Cost and Performance Report For NI Water - PC10 (2010-13)

December 2013

This document can be provided in accessible formats on request. Please contact Deirdre Matheson to request this (**deirdre.matheson@uregni.gov.uk** or 028 9031 6649).

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	Value and sustainability in energy and water.
Our Vision	We will make a difference for consumers by listening, innovating and leading.

Our Values

Be a best practice regulator: transparent, consistent, proportional, accountable, and targeted

Be a united team

Be collaborative and co-operative

Be professional

Listen and explain

Make a difference

Act with integrity

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Foreword

The role of the Utility Regulator is to protect the short- and long-term interests of consumers as well as ensuring adequate levels of funding for NI Water. A key focus is on ensuring that consumers receive value for money water and sewerage services. This report reflects our assessment of NI Water's performance during against its first regulatory price control, PC10, covering the period 1st April 2010 to 31st March 2013.

NI Water has performed well over the PC10 period. It has exceeded its Overall Performance Assessment (OPA - a benchmark for comparing the performance of water companies in Great Britain) target of 181, by attaining a score of 198. We expect NI Water to continue to improve its OPA score and have set a target of 209 by end of PC13.

The operational efficiency gap between NI Water and the notional frontier English and Welsh company has decreased significantly from 40% at the start of PC10 to 24%[1] at the end. This means that for every £1 spent by the frontier company, NI Water now spends £1.32[2]. This represents a marked improvement from 2007-08 when the comparable value was £1.95.

We recognise that PC10 has been a challenging price control for NI Water. During this time the company has responded to three extreme weather events which includes the freeze/thaw of 2010-11 which left 215,000 properties without water. These experiences have resulted in an enhanced focus on communicating effectively with consumers. NI Water has been affected by delays and changes in the available capital funding, arising from its status as a Non-Departmental Public Body. The impact of this has led to a reduction of £61 million of funding for capital investment.

We are however pleased to report that NI Water, over the period of this first price control, succeeded in delivering better value water and sewerage services for its consumers. There however remains room for improvement and we have therefore challenged the company to continue to make progress over the two year PC13 period (2013-14 to 2014-15).

We are encouraged by the progress that has been made by NI Water. However, it is important that NI Water remains focused on improving further the value of services for all its consumers.

Jo Aston

Director of Water Regulation

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[1] Provisional analysis which is subject to change.

[2] This figure refers only to NI Water's opex efficiency. It does not infer that customer bills in Northern Ireland are 32% higher than elsewhere.

1.0 Executive Summary

The role of the Utility Regulator is to protect the short and long-term interests of consumers as well as ensuring adequate levels of funding for NI Water. A key focus is on ensuring that consumers receive value for money water and sewerage services. This report reflects our assessment of NI Water's performance over the company's first regulatory price control period, PC10 which covers the period 1st April 2010 to 31st March 2013.

NI Water has performed well against our price control determination which allowed nominal revenues of £1.099 billion for the three-year period, £91million less than that sought by the company. As part of the process we benchmarked NI Water's costs and levels of service to other water companies and set challenging targets for improvement.

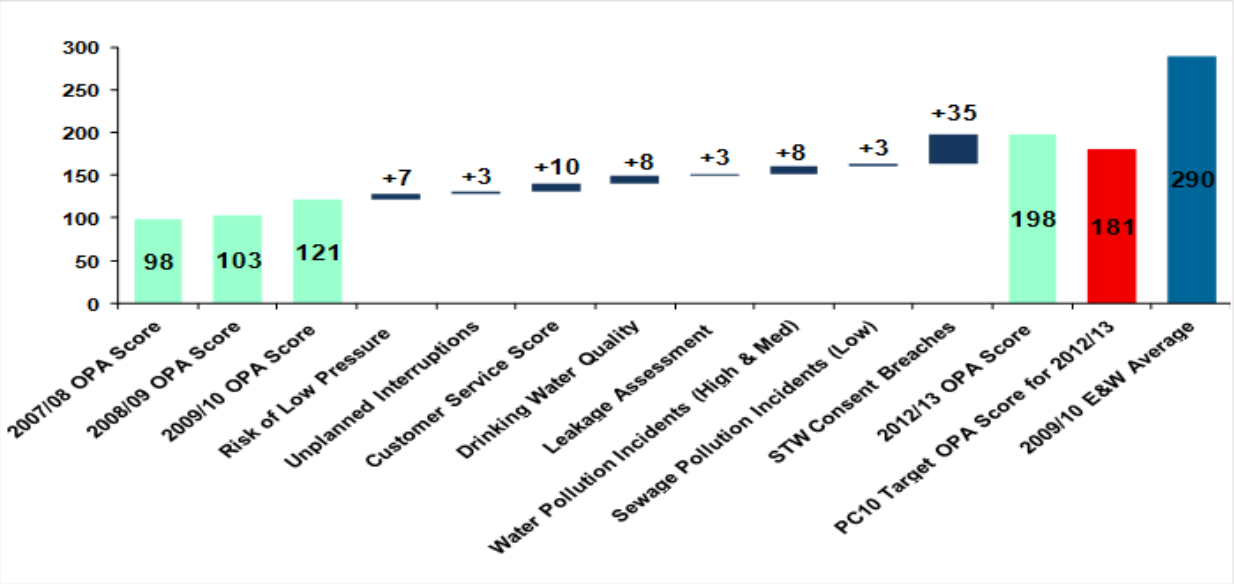
During this timeframe NI Water has faced some significant challenges which include a number of extreme weather events, the freeze/thaw of 2010/11, flooding in June 2012 and the snowfall of March 2013. A significant lesson from the freeze/thaw event was the need for an enhanced focus on communicating effectively with consumers.

During PC10, NI Water has been affected by delays and changes in the available capital funding, arising from its Non-Departmental Public Body status. The combined impact was to reduce the planned and prioritised capital investment over the period by £61million.

We are pleased to report that in overall terms NI Water has successfully delivered its first regulatory price control, reducing prices and improving services to consumers, as assessed against the PC10 determination and Monitoring Plan for the period.

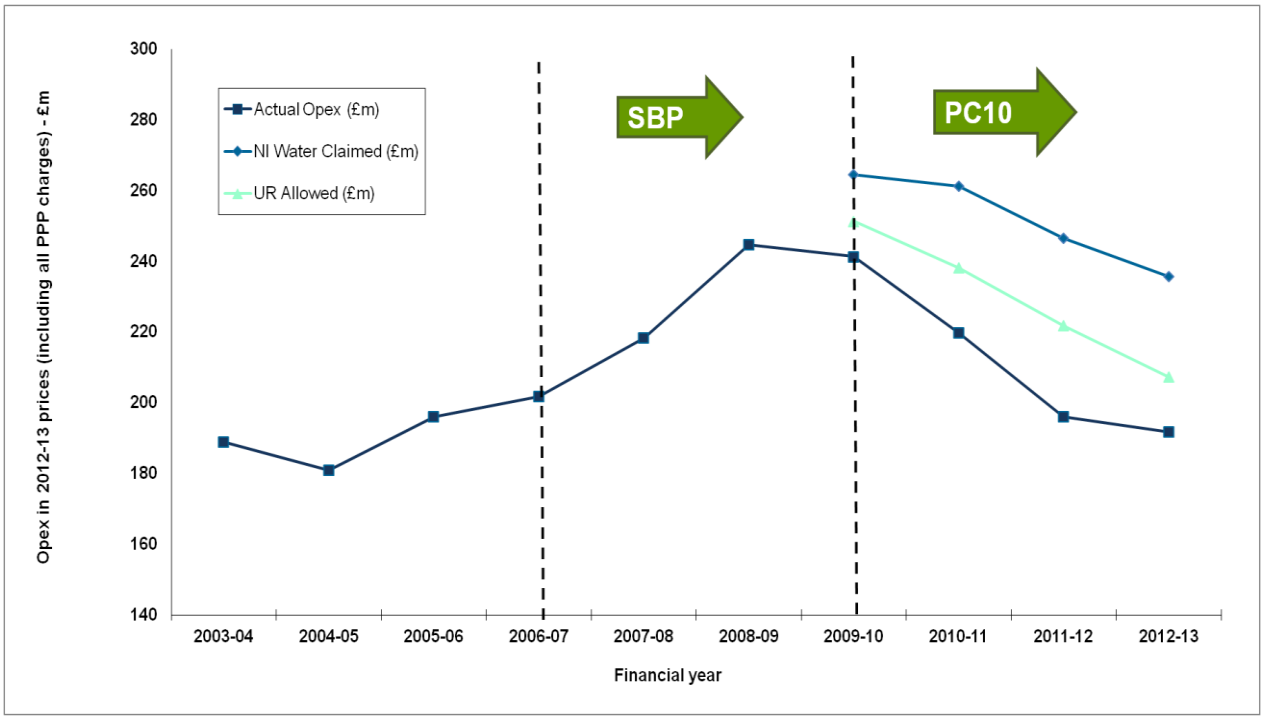
Overview of PC10 costs and performance

Improved levels of service - NI Water has improved its Overall Performance Assessment (OPA) - a composite measure of a range of targets (e.g. pressure, leakage, water quality) from 121 at the start of PC10 to 198 at the end - outperforming its target of 181.



Improved efficiency - NI Water has outperformed its PC10 efficiency targets and continues to lower the relative gap to the benchmark companies. For every £1 spent by the frontier benchmark, NI Water spends £1.32 - compared to £1.66 at the start of PC10.

Lower operating costs - NI Water has reduced its operating costs in 2012-13 prices from £241 million at the start of PC10 to £192 million at the end, as depicted in the graph below:



PC10 delivery assessed against the Monitoring Plan

The regulatory contract for PC10 is based on a Monitoring Plan in which NI Water set out its commitments to consumers and specific delivery targets. These delivery targets were developed from the overall priorities and objectives for PC10 set out in Social and Environmental Guidance which the Department for Regional Development issued to the Utility Regulator. They included a blend of three different types of output measure:

- Service level measures to reflect the service as experienced by consumers and/or impact on the environment.
- Nominated outputs which are commitments to deliver specific upgrades such as an improved wastewater treatment standard or a new water trunk main.
- Activities such as the length of new or replaced water main.

NI Water met 26 of 33 key outputs with some failures outside management control, being attributable to extreme weather events and reductions in capital funding.

Key areas where performance did not meet the target include: interruptions to supply and delivery of reservoir engineer inspection recommendations where investment will continue into PC13.

Changes to planned capital expenditure

NI Water's Non-Departmental Public Body status means that it is subject to public expenditure regimes. Consequently, capital funding is confirmed on an annual basis and expenditure restricted to the specific year.

During PC10, NI Water has been affected by delays and changes in the available budget. The key delays and changes were:

- In 2010-11, NI Water was unable to spend £31 million of its capital budget.
- A public expenditure Comprehensive Spending Review (CSR) completed at the end of 2010-11 increased the available capital budget in 2011-12 by £4 million and reduced the capital budget available for 2012-13 by £46 million.
- Half- way through 2012-13 a further £12 million capital funding was made available to NI Water which was invested in the last quarter of the year.

NI Water, as a NDPB is unable to move planned expenditure between years to accommodate delays or changes in budget. Money which cannot be spent in one year is a lost opportunity to invest in improvements to water and sewerage services.

During PC10 the impact of delays and changes meant that capital investment was reduced by £61million (11%).

The impact on the various investment drivers can be seen below.

Investment Driver	PC10 Final Determination (£ million)	PC10 Actual Capital Expenditure (£ million)	Difference (£ million)
Quality to ensure compliance with quality standards and EU directives	169	113	-56
Base Maintenance needed to maintain current levels of service	257	254	-3
Enhancement to improve current levels of service	42	29	-13
Growth to ensure development can be accommodated	110	121	+11
Total	578	517	-61

The capital expenditure fluctuations which occurred during PC10 are undesirable. A fixed and confirmed capital budget for a price control period is preferable for such a capital intensive business.

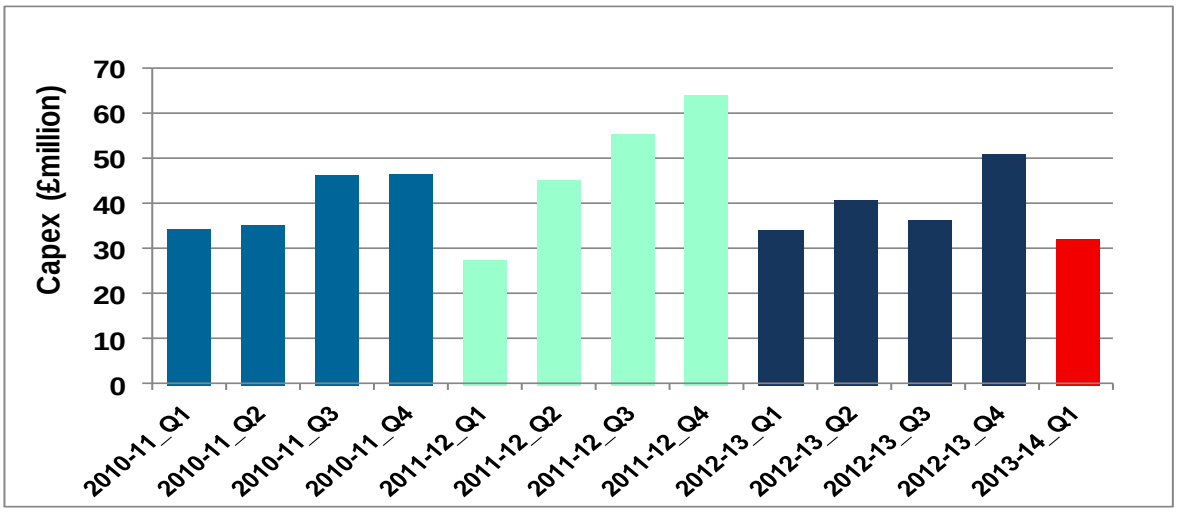
As part of our work on the price control for 2013-15 (PC13) we assessed the value of the outputs delivered in PC10. We concluded that the company has:

- delivered the capital efficiency challenge of the PC10 final determination;

- maintained the serviceability of its assets; and,
- broadly delivered the revised asset performance measures and nominated outputs for PC10.

Profile of capital expenditure impacting on delivery and efficiency

For each year of PC10, the peak level of expenditure was in the winter months and there was an abrupt reduction in expenditure between the last quarter of one year and the first quarter of the next (see graph below). In the transition between 2011-12 and 2012-13, expenditure per quarter reduced by 47%, in part reflecting the reduction in total budget for 2012-13. This cycle of investment is disruptive for the supply chain and detrimental to efficient delivery.



Given the constraints and challenges faced by the company, investment performance in PC10 was generally good, following a slow start in 2010-11. Addressing some of the issues raised by annual investment constraints would allow the company to further improve its investment performance.

Freeze/thaw resilience

The 2010-11 freeze/thaw event resulted in significant disruption to water supplies with around 450,000 consumers in 215,000 properties experiencing some supply interruption during the week after Christmas.

Following the freeze/thaw event the Utility Regulator reported to the Executive on NI Water's performance and recommended 56 actions to reduce the impact of similar events in the future. All but two of the short/medium-term actions have been delivered. These outstanding actions relate to developing revised asset standards for plant and fittings and we are satisfied they are being progressed.

A significant issue during the freeze/thaw event was the company's means of communicating with consumers. NI Water has since focused on and strengthened its emergency response capability, including its ability to gather information, communicate with consumers and mobilise mutual aid during an emergency.

2.0 Costs And Efficiency

2.1. Introduction

The Utility Regulator has been the independent economic regulator of the water and sewerage services industry in Northern Ireland since 1 April 2007. Northern Ireland Water (NI Water) was also established on 1 April 2007, and is the government-owned provider of water and sewerage services in Northern Ireland. In the absence of domestic water charges, NI Water is also treated as a Non-Departmental Public Body (NDPB) for financial purposes since it receives the majority of its income from public funding.

We exist to protect both today's and tomorrow's consumers. We do this by ensuring that NI Water prioritises investment in line with Ministerial Social and Environmental Guidance, that consumers receive value for money and that investment results in improvements to service. This report reflects our assessment of NI Water's Costs and Performance over NI Water's first regulatory price control, PC10 (2010-11 to 2012-13).

2.2. Overall Financial Performance

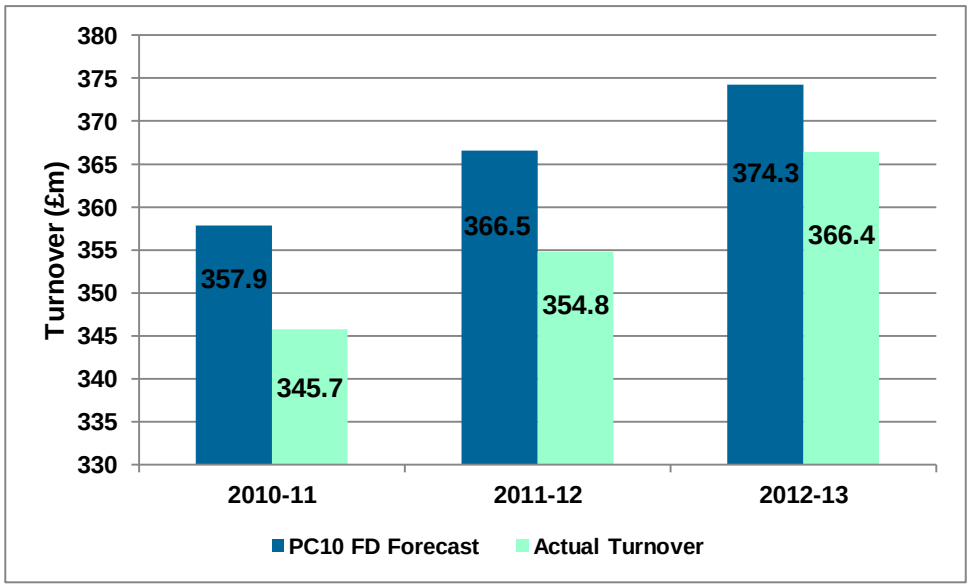
Turnover

Turnover over the PC10 period for the regulated business was below forecast levels with a total income of £1,067 million compared to the PC10 forecast of £1,099 million – some £32 million deviation. NI Water receives a subsidy from DRD for over 70% of its revenue (following the Northern Ireland Executive's decision to defer domestic water charges).

This under recovery is largely attributed to unmetered and metered non household water and sewerage charges and is mainly due to lower customer numbers and consumption levels than envisaged.

In 2012-13 there were additionally a number of adjustments to income including the correction of billing errors and the re-categorisation of certain types of waste material from health care institutions relating to trade effluent and sewerage charges. Turnover over the PC10 period as compared to the PC10 forecast is shown in Figure 2.1.

Figure 2.1: NI Water turnover versus PC10 forecasts

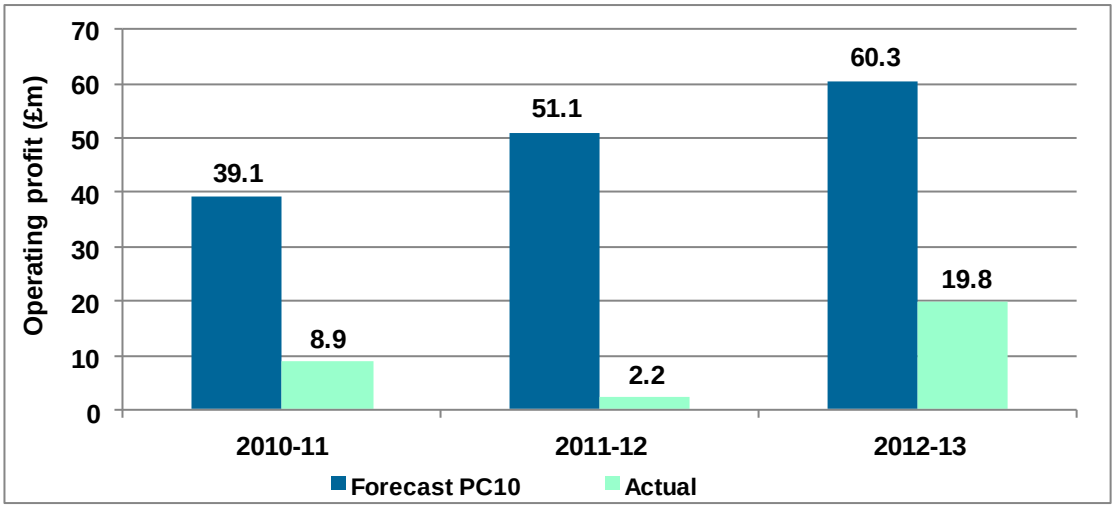


Operating Profit

Over the PC10 period NI Water's operating profits were below the FD predictions; totalling £30.9 million as compared to £150.5 million forecast. The profile of operating profits may be viewed in the graph below. In 2012-13 the company made accelerated depreciation and impairment charges totalling £58.7 million (2010-11: £44.3 million; 2011-12: £67.7 million.

The company has informed the Utility Regulator that the accelerated depreciation on infrastructure assets was completed in 2012-13 and there are currently no plans for this to occur in the future. The remaining variances in operating profit are largely due to reduced levels of income as noted above, offset by reductions in operating expenditure. Operating expenditure is considered in more detail in section 2.3.

Figure 2.2: NI Water operating profit versus PC10 forecasts



Dividends

Over the PC10 period NI Water paid some £82 million of dividends to its shareholder, the DRD. This level of dividend agrees to the projections within its BP for each of the PC10 financial years (2010-11: £26 million; 2011-12: £27 million; 2012-13: £29 million).

Loan Profile

By the end of PC10 the level of DRD loans reached £882.6 million. This reflected a lower loan drawdown profile as compared to the £968.3 million predicted in the PC10 FD. This deviation is largely due to a reduced capital allocation to NI Water and an under spend in the Capital Works Programme over the PC10 period (more detail regarding the Capital programme may be found in section 3). This level of borrowing results in a 2012-13 level of gearing of 47.9% as compared to the PC10 prediction of 53.8%. The loan drawdown profile over PC10 may be viewed below:

Table 2.1: NI Water loan drawdown compared to PC10 FD profile

	FD Allowance for Loan Drawdown (£ million)	Actual Loan Drawdown (£ million)
2010-11	783.7	737.6
2011-12	880.8	807.6
2012-13	968.3	882.6

Regulatory Capital Value

The Regulatory Capital Value (RCV) is the value of the appointed business. It is often used by the investment community to determine the market value of the appointed business. In England and Wales companies earn a return (that is, a weighted average cost of capital) on their RCV. The RCV is increased each year by the investment base and reduced by the value of assets that have been used up or sold off in the year. NI Water's RCV has grown steadily from the start of PC10 from some £1.5 billion to some £1.8 billion at the end of PC10.

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[3].

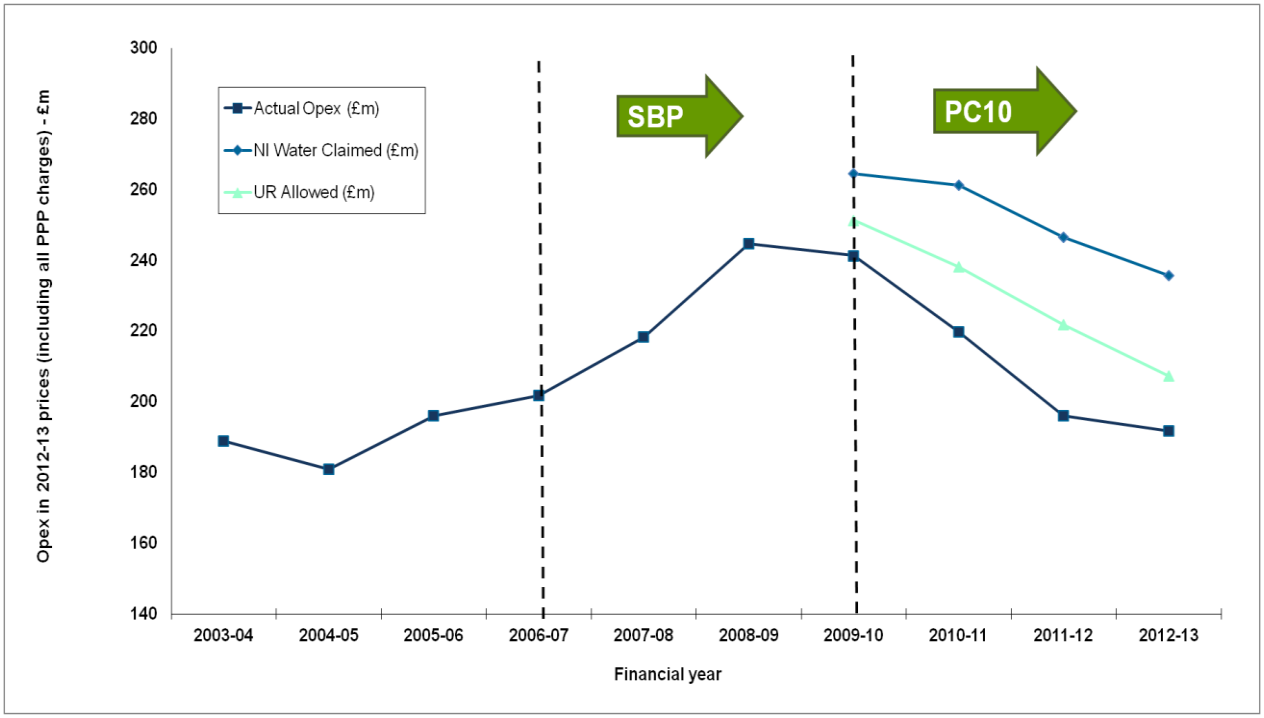
[3] http://www.niwater.com/annual-report/

2.3. Operational Expenditure

NI Water's cost profile has been one of reducing opex. Over the PC10 period, spend has fallen from £212.8 million in 2009-10 to £191.7 million in 2012-13. This represents a reduction of 9.9% in money of the day prices. Given that inflation over PC10 was running at 13.4%, the real terms reduction is closer to 20.5%.

The fall in real opex (2012-13 prices) is shown in the graph below. The figure also details the performance against NI Water's PC10 business plan and the Utility Regulator's final determination.

Figure 2.3: NI Water actual opex profile in real terms (2012-13 prices)



The graphic details the impressive restraint of costs in the PC10 period. The company has outperformed its own plans and the targets set by the Regulator. Within this period most of the major opex areas have reduced.

Labour costs have fallen due to staff reductions and the imposed wage restraint from the wider civil service. Other variations include: power costs which have reduced, as well as chemicals, materials and consultancy spends which, in particular, have decreased rapidly since 2009-10.

Expenditure against PC10 targets is detailed below.

Table 2.2: NI Water allowed versus actual opex in PC10 (nominal prices in £ million)

	2010-11	2011-12	2012-13	Total
Actual Opex Spend	£203.3m	£190.2m	£191.7m	£585.2m
PC10 FD Target	£220.4m	£215.1m	£207.2m	£642.7m
Saving (-) / Over spend	-£17.1m	-£25.0m	-£15.5m	-£57.6m

Figures may not sum due to rounding

The figures illustrate a consistent out-performance of the regulated targets. The emphasis on cost restraint has led to a saving of almost 9% against the PC10 allowance.

The result represents good performance on the part of NI Water. This is particularly true given the fact that service levels across the business have not deteriorated in order to facilitate opex reductions. In fact the opposite is the case, with customer service and other performance metrics generally getting better.

2.4. Meeting Operational Efficiency Targets

For the third year running, NI Water has achieved the opex targets set for PC10. Real costs have declined. At the same time service levels have been improving. This represents a more efficient company and a positive result for consumers.

Although opex was £57.6 million under the FD allowance, not all the progress is efficiency. Other factors play a part, such as:

- Simple under spend on funded projects;
- Atypical costs and credits which only have a one year impact; and
- Recurring additional costs that were not foreseen at PC10.

Highlights of out-performance in PC10 are provided in Table 2.3:

Table 2.3: Assessing opex out-performance in PC10 (nominal prices in £ million)

	2010-11	2011-12	2012-13	Total
Saving (-) / Over spend	-£17.1m	-£25.0m	-£15.5m	-£57.6m
Less BIP[4] Under spend	-2.5	-2.4	-1.8	-6.7
Less PPP[5] Under spend	-2.9	-4.1	-2.0	-9.0
Less VER/VS[6] Under spend	-7.9	-8.8	-5.5	-22.2
Less freeze/thaw costs	5.1	-2.1	0.0	3.0
Less CRC[7] costs	0.0	2.0	1.9	3.9
Less miscellaneous costs	-2.7	-2.7	-1.6	-7.0
Actual out-performance	-£6.1m	-£6.9m	-£6.5m	-£19.6m

Figures may not sum due to rounding

The table shows that efficiency is not the sole reason for under spend. NI Water is to be commended for absorbing unforeseen costs such as the freeze/thaw and carbon charges. However, much of the under spend is due to non-delivery of planned VER/VS and associated Business Improvement projects.

The conclusions are:

- NI Water under spent against the BIP allowed funding by £6.7 million. Some projects have not been undertaken. The company is scheduled to complete a PC10 Business Improvement Programme closure report in autumn 2013.
- VER/VS expenditure is £22.2 million below allowed funding. The PC10 business plan envisaged 214 staff leaving through VER/VS. Over the price control period only 139 staff left through such means.
- PPP unitary charges are £9.0 million less than projected. This stems from a variety of reasons including contract changes, deductions against PPP performance and good project management. The unitary charge will also be influenced by demand volumes and rainfall.
- The company has absorbed extra costs associated with the freeze/thaw (which were over-estimated at 2010-11 hence the credit at 2011-12) and an on-going additional Carbon Reduction Commitment (CRC) payment.

[4] BIP refers to the Business Improvement Programme.

[5] PPP is the Public Private Partnerships.

[6] VER/VS refers to the Voluntary Early Retirement / Voluntary Severance schemes.

[7] CRC refers to the Carbon Reduction Commitment.

- A variety of other smaller 'one-off' atypical credits reduced costs to some extent in each of the PC10 years.

However, it can be clearly stated that NI Water met and outperformed the opex FD target by £19.6 million. This represents a very positive outcome for consumers and a great achievement by NI Water.

The Regulator has however, voiced concerns about the under spend against non-completed projects and outcomes. This concern was taken into account within the PC13 FD, to ensure that consumers did not pay twice for VER/VS or for Business Improvements already charged during the PC10 period.

2.5. Closing the Efficiency Gap

A key element of NI Water's performance is relative efficiency. The gap reflects a comparison against the wider industry in England and Wales. The percentages shown below are an estimate of how much NI Water would need to reduce costs by in order to be an 'average' i.e. mid-ranking company or 'frontier' company that is close to the best in the industry.

Table 2.4: Relative efficiency gap closure (%)

Category	Efficiency gap 2007-08	Efficiency gap 2008-09	Efficiency gap 2009-10	Efficiency gap 2010-11	Efficiency gap 2011-12	Efficiency gap 2012-13[8]
NI Water to England and Wales 'average'	42.6%	39.5%	33.3%	31.2%	23.6%	17.8%*
NI Water to benchmark or 'frontier'	48.7%	43.2%	39.7%	38.1%	31.3%	24.5%*

The analysis shows a year-on-year improvement since 2007-08. Some of the reduction is due to better measurement and insight into the models used to measure the gap. However, the major influence on relative efficiency has been NI Water's falling real opex. The success in closing this gap is an excellent outcome and reflects very well on NI Water.

A challenge still remains, the estimated gap in 2012-13 means that for every £1 of opex spent by the notional frontier company, NI Water spends £1.32. NI Water needs to continue to focus on reducing real opex, but not at the expense of service levels.

[8]* Figures for 2012-13 are provisional and likely to change when updated special factors are considered.

3.0 Capital Expenditure

3.1. Investment Performance in PC10

As part of our work on the price control for 2013-15 (PC13) we assessed the value of the outputs delivered in PC10. Our assessment took account of a reduced level of expenditure and the benefit to NI Water of a lower level of construction inflation than we assumed in the PC10 FD. From our analysis of the outputs delivered for the revised investment made, we conclude that the company has:

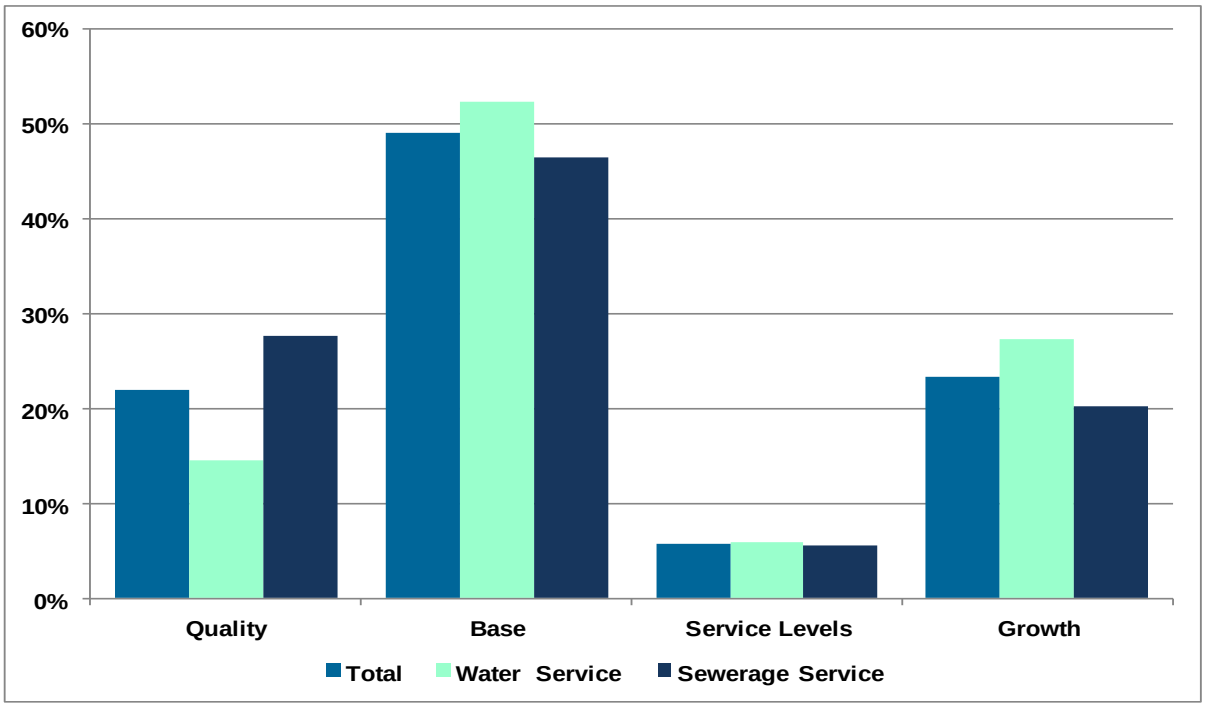
- delivered the capital efficiency challenge of the PC10 FD;
- maintained the serviceability of its assets; and,
- broadly delivered against the revised asset performance measures and nominated outputs for PC10.

3.2. Investment by Service and Purpose

In PC10, NI Water invested £517 million to maintain its existing assets, to meet more demanding quality standards, to provide additional capacity for new development and to improve the service it currently provides.

Investment in sewerage services was higher than in water services (56% and 44% respectively) reflecting the on-going investment in wastewater treatment works necessary to achieve the standards which are required to deliver the Water Framework Directive and other water quality objectives. The allocation of investment by purpose is shown below.

Figure 3.1: Revised PC10 capital investment (£ million)



3.3. Capital Delivery

During PC10, NI Water has been affected by delays and changes in the available budget. The key delays and changes were:

- In 2010-11, NI Water was unable to spend the £31 million of its capital budget.
- A Comprehensive Spending Review (CSR) completed at the end of 2010-11 increased the available capital budget in 2011-12 by £4 million and reduced the capital budget available for 2012-13 by £46 million.
- Half way through 2012-13 a further £12 million capital funding was made available to NI Water which was invested in the last quarter of the year.

The combined impact was to reduce capital investment in PC10 by £61 million (11%).

The QBEG allocation for actual capital expenditure compared to the FD may be viewed in Table 3.1:

Table 3.1: PC10 actual capital investment by investment driver as compared to FD allocations (£ million in nominal prices)

Investment Driver	PC10 Final Determination (£ million)	PC10 Actual Capital Expenditure (£ million)	Difference (£ million)
Quality to ensure compliance with quality standards and EU directives	169	113	-56
Base Maintenance needed to maintain current levels of service	257	254	-3
Enhancement to improve current levels of service	42	29	-13
Growth to ensure development can be accommodated	110	121	+11
Total	578	517	-61

As NI Water is classed as an NDPB for public expenditure purposes it is unable to move planned expenditure between years to accommodate delays or changes in budget. Funding which cannot be invested in one year must be reallocated within government within that year resulting in a lost opportunity to invest in improvements to water and sewerage services. This was the case in 2010-11 when NI Water was unable to invest £31 million of the budget available to it. However, in the last two years of PC10, NI Water has been able to invest its planned or revised budget each year, including an additional £12 million of funding which became available in 2012-13.

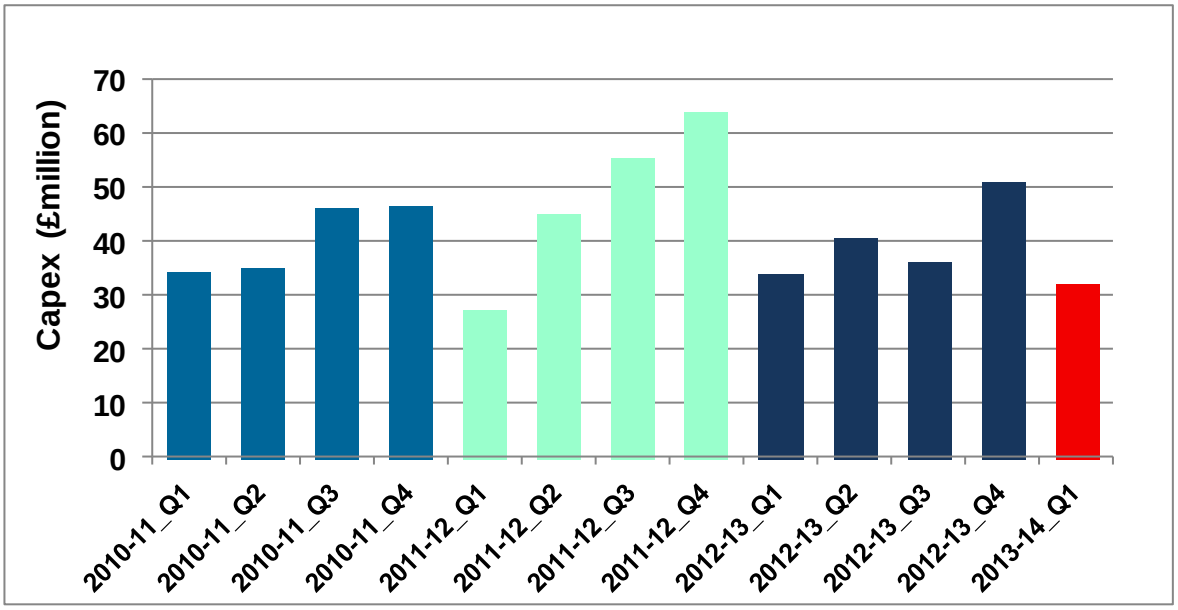
3.4. Managing Within Annual Spending Constraints

NI Water continues to highlight public expenditure constraints as a source of inefficiency in capital delivery. Annual budget constraints can be detrimental to efficient investment:

- Major projects which span more than one year become difficult to manage.
- Year-end constraints can result in cyclical levels of investment within year.
- Faced with changing budgets within year and the delays which occur on planned projects from time to time, the company must sometimes focus on investment which it can deliver in the short-term while more complex projects are delayed.

One impact which annual spending constraints has on NI Water's capital investment can be seen in the quarterly profile of investment over PC10 which is shown in Figure 3.2.

Figure 3.2: PC10 capital investment by quarter (£ million in nominal prices)



For each year of PC10, the peak level of expenditure was in the winter months and there was an abrupt reduction in expenditure between the last quarter of one year and the first quarter of the next. In the transition between 2011-12 and 2012-13, expenditure per quarter reduced by 47%, in part reflecting the reduction in total budget for 2012-13. This cycle of investment is disruptive for the supply chain and detrimental to efficient delivery.

Given the constraints and challenges faced by the company, investment performance in PC10 was generally good, following a slow start in 2010-11. Addressing some of the issues raised by annual investment constraints would allow the company to further improve its investment performance.

4.0 Monitoring Plan And KPIs

4.1. PC10 Objectives

The regulatory contract for PC10 is based on a Monitoring Plan in which NI Water set out its commitments to consumers and specific delivery targets. These delivery targets were developed from the overall priorities and objectives for PC10 set out in Social and Environmental Guidance which the Department for Regional Development issued to the Utility Regulator. They include three different types of output measure:

- Service level measures to reflect the service as experienced by consumers and/or impact on the environment.
- Nominated outputs which are commitments to deliver specific upgrades such as an improved wastewater treatment standard or a new water trunk main.
- Activities such as the length of new or replaced water main.

The agreed targets in the Monitoring Plan reflect the revised capital investment programme for PC10 following the 2010-11 Comprehensive Spending Review as outlined in Chapter 3.

4.2. Delivery Against the PC10 Monitoring Plan

A detailed assessment of NI Water's performance against the delivery targets in the PC10 Monitoring Plan is included in Annex 1.

Overall, NI Water performed well in PC10. The company met 26 of the 33 key outputs listed in Annex 1 with some failures outside management control.

NI Water met its targets for overall water quality and wastewater quality compliance. It has outperformed key targets including: response to billing contacts and written complaints, leakage reduction, pollution incidents and the number of properties receiving improved water pressure.

The company has delivered and outperformed its targets for nominated outputs and activities including: improvements to wastewater treatment works, improvements to unsatisfactory intermittent discharges, increased service reservoir capacity, new water trunk mains, and new and replaced water mains.

Key areas where performance did not meet the target include:

- Interruptions to supply (where performance in 2012-13 was adversely impacted by heavy snow in March 2013).
- Water quality in the distribution system which combines results for iron, turbidity and manganese (three parameters which can deteriorate in the distribution system and can affect the appearance of drinking water).
- Delivery of reservoir engineer inspection recommendations where investment will continue into PC13.

4.3. Delivery Against the PC10 Social and Environmental Guidance

The Social and Environmental Guidance for PC10 sets out the DRD's priorities for PC10. This guidance has also been extended to cover the PC13 period taking account of the reduced investment in PC10 and the short, two year period of the current PC13 Price Control.

In addition to providing a detailed assessment of delivery against the Monitoring Plan targets we have provided an assessment of progress against Social and Environmental Guidance priorities in Annex 2.

5.0 Customer Service

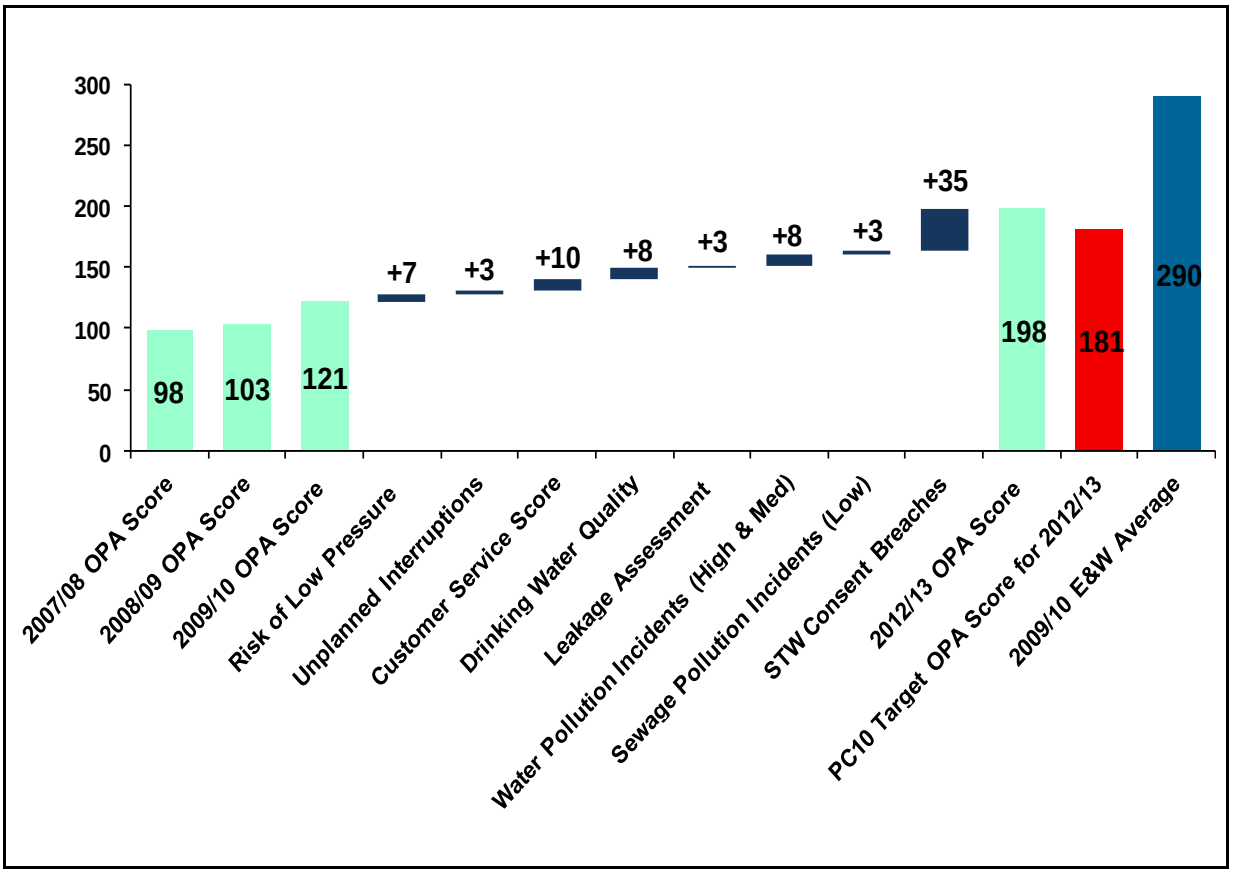
5.1. How Customer Service is Assessed

We have adopted an Overall Performance Assessment (OPA) framework to monitor the level of service that NI Water provides to its consumers. The OPA combines 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 levels.

5.2. OPA Performance

The chart below details OPA improvements since 2007-08:

Figure 5.1: Net change in individual OPA measures over PC10



Key messages include:

- NI Water has improved its overall OPA score from 121 at the start of PC10 to 198 at the end, beating its PC10 target (181) for 2012-13 by 17 points. This represents a material improvement in service levels and a welcome outcome for consumers.

- The combined customer contacts score (i.e. responding to billing contacts, written complaints and telephone call handling) has improved in the last year. The OPA score for this measure is now approaching similar levels to those in England and Wales.
- Wastewater (sewage) treatment works population equivalent compliance has improved notably, from 92.5% to 98.9% by the end of PC10. This has resulted in an increase of 35 OPA points.
- The level of out-performance might have been greater but for the effect of the March 2013 snow impacting on unplanned interruptions.
- Comparison with others illustrates that much remains to be achieved. The 2009-10 England and Welsh company average was 290. The materiality of the current gap suggests further improvement is necessary and the degree to which this is possible across PC15 will be examined and determined upon in due course.

6.0 Principal Issues Of Note

Annex 1 and Annex 2 provide summary information on NI Water's performance over PC10. In this section we assess a selection of issues which can have a direct impact on the service experienced by consumers:

- freeze/ thaw resilience;
- leakage;
- sewer flooding;
- low pressure;
- developing consumer contact measures; and
- data quality.

For many of the key issues which directly impact on consumers, NI Water can make a technical assessment of need. However, the information which comes from the knowledge and experience of consumers is essential to inform, validate or challenge these assessments. This can help improve the company's understanding of the performance of its assets and the service it delivers.

Since its inception the company has invested in consumer contact and works management systems which have improved its ability to capture data on consumer issues. The ability of the company to use this information effectively to identify hot-spots where issues occur, and occur repeatedly, is now a key part of the work necessary to target service improvements effectively to maximise the benefit which is derived from limited funding.

6.1. Freeze/Thaw Resilience

The 2010-11 freeze/thaw event resulted in significant disruption to water supplies with around a quarter of properties experiencing some supply interruption during the week after Christmas.

Following the freeze/thaw event the Utility Regulator reported to the Executive on NI Water's performance and recommended 56 actions to reduce the impact of similar events in the future.[9]

NI Water has made good progress in delivering the recovery action plan. All but two of the short-term actions have been delivered. These relate to the delivery of revised asset standards for plant and fittings and are programmed for delivery by December 2013. Work

[9] The Utility Regulator's report on the 2010-11 freeze/thaw event can be found at: http://www.uregni.gov.uk/uploads/publications/Investigation_report_into_the_freezethaw_incident_2010-11_-_AMENDED.pdf

is on-going on the long-term actions. The company has strengthened its emergency response capability, including its ability to gather information, communicate with consumers and mobilise mutual aid during an emergency. These improvements have been tested.

NI Water continues to update the Utility Regulator and the wider stakeholder group on progress with delivery, as well as its annual winter contingency preparations and any ongoing improvements to other contingency planning arrangements.

The UR investigation found that consumer losses accounted for at least 80% of the additional demand at the peak of the incident, highlighting the importance of consumers taking appropriate action to prepare for the winter.

NI Water recently launched its latest winter preparations campaign for 2013-14, 'Beat the Freeze'[10]. This campaign provides useful advice on the steps consumers can take to reduce the risk of pipe work freezing and/or bursting. We would take this opportunity to ask consumers and all stakeholders with a responsibility for housing to take what action they can to reduce the risk of pipes freezing and minimise the impact of pipe bursts.

6.2. Leakage

Consumers view leakage as a waste of resource, yet some level of leakage is inherent in the operation of a pressurised water distribution network. The challenge for the company in PC10 was to move towards an Economic Level of Leakage (ELL) which balanced the costs of the production with the cost of activity to control the level of leakage by 2014-15. The company reduced leakage to 162 Ml/d in 2012-13, outperforming its PC10 target for 2012-13 of 168 Ml/d.

The calculation of the economic level of leakage takes account of the cost of carbon. However, it does not currently allow for any inherent value which would reflect the value that society places on not abstracting water from the environment or reducing waste.

During PC10 the company continued to improve the processes and data it uses to measure and manage leakage. Such improvements can affect the level of leakage reported. However, this does not change the amount of leakage, it simply provides a better estimate of what is already there.

We have monitored these improvements throughout PC10 and the company has been able to show how they have affected reported leakage on a consistent basis of measurement. This shows that the out-performance would have been greater if reported on a consistent measurement basis.

[10] Information on the Beat the Freeze Campaign can be found at: http://www.niwater.com/winter-proof-your-home/

NI Water has recently introduced new leakage management software which will be used to measure and manage leakage in PC13. This will further improve the quality of information and analysis and assist it in targeting leakage reduction.

6.3. Low Pressure

At the start of PC10, NI Water assessed pressure across its water network and identified over two thousand properties at risk of receiving pressure lower than the reference level of 10 m at the consumer tap. During PC10 the company improved pressure at 842 properties exceeding its target of 800.

The company reports 1,420 properties receiving pressure below the reference level at the end of PC10 and further work will be necessary to achieve the levels of service provided in England and Wales.

The improvement in PC10 was achieved largely as a result of the company's proactive water mains rehabilitation programme which considers a basket of service attributes when work is prioritised. As a result, isolated pressure problems affecting a limited number of properties may receive a low priority. We have asked the company to include an assessment of the work needed to provide water at target pressure to all properties in its plans for PC15.

6.4. Interruptions to Supply

Short-term interruptions to supply occur when NI Water carries out maintenance or repair work (planned) or as a result of a pipe burst or other equipment failure (unplanned). We ask the company to report the number of properties affected by interruptions to supply in planned and unplanned categories and by duration. We set targets for improvement to the level of properties affected by unplanned interruptions for a composite measure of >6 hour, >12 hour and >24 hour events and a specific target for improvement in interruptions greater than 12 hour.

In 2011-12 NI Water achieved its target during a year with a benign winter. In 2010-11 and 2012-13 performance was affected by major short-term events – the 2010-11 freeze/ thaw, major pipe bursts and the loss of power supplies during the snow storms of March 2013. If we discount these major events, underlying performance was broadly in line with target. This is an example of a target which is at risk of significant events (such as major single pipe bursts) and external circumstances (such as extreme weather). The ability of the company to reduce the risk of infrequent, but significant events and to improve resilience for extreme weather remains a challenge.

The level of interruption to supplies is higher than in England, Wales and Scotland. When we came to set targets for the PC13 Price Control, the company was unable to show how interruptions to supply could be reduced by investment or improved operational practice. It is an example of an area where the company must continue to improve its understanding of the performance of its assets and the root cause of incidents to better target improved service to consumers.

6.5. Sewer Flooding

Sewer flooding can occur when a sewer blocks, when equipment fails, or when the volume of rainfall entering the sewer exceeds its capacity. External flooding can be unpleasant but internal property flooding from the sewerage system has the most extreme impact on consumers. Consumers have identified this as their highest priority for action[11].

DRD Water Service did not maintain comprehensive flooding records which would have allowed it to assess the risk of sewer flooding. Starting in 2007-08, we asked NI Water to develop a sewer flooding register as part of its Annual Information Return to us. The company now maintains records of reported flooding and has assessed a wide range of historic records to identify properties at risk of internal flooding. This work is largely complete and the company has identified 40 properties at risk of flooding more than once every 10 years and 153 properties at risk of flooding more than once every 20 years.

The progress the company has made in improving its records has been subject to detailed audit by the Independent Reporter. The Reporter has continued to make recommendations for improvements but has generally agreed with the allocations of flooding incidents made by the company to various risk categories.

While information on the risk of sewer flooding has greatly improved, weaknesses still exist. In 2012-13 the company identified 51 properties which were at risk of flooding but not recorded on its risk register when it completed a scheme which addressed the flooding risk. A flooding register which is based on inadequate historic records cannot be considered complete. It is likely that additional information, the investigation of future flooding events and assessment of other sources which become available may identify further risks and work necessary to address sewer flooding.

NI Water is still in the early stages of developing an external flooding register and we expect the company to proactively address this issue in the future.

6.6. Developing Consumer Contact Measures

We know from consumer engagement work for PC15 that consumers expect NI Water to: deliver a secure, high quality, water supply, remove and treat wastewater and storm-water unobtrusively and administer accounts effectively. When this does not happen consumers expect the company to resolve the problems which do arise quickly and effectively.

During PC10 we monitored the speed at which NI Water responded to consumer contacts. For PC15 we are working with the principal stakeholders to develop alternative consumer contact measures such as first time point of contact resolution and consumer satisfaction, which will focus attention on the way consumer issues are resolved.

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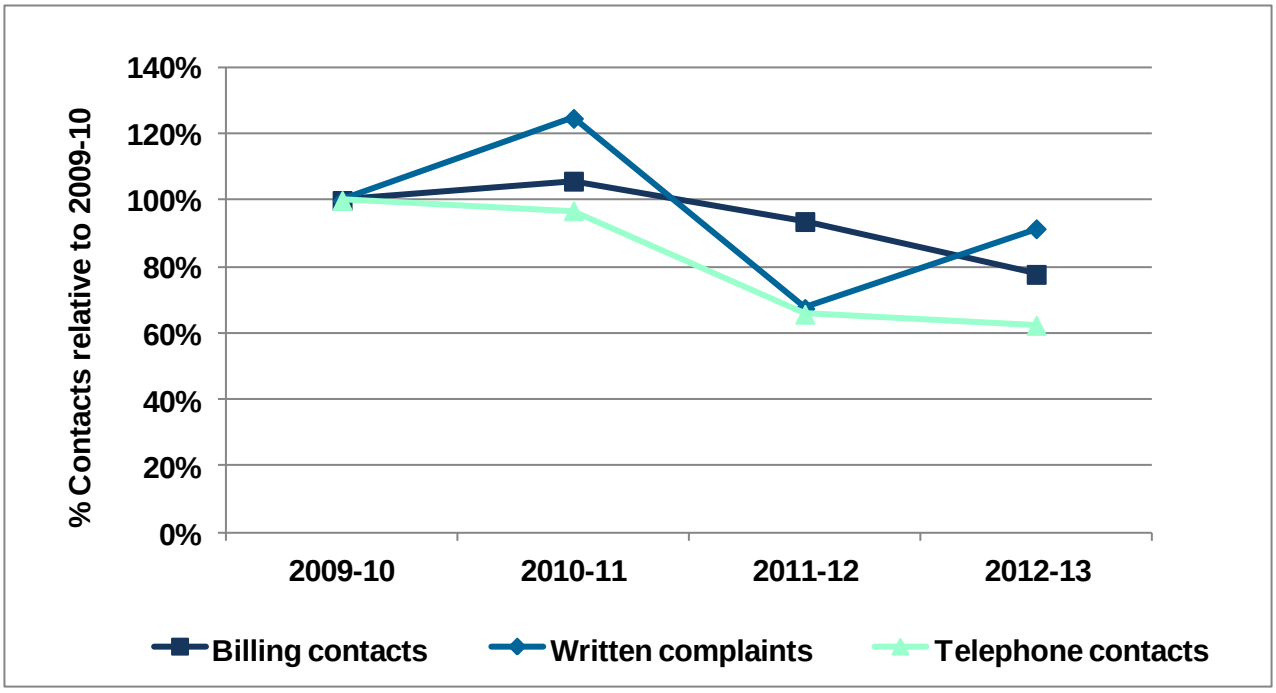
[11] Source 'Tapping into Consumer Views on Water'
www.consumercouncil.org.uk/filestore/documents/Web_report.pdf

Improvements in the way the company works to help consumers when things go wrong can reduce the number of first time and repeat contacts. Over PC10, we have monitored the number of billing contacts, written complaints and telephone contacts received by the company. The results presented in Figure 6.1 show a general downward trend from 2009-10 (note that the telephone contact data does not include the significant numbers of calls the company was not able to answer during the 2010-11 freeze/thaw).

Figure 6.1 – Consumer contacts relative to 2009-10 contacts



The general reduction in the number of consumer contacts since 2009-10 reflects the work which NI Water is carrying out to improve the way it responds when consumers contact it. Continuing to develop this work will both improve consumer satisfaction and reduce costs in the longer- term.

6.7. Data Quality

NI Water requires reliable, accurate and timely information in order to effectively operate and manage its business functions. This includes data in the areas of customers, properties, assets, financial and operational performance. Following a series of data irregularities relating to costs and customer information, NI Water accepted a series of

legally binding Undertakings in lieu of enforcement action on 4th February 2009. Details of these Undertakings may be found on our website[12].

The UR granted a partial release to NI Water from Undertakings E, F and G on the 19th May 2011. The UR released NI Water from remaining Undertakings (A, B, C, D and H) effective from 1st April 2013. This release was granted following the recognition that while NI Water had not addressed all data issues; that it had made substantial improvements in the quality of its data, fulfilling the conditions of the Undertakings.

We commend NI Water on its more holistic programme to address data issues beyond the areas of management information and customer billing which was the original focus of the Undertakings. We also recognise the cultural changes within NI Water to create awareness that every employee is responsible for the provision of reliable, accurate and timely information.

The Utility Regulator does, however have concerns regarding the confidence grading within certain AIR tables. Confidence grades are assigned to selected AIR data to reflect the accuracy and reliability of data. We consider that the confidence grades assigned to selected customer data do not reflect the accuracy and reliability of the data and the Reporter has in certain instances recommended a lower grade.

Where the grade assigned by the Reporter differs from that assigned by NI Water we will consider the Reporter's grade to be the overriding confidence grade. For future AIRs we will be requesting that NI Water only assign confidence grades to its data that have been approved by the Reporter.

12 http://www.uregni.gov.uk/news/view/utility_regulator_accepts_legally_binding_undertakings_from_ni_water_to_imp/

7.0 Way Forward

Since its establishment in 2007 NI Water has made progress and developed as a regulated company. PC10 has been a challenging price control with extreme weather conditions. However, we are pleased to report that in overall terms NI Water has successfully delivered its first regulatory price control, reducing prices and improving services to consumers, as assessed against the PC10 determination and Monitoring Plan for the period.

NI Water has and continues to deliver high quality water and sewerage services. The company has and continues to improve both the quality and reliability of its data to enable it to manage its business better, target its investment better and deliver a better service to its consumers.

In meeting the regulatory challenge for PC10, NI Water has managed the constraints imposed on it by its Non-Departmental Public Body status with outputs necessarily being reduced. This has had a consequential impact on the delivery of agreed strategic objectives.

The performance reported in this cost and performance report, evidences good progress. NI Water has met its operational efficiency targets, increased its OPA score and has delivered most of the outputs for PC10. However, NI Water still has a long way to go in order to have a level of performance similar to its counterparts in Great Britain. We have set challenges for NI Water to further improve efficiency and performance in the current PC13 price control.

We will continue to report annually on NI Water's costs and performance against our regulatory price control targets. The periods relating to known price controls are as set out below.

7.1. PC13 (2013-2015)

We are currently in the first of two financial years pertaining to the PC13 price control period. Our final determination for the two-year price control PC13 can be downloaded from our website[13]. In next year's Cost and Performance report we will be reporting on performance relating to the 2013-14 financial year.

7.2. PC15 (2015-2021)

We are pleased to be adopting a longer-term, six-year price control from 2015 to 2021, referred to as PC15. While closing the efficiency and performance gap between NI Water

[13] http://www.uregni.gov.uk/publications/pc13_final_determination_summary_document

and comparator companies remains a dominant issue, PC15 will also address longer-term sustainability issues.

This strategic approach is facilitated by the Long Term Water Strategy[14] being developed by the DRD working with other principal stakeholders. Our approach and outline programme for PC15 is set out in our Approach Document which can be downloaded from our website.[15]

We have also submitted information requirements for NI Water's Business Plan[16] for PC15 which we expect to receive on 24th March 2014. We will publish our draft determination for consultation on 10th July 2014 and following consultation we will consider responses and publish our final determination on the 10th December 2014.

[14] http://www.drdni.gov.uk/index/long-term-water-strategy.htm

[15] http://www.uregni.gov.uk/publications/pc15_approach_document

[16] http://www.uregni.gov.uk/uploads/publications/W123_40_05_04__Web_publication_-_index_sheet_for_the_information_requirements_-_0200_2013-05-21.pdf)

Annex 1

NI Water PC10 Key Outputs

	Description	2012-13 PC10 Target	2012-13 Actual	Comments
	Customer Service Outputs			
1	Properties confirmed at risk of receiving water pressure below reference level (DG2) alleviated by company action	800	842	The figures presented reflect the cumulative performance for the PC10 period. NI Water exceeded its target of removing 800 DG2 properties by company action over the PC10 period by 42 properties. 297 DG2 properties were removed in 2012-13.
2	Interruptions to water supply – composite score (DG3)[17]	1.16	1.98	The company failed to meet its interruption to supply composite score target of 1.16 in 2012-13. It reports that performance was adversely affected by heavy snow in March 2013. This resulted in widespread power outages that affected supply. If the impact of this event is excluded the score would have been 1.21%, a marginal failure against the 2012-13 target.
3	Interruptions to water supply >12 hrs (No. of properties) (DG3)	1,650 props 0.205% (FD)	0.32% 2607 props	The PC10 FD annual targets were expressed as the percentage of properties affected by interruptions to supply >12hrs. The target of 0.205% for 2012-13 equated to 1,650 properties, as adopted in the PC10 Monitoring Plan. The company failed to meet this target in 2012-13. The data submitted indicates that the company would have met its target, with

[17] The composite score assesses performance based on the percentage of properties experiencing unplanned interruptions of varying duration (i.e. >6 hrs, >12 hrs and >24 hrs). Supply interruptions that last over 24 hrs are given a double weighting.

				an outturn of 0.12% (1019 props), if the impact of the heavy snow in March 2013 was excluded.
4	Properties at risk of flooding – number removed from the risk register by company action (DG5)	-	84	The figures presented reflect the cumulative performance for the PC10 period. The company removed 84 properties from the at risk register during PC10. The company has made significant improvements in its assessment of flooding risk which now allows it to target and prioritise flood alleviation works.[18]
	Consumer Response			
5	Billing contacts dealt with within five working days (% billing contacts) (DG6)	99.9%	100.0%	NI Water outperformed its annual target of 99.9% in 2012-13. NI Water only bills around 10% of its customer base and its volume of contacts is much lower than comparator companies as a result. We therefore expect the company to continue to deliver good comparative performance for this measure.
6	Written complaints answered within 10 working days (% written complaints) (DG7)	98.5%	99.78%	NI Water outperformed its annual target of 98.5% in 2012-13. The majority of complaints relate to billing and charging issues. In the Cost and Performance Report for 2011-12 we noted that complaints received by contractors and PPP concessionaries should be included in the reported figures. We are pleased to report that NI Water has taken action to address this issue and has started to include this information for the first time. We note around 20% of all written complaints are not solved satisfactorily at the first attempt. Average performance in E&W is better and we would encourage the company to target improvements in this area.

[18] See Section 6.5 for further information on the flooding risk registers.

7	Bills based on meter readings (% of total metered accounts) (DG8)	98.5%	98.73%	NI Water outperformed its annual target of 98.5% in 2012-13 and has delivered significant improvements in performance since 2007-08. Further improvements in line with future targets will be required to deliver performance which is more comparable to that previously reported in E&W.
8	Call handling satisfaction score (1-5)	4.70	4.54	NI Water failed to meet its annual target of 4.70% in 2012-13. This is the third successive year there has been slight drop in the satisfaction assessment score. The company states it will use this research to determine areas of dissatisfaction, identify root causes and propose plans for corrective action to deliver increased customer satisfaction.
9	Percentage of calls not abandoned (DG9)	99.0%	98.45%	NI Water failed to meet its target of 99.0% in 2012-13. NI Water has indicated that failure was mainly due to a rainfall event in June. It reports that the introduction of HVCA has also had an impact due to a number of first time users abandoning calls before the system dealt with them.
10	Percentage of calls not all lines busy (DG9)	99.9%	100%	NI Water outperformed its annual target of 99.9% in 2012-13.
	Water Resources			
11	Security of Supply index (maximum 100)	79 (FD)	100	NI Water outperformed its FD target of 79, reporting a maximum score of 100 for the second year in a row. During PC10 this score has benefited from an improved assessment as a result of the company's update of its Water Resource Management Plan (WRMP) as well as a significant reduction in the amount of water it has needed to produce.
12	Leakage (Ml/d)	168	162	This target was uplifted by 2 Ml/d after the PC10 FD to account for a notified change in methodology. NI Water outperformed its leakage reduction target during PC10. Refer to

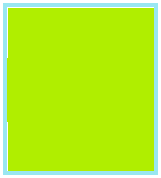
				Chapter 6 for more details.
13a	One new abstraction	-	-	The company's target was to deliver this abstraction during PC10. NI Water had anticipated completing this scheme in 2012-13. It has however experienced some delay and will now be completed in 2013-14. Construction is now complete and the pipeline was tested in July 2013. The pumps however still need to be tested. This will occur when the use of the raw water at the treatment works has been approved.
13b	Completion of reservoir inspection engineer's recommendations.	-	-	The company's target was to address all the inspection engineer's recommendations during PC10. NI Water has deferred some of this work to PC13 and PC15. It states that it has reviewed the risk of non-delivery in concluding that this work can be deferred. NI Water indicates that the deferral results from: • A decision to retender some work packages to seek better value for money following the receipt of unexpectedly high initial tenders. • The decision to complete other projects within the overall funding allocation.
13c	Completion of the Water Resource Management Plan.	-	Mar 2012	The company's target was to produce an updated WRMP during PC10. It achieved this, having published its final WRMP in March 2012.
	Water Treatment and Distribution			
14	Mean Zonal Compliance (MZC) water quality at tap (%)	99.70%	99.80%	NI Water's PC10 target was to deliver a minimum compliance of 99.70% throughout PC10. Our PC10 FD indicated that we expected NI Water to outperform this target and defined an expected performance level. Performance is currently in line with our expectations.

15	Operational performance indicator (MZC turbidity, iron and manganese) (%)	99.10%	98.96%	NI Water's PC10 target was to deliver a minimum compliance of 99.10% throughout PC10. NI Water failed to meet this target in 2012-13, primarily due to a drop in mean zonal compliance for iron.
16a	Nominated outputs for water treatment works (WTW) upgrades completed (2nr)	2	2	NI Water's target was to complete upgrades at 2Nr nominated WTWs over the three year period of PC10.The figures presented reflect cumulative performance to date. NI Water delivered both its PC10 nominated outputs in 2010-11.
16b	Study to determine the upgrade for water treatment works (1nr)	-	Aug 2012	The company's target was to complete a study at one WTW during PC10. NI Water delivered this output, having completed the study in August 2012.
16c	Trunk mains completion and starts (4nr)	4	4	NI Water's target was to complete four nominated trunk main schemes over the three year period of PC10. The figures presented reflect cumulative performance to date. NI Water's delivery profile changed slightly, but it delivered all nominated outputs in PC10. Two nominated trunk main schemes were completed in 2012-13.
16d	Completion and work to increase capacity at 13 service reservoirs or clear water tanks.	9	9	For the Monitoring Plan, NI Water's target was revised to the completion of nine nominated service reservoir schemes over the three year period of PC10. The figures presented reflect cumulative performance to date. NI Water's delivery profile changed slightly, but it delivered all nominated outputs in PC10. One service reservoir scheme was completed in 2012-13.
17	Activity output of 900km of new, replaced or relined mains over PC10, excluding the trunk mains programme.	900	1041 km of new or renewed mains delivered by WMRP	NI Water was set an activity output target of rehabilitating 900 km of mains over the three year period of PC10. The figures presented reflect cumulative performance to date. PC10 performance exceeded the target with the company rehabilitating 141 km

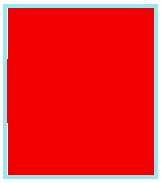
				more than originally planned. 326 km of mains were rehabilitated in 2012-13.
	Sewerage			
18	Length of sewers replaced or renovated over PC10	63.8	63.6	The target was revised to the replacement or renewal of 63.8 km over the three year period of PC10 in the Monitoring Plan. The figures presented reflect cumulative performance to date. Despite the concerns expressed last year, the company broadly met its revised target for PC10. Benone Area Sewerage scheme, which accounted for 14.5 km in 2012-13, made a major contribution to the company achieving its target.
19	Nominated outputs for improvements to Unsatisfactory Intermittent Discharges (UIDs)	68	101	The target was revised from 117Nr to 68Nr over the three year period of PC10 in the Monitoring Plan. The figures presented reflect cumulative performance to date. PC10 performance exceeded the revised target with the company delivering solutions to 33 more UIDs than planned. Thirty eight UID solutions were delivered in 2012-13.
20	Number of high and medium pollution incidents attributed to NI Water	48	18	The company met its target with a reduced number of pollution incidents being reported. It attributes the significant improvement in performance in 2012-13 compared to previous years to an increased level of monitoring of alarms at NI Water sites and the mitigating effects of wet weather patterns experienced in 2012.
	Sewage Quality Outputs			
21	% of WwTWs compliant with (Water Order) numeric consents	88.2%	93.6%	In line with Utility Regulator expectations, the company bettered its target. The significant margin between target and actual was greatly assisted by the compliance of many works forecast by NI Water to fail.
22	% WwTWs compliant (UWWTD consents)	94.9%	97.5%	The PC10 targets were met and exceeded in line with Utility Regulator expectations.

23	% of WwTW discharges complying with numeric consents	87.9%	93.2%	The PC10 targets were met and exceeded in line with Utility Regulator expectations.
24	% of total p.e. served by WwTW complying with Water Order consents (LUT)	96.50%	98.90%	The PC10 targets were met and exceeded in line with Utility Regulator expectations.
25	% of total p.e. served by WwTW complying with UWWTD consent (LUT)	98.78%	99.32%	The PC10 targets were met and exceeded in line with Utility Regulator expectations.
26	Nominated outputs for improvements delivered by sewage treatment works schemes	42	45	The target was revised from 43 to 42 Nr schemes over the three year period of PC10 in the Monitoring Plan. The figures presented reflect cumulative performance to date. The company bettered its PC10 target, delivering three more nominated schemes than planned. In addition the company has delivered 11 works greater than 250 PE through the rural wastewater investment programme.
	Asset Serviceability			
27	All asset areas	Stable (FD)	Stable	Estimated as stable based on limited information. A defined assessment process is being introduced during PC13.
	Overall Performance Assessment			
28	OPA score based on 11 service areas included in 2007-08 assessment	181	198	NI Water outperformed its objective for 2012-13. The increase in sewage treatment work compliance and improving customer contact responses led to a good out-performance. Target was revised downward from PC10 due to a reduction in the availability of capital funding.

Key:



Annual/period target achieved



Annual/period target not achieved

Recent improvement in data makes direct comparison against FD target inappropriate.

Annex 2

Social and Environmental Investment Priorities

Priority 1: EU Environmental Quality Obligations

Investment Priority	UR Analysis/Comment
1A - Complete treatment and capacity upgrades at waste water treatment works necessary for ensuring compliance (with UWWTD, BWD, SWD) and addressing immediate development pressures. This includes providing appropriate treatment at small waste water treatment works.	NI Water continued to upgrade wastewater treatment works prioritised by NIEA. Improvements at 45 works were delivered within the revised funding constraints against a target of 42 and a further 11 smaller works were improved through additional funding in 2012-13. These upgrades addressed a range of drivers including the European Union directives concerning urban wastewater treatment, bathing water and shellfish waters and will contribute to delivery of the Water Framework Directive. While progress has been made on a prioritised basis within current investment constraints, further work is required to achieve full compliance and address all development pressures.
1B - Implement those drainage area plans identified (by NIEA) as the highest priority and develop programmes to address specific sewerage issues such as internal sewer flooding, unsatisfactory discharges and spills from sewer overflows.	NI Water has continued to upgrade its drainage area plans (DAPs) to deliver a prioritised programme of works agreed with NIEA to improve unsatisfactory intermittent discharges (UIDs) and reduce spills from sewer overflows. Improvements to 101 UIDs were delivered in the period. While progress has been made on a prioritised basis, further work is on-going to improve DAPs and develop programmes to address all UIDs. The company has advised us that because a large number of its drainage area models are more than 5 years old they have not been able to use them to categorise the risk of internal flooding.
1C - Implement site specific WFD sewerage measures associated with the River Basin Management Plans. These may include reducing the number of sewerage spills or providing enhanced treatment in certain catchments.	The improvements described above should ensure compliance with new and existing consents set by NIEA to reflect the requirements of the River Basin Management Plans for both continuous and intermittent discharges. While progress has been made on a prioritised basis, further improvements will be required in future Price Controls to deliver shortfalls already identified and respond to any additional requirements arising from subsequent monitoring of water quality.

1D - Complete water infrastructure and treatment upgrades necessary to address authorised departures and other statutory obligations from the Water Supply (Water Quality) Regulations (NI) 2007.	NI Water has completed planned work to address authorised departures although some work remains to be done to complete commissioning of individual schemes. The company has continued to respond to emerging risks identified in the Drinking Water Safety Plans and to respond to issues raised by the Drinking Water Inspectorate in its consideration of provisional enforcement orders or other enforcement action.
1E - Complete water infrastructure and treatment upgrades necessary to sustain current overall drinking water quality standards in line with the recommendations of the Independent Water Review Panel.	The company has delivered the upgrades to water treatment works planned for PC10 although some work remains to be done to complete commissioning of individual schemes. The company has delivered a programme of mains rehabilitation which is prioritised to take account of a range of issues including water quality. At the end of PC10, mean zonal compliance (a measure of overall water quality compliance was 99.8%, in line with our expectations and above the minimum compliance target of 99.70%. At the end of PC10, OPI-TIM (a measure of turbidity, iron and manganese compliance) was 98.96%, below the target of 99.10%, primarily due to a fall in mean zonal compliance for iron.
1F Introduce wider catchment risk assessments and new raw water monitoring programmes in line with the proposed Water Supply (Water Quality) (Amendment) Regulations (NI) 2009.	Wider catchment based risk assessments are included in the Drinking Water Safety Plans discussed under 2E below. New raw water monitoring programmes are being considered for PC15.
1G - Contribute to the completion of Preliminary Flood Risk Assessments (by Dec 2011), Flood Risk & Hazard Maps (by Dec 2013) and Flood Risk Management Plans (by Dec 2015) in line with the Floods Directive.	NI Water has contributed to the preparation of the Preliminary Flood Risk assessments and has contributed to defined roles and responsibilities for flood risk management.

Priority 2: Improving Service Levels

Investment Priority	UR Analysis/Comment
2A - Continue improvements in customer service quality and effectiveness through the development of better data and information systems.	The company continues to undertake work to improve the way it can respond to consumers. Initiatives including new bill formats, improvements to the company web site and GIS based event visualisation available to call handlers have all contributed to improved consumer service. A general reduction in the number of consumer contacts since 2009-10 reflects work underway in NI Water to improve the way it responds to consumer contacts. The company has introduced automated High Volume Call Answering (HVCA) to ensure that it can continue to log calls and provide information to consumers in emergencies. Work is underway within the PC15 working groups to develop improved consumer service measures.
2B - Improve the accuracy, reliability, security, and consistency of information - customer, financial, management, and asset information.	NI Water continues to improve the quality of its information across all areas. Prior to PC10, NI Water provided us with legally binding Undertakings in respect of data improvements which led to a programme of measures to improve data. In view of progress made, we granted a partial release from these Undertakings in May 2011 and a final release effective from 1st April 2013. Release from the Undertakings reflected the substantial improvements made in the quality of data but that is not to say that all data issues have been addressed. Continuous data assessment and improvement should be a matter of business as usual for the company.
2C - Adopt any new technology or systems that provide tangible benefits in terms of improving service performance or reducing operational costs, whilst ensuring the resilience and security of essential control and monitoring networks.	Examples of new technology adopted by NI Water include: active control systems for sewage pumping stations, HVCA introduced to ensure that the company can receive all calls and provide information to consumers during incidents and new software to improve leakage management.
2D - Implement the proposed Water Supply (Water Fittings) Regulations (NI) 2009 to prevent the waste and contamination of public water supplies and protect against the use of defective water fittings.	NI Water is responsible for the enforcement of the Water Supply Water Fittings Regulations (NI) 2009. Information on the company's obligations and powers, guidance to householders and notification forms are available on the company's website. The company supports national schemes for licensed or approved plumbers.
2E - Complete the risk assessments required to inform Water Safety Plans (WSPs) for public water supply	NI Water has completed an initial submission of Drinking Water Safety Plans to the Drinking Water Inspectorate. These plans must be upgraded on a continuous basis as

systems during the period in line with the proposed amendments to the Water Supply (Water Quality) Regulations (NI) 2007.	new information identifies new or changed risks.
2F - Reduce regional variations in drinking water quality and improve security of supply through the decommissioning of abstraction points susceptible to contamination and installing additional water mains.	Completion of a trunk main in 2010 allowed the company to complete its plans to decommission abstraction points susceptible to contamination. It is possible that the company might identify further works for decommissioning on an economic basis taking account of the impact on security of supply.
2G - Continue to reduce the number of properties that experience unplanned and un-warned interruptions to drinking water supply in excess of 6/12/24 hrs.	The company has not met its targets for unplanned and unwarned interruptions to supply at the end of PC10. Major events over the period – extreme winter weather and major pipe bursts have had a major impact. The level of interruptions to supply remains higher than in England, Wales and Scotland. When we came to set targets for the PC13 Price Control, the company was unable to show how supply interruptions could be reduced by investment or improved operational practice. It will be necessary for the company to improve its understanding of the performance of its assets to allow it to better target improved service to its consumers.
2H - Collect accurate and reliable information on sewerage infrastructure to inform the development of a future programme of drainage area plan work for the 2010/13 period and beyond.	The company has information on its sewerage assets including size, material and depth. Over PC10, the company made an assessment of historic flooding records and improved its processes for collecting and assessing information on flooding events. Further improvements are necessary to ensure that performance information is available to inform sewerage maintenance plans. For example, the company is only developing the capability to allocate sewer blockage and collapse to lateral or main sewers and to geo-reference events to support cluster and trend analysis.
2I - Develop a priority long-term drainage area plan programme (in conjunction with NIEA) for the 2010/13 period and beyond, focussed on addressing EU environmental quality drivers and reducing the risk of surface flooding.	NI Water plans to upgrade its DAPs to deliver a prioritised programme of works agreed with NIEA to improve UIDs and reduce spills from sewer overflows.
2J - Following completion of urgent drainage area plan (DAP) work identified in Priority 1, commence long-term DAP programme.	NI Water has continued to upgrade its DAPs to deliver a prioritised programme of works agreed with NIEA to improve UIDs and reduce spills from sewer overflows.

2K - Develop and maintain a register of properties at risk from internal sewer flooding (DG5 Register).	NI Water has developed a register of properties at risk of internal sewer flooding during PC10. The company made an assessment of historic flooding records to identify properties which are at risk due to hydraulic overload. It is recognised that these records were incomplete and inadequate and this has an impact on the reliability of the results of the assessment. The company has developed its methodology for recording and analysing new flooding events.
2L - Implement a programme of projects to reduce the number of properties on the DG5 Register over the 2010/13 period and beyond.	There was a slow start to work to reduce the number of properties on the DG5 register over PC10 as the company developed its assessment of the risk of flooding. The company identified work to alleviate the risk of flooding at 84 properties in PC10. When we came to set targets for PC13, the company had not completed the feasibility study work on individual flooding alleviation schemes which would have allowed it to identify a clear set of prioritised flooding outputs for PC13 and a programme of work to deliver these outputs. The need to provide a comprehensive assessment of flooding and a clear plan to address this remains a matter of concern.
2M - Reduce the number of pollution incidents through efficient and effective monitoring and control of the water and sewerage assets.	The number of high and medium pollution incidents at the end of PC10 was 18 compared to a target of 48. The company has introduced improved monitoring and control measures to both reduce the number of incidents and reduce the severity of those which do occur. This work included education campaigns, internal awareness, improved communication, targeting of repeat events and investment in pumping stations and intermittent discharge monitoring. The company has attributed part of this improvement to benign weather in 2012. Results for 2013 to date indicate that the number of high and medium pollution incidents will be higher than in 2013.
2N - Fulfil the street-works notification requirements and continue to improve the quality of road reinstatements in line with Roads Service targets (90% pass rate).	NI Water reports that in the latest independently verified results published by DRD its performance was 91% - just ahead of target.
2O - Upgrade and maintain any protection measures identified as critical to the supply and safety of water and assess the resilience of its most critical assets and systems to inform future investment requirements.	No specific targets were identified for improvements in PC10. The company has undertaken survey work which has allowed it to progress a programme of investment in PC13.

Priority 3: Water Leakage and Pressure

Investment Priority	UR Analysis/Comment
3A - Continue to focus on leakage detection and reduction with the aim of achieving and maintaining the Economic Level of Leakage, where it is no longer cost effective to invest in further leakage reductions.	The company has continued to improve leakage information and detection in PC10. Leakage rates at the end of PC10 were lower than target set on a glide path to achieve an economic level of leakage in 2014-15. The company prepared a 'sustainable' economic level of leakage in 2011 which takes account of the cost of carbon. This informed the Water Resources Management Plan. We have asked the company to update its assessment in 2014 to inform PC15 leakage targets.
3B - Target areas of low pressure through the mains rehabilitation programme to ensure all customers benefit from at least the minimum levels of supply.	The company has continued to target areas of low pressure through the mains rehabilitation programme (see 3C below). The process of targeting low pressure properties through the mains rehabilitation programme risks isolated properties becoming a low priority. We have asked NI Water to assess work necessary to address all properties at risk of low pressure as part of its PC15 Business Plan submission.
3C - Maintain a register of properties at risk of receiving low pressure (DG2 Register) and agree the number of properties to be removed from the register over the period.	The company assessed pressure across its water network to prepare a register of properties at risk of receiving low pressure. A PC10 target was to improve pressure at 800 properties identified at risk of receiving low pressure. The company delivered improvements to 842 properties.

Priority 4: Surface Flooding

Investment Priority	UR Analysis/Comment
4A - Assist Rivers Agency in a review to clarify controls and responsibilities for the management of surface water drainage (required under the Government Response to the flood management policy review 'Living with Rivers and the Sea.')	The company has contributed to the development of Rivers Agency review to clarify controls and responsibilities for the management of surface water drainage. The company is a key stakeholder and active contributor to a Storm Water Management Group established to identify barriers to effective storm water management and to identify practical solutions to overcome these barriers.
4B - Continue to address ongoing surface flooding problems attributed to the NIW sewerage network.	The company has developed its records and assessment of the risk of internal flooding and continued to deliver solutions during PC10. See 2K and 2L above.
4C - Ensure effective co-operation in the management of flood risk with other Government Agencies to provide a comprehensive service with a minimum of duplication of effort.	NI Water is working with other Government Agencies to manage flood risk. This work has been put on a more formal basis following the recommendation of the PEDU report '*Review of Response to Flooding on 27 and 28 June 2012'* that Rivers Agency, Roads Service and NI Water should work with their parent departments to review current flood defence expenditure priorities and report to the Executive on their adequacy to meet the potential threats over the next 10 years. Work on shared solutions for the mitigation of flooding risk in the areas impacted by flooding on the 27 and 28 June is being progressed.
4D - Put the necessary resources in place to provide an effective emergency response during flooding incidents, in partnership with the other agencies.	NI Water has put in place systems and resources to provide an emergency response during flooding incidents working in partnership with other agencies. In most flooding incidents where responsibility is clear, NI Water will respond using its own resources. In major events the company works with other agencies responding to requests for help through common communication systems such as the Flood Incident Line.
4E - Ensure co-operation with Rivers Agency in the development and delivery of appropriate regulation of reservoir safety in NI.	We understand that the company has contributed and responded to the development of legislation to deliver appropriate regulation of reservoir safety in NI. In advance of this legislation, the company has undertaken reservoir inspections and remedial works in line with legislation and practice in GB. The company's target was to address all the recommendation of its Inspection Engineer in PC10, some of this work has carried over into PC13.

Priority 5: Longer-term EU Requirements

Investment Priority	UR Analysis/Comment
5A - Identify and programme any further waste water treatment, collection or capacity upgrades necessary for ensuring future compliance with UWWTD, revised BWD & SWD including continued improvements of small treatment works.	The company has targeted a prioritised list of improvements to wastewater treatment works and capacity upgrades (see 1A, 1B and 1C above). The company has also continued its programme of improvements to small wastewater treatment works (serving <250 population equivalent, mainly located in rural areas).
5B - Take account of the potential impact of emerging EU policies and developments during the period (e.g. UWWTD requirements for collection systems and CSOs).	The company has continued to deliver improvements to wastewater treatment works and intermittent discharges prioritised by NIEA. The company has contributed to the development of solutions to continue the delivery of prioritised outputs into PC13 and PC15.
5C - Put in place effective arrangements to monitor future compliance with UWWTD and discharge consents.	NI Water has delivered improvements to wastewater treatment and intermittent discharges, as prioritised by NIEA, to achieve compliance with a range of environmental requirements, including the UWWTD. These upgrades have included improvements to compliance monitoring.
5D - Address any further RBMP water and sewerage measures identified through WFD monitoring.	Further RBMP water and sewerage measures identified through WFD monitoring will be considered in PC13 and PC15.
5E - Address flood risk management in water and sewerage measures identified through implementation of the EU Floods Directive.	In the PC10 period, NI Water has carried out an assessment to identify water treatment works and pumping stations which are at risk of flooding. In PC10, NI Water completed flood resilience work at one water treatment works and has identified the need for further work which it plans to carry out in PC15.

Priority 6: Sustainability and Climate Change

Investment Priority	UR Analysis/Comment
6A - Ensure that planned development and growth is factored into any proposed water or sewerage upgrades during the period.	The company has continued to make allowance for growth in water and sewerage upgrades.
6B Improve resource efficiency by: - Setting targets and developing and implementing action plans to deliver operational/energy efficiencies, - Planning infrastructure development that balances the requirements of future development, the needs of people, and protection of the environment – both pollution prevention and mitigation of climate change, and - Developing a Sustainable Economic Level of Leakage to include carbon costs and determine future capital investment needs for achievement from 2013 onwards.	NI Water has exceeded the operational efficiency targets for PC10. No specific regulatory energy efficiency targets were set in PC10. The company included limited investment in energy efficiency in PC13 but was still not in a position to identify the quantum of energy savings. The company has established an internal climate change forum and has developed a wide ranging climate change mitigation strategy. The company has estimated its sustainable economic level of leakage to include carbon costs in 2011 which formed the basis of the company's targets for PC13. A further update is planned for 2014 to inform targets for PC15.
6C - Agree appropriate targets to plan and deliver a contribution to the Programme for Government greenhouse gas emissions reduction target (e.g. through increased use of green energy).	A target was agreed for NI Water to secure 13% of its total energy requirement through green energy sources. In 2012-13 14% of the total electricity consumed was from green sources (taking account of green energy generated and exported by the company). In PC10 we made provision for the company to generate renewable wind-energy on its treatment works for local use. The company has progressed planning and testing work on one site but was not able to deliver a plant in PC10.
6D - Promote the recycling and reuse of sewage sludge in an environmentally friendly manner where this is economically viable - for example through sustainable application to forestry and agriculture.	Committed investment to sludge incineration means that it remains uneconomic for the company to pursue any large scale investment in alternative methods of sludge treatment and disposal. This is likely to remain the case until part or all of the existing plant reaches the end of its useful life.
6E - NIW should continue to invest in education campaigns to promote efficient water usage.	NI Water continued education campaigns mainly through the operation of the Water Bus which brought guidance on water efficiency (and other water topics) to over 10,000 school children in the PC10 period.
6F - Investigate the options for adopting Sustainable Drainage Systems to help reduce pressure on	NI Water reports that it has received applications for the adoption of 6 sites including an element of sustainable drainage and has adopted these sites. The SuDS

the sewerage systems during periods of heavy rain.	systems adopted were attenuation tanks used to reduce peak flows to the existing sewerage system. The company is a key stakeholder and active contributor to a Storm Water Management Group established to identify barriers to effective storm water management (including the use of SuDS) and to identify practical solutions to overcome these barriers.
6G - Establish an appropriately indexed carbon cost to be included in the assessment of all significant capital projects from 2013 onwards.	The company has introduced a new Capital Investment Appraisals System which includes an assessment of the cost of carbon following industry practice developed by UKWIR.
6H - Commence and complete work on Water Resource Management Plans (WRMPs) to identify the long-term water resource management and security of supply investment needs (2013 onwards).	The company completed a Water Resources Management Plan which was published in 2012. The company's plan considered limited scenarios and further work will be required to confirm the scope and size of interventions as these are developed. Work has been initiated to inform the next WRMP which is planned for 2017.
6I - NIW and NIAUR should explore the opportunities with NIEA for adopting a more sustainable, holistic, catchment-based approach to waste water collection and treatment.	NI Water has begun trials of wastewater treatment using willows. The company continues to consider options for the use of integrated constructed wetlands. The company is assessing options for storm-water separation and this is a key contributor to cross stakeholder working on storm-water management.
6J - During the period, NIW, DWI and NIAUR should explore the opportunities of adopting a more sustainable approach to drinking water treatment through innovative catchment management solutions such as SCAMP.	Provision was made for investment in SCAMP in PC10. The company has made significant progress with a limited investment. A SCAMP NI Steering Group has been established with a wide range of stakeholders. Initial work has been undertaken in three catchments. NI Water has appointed a Catchment Officer to lead this work. The water quality benefits of SCAMP are likely to develop gradually with improvements masked by short-term variability.
6K - In carrying out its functions and managing its estate, NIW should take account of protected areas, the need to enhance biodiversity and also consider the provision of amenities for interest groups where appropriate.	An example of the work undertaken by NI Water includes the SCAMP programme which, amongst other benefits can contribute to biodiversity and work to improve the facilities at the Silent Valley Reservoir and actively promote their use.