Water and Sewerage Services
Cost and Performance Report for 2017-18
An assessment of NI Water’s costs and performance

February 2019
About the Utility Regulator

The Utility Regulator is the independent non-ministerial government department responsible for regulating Northern Ireland’s electricity, gas, water and sewerage industries, to promote the short and long-term interests of consumers.

We are not a policy-making department of government, but we make sure that the energy and water utility industries in Northern Ireland are regulated and developed within ministerial policy as set out in our statutory duties.

We are governed by a Board of Directors and are accountable to the Northern Ireland Assembly through financial and annual reporting obligations.

We are based at Queens House in the centre of Belfast. The Chief Executive leads a management team of directors representing each of the key functional areas in the organisation: Corporate Affairs; Electricity; Gas; Retail and Social; and Water. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Our mission
To protect the short- and long-term interests of consumers of electricity, gas and water.

Our vision
To ensure value and sustainability in energy and water.

Our values
- Be a best practice regulator: transparent, consistent, proportionate, accountable and targeted.
- Be professional – listening, explaining and acting with integrity.
- Be a collaborative, co-operative and learning team.
- Be motivated and empowered to make a difference.
Abstract

We regulate the revenue NI Water receives through periodic price controls. Our proposals set an overall revenue requirement and identify the levels of capital and operational expenditure. This report reflects our assessment of NI Water’s performance during the first three years of its third regulatory price control, PC15, covering the period from April 2015 to March 2021.

Audience

Regulated utilities, regulatory community, industry, consumers and their representative bodies and statutory bodies.

Consumer impact

This assessment provides consumers with an assessment on NI Water’s performance to the end of 2017-18 in delivering the requirements of our price control.
Cost and Performance Report for 2017-18

Contents

Key Findings

1.0 Introduction

1.1. Price Controls
1.2. Cost and Performance Reports

2.0 Costs and Efficiency

2.1. Overall Financial Performance
2.2. Operational Expenditure
2.3. Closing the Efficiency Gap

3.0 PC15 Performance

3.1. Performance against PC15 final determination targets

4.0 Capital Expenditure

5.0 Customer Service

5.1. How Customer Service is Assessed
5.2. OPA Performance

6.0 Development Objectives and PC21 Preparation
Key Findings

The assessment of NI Water’s performance undertaken for our 2017-18 Cost and Performance Report shows that the company has broadly delivered on its final determination performance targets in the first half of the PC15 price control period. The company continued to deliver an improved overall level of service to consumers, but marginally underperformed against its operational expenditure (opex) efficiency target.

Our key findings are summarised by area below:

Operating expenditure

NI Water’s operating expenditure was £208.6m in 2017-18. This is above our regulatory allowance of £202.9m (in current prices), a difference of £5.7m.

Capital Investment

The company invested £152.6m of capital expenditure (capex) in 2017-18, contributing to a total investment of £451m in the first three years of the PC15 price control period. Capital investment in real terms has been constrained by the available public expenditure budget and we have worked with NI Water, DfI and other key stakeholders to ensure that the company delivers the best possible package of outputs within the funding available. We will continue to assess cumulative delivery over the medium term taking account of changes in budget, inflation and the delivery of capital efficiency.

Output Delivery

We use an Overall Performance Assessment (OPA) score to assess NI Water’s overall delivery of service to customers. This is a composite score which includes a broad range of measures covering service delivery in the areas of water supply, sewerage service, customer service and environmental performance. NI Water met and exceeded our PC15 Overall Performance Assessment (OPA) target in 2017-18. NI Water’s performance was the company’s highest ever OPA score and is equal to the OPA target set for the 2020-21 year. It is worth noting that year-on-year improvements may not always be achievable due to the potential for the natural variability of some contributing data and environmental conditions to affect the overall score. Our final determination annual performance targets take account of potential variability and therefore the company’s ability to meet or outperform these targets remain our benchmark for successful delivery in the period, rather than year on year improvements.

The company met or exceeded planned delivery in 35 of the 45 Outputs set in the PC15 final determination. This includes 12 out of 15 consumer service measures and all but one of the water and sewerage quality outputs. NI Water delivered the majority of its nominated output targets and maintained stable serviceability in all service areas. A lag in delivery still exists in some areas as a consequence of public expenditure budget reductions in the first two years of PC15, but we expect NI Water to recover this by the end of the period.

Delivery of development objectives to improve planning capability in time to inform the business plan submission for PC21 is a key requirement for NI Water in PC15. In our PC15 mid-term review we considered progress on these outputs and expressed concern about whether NI Water could deliver them in time. In response, the company stated it still anticipated completing them in time to inform the PC21 business plan. Work on these
development objectives continues and is critical to inform plans for investment and consumer service improvements in PC21. We will continue to review delivery through our ongoing engagement with NI Water in the PC21 process and when we assess the delivery of PC15 outcomes for our PC21 price control determination.
1.0 Introduction

1.1. Price Controls

1.1.1 Northern Ireland Water (NI Water) is responsible for providing water and sewerage services to consumers in Northern Ireland. Since NI Water is the sole provider of these services, the Utility Regulator (UR) regulates the amount of revenue the company receives. This ensures value for money for consumers. We therefore scrutinise the company’s revenue requirements through periodic price controls.

1.1.2 NI Water is a government-owned provider of water and sewerage services. Financially, it is treated as a Non-Departmental Public Body (NDPB) since the majority of its income is from public funding. While domestic consumers do not directly pay for water charges, the cost of providing these services to commercial consumers is recovered through bills.

1.1.3 NI Water’s third regulatory price control period of PC15 began on 1 April 2015 and will run for six years until 31 March 2021. It took account of a public expenditure capital budget provision of £990m, as indicated in the Department for Regional Development’s (DRD’s1) 2014 Social and Environmental Guidance, along with the UR’s assessment of the efficient operational expenditure required.

1.1.4 Our PC15 Final Determination, published in December 2014, set out the Revenue and output requirements for NI Water for the PC15 period.

1.1.5 The next price control period (referred to as PC21) will commence in April 2021. We published our approach to PC21 in June 2018 following a period of engagement and consultation with the water industry principal stakeholders. Our approach to PC21 follows a similar model to that adopted for PC15 and will deliver a six year price control covering the period April 2021 to March 2027.

1.2. Cost and Performance Reports

1.2.1 We use Annual Information Returns and Cost and Performance Reports to assess and report on actual delivery against the requirements we set for the company in our price control final determinations. As a minimum our reports cover the key areas of costs and efficiency, operating expenditure, capital investment and delivery of KPIs (including our overall performance assessment score). However on occasions the reports may also be used to explain material issues or developments that have occurred during the reporting period. We produce and publish Cost and Performance Reports annually.

1 The CPR makes reference to the Department for Regional Development (DRD). Under the Departments Act (Northern Ireland) 2016 and The Departments (Transfer of Functions) Order (Northern Ireland) 2016, the functions of DRD transferred to the Department for Infrastructure (DfI) in May 2016.
1.2.2 This report provides an assessment of company performance at the end of the third year (2017-18) of the 6 year PC15 price control period. In developing this report the Utility Regulator has adopted a proportionate approach consistent with the review of delivery in the first half of longer delivery programme.

1.2.3 Our conclusion in overall terms, is that NI Water is broadly delivering against the PC15 final determination targets. The overall service provided to consumers continued to improve against a backdrop of budget reductions in nominal terms. Some aspects of delivery remain behind profile, mainly as a consequence of re-profiling expenditure to accommodate the budget reductions experienced in the first two years of PC15. However our PC15 mid-term review concluded that this should be recoverable if the budget and inflationary figures assumed for the remainder of the period remain correct.
2.0 Costs and Efficiency

2.1. Overall Financial Performance

Turnover

2.1.1 The UR determines price limits (referred to as K factors) to be applied over the price control period. The K factors are the annual percentage increase or decrease in charges above or below inflation. An annual approval process is then operated to ensure tariffs are in line with the determination. The UR found the 2017-18 tariffs to be marginally lower than the permitted limit.

2.1.2 Actual turnover will vary from determination forecasts over time as inflation, volumes and accounting adjustments impact on the final reported turnover within the annual accounts. Actual turnover of £381.1m was lower than the PC15 forecast of £385.8m. However when adjusted for inflation it was c£14m more than anticipated, due to additional customer numbers and volumes.

2.1.3 We considered over-recovery of revenue in our PC15 mid-term review and decided not to review tariffs. This is because we couldn’t be certain that the higher levels of revenue recovery would continue throughout the remainder of the PC15 period. We believe that PC21 is the most appropriate time to consider the need for any adjustments. This will allow us to take a balanced view of financial performance over the period and avoid making adjustments which prove to be inappropriate in the longer term. We therefore plan to make adjustments to reflect the over-recovery of revenue and return money to consumers in PC21.

Operating Profit

2.1.4 In previous years we have compared operating profit on a current cost basis but, as this is no longer reported, this year’s figures are quoted using historical costs. The operating profit of £106.5m was marginally lower than the PC15 forecast of £107.3m. Turnover as set out above is one of the factors which explains this, changes in operational expenditure is considered in more detail in 2.2 Operational Expenditure below.

Dividend

2.1.5 A dividend of £26.5m was paid to the company shareholder, the Department for Infrastructure, in respect of 2017-18. This level of dividend is marginally lower than projections in the PC15 final determination.

Loan Profile

2.1.6 Department for Infrastructure (DfI) loans increased to £1,082.6m from £1013.6m but are lower compared to the PC15 projection of £1,156.5m. The difference can largely be explained by lower actual borrowings compared to forecast at the start of PC15 and lower capital expenditure during PC15 to date.
Regulatory Capital Value

2.1.7 The Regulatory Capital Value (RCV) is the value of the appointed business on which NI Water earns a return at the determined weighted average cost of capital. The RCV is increased each year by investment in new assets and reduced by the value of assets that have been depreciated or sold off in the year. NI Water’s RCV has grown steadily from the start of its first price control (PC10) and stands at £2.396.1 billion at the end of 2017-18. This is lower than the PC15 projection of £2.484.5 billion due to lower inflation than forecast and lower capital expenditure.

2.1.8 More detailed information on NI Water’s financial information is set out in the company’s statutory and regulatory accounts. These can be found in NI Water’s annual report for each year which is published on its website.

2.2. Operational Expenditure

2.2.1 NI Water’s operating costs (opex) increased in nominal terms from £200.6m in 2016-17 to £208.6m in 2017-18. However, this £8m rise, translates into a 0.2% real terms increase in the day-to-day running costs of the business over the year, once inflation is taken into account.

2.2.2 NI Water experienced real terms opex increases in some expenditure items, such as power costs, as well as other expenditure categories, such as materials and consumables. There were also reductions in expenditure on hired & contracted services. Overall, this resulted in a slight real terms increase in NI Water’s opex over the year.

2.2.3 NI Water’s £208.6m of opex spend in 2017-18 is above our regulatory allowance of £202.9m (in current prices), a difference of some £5.7m in-year.

2.2.4 NI Water is currently marginally underperforming against our regulatory allowance on opex for the PC15 period. This is shown in the figure below.

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2 https://www.niwater.com/publications/
3 Operating costs also include PPP/PFI costs. PPP/PFI refers to Public Private Partnership / Private Finance Initiative schemes.
4 This figure increases to £6m if Voluntary Early Retirement/Voluntary Severance (VER/VS) costs of £0.3m are excluded from actual spend. VER/VS was supported in principle by the Utility Regulator, but not funded through charges. Taking into account other expenditure items which could be classed as atypical in 2017-18 may impact on opex performance further.
5 The rise in NI Water’s opex in 2015-16 (first year of PC15) is primarily due to its rates bill increasing substantially over the year, driven by the LPS rating revaluation exercise.
2.3. Closing the Efficiency Gap

2.3.1 In previous Cost & Performance Reports, the UR compared NI Water’s opex efficiency position with companies in England and Wales, on an annual basis. The estimates were derived using the UR’s Corrected Ordinary Least Squares (COLS) econometric and unit cost models, as employed in the PC10, PC13 and PC15 determinations. These models were based on an Ofwat suite of models used for PR04 and PR09.

2.3.2 Over time our analysis showed a continuing improvement profile; however, a gap still remained to the best companies in England and Wales. According to our results NI Water closed their efficiency gap to the ‘frontier’, or best performing comparator company, from around 49% in 2007-08 to an estimated 13% in 2014-15 (our latest year of efficiency results).

2.3.3 The UR is currently developing a new methodology for the assessment of NI Water’s operational efficiency gap. Comparator data from Ofwat was published earlier in 2018 and with NI Water we have examined the feasibility of using new water and wastewater variables to inform PC21 price control efficiencies.
3.0 PC15 Performance

3.1. Performance against PC15 final determination targets

3.1.1 In previous PC15 cost and performance reports we adjusted some targets to account for public expenditure budget reductions in the first two years of the price control period. In these circumstances the targets were lower than those published in our PC15 final determination.

3.1.2 In Section 7.2 of our 2016-17 cost and performance report we noted that our PC15 Mid-term Review had concluded that NI Water should have sufficient funding to deliver all of the outputs defined in the final determination if budget reductions over the remainder of the period were no more severe than they had been to date.

3.1.3 As a consequence, we advised that we would use the final determination targets as the basis of annual performance reporting from 2017-18 onwards. Tables 3.1 and 3.2 below present our assessment of progress on this basis for the first time. To ensure comparison with delivery on a like for like basis, the PC15 targets have been adjusted to:

- include outputs which were expected to be delivered in PC13 but carried over into PC15;
- exclude outputs planned for PC15 which were delivered early in PC13;
- account for movements between programmes.

3.1.4 Colour coding has been used to indicate whether NI Water has met or outperformed its target (green), is marginally behind target (amber) or is more significantly behind target (red). When categorising underperformance, we have considered the impact of cost delays, re-profiling of delivery undertaken by the company and the potential for ‘catch-up’ when coming to a marginal assessment. Where the company was required to deliver an annual target the shading is solid. Some targets are however set for PC15 as a whole and we report performance against these targets on a cumulative basis. In these cases the same colour coding has been used but the shading has been hatched.

3.1.5 The use of final determination targets on a consistent basis will help avoid any confusion associated with the use of adjusted outputs and provide clarity to stakeholders and consumers in relation to the outputs that the company is expected to deliver. However it results in more performance indicators appearing behind target than in previous years, particularly for sewerage. This is largely because some of the impact of the re-profiling undertaken to accommodate budget reductions in the first two years of PC15 still remains.

3.1.6 NI Water is expected to be able to address these shortfalls by the end of the price control period, provided the funding allocation in real terms is similar to that assumed in the mid-term review. Therefore based on a review of performance to date, our conclusion is that NI Water is broadly delivering against the PC15 final determination targets in overall terms. Further details can be found in the commentary under Tables 3.1 and 3.2 below.
## Water Services Targets

### Table 3.1 – NI Water PC15 Key Outputs for Water Services

<table>
<thead>
<tr>
<th>Line description</th>
<th>2017-18 Target</th>
<th>2017-18 Actual</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Consumer Service Water</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. DG2 Properties at risk of low pressure removed from the risk register by company action</td>
<td>357</td>
<td>386</td>
<td>On track</td>
</tr>
<tr>
<td>2. DG2 Properties receiving pressure below the reference level at end of year</td>
<td>775</td>
<td>711</td>
<td>On track</td>
</tr>
<tr>
<td>3. DG3 Supply interruptions &gt; 12hrs (unplanned and unwarned)</td>
<td>0.17% 0.10%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>4. DG3 Supply interruptions (overall performance score)</td>
<td>1.03 0.81%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>5. DG6 % billing contacts dealt with within 5 working days</td>
<td>99.90% 99.97%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>6. DG7 % written complaints dealt with within 10 working days</td>
<td>99.50% 99.87%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>7. DG8 % metered customers received bill based on a meter reading</td>
<td>99.00% 99.67%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>8. Call Handling Satisfaction score (1-5)</td>
<td>4.65 N/A</td>
<td></td>
<td>Target dropped</td>
</tr>
<tr>
<td>9. DG9 % calls not abandoned</td>
<td>99.00% 99.51%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>10. DG9 % calls not receiving the engaged tone</td>
<td>99.90% 99.99%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>11. Overall Performance Assessment (OPA) score (11 Measures)</td>
<td>224 236</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>12. Total Leakage (Ml/d)</td>
<td>159 162</td>
<td></td>
<td>Marginally behind</td>
</tr>
<tr>
<td>13. Security of supply index</td>
<td>100 100</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>14. % NI Water’s power usage derived from renewable sources</td>
<td>30.0% 36.9%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td><strong>B Water Quality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15a. % overall compliance with drinking water regulations</td>
<td>99.79% 99.88%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>15b. % compliance at consumers tap</td>
<td>99.69% 99.81%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>16. % iron compliance at consumers tap</td>
<td>97.10% 98.85%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>17. % Service Reservoirs with coliforms in &gt;5% samples</td>
<td>0.00% 0.00%</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td><strong>C Water Outputs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Water mains activity - Length of new, renewed or relined mains (km)</td>
<td>403 415</td>
<td></td>
<td>On track</td>
</tr>
<tr>
<td>19. Completion of nominated trunk main schemes</td>
<td>2 3</td>
<td></td>
<td>On track</td>
</tr>
<tr>
<td>20. Completion of nominated water treatment works schemes</td>
<td>1 1</td>
<td></td>
<td>On track</td>
</tr>
<tr>
<td>21. Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks</td>
<td>1 1</td>
<td></td>
<td>On track</td>
</tr>
<tr>
<td><strong>D Serviceability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Water infrastructure serviceability</td>
<td>Stable</td>
<td>Stable</td>
<td>Target met</td>
</tr>
<tr>
<td>23. Water non-infrastructure serviceability</td>
<td>Stable</td>
<td>Stable</td>
<td>Target met</td>
</tr>
<tr>
<td><strong>E New Output Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Number of Catchment Management Plans</td>
<td>20 13</td>
<td></td>
<td>Behind target</td>
</tr>
<tr>
<td>25. Number of lead communication pipes replaced under the proactive lead replacement programme</td>
<td>5,532 5,556</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>26. Number of school visits</td>
<td>528 753</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>27. Number of other education events</td>
<td>171 191</td>
<td></td>
<td>Target met</td>
</tr>
<tr>
<td>28. % Service Reservoirs where sample taps have been assessed and are to required standard</td>
<td>100% 72.9%</td>
<td></td>
<td>Marginally behind</td>
</tr>
</tbody>
</table>

6 Target amended for reasons described in 3.1.3 to ensure a like for like comparison with delivery.
3.1.7 NI Water met or outperformed almost all of the consumer service and water output objectives for 2017-18.

3.1.8 Use of the call handling satisfaction measure was discontinued in 2016-17 as agreed by the Consumer Engagement Oversight Group (CEOG), comprising of all key stakeholders. This is a consequence of the work undertaken by the group to develop more consumer focused metrics and ‘actionable’ measures of customer satisfaction during PC15, to inform and potentially set new KPIs for PC21.

3.1.9 The original survey is no longer used and has been replaced by a new unannounced survey of customers who have had need of contacting NI Water in the recent past. The new survey includes a new customer advocacy measure to compare NI Water to its peers both internationally and across other service providers as well as yearly Omnibus customer advocacy results from a representative sample of all NI Water consumers. Conducting the survey in PC15 allows consideration of whether any new targets ought to be introduced for PC21.

3.1.10 For the purposes of assessing overall performance in the remaining years of PC15, CEOG has agreed that a score of 4.65 (equivalent to NI Water’s best ever performance for the discontinued survey) should be used to calculate the company’s OPA score.

3.1.11 The company only fell below target in four water service areas and work to address any shortfalls by the end of the price control period appears to be in hand. Further details are provided below:

- Leakage was higher than the target figure for the second year in a row. Whilst the variance is still not significant it is concerning that there has been a further increase in 2017-18. NI Water produced an addendum to the submission at the request of the Reporter, which identifies the action it intends taking to ensure it meets its leakage target at the end of PC15. This is welcomed and we expect the company to deliver on its commitments and maintain its focus on achieving its leakage targets over the remainder of the PC15 period.

- The percentage of Service Reservoirs where sample taps have been assessed and are to the required standard is behind programme. This reflects re-profiling undertaken to accommodate budget reductions at the start of PC15. NI Water has made significant progress in 2017-18 by installing 212 taps (72.9%) of the 291 taps to be addressed. This progress provides confidence that the company will deliver on its revised commitment of completing sample tap assessments in the first half of 2018-19.

- The number of catchment management plans completed by NI Water is behind programme. This largely reflects re-profiling undertaken as a result of budget reductions at the start of PC15. NI Water has completed assessments for all but two of its operational catchments which it plans to complete in 2018-19. The company then plans to begin assessments of abandoned catchments, which it plans to complete in the final three years of PC15.
### Sewerage Service Targets

#### Table 3.2 – NI Water PC15 Key Outputs for Sewerage Services

<table>
<thead>
<tr>
<th>Line description</th>
<th>2017-18 Target</th>
<th>2017-18 Actual</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Consumer Service Sewerage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 DG5 Properties at risk of flooding - number removed from 2 in 10, 1 in 10 and 1 in 20 risk register by company action.</td>
<td>38</td>
<td>31</td>
<td>Marginally behind</td>
</tr>
<tr>
<td>2 DG5 Properties on the 2 in 10, 1 in 10 and 1 in 20 risk register at the end of the year</td>
<td>130</td>
<td>134</td>
<td>Marginally behind</td>
</tr>
<tr>
<td><strong>B Quality Sewerage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 % of WwTWs discharges compliant with numeric consents</td>
<td>93.2%</td>
<td>93.5%</td>
<td>Target met</td>
</tr>
<tr>
<td>4 % of total p.e. served by WwTWs compliant with numeric consents excluding upper tier failures</td>
<td>98.30%</td>
<td>98.70%</td>
<td>Target met</td>
</tr>
<tr>
<td>5 Small WwTW compliance (works greater than or equal to 20p.e. but less than 250p.e.)</td>
<td>89.58%</td>
<td>87.21%</td>
<td>Marginally behind</td>
</tr>
<tr>
<td>6 Number of high and medium pollution incidents attributable to NI Water</td>
<td>26</td>
<td>20</td>
<td>Target met</td>
</tr>
<tr>
<td><strong>C Sewerage Outputs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Sewerage activity - Length of sewers replaced or renovated (km)</td>
<td>34</td>
<td>41</td>
<td>On track</td>
</tr>
<tr>
<td>8 Delivery of improvements to nominated UIDs as part of a defined programme of work</td>
<td>66\textsuperscript{7}</td>
<td>48</td>
<td>Marginally behind</td>
</tr>
<tr>
<td>9 Delivery of improvements to nominated WwTWs as part of a defined programme of work</td>
<td>13\textsuperscript{7}</td>
<td>6\textsuperscript{8}</td>
<td>Marginally behind</td>
</tr>
<tr>
<td>10 Small wastewater treatment works delivered as part of the rural wastewater investment programme</td>
<td>21\textsuperscript{7}</td>
<td>15\textsuperscript{9}</td>
<td>Marginally behind</td>
</tr>
<tr>
<td><strong>D Serviceability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Sewerage infrastructure serviceability</td>
<td>Stable</td>
<td>Stable</td>
<td>Target met</td>
</tr>
<tr>
<td>12 Sewerage non-infrastructure serviceability</td>
<td>Stable</td>
<td>Stable</td>
<td>Target met</td>
</tr>
<tr>
<td><strong>E New Output Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 CSO and EO discharges at which event and duration monitoring equipment has been installed</td>
<td>173</td>
<td>0</td>
<td>Behind target</td>
</tr>
<tr>
<td>14 WwTWs upgraded to comply with PPC Regulations</td>
<td>0</td>
<td>0</td>
<td>No output for yrs 1 to 3</td>
</tr>
<tr>
<td>15 Impermeable surface water collection area removed from the combined sewerage network</td>
<td>90,000</td>
<td>202,624</td>
<td>On track</td>
</tr>
<tr>
<td>16 Number of sustainable WwTW solutions delivered (p.e. ≥ 250)</td>
<td>2</td>
<td>3</td>
<td>On track</td>
</tr>
<tr>
<td>17 Number of sustainable WwTW solutions delivered (p.e. &lt; 250)</td>
<td>0</td>
<td>1</td>
<td>On track</td>
</tr>
</tbody>
</table>

3.1.12 NI Water met or outperformed almost two thirds of the sewerage service output objectives for 2017-18:

- The company did not meet its target for the number of properties at risk of

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\textsuperscript{7} Target amended for reasons described in 3.1.3 to ensure a like for like comparison with delivery.

\textsuperscript{8} NI Water also completed construction of two other large wastewater treatment works in 2017-18. Work necessary to validate compliance for these works continued into 2018-19. We will recognise the delivery of these outputs when this has occurred.

\textsuperscript{9} NI Water also completed construction of one other rural wastewater treatment works in 2017-18. Work necessary to validate compliance for these works continued into 2018-19. We will recognise the delivery of these outputs when this has occurred.
internal flooding removed by company action. This is a consequence of NI Water re-profiling the delivery of a major sewerage scheme with nine DG5 outputs to PC21. This has also resulted in the registered number of properties at risk being higher than anticipated at this point in the price control period.

- The number of small wastewater treatment works delivered under the rural wastewater investment programme is behind target. This is a result of NI Water deferring 7 schemes in the first year of PC15 pending the establishment of a new delivery framework. The small wastewater treatment compliance measure is behind target for the same reason and broadly aligns with a one year lag in delivery. NI Water plans to redress any shortfall in delivery to date in order to achieve the target by the end of the PC15 period.

- NI Water is behind its target for the delivery of nominated wastewater treatment works. This is largely a result of cumulative budget reductions in the first two years of PC15. The revised delivery profile submitted by the company indicates it will catch up on its cumulative target by 2018-19 subject to the provision of adequate capital funding.

- NI Water is behind its target for the delivery of improvements to nominated UIDs. The revised delivery profile submitted by the company indicates it will catch up on its cumulative target by the end of the period, however the content of the programme has changed considerably since the final determination. We will consider the ‘equivalence’ of the revised programme from the perspective of cost and benefit when reviewing PC15 delivery for our PC15 Outturn Report which will form part of our PC21 determination.

- NI Water is significantly behind its target for installing event and duration monitoring equipment at its combined sewer and emergency overflows. At the end of 2017-18 it had still not installed any equipment under this programme. We acknowledge that the delay in the first year of PC15 was to accommodate budget reductions, but delivery beyond this was within NI Water’s control. The company plans to complete the work by the end of the PC15 period and to prioritise work associated with the Living with Water Programme (LWWP). However the on-going delays is detrimental to the company’s ability to gather the information necessary to inform its PC21 investment plans.

**Quality Compliance**

3.1.13 Performance against some targets can be affected by things outside the company’s control, such as the weather or sampling regimes. For PC15 we identified performance ranges for water and wastewater quality which reflected this inherent variability. The specific annual targets which were based on these ranges were all met in the 2017 calendar year as shown in Tables 3.1 and 3.2.

3.1.14 The PC15 water quality output targets were set just above the lower limits of the estimated performance ranges for water and wastewater quality which reflected consistently throughout the period. In 2017, performance for all these measures (overall water quality compliance, compliance at consumers' taps and iron compliance) lay well above the minimum compliance requirements at, or above, the top of the performance range as shown in the graphs below. The improved performance for the overall compliance and customer tap measures will have been heavily influenced by the performance for iron which contributes the largest
number of failures to these composite measures. The variability of assessed performance associated with the random nature of the sampling regime means that we will need to wait to see if this apparent improvement in compliance is reflective of real improvements in the network and sustainable.

Figure 3.1 - Overall water quality compliance

Figure 3.2 - Water quality compliance at tap
3.1.15 The PC15 targets for wastewater compliance, measured on the basis of the percentage of treatment works complying, were set at the lower end of our projected operating range. Although this was considered to represent a reasonable assessment of the operating risk, we noted in the final determination that we would expect the company to generally operate at or above this level during PC15. Performance in 2017 lay just above this target, as shown below. Cumulative delivery of nominated wastewater treatment works is currently behind the final determination profile and we would expect compliance performance to move further above PC15 target levels when NI Water catches up on delivery.

3.1.16 The PC15 targets for wastewater compliance, measured on the basis of the population served, were set roughly at the mid-point of our projected operating range. Performance in 2017 remains above target, in the top half of the range, as shown below.
Serviceability

3.1.17 We use trends for a range of primary and secondary serviceability indicators to assess how the company is maintaining its assets.

3.1.18 We have updated our PC15 final determination serviceability assessment for each primary and secondary indicator to include outturn data for the first 3 years of PC15. The updated trends of the primary indicators in the four service areas are shown below. All show stable (horizontal) trends and so we have concluded that serviceability remains stable overall.

<table>
<thead>
<tr>
<th>Service</th>
<th>Primary service indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Infra</td>
<td>Mains bursts per 1,000km</td>
</tr>
<tr>
<td>Water Non-infra</td>
<td>Percentage of regulatory samples taken for Turbidity at WTWs which exceed 0.8 NTU</td>
</tr>
<tr>
<td>Sewerage Infra</td>
<td>Sewer collapses per 1,000km</td>
</tr>
<tr>
<td>Sewerage Non-infra</td>
<td>Number of WwTWs with one or more compliance sample result (BOD, SS or Ammonia) exceeding the numeric consent value</td>
</tr>
</tbody>
</table>

Figure 3.5 - Population equivalent served by WwTWs compliant with numeric consents

10 The PC15 output measure for “Population equivalent served by WwTWs compliance with numeric consents” excludes upper tier failures.
While our current assessment is that serviceability remains stable overall, we note that some secondary indicators, distributed across a number of service areas, have shown improvement and have performance which is now better than predicted by the performance range.

The control limits for these indicators were reviewed in our PC15 Mid-term review where we concluded that we should wait until PC21 before any making adjustments. This approach aligns with normal regulatory practice and will allow the reassessment to benefit from additional years of performance data and confirmation of whether the improvements continue to be sustained.

Performance for the Trihalomethane (THM) water quality sub-indicator has improved in 2017-18 and now lies just above the upper limit of the performance range set in the PC15 final determination. This follows deterioration in each of the previous 3 years. We welcome this improvement and expect NI Water to continue to investigate and address the root cause of historic THM issues so that performance can be restored to previously achieved levels as quickly as possible.

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A score of 100% represents operation at the reference level benchmark and a horizontal trend around this benchmark is indicative of stable serviceability.
4.0 Capital Expenditure

4.1.1 NI Water invested around £153m in 2017-18 to:

- Maintain its existing assets;
- Meet more demanding quality obligations;
- Provide extra capacity for growth; and
- Improve the levels of service it currently provides.

4.1.2 Due to reductions in public expenditure budgets, investment in the first half of PC15 was £451m, £31m lower than the nominal figure of £482m included in the PC15 final determination. This has constrained NI Water’s ability to deliver the PC15 outputs in real terms even after the benefits of lower than anticipated inflation is taken into account.

4.1.3 The reduction from the figures included in the PC15 final determination result from public expenditure capital budget allocations being lower than anticipated in the first two years of the price control. In line with the approach set out in our PC15 final determination, we have worked with NI Water, Dfi and other key stakeholders to ensure that the company continues to deliver the best possible package of outputs within the funding available.

4.1.4 When assessing the impact of budget reductions on output delivery, we took account of the fact that inflation has been lower than we assumed in our final determination for PC15 and the capital efficiency challenge which forms an integral part of the final determination. Lower inflation and improved efficiency should allow the company to deliver more for less, and we expect the company to build these opportunities into its medium term plans.

4.1.5 Our review of delivery to the end of 2017-18 shows that some major sewerage projects, which deliver priority nominated outputs in PC15, continue to be subject to delay. We welcome the company's acknowledgement during our PC15 mid-term review that this should be recoverable, provided that inflation remains as projected and budget reductions in the future are no more severe than they have been in the past. NI Water should commit to the delivery of the nominated outputs identified in the final determination on this basis and ensure that it is able to accelerate other work if any programme delays occur so that this remains achievable.

4.1.6 The allocation of investment by purpose in 2017-18 is shown in Figure 4.1 below. Investment to maintain existing assets (base maintenance expenditure) is 61%, a decrease of 4% from the previous year. The remaining 39% is allocated between improvements in quality, improved services to consumers and growth.
4.1.7 The investment to maintain the company’s existing assets and the service they deliver is the largest element the company’s capital programme by proportion. In 2017-18, the company invested just over £90m in base maintenance contributing to an overall investment of £276m in the price control period to date. This remains £12m higher than the allowance in the PC15 final determination in nominal terms.

4.1.8 However, because inflation was much lower than assumed in the final determination for the first 2 years of PC15, we would have expected the company to have spent less maintaining serviceability. NI Water’s ability to deliver the outputs defined for the PC15 period will depend on it managing the balance between ‘base’ and ‘enhancement’ expenditure effectively over the period as a whole. This should take account of movements in inflation and be informed by associated performance, including serviceability trends. We will continue to monitor whether this occurs.

4.1.9 In previous Cost and Performance Reports, we have highlighted a consistent annual cycle of expenditure. Peak levels of investment occur in the winter months and expenditure is at its lowest level in the first quarter of each year. Figure 4.2 shows that this trend has continued throughout PC15 to date. This cycle of investment, driven by annual spending constraints, remains disruptive for the supply chain and detrimental to efficient delivery and could be assisted by longer term budget allocations and end of year flexibility.
4.1.10 In the first half of the PC15 six year price control, delivery has been affected by reductions in the public expenditure capital budget available to NI Water and it has had to respond to the challenges which come from project development and procurement. However work undertaken for our PC15 mid-term review indicated that all the outputs identified in the PC15 final determination should be deliverable over the period as a whole. We will continue to assess cumulative delivery over the remainder of PC15 on this basis, taking account of changes in budget, inflation and the delivery of capital efficiency.
5.0 Customer Service

5.1. How Customer Service is Assessed

5.1.1 In order to fully assess how NI Water is performing, we have adopted the Overall Performance Assessment (OPA) framework. This monitors the overall level of service that NI Water provides to its customers.

5.1.2 Our OPA combines 11 individual service measures and scores them against a reasonable range. Scores are then weighted in order of importance and combined to give an overall picture of service level performance.

5.2. OPA Performance

5.2.1 The chart below details NI Water’s OPA scores from 2007-08. Key points are:

- With a score of 236, NI Water outperformed our PC15 OPA target (of 224) for 2017-18 by 12 points. Performance was up on the previous year from a score of 228. This score represents the target set for the final year of the price control (2020-21).

- Over the 2017-18 year, service levels improved in the areas of drinking water quality and risk of low pressure. Service levels declined for unplanned interruptions and WwTW works compliance compared to the previous year.

- Although there is still a service gap with England and Wales (E&W) companies (who achieved an average score of 290 in 2009-10), the scale of the gap has been closed markedly by NI Water.

Figure 5.1: NI Water’s OPA scores
6.0 Development Objectives and PC21 Preparation

6.1.1 The promotion of long term planning was a key component of our approach to PC15. In previous PC15 cost and performance reports and our PC15 mid-term review we noted concerns over progress on a number of the key development objectives included in the PC15 final determination. These are funded and considered critical to improving NI Water’s planning capability and better informing investment planning for PC21.

6.1.2 Our PC15 Mid-term Review, which was published in February 2018, questioned whether all the development work and preparatory work could be completed in time to deliver the anticipated improvements in the company’s business plan submission for PC21. The key dates in the process are the completion of draft lists of investment priorities by the start of 2019, submission of an outline capital submission in June 2019 and submission of the company’s final business plan by February 2020.

6.1.3 In response, the company stated that it still anticipated delivering the PC15 development objectives. In our opinion this will require a significant and concerted effort and we will review delivery through our on-going engagement with NI Water on the PC21 process.

6.1.4 We have noted that the company remains broadly on track to deliver the PC15 outputs. We assess delivery of PC15 outputs as part of our PC21 price control determination and, if appropriate, we will make regulatory adjustments to take account of delivery having allowed for changes in inflation and changes made to the public expenditure budget over the PC15 period.