 | >5366 | >5366 | Part of asset health – water |
| ~~Reward~~ | ~~<3806~~ | ~~<3806~~ | ~~Part of asset health - water~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This is the annual number of water mains bursts and is determined by the number of completed repairs to burst water mains. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average on the company's regulatory year performance. |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health water. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that this PC that forms part of the asset health index is important to customers. NES has also demonstrated that there are benefits of considering this PC as part of a package not solely as an individual PC due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided no evidence to justify the inclusion of a reward for mains bursts.<br>We also consider NES need to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | NES fails to deliver the performance commitment for the most important sub-PCs (for example drinking water compliance) | |

## Performance commitment W-C4: Leakage (Ml/d) NW

### Detailed definition of performance measure

The measure is based on the volume of water leaking from the company's water supply assets. The annual average is applied to give a figure for megalitres per day (Ml/d). It includes any uncontrolled losses between water treatment works and customers' internal stop taps. It does not include customers' internal plumbing losses.

### Incentive type

Financial – reward and penalty.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Ml/d | 141 | 139 | 137 | 137 | 137 | 137 |
| Penalty collar | Ml/d | | >162 | >160 | >160 | >160 | >160 |
| Penalty deadband | Ml/d | | >142 | >140 | >140 | >140 | >140 |
| Reward deadband | Ml/d | | ~~<136~~ <131 | ~~<134~~ <131 | ~~<134~~ <131 | ~~<134~~ <131 | ~~<134~~ <131 |

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Reward cap | Ml/d | | ~~<116~~<br><111 | ~~<114~~<br><111 | ~~<114~~<br><111 | ~~<114~~<br><111 | ~~<114~~<br><111 |

## Incentive rates

| Incentive type | Performance levels (Ml/d) | | Incentive rate (£/Ml/day) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty | >142 | >162 | 0.560m |
| Reward | ~~<116~~<br><111 | ~~<136~~<br><131 | 0.560m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measure is based on the volume of water leaking from the company's water supply assets. The annual average is applied to give a figure for megalitres per day (Ml/d). It includes any uncontrolled losses between water treatment works and customers' internal stop taps. It does not include customers' internal plumbing losses. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Annually. The company's first assessment will be made for 2015-16. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The company will calculate leakage Ml/d to one decimal place, with rewards and penalties calculated accordingly.<br>The values in the incentive rate table above for penalty and reward are the values for 2015-16. The range changes for penalty from 2016-17 onwards to >140 to >160 as shown in the first table. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Widen reward deadband to 131 Ml/d<br>Reduce reward cap to 111 Ml/d | We are concerned that NES can earn a reward for delivering levels of leakage in NW higher (i.e. worse) than it has achieved in the last 3 years. We accepted the arguments put forward by NES that the PC should not be set as low as performance has been but we do not consider that NES earning a reward at these levels would represent stretching performance. We also do not consider it would be acceptable to customers or other stakeholders, for example the WRMP guidance states that "we expect all companies to take action to ensure that total leakage (Ml/d) does not rise at any point in the planning period."<br>We also had concerns that NES had not fully justified the incentive rate. By widening the reward deadband the company now needs to deliver greater reductions in service to earn a reward. By changing the reduction in leakage needed to earn a reward any inaccuracies in the incentive rate are less of an issue, such that it negates the need | NES performance in 2011-12 to 2013-14<br>Water Resource Management Planning guidance<br>To determine the reward deadband we have followed NES's approach and set it at 2% below the average of the last 3 years performance i.e. 131Ml/d.<br>To determine the reward cap we have used NES's specific approach for NW leakage which sets the cap at 20 Ml/d below the reward deadband. |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | for intervention on the incentive rate. | |

## Performance commitment W-C5: Leakage (Ml/d) ESW

### Detailed definition of performance measure

The measure is based on the volume of water leaking from the company's water supply assets. The annual average is applied to give a figure for megalitres per day (Ml/d). It includes any uncontrolled losses between water treatment works and customers' internal stop taps. It does not include customers' internal plumbing losses.

### Incentive type

Financial – reward and penalty.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Ml/d | 66 | 66 | 66 | 66 | 66 | 66 |
| Penalty collar | Ml/d | | >77 | >77 | >77 | >77 | >77 |
| Penalty deadband | Ml/d | | >67 | >67 | >67 | >67 | >67 |
| Reward deadband | Ml/d | | ~~<65~~ <56 | ~~<65~~ <56 | ~~<65~~ <56 | ~~<65~~ <56 | ~~<65~~ <56 |
| Reward cap | Ml/d | | ~~<55~~ <46 | ~~<55~~ <46 | ~~<55~~ <46 | ~~<55~~ <46 | ~~<55~~ <46 |

## Incentive rates

| Incentive type | Performance levels (Ml/d) | | Incentive rate (£/Ml/day) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty | >67 | >77 | 0.560m |
| Reward | ~~<55~~<br><46 | ~~<65~~<br><56 | 0.560m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measure is based on the volume of water leaking from the company's water supply assets. The annual average is applied to give a figure for megalitres per day (Ml/d). It includes any uncontrolled losses between water treatment works and customers' internal stop taps. It does not include customers' internal plumbing losses. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Annually. The company's first assessment will be made for 2015-16. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The company will calculate leakage Ml/d to one decimal place, with rewards and penalties calculated accordingly. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Widen reward deadband to 56 Ml/d<br>Reduce reward cap to 46 Ml/d | We are concerned that NES can earn a reward for delivering levels of leakage in ESW higher (i.e. worse) than it has achieved in all of the last 3 years. We | NES performance in 2011-12 to 2013-14<br>Water Resource Management Planning guidance<br>To determine the reward |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | accepted the arguments put forward by NES that the PC should not be set as low as performance has been but we do not consider that NES earning a reward at these levels would represent stretching performance. We also do not consider it would be acceptable to customers or other stakeholders, for example the WRMP guidance states that "we expect all companies to take action to ensure that total leakage (Ml/d) does not rise at any point in the planning period."<br>We also had concerns that NES had not fully justified the incentive rate. By widening the reward deadband the company now needs to deliver greater reductions in service to earn a reward. By changing the reduction in leakage needed to earn a reward any inaccuracies in the incentive rate are less of an issue, such that it negates the need for intervention on the incentive rate. | deadband we have followed NES's approach and set it at 2% below the average of the last 3 years performance i.e. 56Ml/d.<br>To determine the reward cap we have used NES's specific approach for ESW leakage which sets the cap at 10 Ml/d below the reward deadband. |

# Wholesale water outcome D: we provide excellent service and impress our customers

## Performance commitment W-D1: NWL independent overall customer satisfaction score

### Detailed definition of performance measure

This is a survey to ask customers about their overall satisfaction with the service the company provides. It is the annual score from the 'overall satisfaction' question taken from the independent domestic customer survey carried out on the company's behalf.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Score | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers score their satisfaction with the company's performance between 0 and 10, the greater the score, the greater the level of satisfaction. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on regulatory year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

### Performance commitment W-D2: Service Incentive Mechanism (SIM)

## Detailed definition of performance measure

SIM indicates the level of customer concern with company service and how well the company deals with those concerns. It comprises a combined score of quantitative (contact volumes) and qualitative (survey of customers) figures. The penalty and reward is set by Ofwat. The company has changed the definition of the measure to match Ofwat's document 'Service incentive mechanism (SIM) for 2015 onwards – conclusions' (3 April 2014).

## Incentive type

Financial – reward and penalty.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. | 89.40 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 |

## Incentive rates

| Incentive type | Performance levels (no.) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty and reward | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | For qualitative SIM, an independent survey company is used to complete customer surveys each quarter and provide qualitative scores.<br>The quantitative aspect of SIM is the number of unwanted customer contacts including repeats and complaints.<br>The combined score is a calculated score out of 100, split 75-25 for qualitative and quantitative scores. |
| **Frequency of PC measurement and any use of averaging** | Annually. |
| **Timing and frequency of rewards/penalties** | Any reward or penalty will be applied at the end of the regulatory period 2015-20. |
| **Form of reward/penalty** | Adjustment to revenue. |
| **Any other information or clarifications relevant to correct application of incentive** | The calculation of this performance commitment may change following more detailed methodology information from Ofwat.<br>Penalty or reward is determined by Ofwat. |

## Performance commitment W-D3: Domestic customer satisfaction, net promoter score

### Detailed definition of performance measure

The net promoter scores (NPS) measures the loyalty that exists between the company and its customers.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | 32 | 32 | 32 | 32 | 32 | 32 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | For domestic customers the “net promoter” results are taken from the independent domestic customer survey carried out on the company’s behalf. The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers answer the question “How likely is it that you would recommend us to a friend or colleague?” Customers will be asked to respond on a 0 to 10 point rating scale. |

| | |
|---|---|
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | To calculate the company's NPS, the company will take the percentage of customers who are promoters and subtract the percentage who are detractors. The range of scores will be between -100% and +100%. |

# Wholesale water outcome E: our customers are well informed about the services they receive and the value of water

## Performance commitment W-E1: NWL independent survey on keeping customers informed

### Detailed definition of performance measure

This is a new measure which the company will develop during the 2015-16 to 2019-20 period. The measure will be the annual score from the 'informed' question taken from the independent domestic customer survey carried out on the company's behalf. Enough information will be collected to set the performance commitment level in 2017.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | New measure | TBC | TBC | TBC | TBC | TBC |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is the annual score from the “informed” question taken from the independent domestic customer survey carried out on the company’s behalf. Customers respond with a yes/no answer to whether the company has delivered all of the information they want. The company will report the % of customers who say yes. The survey consists of 300 completed interviews carried out quarterly (1,200 annually) in line with the Market Research Society code of conduct (internationally recognised as best practice). |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | There is not enough information to set a performance commitment for this measure. The PC level will be set at the company’s best performing year up to 2017. Performance bands will be set using the standard deviation of the three years’ performance to 2017. |

# Wholesale water outcome F: we protect and enhance the environment in delivering services, leading by example

## Performance commitment W-F1: Greenhouse gas emissions

### Detailed definition of performance measure

This is a measure of the annual amount of greenhouse gases the company produce.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | $ktCO_2e$ | 206 | 194 | 183 | 172 | 161 | 150 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measurement is the annual operational greenhouse gas emissions based on the Carbon Accounting Workbook and is expressed in kilotonnes of $CO_2$ (carbon dioxide) equivalent. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on the company's regulatory year performance. |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Performance commitment W-F2: Annual environmental performance report

### Detailed definition of performance measure

This is a new measure which will be developed during the 2015-16 to 2019-20 period. The company's proposed measure of success is the annual Corporate Responsibility Advisory Group (CRAG) report on environmental performance and activities. This report is by an independent body and provides evidence of the company's activity and performance.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | n/a | New measure | TBC | TBC | TBC | TBC | TBC |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The independent CRAG holds the company to account, helping to validate, guide and challenge the company's sustainability strategy and activities. The CRAG is made up of senior representatives from partner organisations to reflect the key areas of the company's communities' strategy. |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | The CRAG report will be published on-line. The first report will be published in 2015. |

# Wholesale water outcome G: we are an efficient and innovative company

## Performance commitment W-G1: Ofwat efficiency assessment or other benchmarking

### Detailed definition of performance measure

~~Ofwat's cost assessment methodology~~. PC has been removed

### Incentive type

~~Reputational.~~ PC has been removed

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Grade | ~~Upper quartile~~ | | | | | ~~Upper quartile~~ |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~The methodology is developed by Ofwat.~~ |
| Frequency of PC measurement and any use of averaging | ~~Currently every five years.~~ |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | ~~n/a~~ |
| **Form of reward/penalty** | ~~n/a~~ |
| **Any other information or clarifications relevant to correct application of incentive** | ~~The company would continue to aim for a high rating in any further revision of Ofwat's methodology.~~ |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | The proposed incentives relate to a means to delivering the company's business plan, rather than outcomes that customers want. | N/A |

## Performance commitment W-G2: Retaining EFQM 5 star status

### Detailed definition of performance measure

~~In 2012 the company achieved 5 star status as assessed by the European Foundation for Quality Management (EFQM). The EFQM scheme is Europe's leading recognition programme for company performance and forms part of the EFQM Levels of Excellence. Companies with five star status are considered by EFQM to be:~~

- ~~high performing organisations where change is the norm;~~
- ~~organisations which improve, refine and simplify practices to achieve goals; and~~
- ~~organisations with ongoing results, in line with their strategy~~. PC has been removed

## Incentive type

~~Reputational.~~ PC has been removed

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | ~~Yes/ No~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~The assessment is as calculated by EFQM. The performance measure is either "Yes" the company achieved 5 star status or "No" the company did not achieve it.~~ |
| Frequency of PC measurement and any use of averaging | ~~Every 2 years.~~ |
| Timing and frequency of rewards/penalties | ~~n/a~~ |
| Form of reward/penalty | ~~n/a~~ |
| Any other information or clarifications relevant to correct application of incentive | ~~n/a~~ |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | The proposed incentives relate to a means to delivering the company's business plan, rather than outcomes that customers want. | N/A |

# Wholesale water outcome H: our finances are sound, stable and achieve a fair balance between customers and investors

## Performance commitment W-H1: Credit rating

### Detailed definition of performance measure

~~The company's measure of success is to retain the company's credit rating of BBB+/Baa1.~~PC has been removed

### Incentive type

~~Reputational.~~ PC has been removed

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | ~~Grade~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate (£/days/year) |
|---|---|---|---|
| | Lower | Upper | |
| ~~Reputational~~ | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | ~~As calculated by independent credit agencies.~~ |
| **Frequency of PC measurement and any use of averaging** | ~~Annually.~~ |
| **Timing and frequency of rewards/penalties** | ~~n/a~~ |
| **Form of reward/penalty** | ~~n/a~~ |
| **Any other information or clarifications relevant to correct application of incentive** | ~~n/a~~ |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | We do not consider than an incentive mechanism on credit rating is necessary; for consistency with other companies who have not proposed such an incentive, it has been excluded | N/A |

# Wholesale wastewater outcome A: we deliver water and sewerage services that meet the needs of current and future generations in a changing world

## Performance commitment S-A1: asset health – wastewater

### Detailed definition of performance measure

The company's asset health approach replaces serviceability. The asset health measures enable the company to monitor, protect and incentivise the long-term sustainable stewardship of its assets. The company's asset health measures for its wastewater service are:

- sewage treatment works discharge compliance;
- repeat sewer flooding;
- pollution incidents; and
- sewer collapses.

The asset health measure is an overall index that creates a package from the four individual components. Further details of the individual components are provided in the relevant sections below.

### Incentive type

Financial – penalty only.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Penalty~~/ reward~~ | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| Penalty collar | Penalty~~/ reward~~ | | Penalty 2 | Penalty 2 | Penalty 2 | Penalty 2 | Penalty 2 |
| Penalty deadband | Penalty~~/ reward~~ | | Penalty 1 | Penalty 1 | Penalty 1 | Penalty 1 | Penalty 1 |

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| ~~Reward deadband~~ | ~~Penalty/ reward~~ | | ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ |
| ~~Reward cap~~ | ~~Penalty/ reward~~ | | ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate (for the 5 year period) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | Penalty 1 | Penalty 1 | Up to £26,531,250 |
| Penalty 2 | Penalty 2 | Penalty 2 | Including penalty 1, up to £53,062,500 |
| ~~Reward 1~~ | ~~Reward 1~~ | ~~Reward 1~~ | ~~Up to £17,687,500~~ |
| ~~Reward 2~~ | ~~Reward 2~~ | ~~Reward 2~~ | ~~Including reward 1, up to £35,375,000~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |
| **Frequency of PC measurement and any use of averaging** | Annually. |
| **Timing and frequency of rewards/penalties** | Annual adjustment of RCV from 2017-18. |
| **Form of reward/penalty** | RCV adjustment. |

| | |
|---|---|
| **Any other information or clarifications relevant to correct application of incentive** | As a measure of long-term asset stewardship, to evaluate asset health the company assesses the three year rolling average scores for each measure in the asset health water basket. The scores are summed to give the water asset health scores which determine the value of any penalties. The first year of performance for asset health financial ODIs will be 2014-15. The first three years' performance to 2016-17 would result in an RCV adjustment arising in 2017-18. There would be three such adjustments during the regulatory period which would be rolled-up with the RCV adjustment occurring in 2020-21. The three potential adjustments will each be based on one third of the total available. |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that the PCs which make up this asset health index are important to customers and it may be appropriate to include the potential for rewards across some of the measures. NES has also demonstrated that there are benefits of considering them as a package not solely as individual PCs due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided insufficient evidence to justify the setting of incentive rates. It has also provided insufficient evidence to justify the inclusion of potential rewards for sewer collapses.<br>We also consider NES need to undertake further | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where NES fails to deliver the performance commitment for the most important sub-PCs (for example sewage treatment works discharge compliance) | |

# Wholesale wastewater outcome B: we provide a sewerage service that deals effectively with sewage and heavy rainfall

## Performance commitment S-B1: Properties flooded externally

### Detailed definition of performance measure

The measure is the number of properties where water containing sewage escapes (no matter how small) from the company's network and enters the curtilage of a property.

### Incentive type

Financial – reward and penalty.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. props/ year | 1318 | 1318 | 1318 | 1318 | 1318 | 1318 |
| Penalty collar | No. props/ year | | ~~>1983~~ >1,664 | ~~>1983~~ >1,664 | ~~>1983~~ >1,664 | ~~>1983~~ >1,664 | ~~>1983~~ >1,664 |
| Penalty deadband | No. props/ year | | ~~>1901~~ >1,497 | ~~>1901~~ >1,497 | ~~>1901~~ >1,497 | ~~>1901~~ >1,497 | ~~>1901~~ >1,497 |
| Reward deadband | No. props/ year | | ~~<883~~ <1,139 | ~~<883~~ <1,139 | ~~<883~~ <1,139 | ~~<883~~ <1,139 | ~~<883~~ <1,139 |
| Reward cap | No. props/ year | | <639 | <639 | <639 | <639 | <639 |

## Incentive rates

| Incentive type | Performance levels (no. properties / year) | | Incentive rate (£/property/year) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty | ~~>1901~~<br>>1,497 | ~~1983~~<br>1,664 | 0.015m |
| Reward | <639 | ~~<883~~<br><1,139 | 0.005m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | External property flooding during severe weather events (i.e. greater than 20 year storm return period) is excluded, unless the cause was a regulatory collapse or equipment failure where no severe weather exclusion applies. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed annually on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Annually. The company's first assessment will be made for 2015-16. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | Flooding due to assets transferred in October 2011 is excluded from this performance measure. |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Tighten penalty deadband to 1,497 incidents per year.<br>Tighten reward deadband to 1,139 incidents per year.<br>Reduce penalty collar to 1,664 incidents per year | As currently proposed, the deadbands effectively switch off the incentive on NES with respect to both penalties and rewards. We do not consider this is in customers' interests as it is a high priority. With respect to under-delivery, customers have a potential detriment over the 5 years of circa. £9m where they are not compensated for the under-delivery. This is based on a conservative estimate of WTP.<br>We have therefore tightened deadbands such that they now account for the majority of historical performance that fluctuates around the PC but allows for rewards or penalties where larger variations occur i.e. they now account for uncertainty without switching off the incentive except in extreme events. | In order to determine the deadbands we have used NES's data and followed its approach of using standard deviations. In this case we have set them at 1 standard deviation.<br>To determine the cap and collar we have followed NES's general approach which sets reward caps at the level of service beyond which NES does not have any willingness to pay and sets penalty collars at the level of service which means the maximum penalty is symmetric to the maximum reward. This approach means the reward cap does not change but the penalty collar reduces |

## Performance commitment S-B2: Properties flooded internally

### Detailed definition of performance measure

The measure is the number of properties where water containing sewage escapes (no matter how small a quantity) from the company's network and enters the inside of a property.

## Incentive type

Financial – reward and penalty.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. props/ year | 300 | 300 | 300 | 300 | 300 | 300 |
| Penalty collar | No. props/ year | | ~~>572~~ >509 | ~~>572~~ >509 | ~~>572~~ >509 | ~~>572~~ >509 | ~~>572~~ >509 |
| Penalty deadband | No. props/ year | | ~~>489~~ >426 | ~~>489~~ >426 | ~~>489~~ >426 | ~~>489~~ >426 | ~~>489~~ >426 |
| Reward deadband | No. props/ year | | <237 | <237 | <237 | <237 | <237 |
| Reward cap | No. props/ year | | <140 | <140 | <140 | <140 | <140 |

## Incentive rates

| Incentive type | Performance levels (no. properties / year) | | Incentive rate (£/property /year) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty | ~~>489~~ >426 | ~~572~~ 509 | 0.065m |
| Reward | <140 | <237 | 0.055m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is a combination of the two 2010-2015 serviceability measures for Overloaded and Other Causes flooding. Internal property flooding during severe weather events (i.e. greater than 20 year storm return period) is excluded, unless the cause was a regulatory collapse or equipment failure where no severe weather exclusion applies. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed annually on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Annually. The company's first assessment will be made for 2015-16. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | Flooding due to assets transferred in October 2011 is excluded from this performance measure. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Tighten penalty deadband to 426 incidents per year<br>Reduce penalty collar to 509 incidents per year | As currently proposed the penalty deadband significantly reduces the incentive on NES to deliver the PC. Customers have a potential detriment over the 5 years of circa. £9m where they are not compensated for the under-delivery. This is based on a conservative estimate of WTP. With NES stating that its current performance is bottom quartile in the industry we consider it is essential for | In order to determine the deadband we have used NES's data and followed its approach of using standard deviations. In this case we have set it at 1 standard deviation consistent with the approach for external sewer flooding<br>To determine the penalty collar we have followed NES's general approach which sets penalty collars at the level of service which means the maximum penalty |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | NES to be properly incentivised.<br>With respect to the exact deadband we have set it at 1 SD to be consistent with external sewer flooding and to be consistent with following NES's approach.<br>To determine the penalty collar we have followed NES's general approach which sets penalty collars at the level of service which means the maximum penalty is symmetric to the maximum reward. This approach means the penalty collar reduces | is symmetric to the maximum reward. This approach means the penalty collar reduces |

## Performance commitment S-B3: Repeat sewer flooding

### Detailed definition of performance measure

The measure is the number of times during the year that properties have flooded with water containing sewage where the property or its curtilage has flooded at least once in the last 10 years. Flooding during all rainfall conditions is included, i.e. there is no exclusion for extreme weather events.

### Incentive type

Financial – penalty only (part of the asset health wastewater incentive).

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. props/ year | ~~496~~<br>323 | ~~496~~<br>323 | ~~496~~<br>323 | ~~496~~<br>323 | ~~496~~<br>323 | ~~496~~<br>323 |
| Penalty collar | No. props/ year | | ~~>800~~<br>>445 | ~~>800~~<br>>445 | ~~>800~~<br>>445 | ~~>800~~<br>>445 | ~~>800~~<br>445 |
| Penalty deadband | No. props/ year | | ~~>659~~<br>384 | ~~>659~~<br>384 | ~~>659~~<br>384 | ~~>659~~<br>384 | ~~>659~~<br>384 |
| ~~Reward deadband~~ | ~~No. props/ year~~ | | ~~<237~~ | ~~<237~~ | ~~<237~~ | ~~<237~~ | ~~<237~~ |
| ~~Reward cap~~ | ~~No. props/ year~~ | | ~~<237~~ | ~~<237~~ | ~~<237~~ | ~~<237~~ | ~~<237~~ |

## Incentive rates

| Incentive type | Performance levels (no. properties / year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | ~~>659~~<br>384 | ~~800~~<br>445 | Part of asset health – wastewater |
| Penalty 2 | ~~>800~~<br>>445 | ~~>800~~<br>>445 | Part of asset health – wastewater |
| ~~Reward~~ | ~~<237~~ | ~~0~~ | ~~Part of asset health – wastewater~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measure does not include flooding from the assets transferred in October 2011. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health wastewater. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Lower the PC level to 323 incidents in line with Northumbrian's December business plan<br>Set the penalty deadband and penalty collar at the same level as in the company's December business plan | We have changed the PC level, penalty deadband and penalty collar back to the levels the company proposed in its December business plan. The company proposed raising these levels because it considered it was correct to include the high 2012-13 outturn in its calculations. We do not consider the company has provided sufficiently convincing evidence to justify its proposed worsening of the PC level, penalty deadband and penalty collar. | Northumbrian's December business plan |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that which PC that forms part of the asset health index is important to customers and it may be appropriate to include the potential for rewards. NES has also demonstrated that there are benefits of considering this PC as part of a package not solely as an individual PC due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided insufficient evidence to justify the setting of incentive rates.<br>We also consider NES need to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where NES fails to deliver the performance commitment for the most important sub-PCs (for example sewage treatment works discharge compliance) | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

## Performance commitment S-B4: sewer collapses

### Detailed definition of performance measure

This measure is the company's annual number of regulatory sewer collapses excluding hard blockages. The measure does not include assets transferred in October 2011.

### Incentive type

Financial – penalty only (part of the asset health wastewater incentive).

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. / year | 58 | 58 | 58 | 58 | 58 | 58 |
| Penalty collar | No. / year | | >80 | >80 | >80 | >80 | >80 |
| Penalty deadband | No. / year | | >70 | >70 | >70 | >70 | >70 |
| ~~Reward deadband~~ | ~~No. / year~~ | | ~~<47~~ | ~~<47~~ | ~~<47~~ | ~~<47~~ | ~~<47~~ |
| ~~Reward cap~~ | ~~No. / year~~ | | ~~<47~~ | ~~<47~~ | ~~<47~~ | ~~<47~~ | ~~<47~~ |

### Incentive rates

| Incentive type | Performance levels (no./year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >70 | 80 | Part of asset health – wastewater |
| Penalty 2 | >80 | >80 | Part of asset health – wastewater |
| ~~Reward~~ | ~~<47~~ | ~~0~~ | ~~Part of asset health – wastewater~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is the company's annual number of regulatory sewer collapses excluding hard blockages. The measure does not include assets transferred in October 2011. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health wastewater. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that this PC which forms part of the asset health index is important to customers. NES has also demonstrated that there are benefits of considering this PC as part of a package not solely as an individual PC due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided no evidence to justify the inclusion of a reward for sewer collapses. | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | We also consider NES need to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where NES fails to deliver the performance commitment for the most important sub-PCs (for example sewage treatment works discharge compliance) | |

## Performance commitment S-B5: transferred drains and sewers internal sewer flooding

### Detailed definition of performance measure

The measure is the number of properties where water containing sewage escapes (no matter how small a quantity) from the transferred drains and sewers (TDS) and enters the inside of a property.

### Incentive type

~~Reputational.~~ Financial – penalty only.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. props/ year | ~~283~~ 228 | ~~283~~ 228 | ~~283~~ 228 | ~~283~~ 228 | ~~283~~ 228 | ~~283~~ 228 |
| Penalty collar | No. props/ year | ~~na~~ 368 | ~~na~~ 368 | ~~na~~ 368 | ~~na~~ 368 | ~~na~~ 368 | ~~na~~ 368 |
| Penalty deadband | No. props/ year | ~~na~~ 298 | ~~na~~ 298 | ~~na~~ 298 | ~~na~~ 298 | ~~na~~ 298 | ~~na~~ 298 |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| ~~Reputational~~ Penalty | ~~n/a~~ 298 | ~~n/a~~ 368 | ~~n/a~~ 0.065m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | Internal property flooding during severe weather events (i.e. greater than 20 year storm return period) is excluded, unless the cause was a regulatory collapse or equipment failure where no severe weather exclusion applies in line with the 2010-15 serviceability definition. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed annually on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |

| | |
|---|---|
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Change from a reputational to a penalty only incentive<br>Lower the PC level to 228 incidents<br>Set the penalty deadband at 1½ standard deviations above the PC level<br>Set the penalty collar at 3 standard deviations above the PC level | Customers do not care whether their sewer flood has been caused by a pre-existing sewerage asset or an asset transferred to the company in October 2011. Therefore the company should have financial penalties for its TDS internal sewer flooding measure.<br>Northumbrian's data shows its 3 TDS measures at their lowest level in 2013-14 for the three years for which data is available. This suggests that the company's performance might improve in AMP6 compared to its current performance. Setting the PC levels at the best level in the last 3 years reflects the company's recent good performance.<br>A deadband of 1½ standard deviations is wide, but is designed to deal with the uncertainty over performance resulting from the poorer information companies have about their TDS assets, compared to their pre-existing assets. | Northumbrian Water's data on its TDS measures.<br>An estimate of the standard deviation for TDS internal sewer flooding.<br>Northumbrian's penalty rate for internal sewer flooding from PC B2 |

# Performance commitment S-B6: transferred drains and sewers external sewer flooding

## Detailed definition of performance measure

The measure is the number of properties where water containing sewage escapes (no matter how small) from transferred drains and sewers (TDS) and enters the curtilage of a property.

## Incentive type

~~Reputational.~~ Financial – penalty only.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. props/ year | ~~3317~~ 2931 | ~~3317~~ 2931 | ~~3317~~ 2931 | ~~3317~~ 2931 | ~~3317~~ 2931 | ~~3317~~ 2931 |
| Penalty collar | No. props/ year | ~~na~~ 3831 | ~~na~~ 3831 | ~~na~~ 3831 | ~~na~~ 3831 | ~~na~~ 3831 | ~~na~~ 3831 |
| Penalty deadband | No. props/ year | ~~na~~ 3381 | ~~na~~ 3381 | ~~na~~ 3381 | ~~na~~ 3381 | ~~na~~ 3381 | ~~na~~ 3381 |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate (£/days/year) |
|---|---|---|---|
| | Lower | Upper | |
| ~~Reputational~~ Penalty | 3381 | 3831 | ~~n/a~~ 0.015m |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | External property flooding during severe weather events (i.e. greater than 20 year storm return period) is excluded, unless the cause was a regulatory collapse or equipment failure where no severe weather exclusion applies. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed annually on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Change from a reputational to a penalty only incentive<br>Lower the PC level to 2931 incidents<br>Set the penalty deadband at 1½ standard deviations above the PC level<br>Set the penalty collar at 3 standard deviations above the PC level | Customers do not care whether their sewer flood has been caused by a pre-existing sewerage asset or an asset transferred to the company in October 2011. Therefore the company should have financial penalties for its TDS external sewer flooding measure.<br>Northumbrian's data shows its 3 TDS measures at their lowest level in 2013-14 for the three years for which data is available. This suggests that the company's performance might improve in AMP6 compared to its current performance. Setting | Northumbrian's data on its TDS measures.<br>An estimate of the standard deviation for TDS external sewer flooding.<br>Northumbrian's penalty rate for external sewer flooding from PC B1. |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | the PC levels at the best level in the last 3 years reflects the company's recent good performance.<br>A deadband of 1½ standard deviations is wide, but is designed to deal with the uncertainty over performance resulting from the poorer information companies have about their TDS assets, compared to their pre-existing assets. | |

## Performance commitment S-B7: transferred drains and sewer collapses

### Detailed definition of performance measure

The measure is the number of sewer collapses, excluding hard blockages, on transferred drains and sewers (TDS). Collapses on the company's 'public' network are excluded as they are included in the asset health wastewater measure of success.

### Incentive type

Reputational.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No./ year | ~~103~~ 84 | ~~103~~ 84 | ~~103~~ 84 | ~~103~~ 84 | ~~103~~ 84 | ~~103~~ 84 |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | Collapses on the company's "public" network are excluded as they are included as an asset health wastewater measure of success. |
| Frequency of PC measurement and any use of averaging | The measure will be assessed annually on the company's regulatory year performance. |
| Timing and frequency of rewards/penalties | n/a |
| Form of reward/penalty | n/a |
| Any other information or clarifications relevant to correct application of incentive | n/a |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Lower the PC level to 84 incidents | Northumbrian's data shows its 3 TDS measures at their lowest level in 2013-14 for the three years for which data is available. This suggests that the company's performance might improve in AMP6 compared to its current performance. Setting the PC levels at the best level in the last 3 years reflects the company's recent good performance. | Northumbrian's data on its TDS measures. |

# Wholesale wastewater outcome C: we help to improve the quality of rivers and coastal waters for the benefit of people, the environment and wildlife

## Performance commitment S-C1: sewage treatment works discharge compliance

### Detailed definition of performance measure

This measure is the company's compliance with discharge consents set by the Environment Agency from sewage treatment works. It is a measure of the capability of the company's sewage treatment works to treat and dispose of sewage in line with the company's discharge permit conditions.

### Incentive type

Financial – penalty only (part of the asset health wastewater incentive).

### Performance commitments

| | Unit | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. / year | 0 | 0 | 0 | 0 | 0 | 0 |
| Penalty collar | No. / year | | >3 | >3 | >3 | >3 | >3 |
| Penalty deadband | No. / year | | >2 | >2 | >2 | >2 | >2 |

## Incentive rates

| Incentive type | Performance levels (No./year) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >2 | 3 | Part of asset heath – wastewater |
| Penalty 2 | >3 | >3 | Part of asset health – wastewater |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measure includes compliance with all numeric consents. The measure of success excludes non-sanitary failures (i.e. failures not related to sewage, such as industrial chemicals, metals or hazardous substances) and technical breaches (for example a sample which has failed because it has been collected from the wrong location). |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's calendar year performance. |
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health wastewater. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

## Performance commitment S-C2: pollution incidents (category 3)

### Detailed definition of performance measure

This measure is the number of category 3 pollution events the company have caused. It includes the total number of category 3 pollution events from a discharge or escape of a pollutant from the company's water and sewerage assets affecting rivers or coastal waters (defined by Environment Agency guidance 16_02, version 6).

### Incentive type

Financial – penalty only (part of the asset health wastewater incentive).

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. / year | 115 | 115 | 115 | 115 | 115 | 115 |
| Penalty collar | No. / year | | >191 | >191 | >191 | >191 | >191 |
| Penalty deadband | No. / year | | >153 | >153 | >153 | >153 | >153 |
| ~~Reward deadband~~ | ~~No. / year~~ | | ~~<77~~ | ~~<77~~ | ~~<77~~ | ~~<77~~ | ~~<77~~ |
| ~~Reward cap~~ | ~~No. / year~~ | | ~~<77~~ | ~~<77~~ | ~~<77~~ | ~~<77~~ | ~~<77~~ |

### Incentive rates

| Incentive type | Performance levels (no.) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty 1 | >153 | 191 | Part of asset health – wastewater |
| Penalty 2 | >191 | >191 | Part of asset health – wastewater |
| ~~Reward~~ | ~~<77~~ | ~~0~~ | ~~Part of asset health – wastewater~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measure includes pollution failures on all assets, water and wastewater. The measure uses the Environment Agency's definition of category 3 pollution events. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed using a 3 year rolling average of the company's calendar year performance. |
| **Timing and frequency of rewards/penalties** | Penalty from 2017-18 as part of asset health wastewater. |
| **Form of reward/penalty** | RCV adjustment. |
| **Any other information or clarifications relevant to correct application of incentive** | The measure contributes to the company's asset health water service basket ODI which is subject to a penalty.<br>The company's approach to asset health is described in section E2.9 (Review of the company's asset health financial ODIs) of the company's May 2014 submission. |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspects of financial incentive | NES has demonstrated that this PC that forms part of the asset health index is important to customers and it may be appropriate to include the potential for rewards. NES has also demonstrated that there are benefits of considering this PC as part of a package not solely as an individual PC due to the long-term indications they give on overall performance of the asset base.<br>However, NES has provided insufficient evidence to justify | NES's own evidence on benefits of individual measures does not provide sufficient evidence to include a reward or set the incentive |

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| | the setting of incentive rates.<br>We also consider NES need to undertake further consideration of how the index works as a whole, for example including parameters to ensure rewards are only earned if performance is good across all aspects or ensuring penalties are applied where NES fails to deliver the performance commitment for the most important sub-PCs (for example sewage treatment works discharge compliance) | |

## Performance commitment S-C3: bathing water compliance

### Detailed definition of performance measure

This is the number of designated bathing waters that meet the regulatory ‘sufficient’ standard based on the results of the independent testing of sea water by the Environment Agency during the bathing water season.

### Incentive type

Financial – penalty only

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. of bathing waters/ year | 32 | 32 | 32 | 32 | 34 | 34 |
| Penalty collar | No. of bathing waters/ year | | 31 | 31 | 31 | 31 | 31 |
| Penalty deadband | No. of bathing waters/ year | | 31 | 31 | 31 | 32 | 33 |
| ~~Reward deadband~~ | ~~No. of contacts~~ | | ~~>32~~ | ~~>32~~ | ~~>32~~ | ~~No reward~~ | ~~No reward~~ |
| ~~Reward cap~~ | ~~No. of contacts~~ | | ~~34~~ | ~~34~~ | ~~34~~ | ~~No reward~~ | ~~No reward~~ |

## Incentive rates

| Incentive type | Performance levels (no. bathing waters / year) | | Incentive rate (£/bathing waters/year) |
|---|---|---|---|
| | Lower | Upper | |
| Penalty | 31 | 31 | £0.555m |
| ~~Reward~~ | ~~>32~~ | ~~34~~ | ~~£0.555m~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The European revised Bathing Water Directive (rBWD) uses two parameters to assess bathing water quality; Escherichia coli and intestinal enterococci. According to the results bathing waters are assessed by the Environment Agency as excellent, good, sufficient or poor. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on the company's calendar year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | The performance levels in the incentive rates table above for penalty and reward are the values for 2015-16. These levels increase in 2018-19 and 2019-20 as can be seen in the first table. The assessment is on a rolling programme of four years of weekly bathing season sample data (that is, 80 samples), although shorter timescales are allowed when there are valid reasons, such as significant change affecting water quality (for example new infrastructure to reduce spills). Performance will be reported as a number of beaches assessed as sufficient. The company has 34 designated bathing water beaches in total. The calculated penalty will not apply if the Environment Agency confirms that NWL assets and activities are not responsible for the bathing water failing to meet the required standard (for example an 'abnormal situation'). |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| Remove reward aspect of financial incentive | NES has provided no information on customer preferences relating to bathing water compliance. Therefore if customers have to pay for the improvements to be delivered early, there is no evidence that they are willing to pay for this. In order to protect customers we have therefore removed the reward aspect of this incentive. | NES's own evidence that it does not have customer WTP |

# Wholesale wastewater outcome D: we provide excellent service and impress our customers

## Performance commitment S-D1: Northumbrian independent overall customer satisfaction score

### Detailed definition of performance measure

This is a survey to ask customers about their overall satisfaction with the service the company provide. It is the annual score from the 'overall satisfaction' question taken from the independent domestic customer survey carried out on the company's behalf.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Score | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers score their satisfaction with the company's performance between 0 and 10, the greater the score, the greater the level of satisfaction. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on regulatory year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Performance commitment S-D2: service incentive mechanism (SIM)

### Detailed definition of performance measure

SIM indicates the level of customer concern with company service and how well the company deals with those concerns. It comprises a combined score of quantitative (contact volumes) and qualitative (survey of customers) figures. The penalty and reward is set by Ofwat. The company have changed the definition of the measure to match Ofwat's document 'Service incentive mechanism (SIM) for 2015 onwards – conclusions' (3 April 2014).

### Incentive type

Financial – reward and penalty.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. | 89.40 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 |

## Incentive rates

| Incentive type | Performance levels (no.) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty and reward | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | For Qualitative SIM, an independent survey company is used to complete customer surveys each quarter and provide qualitative scores.<br>The Quantitative aspect of SIM is the number of unwanted customer contacts including repeats and complaints.<br>The combined score is a calculated score out of 100, split 75-25 for qualitative and quantitative scores. |
| Frequency of PC measurement and any use of averaging | Annually |
| Timing and frequency of rewards/penalties | Any reward or penalty will be applied at the end of the regulatory period 2015-20. |
| Form of reward/penalty | Adjustment to revenue. |
| Any other information or clarifications relevant to correct application of incentive | The calculation of this performance commitment may change following more detailed methodology information from Ofwat.<br>Penalty or reward is determined by Ofwat. |

# Performance commitment S-D3: domestic customer satisfaction, net promoter score

## Detailed definition of performance measure

The net promoter scores (NPS) measures the loyalty that exists between us and the company's customers.

## Incentive type

Reputational.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | 32 | 32 | 32 | 32 | 32 | 32 |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | For domestic customers the “net promoter” results are taken from the independent domestic customer survey carried out on the company’s behalf. The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers answer the question “How likely is it that you would recommend us to a friend or colleague?” Customers will be asked to respond on a 0 to 10 point rating scale. |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | To calculate the company’s NPS, the company will take the percentage of customers who are promoters and subtract the percentage who are detractors. The range of scores will be between -100% and +100%. |

# Wholesale wastewater outcome E: our customers are well informed about the services they receive and the value of water

## Performance commitment S-E1: Northumbrian independent survey on keeping customers informed

### Detailed definition of performance measure

This is a new measure which will be developed during the 2015-16 to 2019-20 period. The measure will be the annual score from the 'informed' question taken from the independent domestic customer survey carried out on the company's behalf. There will be enough information to set the performance commitment level in 2017.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | New measure | TBC | TBC | TBC | TBC | TBC |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is the annual score from the “informed” question taken from the independent domestic customer survey carried out on the company’s behalf. Customers respond with a yes/no answer to whether the company have delivered all of the information they want. The company will report the % of customers who say yes. The survey consists of 300 completed interviews carried out quarterly (1,200 annually) in line with the Market Research Society code of conduct (internationally recognised as best practice). |
| **Frequency of PC measurement and any use of averaging** | Annually. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | There is not enough information yet to set a performance commitment for this measure. The PC level will be set at the company’s best performing year up to 2017. Performance bands will be set using the standard deviation of the three years’ performance to 2017. |

# Wholesale wastewater outcome F: we protect and enhance the environment in delivering services, leading by example

## Performance commitment S-F1: greenhouse gas emissions

### Detailed definition of performance measure

This is a measure of the annual amount of greenhouse gases the company produce.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | $ktCO_2e$ | 206 | 194 | 183 | 172 | 161 | 150 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The measurement is the annual operational greenhouse gas emissions based on the Carbon Accounting Workbook and is expressed in kilotonnes of $CO_2$ (carbon dioxide) equivalent. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on the company's regulatory year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Performance commitment S-F2: annual environmental performance report

### Detailed definition of performance measure

This is a new measure which we will develop during the 2015-16 to 2019-20 period. The company's proposed measure of success is the annual Corporate Responsibility Advisory Group (CRAG) report on environmental performance and activities. This report is by an independent body and provides evidence of the company's activity and performance.

### Incentive type

Reputational.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | n/a | New measure | TBC | TBC | TBC | TBC | TBC |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | The independent CRAG holds the company to account, helping to validate, guide and challenge the company's sustainability strategy and activities. The CRAG is made up of senior representatives from partner organisations to reflect the key areas of the company's communities' strategy. |
| Frequency of PC measurement and any use of averaging | Annually |
| Timing and frequency of rewards/penalties | n/a |
| Form of reward/penalty | n/a |
| Any other information or clarifications relevant to correct application of incentive | The CRAG report will be published on-line. The first report will be published in 2015. |

# Wholesale wastewater outcome G: we are an efficient and innovative company

## Performance commitment S-G1: Ofwat efficiency assessment or other benchmarking

### Detailed definition of performance measure

~~Ofwat's cost assessment methodology~~. PC has been removed

### Incentive type

~~Reputational~~. PC has been removed

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Grade | ~~Upper quartile~~ | | | | | ~~Upper quartile~~ |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~The methodology is developed by Ofwat.~~ |
| Frequency of PC measurement and any use of averaging | ~~Currently every five years.~~ |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | ~~n/a~~ |
| **Form of reward/penalty** | ~~n/a~~ |
| **Any other information or clarifications relevant to correct application of incentive** | ~~The company would continue to aim for a high rating in any further revision of Ofwat's methodology.~~ |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | The proposed incentives relate to a means to delivering the company's business plan, rather than outcomes that customers want. | N/A |

## Performance commitment S-G2: retaining EFQM 5 star status

### Detailed definition of performance measure

~~In 2012 the company achieved 5 star status as assessed by the European Foundation for Quality Management (EFQM). The EFQM scheme is Europe's leading recognition programme for company performance and forms part of the EFQM Levels of Excellence. Companies with five star status are considered by EFQM to be:~~

- ~~high performing organisations where change is the norm;~~
- ~~organisations which improve, refine and simplify practices to achieve goals; and~~
- ~~organisations with ongoing results, in line with their strategy~~. PC has been removed

## Incentive type

~~Reputational~~. PC has been removed

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | ~~Yes/ No~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~The assessment is as calculated by EFQM. The performance measure is either "Yes" we achieved 5 star status or "No" we did not achieve it.~~ |
| Frequency of PC measurement and any use of averaging | ~~Every 2 years.~~ |
| Timing and frequency of rewards/penalties | ~~n/a~~ |
| Form of reward/penalty | ~~n/a~~ |
| Any other information or clarifications relevant to correct application of incentive | ~~n/a~~ |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | The proposed incentives relate to a means to delivering the company's business plan, rather than outcomes that customers want. | N/A |

# Wholesale wastewater outcome H: our finances are sound, stable and achieve a fair balance between customers and investors

## Performance commitment S-H1: credit rating

### Detailed definition of performance measure

~~The company's measure of success is to retain the company's credit rating of BBB+/Baa1.~~PC has been removed.

### Incentive type

~~Reputational.~~ PC has been removed.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | ~~Grade~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate (£/days/year) |
|---|---|---|---|
| | Lower | Upper | |
| ~~Reputational~~ | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | ~~As calculated by independent credit agencies.~~ |
| **Frequency of PC measurement and any use of averaging** | ~~Annually.~~ |
| **Timing and frequency of rewards/penalties** | ~~n/a~~ |
| **Form of reward/penalty** | ~~n/a~~ |
| **Any other information or clarifications relevant to correct application of incentive** | ~~n/a~~ |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | We do not consider than an incentive mechanism on credit rating is necessary; for consistency with other companies who have not proposed such an incentive, it has been excluded | N/A |

# Retail outcome A: we are the retailer of choice for business customers

## Performance commitment R-A1: business customer satisfaction, net promoter score

### Detailed definition of performance measure

This is a new measure which we will develop during the 2015-16 to 2019-20 period. The net promoter scores (NPS) measures the loyalty that exists between us and the company's customers. This new measure relates to business customers.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | n/a | New measure | TBC | TBC | TBC | TBC | TBC |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | For domestic customers the 'net promoter' results are taken from the independent domestic customer survey carried out on the company's behalf. In line with Market Research Society code of conduct (internationally recognised as best practice), customers answer the question 'How likely is it that you would recommend us to a friend or colleague?'<br><br>The company's research with non-household customers will be conducted annually beginning in October 2014. The company will sample:<br><br>• 500 small and medium sized enterprises (SME);<br>• 250 large (monthly billed) customers; and<br>• 25 of the company's largest (account managed) customers. |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | To calculate the company's NPS, the company will take the percentage of customers who are promoters and subtract the percentage who are detractors. The range of scores will be between -100% and +100%.<br><br>The company will determine the company's performance commitment during 2015-20, as this is commercially sensitive currently. We will set the performance commitment at the best performing year of the first three years of data, as we did for our domestic customers NPS measure. |

# Retail outcome B: we provide excellent service and impress our customers

## Performance commitment R-B1: Northumbrian independent overall customer satisfaction score

### Detailed definition of performance measure

This is a survey to ask customers about their overall satisfaction with the service the company provide. It is the annual score from the 'overall satisfaction' question taken from the independent domestic customer survey carried out on the company's behalf.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Score | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers score their satisfaction with the company's performance between 0 and 10, the greater the score, the greater the level of satisfaction. |
| **Frequency of PC measurement and any use of averaging** | The measure will be assessed on regulatory year performance. |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Performance commitment R-B2: service incentive mechanism (SIM)

### Detailed definition of performance measure

SIM indicates the level of customer concern with company service and how well the company deals with those concerns. It comprises a combined score of quantitative (contact volumes) and qualitative (survey of customers) figures. The penalty and reward is set by Ofwat. The company has changed the definition of the measure to match Ofwat's document 'Service incentive mechanism (SIM) for 2015 onwards – conclusions' (3 April 2014).

### Incentive type

Financial – reward and penalty.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | No. | 89.40 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 |

## Incentive rates

| Incentive type | Performance levels (no.) | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Penalty and Reward | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | For Qualitative SIM, an independent survey company is used to complete customer surveys each quarter and provide qualitative scores.<br>The Quantitative aspect of SIM is the number of unwanted customer contacts including repeats and complaints.<br>The combined score is a calculated score out of 100, split 75-25 for qualitative and quantitative scores. |
| Frequency of PC measurement and any use of averaging | Annually |
| Timing and frequency of rewards/penalties | Any reward or penalty will be applied at the end of the regulatory period 2015-20. |
| Form of reward/penalty | Adjustment to revenue. |
| Any other information or clarifications relevant to correct application of incentive | The calculation of this performance commitment may change following more detailed methodology information from Ofwat.<br>Penalty or reward is determined by Ofwat. |

## Performance commitment R-B3: domestic customer satisfaction, net promoter score

### Detailed definition of performance measure

The net promoter scores (NPS) measures the loyalty that exists between us and the company's customers. This measure relates to domestic customers.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | 32 | 32 | 32 | 32 | 32 | 32 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | For domestic customers the "net promoter" results are taken from the independent domestic customer survey carried out on the company's behalf. The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers answer the question "How likely is it that you would recommend us to a friend or colleague?" Customers will be asked to respond on a 0 to 10 point rating scale. |

| | |
|---|---|
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | To calculate the company's NPS, the company will take the percentage of customers who are promoters and subtract the percentage who are detractors. The range of scores will be between -100% and +100%. |

# Retail outcome C: our customers consider the services they receive to be value for money

## Performance commitment R-C1: Northumbrian independent value for money survey

### Detailed definition of performance measure

This is a survey to ask customers about their overall satisfaction with the service the company provides. It is the annual score from the 'value for money' question taken from the independent domestic customer survey carried out on the company's behalf.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Score | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The research consists of 300 completed interviews carried out quarterly (1,200 annually) in line with Market Research Society code of conduct (internationally recognised as best practice). Customers score their satisfaction with the company's performance between one and ten, the greater the score, the greater the level of satisfaction. |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Performance commitment R-C2: satisfied with value for money of water services NW (CCWater)

### Detailed definition of performance measure

CCWater publishes annual research on customers' perceptions of their water and sewerage companies. One element relates to value for money and the company will adopt this measure as it is assessed across both NW and ESW and the company's water and wastewater services. This provides further granularity than the 'value for money' research that the company commissions itself. This measure relates to water services in the company's NW region.

### Incentive type

Reputational.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | 74 | 83 | 83 | 83 | 83 | 83 |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | Percentage of customers who are satisfied with value for money for our water services in our NW region in the CCWater research. |
| Frequency of PC measurement and any use of averaging | Annually |
| Timing and frequency of rewards/penalties | n/a |
| Form of reward/penalty | n/a |
| Any other information or clarifications relevant to correct application of incentive | n/a |

## Performance commitment R-C3: satisfied with value for money of sewerage services NW (CCWater)

### Detailed definition of performance measure

CCWater publishes annual research on customers' perceptions of their water and sewerage companies. One element relates to value for money and the company will adopt this measure as it is assessed across both NW and ESW and the company's water and wastewater services. This provides further granularity than the 'value for money' research that the company commissions its self. This measure relates to sewerage services in the company's NW region.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | 77 | 84 | 84 | 84 | 84 | 84 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | Percentage of customers who are satisfied with value for money for sewerage services in the company's NW region in the CCWater research. |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | n/a |

## Performance commitment R-C4: satisfied with value for money of water services ESW (CCWater)

### Detailed definition of performance measure

CCWater publishes annual research on customers' perceptions of their water and sewerage companies. One element relates to value for money and the company will adopt this measure as it is assessed across both NW and ESW and the company's water and wastewater services. This provides further granularity than the 'value for money' research that the company commissions itself. The measure relates to water services in the company's ESW region.

### Incentive type

Reputational.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | 66 | 73 | 73 | 73 | 73 | 73 |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | Percentage of customers who are satisfied with value for money for the company's water services in its ESW region in the CCWater research. |
| Frequency of PC measurement and any use of averaging | Annually |
| Timing and frequency of rewards/penalties | n/a |
| Form of reward/penalty | n/a |
| Any other information or clarifications relevant to correct application of incentive | |

# Retail outcome D: our customers are well informed about the services they receive and the value of water

## Performance commitment R-D1: Northumbrian independent survey on keeping customers informed

### Detailed definition of performance measure

This is a new measure which will be developed during the 2015-16 to 2019-20 period. The measure will be the annual score from the 'informed' question taken from the independent domestic customer survey carried out on the company's behalf. There will be enough information to set the performance commitment level in 2017.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | % | New measure | TBC | TBC | TBC | TBC | TBC |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | This measure is the annual score from the “informed” question taken from the independent domestic customer survey carried out on our behalf. Customers respond with a yes/no answer to whether the company have delivered all of the information they want. The company will report the % of customers who say yes. The survey consists of 300 completed interviews carried out quarterly (1,200 annually) in line with the Market Research Society code of conduct (internationally recognised as best practice). |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | There is not enough information yet to set a performance commitment for this measure. The PC level will be set at the best performing year up to 2017. Performance bands will be set using the standard deviation of the three years’ performance to 2017. |

# Retail outcome E: we protect and enhance the environment in delivering services, leading by example

## Performance commitment R-E1: greenhouse gas emissions

### Detailed definition of performance measure

This is a measure of the annual amount of greenhouse gases the company produce.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | $ktCO_2e$ | 206 | 194 | 183 | 172 | 161 | 150 |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | The measurement is the annual operational greenhouse gas emissions based on the Carbon Accounting Workbook and is expressed in kilotonnes $CO_2$ (carbon dioxide) equivalent. |
| Frequency of PC measurement and any use of averaging | The measure will be assessed on the company's regulatory year performance. |

| | |
|---|---|
| Timing and frequency of rewards/penalties | n/a |
| Form of reward/penalty | n/a |
| Any other information or clarifications relevant to correct application of incentive | n/a |

## Performance commitment R-E2: Annual environmental performance report

### Detailed definition of performance measure

This is a new measure which we will develop during the 2015-16 to 2019-20 period. The company's proposed measure of success is the annual Corporate Responsibility Advisory Group (CRAG) report on environmental performance and activities. This report is by an independent body to provide evidence of the company's activity and performance.

### Incentive type

Reputational.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | n/a | New measure | TBC | TBC | TBC | TBC | TBC |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | n/a | n/a | n/a |

## Additional details

| | |
|---|---|
| **Necessary detail on measurement units** | The independent CRAG holds the company to account, helping to validate, guide and challenge the company's sustainability strategy and activities. The CRAG is made up of senior representatives from partner organisations to reflect the key areas of the company's communities' strategy. |
| **Frequency of PC measurement and any use of averaging** | Annually |
| **Timing and frequency of rewards/penalties** | n/a |
| **Form of reward/penalty** | n/a |
| **Any other information or clarifications relevant to correct application of incentive** | The CRAG report will be published on-line. The first report will be published in 2015. |

# Retail outcome F: we are an efficient and innovative company

## Performance commitment R-F1: Ofwat efficiency assessment or other benchmarking

### Detailed definition of performance measure

~~Ofwat's cost assessment methodology.~~ PC has been removed

### Incentive type

~~Reputational~~. PC has been removed

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Grade | ~~Upper quartile~~ | | | | | ~~Upper quartile~~ |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~The methodology is developed by Ofwat.~~ |
| Frequency of PC measurement and any use of averaging | ~~Currently every five years.~~ |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | ~~n/a~~ |
| **Form of reward/penalty** | ~~n/a~~ |
| **Any other information or clarifications relevant to correct application of incentive** | ~~The company would continue to aim for a high rating in any further revision of Ofwat's methodology.~~ |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | The proposed incentives relate to a means to delivering the company's business plan, rather than outcomes that customers want. | N/A |

## Performance commitment R-F2: retaining EFQM 5 star status

### Detailed definition of performance measure

~~In 2012 the company achieved 5 star status as assessed by the European Foundation for Quality Management (EFQM). The EFQM scheme is Europe's leading recognition programme for company performance and forms part of the EFQM Levels of Excellence. Companies with five star status are considered by EFQM to be:~~

- ~~high performing organisations where change is the norm;~~
- ~~organisations which improve, refine and simplify practices to achieve goals; and~~
- ~~organisations with ongoing results, in line with their strategy~~. PC has been removed.

## Incentive type

~~Reputational.~~ PC has been removed.

## Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | ~~Yes/ No~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ | ~~Yes~~ |

## Incentive rates

| Incentive type | Performance levels | | Incentive rate |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

## Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~The assessment is as calculated by EFQM. The performance measure is either "Yes" we achieved 5 star status or "No" we did not achieve it.~~ |
| Frequency of PC measurement and any use of averaging | ~~Every 2 years.~~ |
| Timing and frequency of rewards/penalties | ~~n/a~~ |
| Form of reward/penalty | ~~n/a~~ |
| Any other information or clarifications relevant to correct application of incentive | ~~n/a~~ |

## Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | The proposed incentives relate to a means to delivering the company's business plan, rather than outcomes that customers want. | N/A |

# Retail outcome G: our finances are sound, stable and achieve a fair balance between customers and investors

## Performance commitment R-G1: credit rating

### Detailed definition of performance measure

~~The company's measure of success is to retain the company's credit rating of BBB+/Baa1~~. PC has been deleted.

### Incentive type

~~Reputational~~. PC has been deleted.

### Performance commitments

| | | Starting level | Committed performance levels | | | | |
|---|---|---|---|---|---|---|---|
| | Unit | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| Performance commitments | Grade | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ | ~~BBB+/ Baa1~~ |

### Incentive rates

| Incentive type | Performance levels | | Incentive rate (£/days/year) |
|---|---|---|---|
| | Lower | Upper | |
| Reputational | ~~n/a~~ | ~~n/a~~ | ~~n/a~~ |

### Additional details

| | |
|---|---|
| Necessary detail on measurement units | ~~As calculated by independent credit agencies.~~ |
| Frequency of PC measurement and any use of averaging | ~~Annually.~~ |

| | |
|---|---|
| **Timing and frequency of rewards/penalties** | ~~n/a~~ |
| **Form of reward/penalty** | ~~n/a~~ |
| **Any other information or clarifications relevant to correct application of incentive** | |

### Explanation of intervention made

| Intervention made | Rationale for change | Evidence used |
|---|---|---|
| The PC has been removed | We do not consider than an incentive mechanism on credit rating is necessary; for consistency with other companies who have not proposed such an incentive, it has been excluded | N/A |

# Annex 2 Wholesale costs

## Establishing draft determination thresholds

We have developed cost models that explain the patterns of historical costs across companies, and have combined these with forecasts/projections of the model explanatory variables and efficiency assumptions to derive basic cost thresholds (BCTs) for each company. Further details can be found in the basic cost threshold model description, our enhanced DD technical appendix and the basic cost threshold feeder models for Northumbrian published alongside this draft determination.

We have then made three categories of adjustments to these basic cost thresholds.

- **Policy additions** – which reflect areas of costs excluded from the base modelling across all companies or adjustments necessary to ensure comparisons with business plan forecasts of totex are made on a like-for-like basis (such as the third party cost and gross/net adjustments).
- **Unmodelled allowances** – to cover areas of enhancement spending not covered by the enhancement modelling (but implicitly included in two out of the three approaches to water cost modelling that are based on a totex approach – hence, the final adjustment to the water cost threshold is ⅓ of the total).
- **Deep dive adjustments** – to capture those special aspects of business plans not provided for in the base cost thresholds, policy additions and unmodelled allowances. These are explained in more detail in the cost templates published alongside this document.

Taken together, these adjustments translate the BCT to draft determination thresholds.

Where companies made arguments in business plans for special aspects of their plans and we assessed these in detail but decided that it was not appropriate to adjust the cost thresholds, then these have been categorised as ‘deep dives not added’.

We have summarised the above in the tables that follow – together with business plan forecast totex and the difference between the forecast and the draft determination threshold.

## Explanatory variables

In A2 of our enhanced DD technical appendix we highlighted that '**where the expenditure within companies' business plans is below our cost thresholds we equally need to consider whether the threshold is an appropriate baseline for setting prices. This approach will help to ensure that customers' interests are protected.**'

South West Water's forecasts of water totex were approximately 16% below the relevant risk-based review cost threshold. To address these issues and reflect the greater confidence that we had in enhanced plans, we substituted South West's forecasts of its water explanatory variables in to our calculations in order to derive a revised cost threshold for its draft determination. On this basis South West's forecast water totex was approximately 7% below the cost threshold. We adopted a similar approach to Affinity Water but it left the cost threshold virtually unchanged (its forecast water totex was about 5% below the risk-based review cost threshold and on the basis of its forecasts of explanatory variables about 4% below the draft determination cost threshold).

We did not adopt this approach for wastewater because no company had forecast totex significantly below the risk-based review cost thresholds, and because of the complications caused by the interactions between National Environment Programme phases 3, 4 and 5 in interpreting company forecasts of explanatory variables.

We also noted that for non-enhanced companies '**we may need to adapt our initial cost thresholds for use in menu baselines, in particular where other companies business plan forecast levels of totex were significantly below the initial risk-based review cost threshold levels**'.

For this draft determination, Northumbrian is relatively close to the cost thresholds (that is, within 2%) for water. We therefore do not regard the difference as warranting additional intervention to protect the interests of customers. We have therefore not substituted the company's forecasts of its water explanatory variables in to our calculations in order to derive a revised cost threshold for its draft determination.

We will, however, need to consider these issues further in the remaining draft determinations due to be published at the end of August. For instance in the risk-based review Thames Water was about 16% below the water cost threshold and Yorkshire Water was about 10% below the water cost threshold. Companies may also move in relation to the cost thresholds, as modelling and allowances for the

remaining draft determinations are finalised, and so other companies may also become significantly below a cost threshold.

We have summarised the above in the tables that follow – together with revised business plan forecast totex and the difference between the forecast and the draft determination threshold.

### Table A26 Movement from basic cost threshold to draft determination threshold for wholesale water totex

| Basic cost threshold (£m) | Policy additions (£m) | Unmodelled costs adjustment (£m) | Deep dive (£m) | Wider business plan adjustments | Draft determination threshold (£m) | Deep dives not added |
|---|---|---|---|---|---|---|
| **1198.2** | 155.1 | -6.1 | 7.2<br>(Supply demand balance) | **n/a** | **1354.3** | n/a |

### Table A27 Policy additions to the wholesale water basic cost threshold

| Business rates £m) | Pension deficit payments (£m) | Third party costs (£m) | Open market costs (£m) | Net v gross adjustments (£m) | Total £m |
|---|---|---|---|---|---|
| 107.6 | 17.8 | 27.6 | 2.1 | - | **155.1** |

**Note:**

1. Of this amount, £0.311 million relates to 2014-15 open market costs.

### Table A28 Comparison of company wholesale water totex with the draft determination threshold and 2010-15 totex

| Plan (£m) | Draft determination threshold (£m) | Gap (£m) | Plan v 2010-15 (£m) |
|---|---|---|---|
| **1,362.3** | 1,354.3 | 8.0 | -22.7 |

### Table A29 Movement from basic cost threshold to draft determination threshold for wholesale wastewater totex

| Basic cost threshold (£m) | Policy additions (£m) | Unmodelled costs adjustment (£m) | Private sewage pumping stations (£m) | NEP5 (£m) | Deep dive (£m) | Wider business plan adjustments | Draft determination threshold (£m) | Deep dive not added |
|---|---|---|---|---|---|---|---|---|
| **948.3** | 75.8 | -17.6 | 9.9 | 9.1 | n/a | **n/a** | **1025.6** | n/a |

### Table A30 Policy additions to the wholesale wastewater basic cost threshold

| Business rates (£m) | Pension deficit payments (£m) | Third party costs (£m) | Open market costs (£m) | Net v gross adjustments (£m) | Total (£m) |
|---|---|---|---|---|---|
| 48.0 | 11.4 | 15.0 | 1.5 | - | **75.8** |

**Note:**

1. Of this amount, £0.217m million relates to 2014-15 open market costs.

### Table A31 Comparison of company wholesale wastewater totex with the draft determination threshold and 2010-15 totex

| Plan (£m) | DD threshold (£m) | Gap (£m) | Plan v 2010-15 |
|---|---|---|---|
| **988.8** | 1,025.6 | -36.8 | 24.3 |

## Menu regulation

The approach to menu regulation for the non-enhanced companies was summarised in 'Setting price controls for 2015-20 – policy and information update'. Table A32 reproduces the draft menu for non-enhanced companies from this document and we confirm that this is the menu we used for the draft determination for Northumbrian.

### Table A32 Draft menu for Northumbrian Water

| Company menu choice | 80 | 85 | 90 | 95 | 100 | 105 | 110 | 115 | 120 | 125 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cost sharing rate | 54% | 53% | 52% | 51% | 50% | 49% | 48% | 47% | 46% | 45% | 44% |
| Allowed expenditure | 95.00 | 96.25 | 97.50 | 98.75 | 100.00 | 101.25 | 102.50 | 103.75 | 105.00 | 106.25 | 107.50 |
| Additional income | 2.30 | 1.76 | 1.20 | 0.61 | 0.00 | -0.64 | -1.30 | -1.99 | -2.70 | -3.44 | -4.20 |
| Actual expenditure | Reward/penalty | | | | | | | | | | |
| 70 | 15.8 | 15.7 | 15.5 | 15.3 | 15.0 | 14.7 | 14.3 | 13.9 | 13.4 | 12.9 | 12.3 |
| 80 | 10.4 | 10.4 | 10.3 | 10.2 | 10.0 | 9.8 | 9.5 | 9.2 | 8.8 | 8.4 | 7.9 |
| 85 | 7.7 | 7.7 | 7.7 | 7.6 | 7.5 | 7.3 | 7.1 | 6.8 | 6.5 | 6.1 | 5.7 |
| 90 | 5.0 | 5.1 | 5.1 | 5.1 | 5.0 | 4.9 | 4.7 | 4.5 | 4.2 | 3.9 | 3.5 |
| 95 | 2.3 | 2.4 | 2.5 | 2.5 | 2.5 | 2.4 | 2.3 | 2.1 | 1.9 | 1.6 | 1.3 |
| 100 | -0.4 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.2 | -0.4 | -0.6 | -0.9 |
| 105 | -3.1 | -2.9 | -2.7 | -2.6 | -2.5 | -2.5 | -2.5 | -2.6 | -2.7 | -2.9 | -3.1 |
| 110 | -5.8 | -5.5 | -5.3 | -5.1 | -5.0 | -4.9 | -4.9 | -4.9 | -5.0 | -5.1 | -5.3 |
| 115 | -8.5 | -8.2 | -7.9 | -7.7 | -7.5 | -7.4 | -7.3 | -7.3 | -7.3 | -7.4 | -7.5 |
| 120 | -11.2 | -10.8 | -10.5 | -10.2 | -10.0 | -9.8 | -9.7 | -9.6 | -9.6 | -9.6 | -9.7 |
| 125 | -13.9 | -13.5 | -13.1 | -12.8 | -12.5 | -12.3 | -12.1 | -12.0 | -11.9 | -11.9 | -11.9 |
| 130 | -16.6 | -16.1 | -15.7 | -15.3 | -15.0 | -14.7 | -14.5 | -14.3 | -14.2 | -14.1 | -14.1 |
| 140 | -22.0 | -21.4 | -20.9 | -20.4 | -20.0 | -19.6 | -19.3 | -19.0 | -18.8 | -18.6 | -18.5 |

All figures, except for the cost sharing rate represent percentages of our baseline expenditure amount. Cells highlighted in blue represent the maximum reward that can be obtained for a given level of actual expenditure

# Annex 3 Household retail price control

## Industry ACTS

Using the general approach described in our enhanced DD technical appendix, we have calculated the industry ACTS for unmeasured customers, and the average additional CTS for metered customers for this draft determination for Northumbrian using the relevant information we have available at this time. These are set out in the table below.

### Table A33 Industry ACTS and average additional CTS metered customers (2012-13 prices)

| | Units | Value[1] |
|---|---|---|
| Industry ACTS for unmetered single service customers | (£/cust 2 d.p.) | 21.78 |
| Industry ACTS for unmetered water and sewerage customers | (£/cust 2 d.p.) | 28.31 |
| Industry ACTS for metered water-only customers | (£/cust 2 d.p.) | 27.95 |
| Industry ACTS for metered sewerage-only customers | (£/cust 2 d.p.) | 25.17 |
| Industry ACTS for metered water and sewerage customers | (£/cust 2 d.p.) | 34.65 |

**Note:**

1. There will be no indexation for retail price controls from this price base.

Using the average industry allowances per customer given above, and the projected customer numbers in their business plans, we have calculated the total allowed household retail revenues in 2012-13 prices for Northumbrian, including the allowed uplifts for the efficiency glide path and the household retail net margin as set out in table A22.

## Revenue modification

Total allowed revenues are based on the number of customers and meter penetration set out in companies' business plans. If actual customer numbers or meter penetration differ from forecast values, then a modification will be made to allowed revenues to account for this.

Table A34 below sets out the amount per customer that allowed revenues will be modified by if outturn customer numbers differ from forecast customer numbers. This is set for each of the customer types.

These modification factors include an allowance for the net margin. This allowance is based on forecast nominal wholesale charges. These modification factors will not be updated for differences between forecast and actual nominal wholesale charges. This is because doing so would make the calculation of these modification factors each year considerably more complex and less transparent. We consider that setting these modification factors out in advance and not varying them for changes in wholesale is a more proportionate and appropriate approach.

For example, consider the case where the number of unmetered water only customers is lower than forecast, and the number of metered water only customers is higher than forecast as a result of an unanticipated more rapid meter roll out. We would make a downward adjustment for revenue for unmetered water only customers, and a more than offsetting upward adjustment for metered water only customers.

The first table sets out what these modification factors are; the second sets out the baseline number of customers.

## Table A34 Household retail allowed revenue modification factors by class of customer

| | Units | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|---|
| Revenue modification per unmetered water only customer | (£/customer) | 23.79 | 23.86 | 23.97 | 24.06 | 24.19 |
| Revenue modification per unmetered wastewater only customer | (£/customer) | 23.79 | 23.86 | 23.97 | 24.06 | 24.19 |
| Revenue modification per unmetered water and wastewater customer | (£/customer) | 30.93 | 31.02 | 31.17 | 31.27 | 31.44 |
| Revenue modification per metered water only customer | (£/customer) | 26.75 | 26.83 | 26.95 | 27.05 | 27.18 |
| Revenue modification per metered wastewater only customer | (£/customer) | 26.77 | 26.83 | 26.94 | 27.05 | 27.19 |
| Revenue modification per metered water and wastewater customer | (£/customer) | 36.85 | 36.96 | 37.12 | 37.25 | 37.43 |

**Note:**

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

## Table A35 Assumed number of customers for household retail total revenues

| | Units | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|---|
| Number of unmetered water only customers | ‘000s (3 d.p.) | 304.3 | 291.7 | 278.5 | 265.4 | 252.8 |
| Number of unmetered wastewater only customers | ‘000s (3 d.p.) | 33.7 | 33.0 | 32.3 | 31.6 | 30.8 |
| Number of unmetered water and wastewater customers | ‘000s (3 d.p.) | 721.7 | 706.5 | 691.3 | 676.0 | 660.8 |
| Number of metered water only customers | ‘000s (3 d.p.) | 427.7 | 444.3 | 461.4 | 478.7 | 495.7 |
| Number of metered wastewater only customers | ‘000s (3 d.p.) | 35.3 | 37.3 | 39.4 | 41.5 | 43.6 |
| Number of metered water and wastewater customers | ‘000s (3 d.p.) | 340.8 | 361.3 | 381.9 | 402.6 | 423.4 |

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# Annex 4 Reconciling 2010-15 performance

## Wholesale adjustments

In this annex, we set out the draft determination adjustments to 2015-20 price controls resulting from the company's actual performance during the 2010-15 period.[3]

Tables A36 and A37 below compare 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 tables also show other adjustments such as those relating to tax.

We then consider each of the different legacy adjustments.

### Table A36 Revenue adjustments in the water service 2015-20

| £ million | Revenue adjustments 2015-20 | |
|---|---|---|
| | Company view | Ofwat view |
| Service incentive mechanism (SIM) | 4.275 | 4.274 |
| Revenue correction mechanism (RCM) | 35.285 | 25.689 |
| Opex incentive allowance – post-tax (OIA) | 10.631 | 7.861 |
| Capital expenditure incentive scheme (CIS) | 5.858 | 5.068 |

[3] It should be noted that the update of 2013-14 actual and 2014-15 forecast expenditure submitted in the revised business plan is not fully assured data. Should there be any changes in the assurance updates we will reassess 2010-15 performance and make changes where appropriate. Where these changes are material to price limits we will publish an update to allow stakeholders to make representations before the final determinations.

| £ million | Revenue adjustments 2015-20 | |
|---|---|---|
| | Company view | Ofwat view |
| Tax refinancing benefit clawback | 0.000 | 0.000 |
| Other tax adjustments | 0.000 | 0.000 |
| Equity injection clawback | 0.000 | 0.000 |
| Other adjustments | 14.268 | 14.268 |
| Total wholesale water legacy adjustments | 70.317 | 57.160 |

**Note:**

Totals may not add up due to rounding.

### Table A37 Revenue adjustments in the wastewater service 2015-20

| £ million | Revenue adjustments 2015-20 | |
|---|---|---|
| | Company view | Ofwat view |
| Service incentive mechanism (SIM) | 2.915 | 2.914 |
| Revenue correction mechanism (RCM) | 28.930 | 29.681 |
| Opex incentive allowance – post-tax (OIA) | 4.658 | 4.119 |
| Capital expenditure incentive scheme (CIS) | -10.709 | -18.758 |
| Tax refinancing benefit clawback | 0.000 | 0.000 |
| Other tax adjustments | 0.000 | 0.000 |
| Equity injection clawback | 0.000 | 0.000 |
| Other adjustments | 0.000 | 0.000 |
| Total wholesale wastewater legacy adjustments | 25.794 | 17.956 |

**Note:**

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 A47. 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 tables A6 and A14.

## Service incentive mechanism (SIM)

This draft determination includes our provisional view[4] of the company's SIM reward, which we have calculated as 0.2%. This is consistent with Northumbrian's resubmitted plan which estimated a reward of 0.2%.

We have arrived at this by comparing the company's actual SIM performance in 2011-12, 2012-13 and 2013-14, to the industry three-year average performance during 2011-14. Table A38 contains the annualised rewards from the company's SIM performance. The small difference between the two views below is due to price base differences.

### Table A38 SIM annualised rewards

| £ million | | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|---|
| Water | Company view | 0.855 | 0.855 | 0.855 | 0.855 | 0.855 | 4.275 |
| | Ofwat view | 0.855 | 0.855 | 0.855 | 0.855 | 0.855 | 4.274 |
| Wastewater | Company view | 0.583 | 0.583 | 0.583 | 0.583 | 0.583 | 2.915 |
| | Ofwat view | 0.583 | 0.583 | 0.583 | 0.583 | 0.583 | 2.914 |

## Revenue correction mechanism (RCM)

For PR09, we introduced the RCM to provide companies with a financial incentive to encourage consumers to use water wisely and to correct for differences between expected and actual tariff basket revenue between 2010 and 2015 at PR14. We confirmed the details of our revenue correction mechanism in PR09/31,'Revenue correction mechanism' (July 2009).

Using the revenue correction mechanism that we described in our PR09 methodology paper, we will make revenue adjustments at this price review to take account of each company's revenue outperformance or underperformance relative to

[4] When we publish the draft determinations for all remaining companies in August we will set out in more detail the SIM rewards.

the assumptions we made in our final determinations for 2010-11 to 2014-15. This adjustment will be annualised over the five years in net present value (NPV) terms.

In IN 11/04, 'Simplifying the revenue correction mechanism', we summarised our decision to simplify two areas of the RCM; in particular, the 'billing incentive' and 'back billing'. The supporting information to IN11/04 provides the technical detail to these changes.

This draft determination includes our view of the company's RCM annualised adjustment amounts as detailed in table A39 below.

**Table A39 RCM annualised adjustments to 2014 price review requirement**

| £ million | | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|---|
| Water | Company view | 7.057 | 7.057 | 7.057 | 7.057 | 7.057 | 35.285 |
| | Ofwat view | 5.138 | 5.138 | 5.138 | 5.138 | 5.138 | 25.689 |
| Wastewater | Company view | 5.786 | 5.786 | 5.786 | 5.786 | 5.786 | 28.930 |
| | Ofwat view | 5.936 | 5.936 | 5.936 | 5.936 | 5.936 | 29.681 |

We have taken a different view to the company in the following areas.

- **2009-10 number of households billed property numbers –** we were not convinced with the need and justification to rebase property numbers due to reporting changes. Our draft determination includes the number of households billed in 2009-10 submitted by the company in table 7 and 13 of its June Return.
- **Forecasted 2014-15 tariff basket revenue –** we did not consider the company's explanation justified the variance between the 2009 final determination (FD09) and actual tariff basket revenues and why this should increase in the 2014-15 forecast year. We have therefore not accepted the company's forecasted 2014-15 revenues for both the water and sewerage services. We have uplifted tariff basket revenues in 2014-15, such that the variance in 2014-15 between FD09 and actual tariff basket revenues is restricted to the same levels as in 2013-14 for both the water and sewerage services.

- **FD09 assumptions –** there were differences between the company's view and that set out in our FD09 determinations within the RCM model. Our draft determination includes Ofwat's view of the FD09 determinations.
- **Outturn financial year average RPI –** there were some inconsistencies for outturn financial year average RPI between the data submitted in the company's revised business plan table A9 and the company's populated RCM spreadsheet. We have taken the data that the company has submitted in revised business plan table A9 to calculate our view of the RCM adjustment using our published RCM feeder model.

## Operating expenditure incentive allowance (OIA)

In accordance with the methodology set out in PR09/04, 'The opex incentive allowance and the outperformance multiplier for 2005-10', the company demonstrated the year-on-year outperformance needed to qualify for an incentive allowance in price limits in both the water and wastewater service. Table A40 below summarises the company's view and our view of the incentive allowances for 2015-20.

**Table A40 Operating expenditure incentive allowances for 2015-20**

| £ million | | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|---|
| **Water service** | | | | | | | |
| Incentive allowance (pre-tax) | Company view | 7.907 | 5.900 | 0.000 | 0.000 | 0.000 | 13.807 |
| | Ofwat view | 5.105 | 5.105 | 0.000 | 0.000 | 0.000 | 10.210 |
| Incentive allowance (post-tax) | Company view | 6.088 | 4.543 | 0.000 | 0.000 | 0.000 | 10.631 |
| | Ofwat view | 3.931 | 3.931 | 0.000 | 0.000 | 0.000 | 7.861 |
| **Wastewater service** | | | | | | | |
| Incentive allowance (pre-tax) | Company view | 5.318 | 0.731 | 0.000 | 0.000 | 0.000 | 6.049 |
| | Ofwat view | 4.968 | 0.381 | 0.000 | 0.000 | 0.000 | 5.350 |
| Incentive allowance (post-tax) | Company view | 4.095 | 0.563 | 0.000 | 0.000 | 0.000 | 4.658 |
| | Ofwat view | 3.825 | 0.294 | 0.000 | 0.000 | 0.000 | 4.119 |

In the water service, our view is lower than the company's view because we have excluded the company's logging up adjustment of £14.268 million (post efficiency) for the Dagenham Common Supplies programme.

We have not applied this logging up claim in our view of the opex incentive allowance because we consider it is not appropriate for a fixed enhancement scheme which completes in 2015 to be included in the calculation, as the opex incentive allowance is to compensate for future opex outperformance that is sustained in the long term and that customers would benefit from.

In the wastewater service, our view is lower than the company's due to a different view on the value of logging up and down adjustments. We have accepted the company's pre efficiency values, but we have applied the profile of FD09 enhancement efficiencies rather than FD09 base efficiencies. At the private sewers workshop on 21 May 2012, we committed to treat private sewers capex as 'enhancement' to reduce bill impacts in the short term. As we have applied enhancement efficiency to the company's logging up capex, for consistency, we have applied enhancement efficiency to the associated opex.

We have also initiated a small logging down claim of £0.116 million (post efficiency) associated with Sedgeletch STW flow1 scheme. Our reasons for logging down this scheme are discussed in the change protocol section below.

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

The change protocol for 2010-15 is a process by which a company can request a logging up of capital costs (capex) as a result of new or changed output obligations during the current price control period or a logging down of capex costs for outputs no longer required. We take account of the financial implications of these changes at the beginning of the next price control period. Where a company fails to deliver on time any outputs which are required and were included in price limit assumptions, a shortfall adjustment is made.

The company's revised business plan tables W13 and S13 contained one logging up claim in the water service to correct for a PR09 error relating to transferred opex costs associated with Dagenham Common Supplies and two logging up claims in the wastewater service relating to sewer flooding and private sewers. All claims passed the triviality threshold of representing 2% or more of service turnover.

We set out below our post efficiency draft determination assumptions and our assessment of each of the company's capital expenditure claims:

- **Sewer flooding reduction in PR09 shortfall logging up (£28.889 million)** – We have accepted the company's pre efficiency adjustments for this claim to reconcile the finalised register positions with the shortfall we applied at PR09. However, we have treated this outside the CIS reconciliation and included this amount in the calculation of the 2009-10 outperformance adjustment to the RCV, as included in table A14.

- **Private sewers logging up (£12.525 million)** – We have accepted the company's pre efficiency adjustments for this claim. For inclusion in our draft determination CIS reconciliation, we have applied the profile of FD09 enhancement efficiencies to the annual adjustments.

Based on the evidence presented in the company's revised business plan, we have reviewed the company's delivery of FD09 outputs and have initiated the following adjustments:

- **Trunk main cleaning shortfall (-£3.590m)**. The objective of this exceptional item FD09 output was to reduce discolouration contacts by 1,000 per year as part of maintaining stable water infrastructure serviceability performance with a final 2014-15 target of 0.93 contacts per 1,000 population supplied.

  From the company's revised business plan and its response to a specific query we raised, we are unclear as to whether this output has been delivered. As we are not certain the output has been delivered, we have initiated a shortfall using the company's calculation of the value of activity it will not deliver.

- **Sedgeletch STW (Flow 1) scheme logging down (-£6.448 million)**, The company justified its exclusion of the deferred scheme at Sedgeletch STW as a logging down item in Table S13 on the grounds that once the offsetting costs of three new P removal schemes had been taken into account the resultant net cost did not breach the triviality threshold (2% of service turnover). As the obligation driving investment at Sedgeletch is different to that at the three new sites, the proposed amalgamation did not align with our approach to the aggregation of changes, set out in 'Change protocol for 2010-15'. Accordingly, we have considered Sedgeletch STW in isolation and, as the associated costs are higher than the triviality threshold, have treated it as a logging down item. By contrast, the combined cost of the three P removal

schemes does not exceed 2% of service turnover. Therefore they do not qualify as a logging up item.

- **Newbiggin STW bathing waters scheme logging down (-£8.801million)**, The company justified its exclusion of the withdrawn scheme at Newbiggin STW as a logging down item in Table S13 on the grounds that once the offsetting costs of two AMP6 bathing water schemes had been taken into account the resultant net cost did not breach the triviality threshold (2% of service turnover). Our view is that for the two schemes to be treated as potential offsetting items, the company would need to demonstrate inclusion of the schemes within the NEP AMP5 programme (for which there would need to be explicit support from the Environment Agency and Defra). Failing that, we consider the two schemes should be included in the 'transitional investment' programme which allows early investment of AMP6 schemes. Accordingly, we have considered Newbiggin STW in isolation and, as the associated costs are higher than the triviality threshold, have treated it as a logging down item.

- **Sewer flooding logging down and shortfall (-£4.575 million and -£21.597 million)**. In the first four years of the current period the company completed just over half the total included in the outputs for 2010-15. The company identified around 500 solutions to be completed in 2014-15 representing over 40% of its outputs. Of the 500 outputs, 40% of these were still at feasibility stage at the time of the 2 May submission. We sought further evidence to demonstrate that the company was in a position to complete 500 solutions in 2014-15 but the company's response did not convincingly demonstrate that it had detailed plans and sufficient capacity to complete the work. For the draft determination, we are assuming that the 200 properties still at the feasibility stage will not have solutions in this period.
  We will therefore shortfall the failure to deliver the outputs. The calculation of the shortfall for 203 properties is based on the assumption that the only properties left on the register at the end of the period are those added to the register in the final year plus any other properties with non-cost-beneficial solutions. A log down has been used to reflect the non-delivery of the 43 remaining solutions which have not already been dealt with by the shortfall.
- **Sewerage infrastructure serviceability shortfall (-£1.930 million)**. The company has not maintained stable serviceability during the 2010-15 period due to its performance in flooding other causes which has not been stable during the control period. We discuss this in more detail in the serviceability performance section below.

- **Berwick/Fowberry transfer (potential -£0.716 million logging down, 2007-08 prices)**. From information provided by the Environment Agency we note that this scheme has not been delivered. The company did not discuss the delivery of this project within its commentary to Ofwat. Whilst the assumed cost of this scheme at FD09 is below triviality and is not subject to logging down, given that this project is a defined regulatory output for both Ofwat and the Environment Agency, we would have expected the company to have explained its delivery position

Table A41 below summarises the company's view and our baseline view of total adjustments to capex included in the CIS reconciliation, expressed post efficiency and in 2012-13 prices.

**Table A41 Summary of post efficiency capex for logging up, logging down and shortfalls included in the CIS reconciliation**

| 2009-10 to 2014-15 £m – post-efficiency capex | Water service | | Wastewater service | | Total service | |
|---|---|---|---|---|---|---|
| | Company view | Baseline view | Company view | Baseline view | Company view | Baseline view |
| Logging up (two sided) | 0.000 | 0.000 | 36.418 | 12.525 | 36.418 | 12.525 |
| Logging down (two sided) | 0.000 | 0.000 | 0.000 | -19.823 | 0.000 | -19.823 |
| Shortfalls (one sided) | 0.000 | -3.590 | 0.000 | -21.597 | 0.000 | -25.187 |

**Notes:**

1. Includes two sided adjustments from the PR09 agreed overlap programme as set out in table A45.
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 A42 below summarises the company's view and Ofwat's view of the total adjustments made to the FD09 opex assumptions used in the calculation of the opex incentive revenue allowances.

**Table A42 Summary of post efficiency opex for logging up, logging down and shortfalls included in the opex incentive allowance calculation**

| 2009-10 to 2014-15 £m – post-efficiency opex | Water service | | Wastewater service | | Total service | |
|---|---|---|---|---|---|---|
| | Company view | Ofwat view | Company view | Ofwat view | Company view | Ofwat view |
| Logging up | 14.270 | 0.000 | 14.222 | 13.610 | 28.492 | 13.610 |
| Logging down | 0.000 | 0.000 | 0.000 | -0.116 | 0.000 | -0.116 |
| Shortfalls | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Shortfalls for serviceability | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

As explained in the operating expenditure incentive allowance section, the difference between the company view and Ofwat's view of logging up in the water service is due to the exclusion of the company's claim for Dagenham Common Supplies programme. The difference between the company view and Ofwat's view in the wastewater service is due to our application of enhancement efficiencies to the company's logging up adjustment for private sewers and our inclusion of a logging down claim for Sedgeletch STW.

## Serviceability performance

All companies must maintain their asset systems so that they remain fit for purpose over the long term. This is so the companies can continue to maintain the flow of services to consumers, while protecting the environment and public health. For the 2009 price review we set out our expectations on the measurement and management of serviceability. We defined values for reference levels and control limits for each serviceability indicator that will underpin, and inform our assessment of, the achievement of our required output of stable serviceability. To deliver this output, we expected the company to monitor, manage and maintain its assets so that the serviceability indicators set out in the company's supplementary report remain within a set range of control limits oscillating around a central reference level.

A company should assume it is at risk of a shortfall adjustment at this price review if serviceability is assessed as less than stable in any year from 2011-12 onwards. Any company whose serviceability we assess as less than stable in 2013-14 should

assume a shortfall at this price review. The value of the shortfall can be up to 50% of the company's capital maintenance sub-service expenditure assumed at FD09 price control.

We have reviewed both the company's actual and forecast performance information provided in its revised business plan for the defined serviceability measures and the company's overall assessments.

The company's performance in flooding other causes has not been stable during the period 2010-15 with four of the five years' data either at or above the upper control limit and the forecast for 2014-15 only touching the reference level. We are concerned and consider that the forecasting for 2014-15 is overly optimistic when compared to the actual data reported in the first four years.

On that basis, we have initiated a scaled shortfall claim for this single indicator, based upon the distance the company's data is above the upper control limit in each year.

Table A43 below confirms our assessments and table A44 confirms the value and impact of any serviceability shortfall on the RCV.

### Table A43 Serviceability assessments for 2010-15[5]

| £m | | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15[6] |
|---|---|---|---|---|---|---|
| Water infrastructure | Company view | Stable | Stable | Stable | Stable | Stable |
| | Ofwat view | Stable | Stable | Stable | Stable | Stable |
| Water non infrastructure | Company view | Stable | Stable | Stable | Stable | Stable |
| | Ofwat view | Stable | Stable | Stable | Stable | Stable |

[5] Assessments are based on actual and forecast performance submitted in the company's revised business plans.

[6] Assessments for 2014-15 are based on forecast data and are subject to review once actual performance data becomes available.

| £m | | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15[6] |
|---|---|---|---|---|---|---|
| Wastewater infrastructure | Company view | Marginal | Stable | Stable | Stable | Stable |
| | Ofwat view | Marginal | Marginal | Marginal | Marginal | Stable |
| Wastewater non-infrastructure | Company view | Stable | Stable | Stable | Stable | Stable |
| | Ofwat view | Stable | Stable | Stable | Stable | Stable |

**Table A44 Impact of serviceability shortfalls on the RCV**

| 2009-10 to 2014-15 (£m) | | Water | Wastewater | Total |
|---|---|---|---|---|
| Amount subtracted from RCV (£m) | Company view | 0.000 | 0.000 | 0.000 |
| | Ofwat view | 0.000 | 1.930 | 1.930 |

## The 2009 agreed overlap programme

As the company 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 A45 below confirms the zero assumptions included in this draft determination.

**Table A45 PR09 agreed overlap programme adjustments and assumptions**

| £m | | 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 |
| | Baseline view | 0.000 | 0.000 | 0.000 | 0.000 |
| Wastewater service | Company view | 0.000 | 0.000 | 0.000 | 0.000 |
| | Baseline view | 0.000 | 0.000 | 0.000 | 0.000 |

## The 2014-15 transition programme

For this price review, we introduced the transition programme to enable companies to bring forward any type of planned capital expenditure from 2015-16 into 2014-15, in order to make more efficient use of resources and the supply chain.

In its revised business plan, the company did not identify a transition programme. We have accepted the company's proposals as shown in Table A46 below.

The company should consider whether it wishes to include the two AMP6 bathing beaches schemes discussed alongside Newbiggin STW within the transition programme.

### Table A46 Transition programme in 2014-15

| Net capital expenditure | 2014-15 (£m) | Proportion of forecast in 2014-15 | Proportion of capital programme in 2015-20 |
|---|---|---|---|
| Water service | 0.000 | 0.00% | 0.00% |
| Wastewater service | 0.000 | 0.00% | 0.00% |

## Capital expenditure incentive scheme (CIS)

This draft determination includes the CIS adjustments to revenue and to RCV that arise from our assessment of the company's performance under the CIS mechanism in the 2010-15 period. The CIS adjustments reflect actual capital expenditure performance during 2010-11 to 2013-14 and predicted expenditure in 2014-15 (as submitted in tables W15 and S15 in the company's revised business plan) which is compared to the assumptions for 2010-15 we used in our final determination at PR09. The CIS assessment reflects, where necessary, the adjustments under the change protocol (as detailed in table A41) and the 2009 agreed overlap programme (as detailed in table A45).

Table A47 provides details of the CIS ratios and performance incentive. It also gives the monetary amounts of the CIS performance reward or penalty, the true-up adjustment to 2015-20 allowed revenues and the midnight adjustment to the closing 2014-15 RCV.

The difference in revenue adjustments is primarily driven by the change protocol adjustments on the wastewater service which has resulted in increased penalties through the CIS menu.

### Table A47 Water and wastewater legacy true-up adjustments

| | | Water service | Wastewater service | Total service |
|---|---|---|---|---|
| **Restated FD09 CIS bid ratio** | Company view | 103.06 | 101.39 | |
| | Ofwat view | 103.51 | 108.81 | |
| **Outturn CIS ratio** | Company view | 85.68 | 102.37 | |
| | Ofwat view | 85.97 | 110.28 | |
| **Incentive reward / penalty %** | Company view | 4.05 | -0.70 | |
| | Ofwat view | 3.97 | -2.18 | |
| **Reward / penalty £m** | Company view | 29.236 | -3.742 | 25.494 |
| | Ofwat view | 28.530 | -10.774 | 17.756 |
| **Adjustments to 2015-20 revenue £m** | Company view | 5.858 | -10.708 | -4.850 |
| | Ofwat view | 5.068 | -18.758 | -13.690 |
| **CIS adjustment to RCV £m** | Company view | -149.035 | -4.871 | -153.906 |
| | Ofwat view | -149.035 | -4.871 | -153.906 |

**Notes:**

The restated FD09 CIS bid ratio takes account of the adjustments for the change protocol (table A41) and the 2009 agreed overlap programme (table A45).

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.

In Table A48 below we have set out the profiled values of the revenue adjustments in each year 2015-20. The profile we have adopted for this draft determination is consistent with the profile proposed by the company in its revised business plan.

**Table A48 Profiled revenue adjustments from the CIS reconciliation**

| £ million | | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
|---|---|---|---|---|---|---|---|
| Water | Company view | 5.858 | 0.000 | 0.000 | 0.000 | 0.000 | 5.858 |
| | Ofwat view | 5.068 | 0.000 | 0.000 | 0.000 | 0.000 | 5.068 |
| Wastewater | Company view | -10.709 | 0.000 | 0.000 | 0.000 | 0.000 | -10.709 |
| | Ofwat view | -18.758 | 0.000 | 0.000 | 0.000 | 0.000 | -18.758 |

## Tax refinancing benefit clawback

The company did not include a tax refinancing benefit clawback adjustment because of in-period changes in its capital structure. We have therefore made no adjustment for this item.

## Other tax adjustments

The company did not propose any other tax adjustments in its revised business plan.

## Equity injection clawback

The company did not receive an allowance for an equity injection for 2010-15. Therefore, we have made no adjustment for this item.

## Other adjustments

The company proposed other revenue adjustments totalling £14.268m (post efficiency) in relation to their Dagenham Common Supplies programme. These revenue adjustments were to correct an error Ofwat made at FD09, whereby the costs of this programme had been excluded in error from the FD09 determinations.

Following PR09, we committed in writing to correct for this at the next price review by including these costs as revenue adjustments for the next price limit period. Allowing for indexation, we have reviewed the company's costs against the PR09 forecasts and we have checked that the company has applied appropriate FD09 operating efficiency improvements.

We therefore accept the company's proposed profile of revenue adjustments totalling £14.268m as 'other' revenue adjustments for the 2015-20 period.

**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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