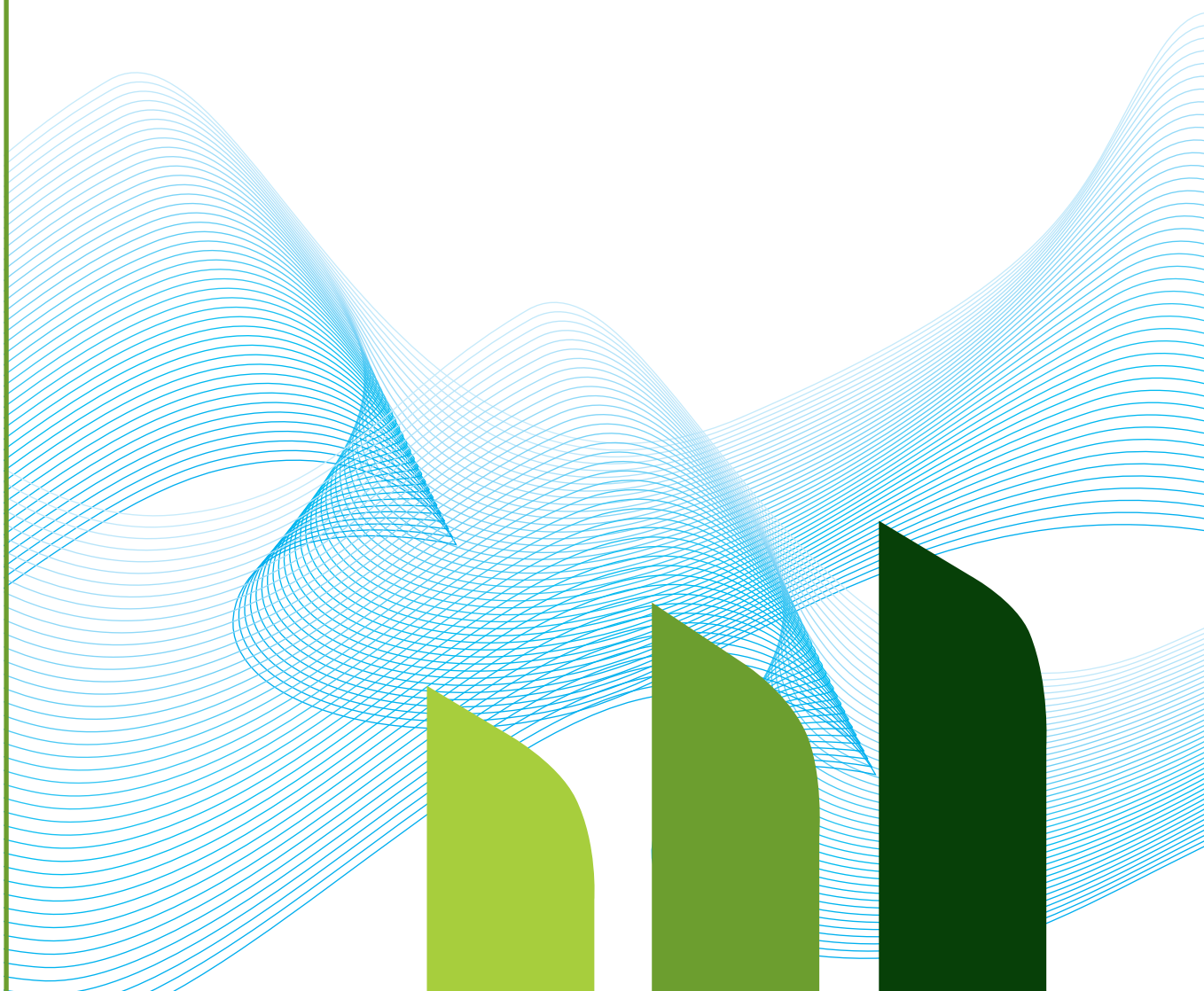




# Water and Sewerage Service Price Control 2010-2013

Final Determination Summary Report

February 2010





# Water and Sewerage Revenue and Charges Price Control 2010-2013

## Final Determination Summary Document

This document sets out the Utility Regulator's final determination for price limits for NI Water for the three year period from April 2010 to March 2013 (PC10).

We published our draft determination in September 2009 and received 16 responses on our proposals from a wide range of stakeholders. We carefully reviewed these responses, along with new information that became available after we published the draft determination. All but one of these responses are published in full on our website.

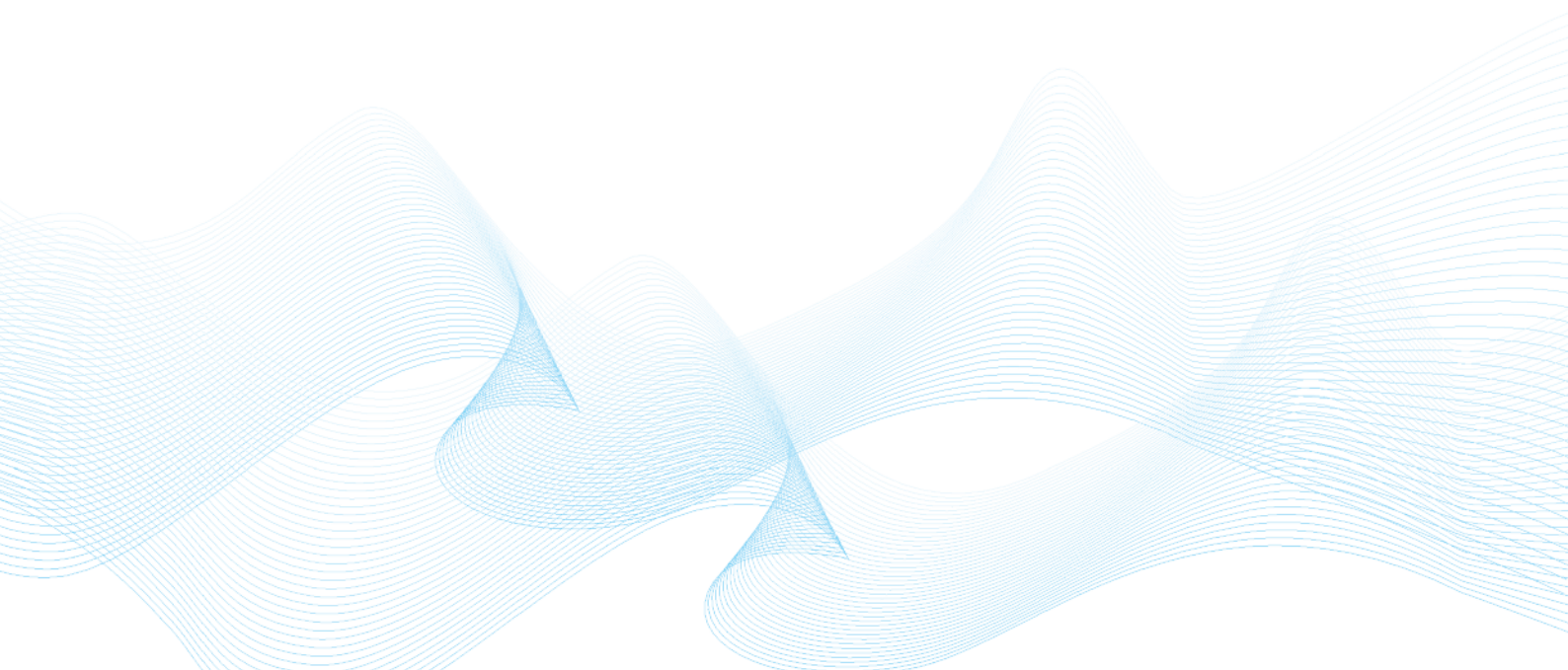
The issues raised in response to the draft determination are addressed within the Price Control 2010-2013 Final Determination Main Report which, together with this summary report is also published on our website at [www.niaur.gov.uk](http://www.niaur.gov.uk).

The Draft Determination Summary Report described the context within which we are working, the approaches taken to determine the price limits and overall required revenue, the decisions we proposed, and their impact on the overall costs and charges for water and sewerage services.

Having taken account of the representations received, this Final Determination Summary Report sets out our final decisions and details the outputs which can be delivered given the allowed investment.

We will be monitoring NI Water's performance against these outputs quarterly and formally reporting the company's performance annually.

NI Water will now consider our final determination. If the company decides not to accept our decisions it can ask us to refer the determination as a whole to the Competition Commission. It has two months from publication of the final determination to make this decision. If NI Water decides not to refer our final determination, it will be applied over PC10 through the annual Scheme of Charges.



This document is available in accessible formats.  
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## Foreword

This document sets out the Utility Regulator's final decisions on price limits for NI Water from 2010 to 2013.

NI Water plays a vital role in the life of Northern Ireland. This business is so important for our society and economy – it must run efficiently and deliver excellent service. Independent regulation creates a robust and accountable framework for moving towards excellence. Because we exist, the company works in partnership to tackle problems. Independent regulation places consumers at the heart of the water industry here.

This determination marks a turning point. Operating costs have risen since 2004, but will now start to fall. Bills and subsidy together will be £91m lower than NI Water's bid, while investment continues and service improves.

The determination provides for continuing high levels of investment in Northern Ireland. With over half a billion pounds forecast to be invested during 2010-2013, capital spend will be 47% higher per property supplied than the England and Wales average. For example, there are activities to improve security of supply, improve low pressure and sewer flooding, reduce pollution of rivers and bathing waters and further improve our high quality drinking water. This final determination takes a prudent view that funds NI Water to achieve a sustainable financial position.

Northern Ireland benefits from independent, local regulation. This determination has been produced through a partnership with NI Water, the Department for Regional Development, (DRD), Consumer Council (CCNI), Northern Ireland Environment Agency (NIEA) and the Drinking Water Inspectorate (DWI). We thank them for their constructive support; and in particular for the guidance we have received from the DRD Minister that set out his priorities, which will be delivered through this review.

In some ways, NI Water is not like GB water companies. As it is publicly funded, some of its costs and risks sit with consumers or the taxpayer rather than private investors. NI Water is just beginning its efficiency journey. It has the opportunity to learn from others, particularly Scottish Water. This, like NI Water, is publicly owned and has fast-tracked the delivery of efficiencies. NI Water's data systems are still developing, so we have often used less data-intensive approaches. This final determination takes full account of these local factors.

At its heart, this determination poses an exciting challenge. Northern Ireland's water industry can be as efficient and provide as good service as anywhere in the world. This final determination charts a course towards that goal. This is a real challenge for the company's work-force and management. But we are sure this challenge is deliverable – because we are only asking the company to do what others have done before.



**Iain Osborne**

**Chief Executive  
Utility Regulator**

# Key Messages

## The key messages for NI Water are:

1. **Deliver the efficiency savings described in this price control to reduce customer costs;**
2. **Continue to move closer towards the service levels provided by similar water companies; and**
3. **Improve data quality to better inform investment decisions and realise your aim of prioritising customers**

This document sets out the Utility Regulator's final determination on the price limits for NI Water for the three years commencing on 1 April 2010. Our final determination on price limits and allowed revenue will allow NI Water to fulfil its duties under both its operating licence and The Water and Sewerage Services (NI) Order 2006. We have set the price limits in compliance with our statutory duties, taking account of the Ministerial Social and Environmental Guidance. We have also taken into consideration the responses to our draft determination.

## Reduction to Charges

- This final determination delivers a saving of £91m or 8% when compared to NI Water's PC10 Business Plan bid.
- The Regulator has assumed that domestic charges will not be levied in the period of this price control. There are approximately 650,000 billable households in Northern Ireland and this final determination would effectively reduce the notional average household bill by £4 (2009-10 prices).
- Price limits for measured water supply will be held at 1.8% below the rate of inflation; however the necessary increased expenditure requires a rise of 4.3% in the measured sewerage charge cap above the rate of inflation.

## Efficiencies

- This final determination will mean that by the end of 2010-11 the steep increase in both capital and operating costs (capex and opex) since 2004-05 will cease.
- This final determination, when compared to NI Water's Business Plan, will deliver:
  - **£72m worth of capital savings and efficiencies**

£38m of these savings will be redeployed to enable sustainable development and the reduction of pollution.

- **£65m worth of operating savings and efficiencies.**

In meeting the challenges set out in the final determination NI Water should be in a sound financial position. Moreover, it will enable the company to continue to close the performance gap that currently exists between it and other GB water companies.

## Improving Service

- True efficiencies should not result in lower levels of service, so in addition to maintaining the current levels of service, any additional expenditure should be clearly linked to outputs. These are specified and will be individually measured.
- The Utility Regulator has adopted the Overall Performance Assessment which provides a clear and comprehensive measure of success. Based upon our assessment of the company's performance we have projected the outturn score for 2009-10 to be 135. The challenge to the company over the three year price control period is to improve its score to 201.
- This final determination allows for £564m of capital expenditure and £569m of operational expenditure.
- By focusing this investment on key issues such as water quality and pressure, leakage, pollution prevention, interruptions to supply and customer service, NI Water can achieve the levels of service outlined above.

## Improving Data Quality

- In supporting and monitoring NI Water's data quality improvement projects, we will report improvements in data reliability and accuracy in our annual Cost and Performance Report.
- We have set out key areas where we wish to see better data to inform future investment decisions for subsequent price controls. Key areas include: customer billing information, flooding incidents, water mains quality and asset information.

## An Environmentally Sustainable Service

- NI Water is proactive in this area and we welcome and support its investment in wind power generation, its approach to sustainable catchment planning and the development of a long term water resource management plan.
- We have set leakage targets and have incentivised the company to reduce its energy consumption.
- We will require a long term Strategic Direction Statement from the company for the next price control in 2013.



## Out-Performing the PC10 Contract

- This final determination is tailored to NI Water's circumstances. In particular, it recognises the consequences of NI Water operating as a Non Departmental Public Body (NDPB). Because of this status, a number of risks rest unavoidably on consumers, and incentives on the company to hit challenging targets are lessened.
- We will continue to work with the company and other stakeholders to ensure services are delivered at the lowest possible costs for consumers whilst taking into account the particular circumstances of NI Water.

# Chapter 1 - Price Limits for PC10

This chapter sets out the overall revenue allowance and associated price limits reflecting decisions taken for the final determination. Compared to NI Water's PC10 Business Plan, it offers a saving of £91m over three years and equates to a saving of some 8%.

## 1.1 Allowed Revenue and Charges

Our revenue and price limits for NI Water cover the three year period from 1 April 2010 to 31 March 2013. We have used the same approaches to determine the final allowed revenue as were applied in the draft determination. The cost of capital has remained unchanged at 4.8%. We have not altered our assumption in relation to the rate of inflation which remains at 2.3%. Through the assessment of the financial ratios associated with this final determination we have assured ourselves of the financial sustainability of our decisions.

### Allowed revenue

**Table 1.1 – Final determination revenue proposal**

	NI Water PC10 Business Plan	Utility Regulator Final Determination	Saving over PC10
Overall revenue (nominal)	£1,190m	£1,099m	£91m
Level of subsidy (nominal)	£873m	£805m	£68m
Revenue from charging (nominal)	£317m	£294m	£23m
1. NIW PC10 Business Plan figures have been restated in light of revised customer numbers and volumes.			

We have considered representations from NI Water and other stakeholders, alongside the substantial amount of additional and detailed information submitted by the company in response to the draft determination. As a result, we have uplifted the allowed revenue by £45m. This means the final determination delivers an overall saving of £91m (8%) compared to NI Water's Business Plan.

Due to this increase in allowed revenue, we now see no need to adjust the notional Regulatory Capital Value (RCV) as proposed in the draft determination. The RCV therefore stands at approximately £1.4bn as valued in March 2010. This reflects the £800m asset value assigned upon the formation of NI Water as a Government Owned Company in April 2007, uplifted for the capital investment over the period. It is however important that we and others have confidence in this opening RCV and it remains our intention to review the RCV for the PC13 price control and onwards.

## Financial sustainability

One of our primary statutory duties is to ensure that the company is able to finance its functions. A key consideration of our modelling is therefore the financial sustainability of NI Water. As a yardstick for financial sustainability we have adopted a series of ratios, an approach used by other regulators, the investment community and rating agencies. Should NI Water meet the challenges set in the final determination it should place itself in a sound financial position.

**Table 1.2 – NI Water financial sustainability for PC10**

Financial Ratio	Targeted Value	2010-11	2011-12	2012-13
Cash interest cover	Around three times	3.2	3.2	3.2
Adjusted cash interest cover	Around two times	1.5	1.7	1.8
Funds from operations: debt	Greater than 13%	12.5%	12.7%	13.0%
Retained cashflow: debt	Greater than 8%	7.2%	9.3%	10.0%
Gearing (adjusted for PPP asset/liability)	Less than 55%	54.5%	55.6%	55.9%

## Price limits

We have a duty to determine 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 tariff basket charge caps above or below inflation as measured by the Retail Prices Index (RPI). We set separate K factors for each of the five tariff baskets to allow the correct revenue to be raised from each customer group. The K factors for this final determination are set out in Table 1.3.

**Table 1.3 – K factors for PC10**

Tariff Basket	2010-11	2011-12	2012-13
Unmeasured water supply	-2.7%	-3.3%	-4.7%
Unmeasured sewerage service	1.9%	1.4%	1.0%
Measured water supply	-1.8%	-1.8%	-1.8%
Measured sewerage services	4.3%	4.3%	4.3%
Trade effluent	-1.3%	-1.3%	-1.3%
Overall K factor	-0.2%	-0.6%	-1.2%

The K factors vary between tariff basket however remain negative throughout PC10 in terms of overall K.

The final determination results in a considerable shift in the price limits from the draft determination. This reflects decisions made in light of additional information submitted by the company in relation to the following key areas:

- Projected increases in power and chemical costs;
- Updated customer data and consumption forecasting, which was evidenced by 2009-10 data reflecting the impact of the economic downturn;

- Cost of investment in water mains replacement; and
- The Regional Price Adjustment factor as applied to expenditure on capital maintenance.

### The impact of consumption forecasts on charges

NI Water has updated its forecast of customer numbers and volumes since the draft determination, based upon actual customer numbers and volumes for 2009-10. The revised forecasts reflected a downward trend in consumption associated with the current poor economic climate. We took account of these revised forecasts in our final determination of K factors.

While accepting the reasoning for a revised forecast from the company's Business Plan in June 2009, we were not satisfied that the company had assessed the impact of the information on customer charges. We therefore found it necessary to delay the final determination to allow the company to assess the impact of data changes on customer bills, to assure itself that resubmitted data were correct and also to allow us sufficient time to be satisfied with the resubmission, its implications for customers and the assessment and determination of revised K factors.

### Average notional household charges

Responses to our draft determination stated that we had focused on improving efficiencies for domestic customers with little emphasis on business customers. This is not correct.

Our price control process does not differentiate between the customer groups, but seeks to drive reduced costs and better service delivery for all. In our draft determination we included a translation of the positive impact of our process on the notional average household charge, but did not reflect this for business customers. We have however, in the final determination set out the impact on 'typical' business customers to reflect the positive impact of the price control on this sector.

While we have assumed that there will be no domestic charges over the period of this price control, Table 1.4 shows the notional average household charge over the PC10 period.

**Table 1.4 – Average notional household charge**

	Average Notional Household Charge (2009- 2010 prices)				Difference (£) 2009-10 to 2012-13
	2009-10	2010-11	2011-12	2012-13	
NIW PC10 Business Plan	£391	£410	£425	£440	£49 increase
UR PC10 final determination	£391	£395	£393	£387	£4 decrease
UR PC10 final determination saving	-	£15	£32	£53	-

*1. NIW PC10 Business Plan figures have been restated in light of revised customer numbers and volumes.*

The notional household charge is projected to decrease by £4 over the three year period; this is £53 less than the increase sought by NI Water in its Business Plan. (13.6% relative to 2009-10 charges).



## Typical notional small and large business customer charges for water and sewerage services

We have provided example indicative bills for water and sewerage services for a small and large metered customers and an example of an unmetered non-domestic bill for water and sewerage services. These indicative bills are for information purposes only and are based on a number of assumptions which may not apply to each water and/or sewerage customer.

**Table 1.5 – Typical notional small metered business bill**

	Typical bill (2009-2010 prices)				Difference (£) 2009-10 to 2012-13
	2009-10	2010-11	2011-12	2012-13	
NIW PC10 Business Plan	£439	£464	£491	£520	£81 increase
UR PC10 final determination	£439	£446	£453	£461	£22 increase
UR PC10 final determination saving		£18	£38	£59	
<ol style="list-style-type: none"> <li>1. Represents combined bill for water and sewerage services before deduction of subsidy element for domestic allowance.</li> <li>2. Calculated based on assumed usage of 127m<sup>3</sup> per annum and assuming a customer supply pipe size diameter of &lt;20mm.</li> <li>3. Based on 95% return to sewer.</li> <li>4. Based on smoothed charge caps.</li> </ol>					

While the charge to this notional small metered business customer is projected to increase by £22 over the three year period, this is £59 less than the increase sought by NI Water in its Business Plan (13.4% relative to 2009-10 charges).

**Table 1.6 – Typical notional large metered business bill**

	Typical bill (2009-2010 prices)				Difference (£) 2009-10 to 2012-13
	2009-10	2010-11	2011-12	2012-13	
NI Water PC10 Business Plan	£6,377	£6,736	£7,121	£7,534	£1,157 increase
UR PC10 final determination	£6,377	£6,468	£6,567	£6,672	£295 increase
UR PC10 final determination saving		£268	£554	£862	
<ol style="list-style-type: none"> <li>1. Represents combined bill for water and sewerage services before deduction of subsidy element for domestic allowance.</li> <li>2. Calculated based on assumed usage of 1,306 m<sup>3</sup> per annum and assuming a customer supply pipe size diameter of &gt;100mm.</li> <li>3. Based on 95% return to sewer.</li> <li>4. Based on smoothed charge caps.</li> </ol>					

While the charge to this notional large metered business customer is projected to increase by £295 over the three year period, this is £862 less than the increase sought by NI Water in its Business Plan (13.5% relative to 2009-10 charges).

**Table 1.7 – Typical notional unmetered business bill**

	Typical bill (2009-2010 prices)				Difference (£) 2009-10 to 2012-13
	2009-10	2010-11	2011-12	2012-13	
NIW PC10 Business Plan	£471	£500	£533	£568	£97 increase
UR PC10 final determination	£471	£484	£498	£515	£44 increase
UR PC10 final determination saving		£16	£35	£53	
<ol style="list-style-type: none"> <li>1. Represents combined bill for water and sewerage services before deduction of subsidy element (currently corresponding to 50% of unmetered water and sewerage services)</li> <li>2. Based on an annual Net Annual Value of £8,000.</li> <li>3. Based on 95% return to sewer.</li> <li>4. Based on smoothed charge caps.</li> </ol>					

While the notional charge to an unmeasured business customer is projected to increase by £44 over the three year period, this is £53 less than the increase sought by NI Water in its Business Plan. (11.3% relative to 2009-10 charges).

### The infrastructure charge

Under Licence Condition C we set infrastructure charge limits for connecting household premises to water and sewerage services for the first time. The infrastructure charge provides a contribution towards the cost of developing local networks to serve new consumers. NI Water can levy an infrastructure charge, as well as the direct costs of making new connections. Our final determination infrastructure charge limit of £269 for both water and sewerage services in 2010-11 prices (assuming RPI of 2.3%), is unchanged from the draft determination.

## 1.2 Financial Issues Raised in Response to the Draft Determination

A number of responses to the draft determination raised concerns regarding the management of risk and uncertainty. These concerns arose from a number of aspects in the draft determination, namely:

### The apparent step change in operational expenditure in the first year

To clarify the starting point, we worked with audited accounts for 2007-08. We then added costs that we could see were new and outside the control of prudent management (exogenous) to that baseline. This analysis led us to conclude an appropriate opex starting level for 2009-10 of £214m when compared to the £225m reflected in NI Water's Business Plan.

As stated in our draft determination we believe that if NI Water was to fully meet its ministerial efficiency targets for the Strategic Business Plan (SBP) period, then our post efficiency opex view for 2009-10 of £214m was reasonable.

The concern was raised that this would require a step change in efficiency in the first year of PC10. Therefore we examined (with NI Water) its delivery of the ministerial efficiency targets

over the SBP period. During this period, NI Water revised its 2009-10 forecast from £225m to £210m (2007-08 prices). Given the revised NI Water forecast 2009-10 figure of £210m, the issue of a step change in the first year is removed. We noted however, the company's highlighting that some £8m - £9m of savings were attributable to one-off savings. However, given the 49% operational efficiency gap between NI Water and efficient English and Welsh water companies we expect there are further such savings to be realised.

### Management of risk and uncertainty

Our determination provides for a level of dividend and reserve to protect the consumer and delivers a sound financial platform for NI Water should it meet the challenges contained within the final determination. However we recognise the particularly complex situation presented by the company's reclassification as an NDPB. DRD has informed us that this removes NI Water's ability to access the revolving credit facility established for the SBP and PC10 periods. We also understand that NI Water will be unable to access reserve funds and must bid for any additional funding, alongside other departmental bodies, under public expenditure procedures. We have taken a number of measures to address these issues in the final determination:

- We have taken a more conservative regulatory approach to certain costs, allowing the enhanced additional power and chemical costs contained within NI Water's response to our draft determination, which exceeds its Business Plan bid. We will further mitigate this risk by developing an indexation factor to be applied to the volatile and unpredictable price element of the power cost, while leaving the consumption risk (and therefore the incentive to reduce consumption) with NI Water.
- The dividend sought by NI Water in its Business Plan has been provided for. The payment of any dividend is made after the close of the financial year, and in deciding whether to declare and pay a dividend, the Board of NI Water will need to take account of its fiduciary responsibilities and the solvency of the business.
- We have again reviewed the notified items sought by NI Water and from our draft determination have made a further allowance for rates and chemical costs but not allowed either of them as notified items. Consequently, there are no notified items for the PC10 period.

### Security of funding

We have liaised with DFP and DRD to understand the process by which NI Water will be funded given its classification as an NDPB. DRD must bid for the funding via DFP, which will then make recommendations to the Executive based upon its wider responsibility of allocating budget to all public bodies. The budget has to be approved by the Executive.

We understand that the aspiration is to reflect the PC10 final determination, however following confirmation of the budget we will seek to assess whether this final determination is fully funded and discuss issues with the company as necessary.

We recognise the need to revisit objectives, should insufficient capital funding be provided. A change protocol will be developed and agreed with principal stakeholders prior to the commencement of the PC10 period.



## Chapter 2 – The Investment Programme

### 2.1 Summary of Allowed Investment

We have carefully considered the representations made by NI Water and other stakeholders to our draft determination. As a result we have increased our allowed capital expenditure by £44m from the draft determination.

We have concluded that the capital investment plan proposed by NI Water can be delivered for £72m less than was proposed in the company's Business Plan. As a result, we have been able to include an allowance for £38m of additional investment to address development constraints and compliance failures.

A summary of the overall adjustment to the capital expenditure sought by NI Water is provided in Table 2.1 below. Table 2.2 explains the reasons for the uplift in capital investment.

**Table 2.1 – Summary of adjustments to the capital investment programme (2007-08 prices)**

	NI Water Business Plan	UR Final Determination	Variance (%)	
Total Capital Expenditure (pre efficiency)	£636m	£585m	£52m	-8.2%
Total Capital Expenditure adjusted for efficiency	£599m	£527m	£72m	-12.1%
Overall efficiency	5.8%	9.9%		
Provision for additional outputs		£38m		
Total investment in the final determination		£564m		
<ol style="list-style-type: none"> <li>1. NI Water Business Plan figures restated to take account of additional information provided by the company.</li> <li>2. Figures may not add due to rounding.</li> <li>3. The adjustment to proposed expenditure pre-efficiency includes £8m of leakage expenditure reallocated from CAPEX to OPEX.</li> </ol>				



**Table 2.2 – Utility Regulator allowed uplift in capital investment in the final determination**

Reason for Uplift	Base investment	Enhancement	Total up-lift
Increased unit rate for historical water mains laying rates evidenced by NI Water	£4.0m	£3.8m	£7.8m
Increased rate for water mains in response to additional information submitted by NI Water evidencing enhanced focus on urban mains laying	£5.0m	£5.2m	£10.2m
Revision to efficiency targets applied to the capital enhancement programme including a revised RPA	£1.0m	£7.9m	£8.9m
RPA efficiency challenge limited to a proportion of the capital maintenance programme to reflect work procured in national markets	£13.0m		£13.0m
Revision to the RPA applied to the capital maintenance efficiency challenge	£3.4m		£3.4m
Other changes		£0.7m	£0.7m
Total	£26.5m	£17.6m	£44.1m

## 2.2 Summary of PC10 outputs

The final determination is a package of both price limits and outputs and provides sufficient funding to allow NI Water to deliver the same broad range of outputs included in the draft determination. These outputs align with the Social and Environmental Guidance and have the broad support of key stakeholders.

In accordance with statutory requirements, the Social and Environmental Guidance will be laid before the Assembly. Any further changes to outputs arising from the Assembly's review and/or approval of the document will be addressed through the regulatory change control processes.

The outputs for PC10 are summarised in Table 2.3.

**Table 2.3 – Summary of outputs**

<b>Base maintenance</b>	<ul style="list-style-type: none"> <li>Investment in the existing assets will maintain levels of service to existing consumers.</li> </ul>
<b>Enhance consumer service</b>	<ul style="list-style-type: none"> <li>Investment in trunk mains and water treatment works will improve security of supply in areas at risk during drought.</li> <li>Investment in trunk mains and water distribution mains will target reductions in interruptions to supply and reduce the number of properties supplied at low pressure.</li> <li>Investment in the sewerage network will address the risk of internal flooding at 200 domestic properties. Further work will be carried out to develop a robust flooding risk register, ensuring continuity of delivery into PC13.</li> <li>Investment in systems and management will improve NI Water's response to consumer queries and complaints. Additional interim consumer service measures will be introduced and work will be undertaken with CCNI to further improve consumer measures for PC13.</li> <li>Completion of a Water Resource Strategy in PC10 will inform future investment in PC13 to secure water supply.</li> </ul>
<b>Improve water quality compliance</b>	<ul style="list-style-type: none"> <li>Completion of two water treatment upgrades will improve the quality of drinking water. The completion of drinking water safety plans will identify residual risks to water quality and form the basis of further investment in PC13.</li> <li>Continued investment in water distribution mains will improve the water quality at the tap as part of a programme to rehabilitate a further 900 km of mains.</li> <li>Work in PC10 will assess the extent of mains which impact on water quality to support investment in PC13.</li> </ul>
<b>Improve environmental compliance</b>	<ul style="list-style-type: none"> <li>43 wastewater treatment schemes to improve the quality of discharge from works serving a population equivalent of &gt;250.</li> <li>117 unsatisfactory intermittent discharges will be upgraded to meet quality standards.</li> </ul>
<b>Growth and supply demand balance</b>	<ul style="list-style-type: none"> <li>The company will be able to continue to connect new properties to the water and sewerage network.</li> <li>Investment at sewage treatment works will address development constraints due to lack of capacity.</li> </ul>
<b>Improve sustainability</b>	<ul style="list-style-type: none"> <li>Improvements to existing assets, levels of service and quality enhancements will contribute to a sustainable service.</li> <li>Further reductions in leakage will reduce water lost to below the short-run economic level of leakage (ELL).</li> <li>The company will determine a sustainable long-run ELL which will inform leakage targets for PC13.</li> <li>The company will continue to increase the proportion of renewable energy used and consider opportunities for renewable power generation.</li> <li>Carbon accounting will be introduced for significant investments in PC13.</li> <li>Trials will be carried out on sustainable methods of catchment management and wastewater treatment.</li> </ul>
<b>Additional outputs</b>	<ul style="list-style-type: none"> <li>£30m of investment in additional outputs focused on addressing development constraints and consent compliance at wastewater treatment works.</li> <li>£8m to advance expenditure at Killylane water treatment works, subject to the conclusion of further investigations.</li> </ul>

## Water quality

Some responses referred to the target set for water quality. The Drinking Water Inspectorate interprets and monitors compliance with the relevant European Directives regarding water quality. The mean zonal compliance (MZC) target of 99.70% for 2012-13 reflects the target set in the Social and Environmental Guidance. This is lower than the target of 99.77% for the end of the SBP period 2007-2010. Based on the analysis of data for 2008 and initial data for 2009 we have concluded that the company is likely to exceed the 2012-13 MZC target in 2009-10, which the company has confirmed. Further investment in PC10 should allow the company to meet and exceed its MZC target for each year of PC10.

## Leakage

During the SBP period NI Water carried out a fundamental reassessment of its water balance and the data and assumptions used in its assessment of leakage. We fully support and commend NI Water for the work done to review its leakage methodology and its on-going commitment to improve leakage data. Based on this work the company has revised its assessment of the economic level of leakage and proposed new leakage targets for PC10.

The company was expected to deliver a reduction in leakage of 21Mld in the last two years of the SBP. We believe that the company will achieve less than half this reduction in leakage, measured on a like for like basis. In view of the quality of information available to the company to set targets and manage leakage through the SBP period, it is possible that the SBP targets were not robust and may have been overly ambitious. The targets for PC10 are based on improved data and relate to a level of funding which provides a more realistic challenge for the company.

The company and its predecessor DRD Water Service have delivered significant reductions in leakage in recent years. NI Water's current level of leakage per length of water main is comparable to the mid range of companies with effective leakage management in Scotland, England and Wales. In line with the wider industry, as NI Water develops its long-term water resource management plans it will have to consider opportunities for further reducing leakage, reducing carbon emissions, and minimising the impact of abstractions on the environment. The current economic level of leakage compares the costs of controlling leakage with the cost of water production (limited to operational costs only). For PC13, the company will develop a sustainable long-term level of leakage, taking account of capital replacement costs and wider economic costs, including the cost of carbon and environmental impacts.

## Flooding from sewers

NI Water does not have comprehensive information on historical sewer flooding, which would allow it to assess the risk of sewer flooding and prioritise investment to reduce the impact on consumers. The lack of robust historical data makes it impractical to determine a service level target for PC10. As a result and given the priority of this issue to consumers, outputs for PC10 will be:

- To develop and maintain a flooding register and a register of properties at risk from internal sewer flooding.

- To collect and categorise annual flooding events to continue to populate the flooding register and provide the basis for future service targets.
- To address the risk of internal flooding at 200 properties currently at risk.
- To ensure that the prioritisation and development of flood alleviation schemes is sufficiently well advanced to ensure continuity of investment and delivery of improvements into PC13.

### Environmentally sustainable services

The PC10 outputs, developed in line with the Social and Environmental Guidance, support wide ranging improvements to the sustainable delivery of services by NI Water. For example:

- Investment in wastewater treatment and collection systems will improve the ecological status of receiving waters, contributing to the delivery of the Water Framework Directive.
- Further reductions in leakage will reduce the overall impact of water abstraction while the development of water resources, treatment and distribution will improve the security of supply to consumers.

The delivery of PC10 also includes the development of projects which will support the long term sustainable development of water services into PC13 and beyond. For example:

- Initial investment in wind power generation to provide power to a wastewater treatment works.
- Exploring opportunities for sustainable catchment management to address raw water quality issues at source and reduce the impact and cost of water treatment.
- Exploring opportunities to develop less energy-intensive wastewater treatment.
- Development of a long-term water resource management plan to secure sustainable development of water supply.
- Improved monitoring of the sewerage system to reduce the risk of blockages which can result in pollution and flooding.
- Development of carbon accounting for major projects.

The water industry provides essential long-term services which requires on-going investment in long-life assets. The decisions NI Water makes today will impact on our environment and the delivery of sustainable services long into the future. At each price control, NI Water must make medium-term investment decisions which have long-term implications. In light of this, we will ask NI Water to develop a Strategic Direction Statement in preparation for PC13. This should set out its long-term plans for the delivery of sustainable services in order to meet



developing consumer expectations, and current and future mandatory requirements, as well as detailing opportunities to reduce the impact of the services it provides on the wider environment.

## 2.3 The Utility Regulator's view on Representations from NI Water and Other Responses

NI Water presented a substantial amount of additional information in response to our draft determination. The company's 'Response to the Draft Determination', was supplemented with 21 appendices which provided clarification and information additional to that which was included in the PC10 Business Plan.

We have identified three of the more significant concerns raised by NI Water in its response to the draft determination. These concerns were also raised by other stakeholders. Our responses to these issues are outlined below:

### The scale and application of the regional price adjustment (RPA)

While challenging the overall level of capital efficiency we proposed, NI Water's key concern arose from the application of the RPA.

The company agreed that certain elements of water and wastewater construction can be delivered at lower cost by NI Water than by the English and Welsh water companies we used in our comparative efficiency analysis. However, the Utility Regulator's view differed from NI Water's as regards the scale of the variation. We reviewed the additional information and concerns raised by NI Water for the final determination and adjusted the RPA in three ways:

- We adjusted our RPA factor from -17% to -12.2%. This is applied to work procured in local markets only. Taking account of the proportion of work procured in national markets we estimate that NI Water's capital programme should be delivered at a cost 6% lower than an equivalent programme in England and Wales.
- In our capital efficiency analysis we revised the proportions of work procured in national markets to reflect decisions made by Ofwat in its most recent final determinations for English and Welsh water companies.
- We applied the RPA efficiency factor to a proportion of the capital maintenance programme to reflect the proportion of plant and equipment procured in national markets. This resulted in an increase in the level of base maintenance spend which addresses another concern raised by the company.

### Funding levels for capital maintenance

We have concerns about the quality of the data and analysis which was used to support the company's assessment of the capital maintenance expenditure required to maintain the existing assets and current levels of service. In light of these concerns we based our draft determination on econometric analysis of capital maintenance expenditure by water and

sewerage companies in England and Wales, subject to specific adjustments to reflect the longer lengths of mains operated by NI Water. We adopted the same approach in our final determination. However, the final determination includes an increase in capital maintenance expenditure resulting from the revised assessment and application of the RPA.

Some 44% or £251m of capital investment is directed at maintaining existing assets and serviceability. During PC10, we expect NI Water to improve its asset data records and analysis to allow it to improve the effectiveness of investment and its ability to support future capital maintenance funding requirements.

### **Reduction in scope and unit rates for water mains renovation**

NI Water proposed to increase water mains activity from 910km included in the SBP (2007-2010) to 1067km in PC10. At the draft determination we concluded that recent rates of activity had maintained the condition of water mains and delivered improvements in water quality and a reduction to the number of properties at risk of receiving low pressure.

We discussed this issue in some detail with NI Water following its response to the draft determination. While the company provided useful additional information, it was not able to demonstrate that an increased activity rate was necessary. We have therefore maintained our draft determination position of 900km of mains replacement over the three year PC10 period.

During PC10 we expect NI Water to develop its plans for water mains rehabilitation to clearly demonstrate the benefits of any proposed increase in mains activity. In particular, we expect the extent of the water mains quality programme to be assessed in conjunction with the DWI and for the company to consider a more targeted approach for addressing properties at risk of low water pressure.

NI Water asked that the unit rate for water mains replacement be increased to allow it to focus more on urban areas in PC10 when compared to the SBP period. We included additional funding in the final determination to allow the company to increase the proportion of mains replacement carried out in urban areas.

## **2.4 Level of Capital Investment**

NI Water and others raised the issue of backlog of investment as a reason for under-performance. Historical investment by NI Water and DRD Water Service is shown on Figure 2.1. The increase in investment since 2001, which will continue into PC10, has gone a long way to address that backlog. Investment peaked in 2007-08 at rates approximately three times the average spend per property in England and Wales.

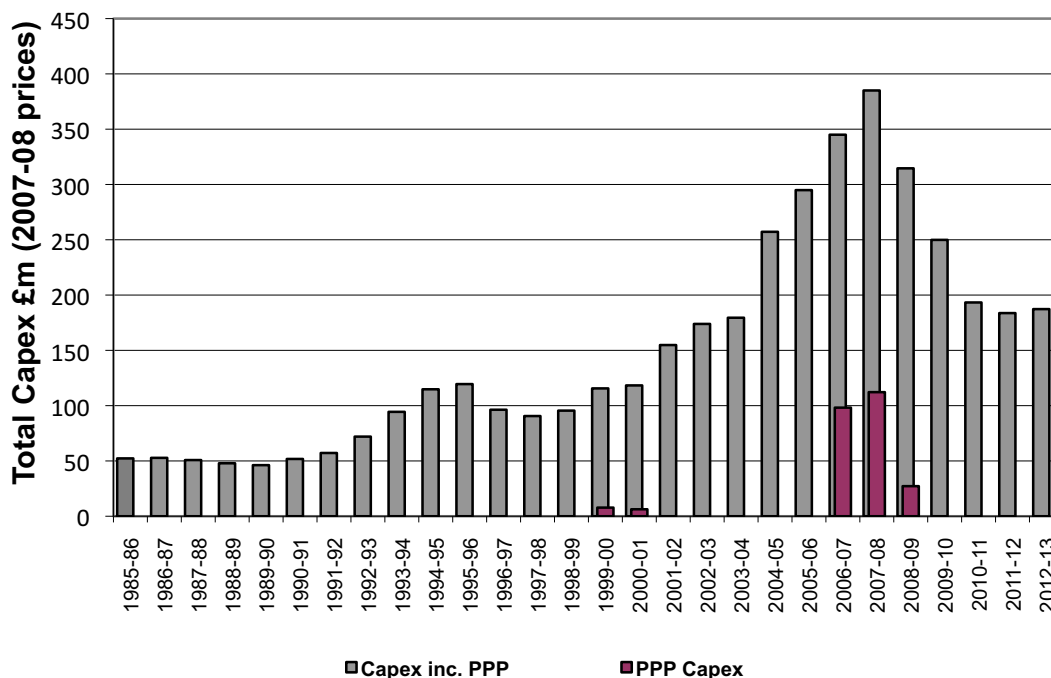
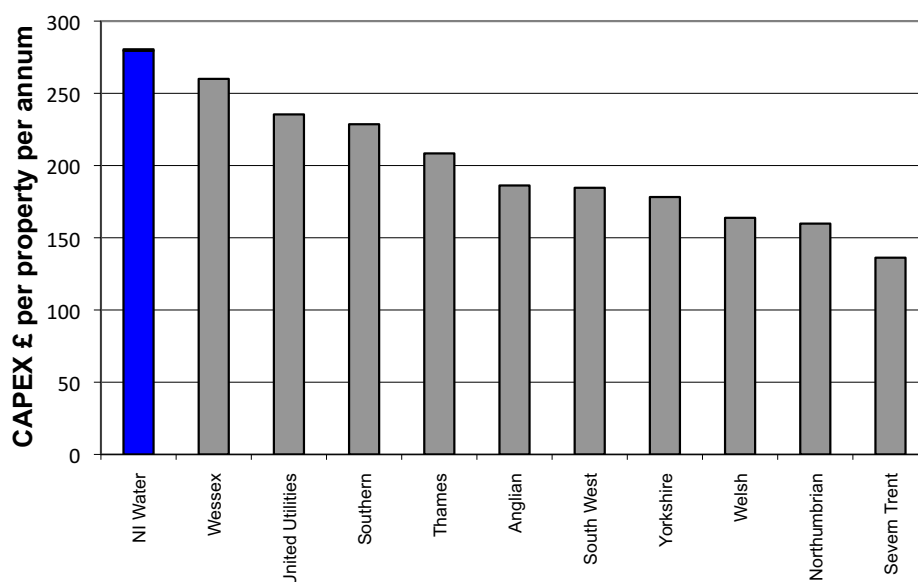
**Figure 2.1 – Capital expenditure by NI Water and DRD Water Service**

Figure 2.2 shows the capital expenditure for NI Water in PC10 (per annum per property supplied) relative to the capital expenditure in Ofwat's recent final determinations for 2010-15. The proposed level of capital investment is £279 per annum per property supplied; 47% greater than the average expenditure proposed for England and Wales.

**Figure 2.2 – Capital expenditure per property in PC10 (2007-08 prices)**

This relatively high level of investment by NI Water reflects the need to improve quality compliance, levels of service and management systems towards those achieved by the comparative companies. If these higher levels of investment continue into the future it will result in higher levels of subsidy and charges in the longer term.

## Chapter 3 – Operating Expenditure

We have carefully considered the representations made by NI Water and others to our draft determination and have as a result increased our allowed operating expenditure to £569m<sup>1</sup>, while maintaining an operational expenditure saving of £65m when compared to the company's Business Plan.

### 3.1 Scope for Operating Cost Efficiency

The allowed operating costs have been reduced to reflect the scope for improvement in efficiency. It is important to emphasise that by 'efficiency' we mean delivery of the same level of service for less money. Efficiencies, by definition, cannot result in lower levels of service.

NI Water's Business Plan included operating expenditure of £634m (post efficiency, excluding un-appointed activities<sup>2</sup>). Following our detailed assessment of the company's special operating factors and efficiencies we propose an operating expenditure of £569m, resulting in a saving of £65m. The overall adjustment to the proposed operating expenditure is summarised in Table 3.1 below:

**Table 3.1 – Summary of adjustments to the operating expenditure**

(2007-08 prices)	NI Water Business Plan (after consultation response)	Utility Regulator Final Determination	Variance %
Total Operating Expenditure (post efficiency)	£634m	£569m	-10.26%
Annual Efficiencies <sup>3</sup>	3.56%	6.48%	

We have maintained a robust approach to efficiencies in our final determination given that analysis indicates that NI Water has a 49% efficiency gap to comparator companies. Such a scale of challenge requires efficiency targets to be set which incorporate a reasonable speed of catch-up to the industry benchmarks, recognising the inherent limitations imposed by the relatively short three year price control period.

### 3.2 Utility Regulator Allowed Uplift in Operational Expenditure in final determination

The reduction in operational costs from NI Water's Business Plan can be attributed to our decisions regarding additional special operating costs sought by NI Water and our efficiency challenge.

1 The operational expenditure figure given here includes the total PPP unitary charge including capital elements. The figure excludes unregulated costs.

2 Non-appointed activity refers to any associated services provided by the company which do not form part of the regulated business. Examples include septic tank emptying, vehicle maintenance for other government departments etc.

3 Efficiencies calculated on a percentage of prior year post efficiency opex (excluding PPP capital charges).



### Additional special operating costs

NI Water's Business Plan sought £100m of additions to baseline operating expenditure for PC10. In our draft determination we allowed £39m of this. In the company's response to our draft determination it sought a further sum of £12.6m (over and above the £100m in the Business Plan). The final determination has allowed £57.3m or 51% of the additional special operating costs sought.

Table 3.2 below identifies the allowed uplift in this final determination for special operating costs above those which were allowed in the draft determination (including reductions and atypical expenditure).

**Table 3.2 – Utility Regulator allowed uplift for additions to operating expenditure in final determination**

Special Operating Expenditure (2007-08 prices)	NI Water Claimed PC10 Business Plan	NI Water Claimed post-draft determination	UR Allowed at final determination
<b>Additions</b>			
Power	£27.5m	£37.2m	£34.6m
Environmental compliance & regulation	£26.2m	£26.6m	£7.6m
Information and communications technology	£12.6m	£12.6m	£0.0m
Corporate	£14.2m	£14.2m	£5.6m
New organisational functions	£10.5m	£10.5m	£0.0m
Chemicals	£7.4m	£7.0m	£6.9m
Rates	£1.3m	£4.3m	£2.6m
<b>Sub-total</b>	<b>£99.7m</b>	<b>£112.4m</b>	<b>£57.3m</b>
<b>Reductions</b>			
PPP reductions	£ -30.9m	£ -30.9m	£ -24.7m
Crystal Alliance	£ -8.3m	£ -7.1m	£ -7.1m
Capitalisation policy	£ -5.1m	£ -5.1m	£ -5.1m
<b>Sub-total</b>	<b>£ -44.2m</b>	<b>£ -43.0m</b>	<b>£ -36.9m</b>
<b>Atypicals Carried Forward</b>			
VER/VS	£17.6m	£17.6m	£27.6m
Business Improvement Programme	£12.4m	£12.4m	£9.9m
<b>Total</b>	<b>£85.6m</b>	<b>£99.4m</b>	<b>£58.0m</b>
<i>Note: Numbers may not add due to rounding</i>			

We are very conscious that any increase in operational expenditure has a direct impact on customer charges. However, it is important that the company is adequately funded to deliver its functions and for this final determination we have had to consider the impact of the reclassification of the company as an NDPB. The associated inability of the company to access reserves or credit facilities has impacted on the decisions we have taken.

In determining whether or not to allow the additional special operating costs sought by NI Water we applied two regulatory tests:

- Newness – is the expenditure related to any new obligation or specified improvement in service levels, e.g. new compliance standards?
- Exogeneity – does NI Water face an exogenous (i.e. outside its management's control) increase in costs in relation to current activities e.g. energy, pensions etc.

Decisions taken in the final determination regarding additional special operating costs are outlined below.

### Power costs

In its response to the draft determination, the company sought a further £9.7m for rising network charges and higher forecast power prices across 2011-12 increasing its bid from £28m to £37m. Following our analysis of the detailed information submitted by NI Water in its response to the draft determination we accepted the vast majority of additional costs as justified. Our decision to allow these costs in the final determination took account of:

- The fact that the proportion of energy costs to turnover for NI Water is of the order of 8% which means that the Retail Price Index (RPI) will not fully compensate for any increase in costs; and
- The need to address the company's ability to manage risk given the potential scale of future oil and gas price increases and the fact that the company is unable to access cash reserves.

We are, however, conscious that the pass-through of such costs removes the incentive for the company to drive down consumption. We therefore intend to develop a methodology to index the price element of the energy component of the end-user price, leaving the volume risk with the company.

### Environmental compliance and regulation

Additional costs were sought for sludge transportation under this generic heading. A detailed review and discussion with NI Water on submitted information helped identify the double discounting of cost savings for sludge transportation arising from the PPP Omega project. PPP savings were therefore reduced by £6m rather than costs being allowed as special operating costs.

The £3.8m budgeted for Moleseye Charges<sup>4</sup> has been disallowed in the final determination. Our further review led us to conclude that this charge is unlikely to be introduced during the PC10 period. Customers (taxpayers) have therefore not been required to pay up front for costs which may not materialise.

An additional £3.1m was allowed for increases in chemical costs. Power and chemicals are volatile operational costs and again in acknowledging the company's NDPB status and hence its lack of access to additional funds, we have taken a more conservative approach. This facilitates the management of key risks.

## Rates

In response to our draft determination the company submitted evidence to support an increased allowance from the current rates assessment by Land and Property Services. We have allowed 50% of the proposed increase from 2011-12 onwards given that the outcome of the assessment is uncertain and not significantly material. This equates to an increase of £1.5m from the draft determination allowance.

## Voluntary early retirement and voluntary severance (VER/VS)

In our draft determination we acknowledged the need for the company to achieve operational efficiencies through VER/VS and allowed the funding sought by NI Water. In the final determination we have responded to the company's request to increase this funding in light of our enhanced efficiency targets. We have consequently allowed an additional £10m.

## Business Improvement Plan

Following the submission of additional information, and acknowledging the restrictions that NDPB status places on NI Water as regards self-financing of efficiency programmes, the final determination allows £9.9m of the £12.4m sought by NI Water.

## Operating costs and efficiency challenge

The efficiency challenge applied to NI Water opex in PC10 is 6.48% per annum, calculated as a percentage of the prior year opex baseline.<sup>5</sup> Over the five-year period (2008-09 to 2012-13) the cumulative efficiency challenge remains virtually identical to the draft determination. A 0.125% annual efficiency has been applied to PPP opex. This translates to monetary savings of £0.18m over the three year period. Our efficiency target falls within the 5% to 7.5% per annum range advised by our consultants (LECG and NERA) as a reasonable but challenging rate of catch-up for NI Water. Their expert advice was informed by efficiency benchmarking of NI Water and efficiency improvements achieved by other utility companies in the past.

Given a significant efficiency gap, the challenge is how quickly that gap can be closed.

<sup>4</sup> Moleseye costs are the charges imposed by DRD on the company for access to the Street Works Registrar used to notify DRD of road openings. The costs also reflect the various inspections, licence and permit fees and fixed penalties that DRD may levy on NI Water.

<sup>5</sup> Efficiency percentages calculated excluding PPP capital charges.

In coming to our view we noted that Scottish Water's annual average over four years was 7.6%. We also consider it important to recognise that NI Water will be in its fourth year of transformation at the start of PC10 and would therefore expect to see added benefits from business transformation investments.

### 3.2 The Utility Regulator's view Representations from NI Water and Other Responses

The combined impact of the disallowed special operational costs together with the efficiency challenge presented in our draft determination resulted in concerns being raised by the company and other responses regarding its feasibility.

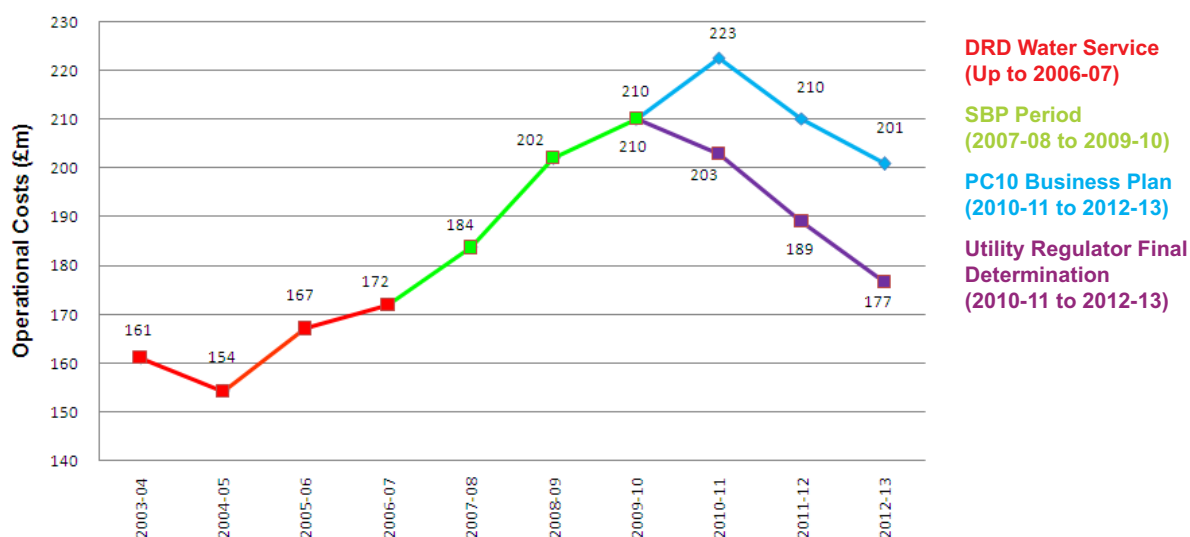
The company's response claimed that the draft determination:

- Ignored NI Water's current 2009-10 operational costs as the starting point;
- Therefore retrospectively disallowed £15m of committed opex in 2009-10;
- Reduced opex by £37m (12%) in year one;
- Required additional staff reductions for which no VER/VS had been allowed; and
- Took an unprecedented and flawed approach and would have led to reduced service and failure of output targets.

The majority of the above statements were made as a result of our differing view on what the operational costs for 2009-10 should be. NI Water's Business Plan indicated £225m (including all PPP costs), in contrast to our projected costs of £214m in the draft determination. Our £214m was arrived at by applying a bottom up approach to opex from 2008-09 and applying the regulatory principles of exogeneity and newness to the special additional operating costs sought.

Following our query process and discussions with NI Water, the company confirmed its updated projections for 2009-10 as £210m based on 2007-08 prices (as shown in Fig 3.1 below). NI Water claim that some £8m - £9m of this lower outturn for 2009-10 arises from one-off savings. However, given that NI Water are operating at around twice the cost base of other benchmarked companies, we perceive that further such opportunities will present themselves and that the transformation investment over the previous three years will enable the company to generate additional savings.



**Figure 3.1 - NI Water Opex 2003-04 to 2012-13 (2007-08 prices)**

1. The costs from 2007-08 onwards exclude unregulated activities. This is different from the Water Service period as no distinction was made in these years between regulated and unregulated activity as regulation was not in place.
2. Figures from 2007-08 onwards include opex plus the entire PPP unitary charge including capital repayments and interest.
3. The 2009/10 figure (£210m) represents the company forecast for this year based on half year projections.

The reconciliation between the final determination and the projected 2009-10 outturn illustrates that the Regulator has not retrospectively disallowed committed opex which in turn supports our regulatory approach to disallowing special additional operating costs. We acknowledge the need for additional VER/VS in light of the enhanced efficiency targets set and have therefore allowed an additional £10m in the final determination.

Figure 3.1 above shows the rapid increase in operating costs from 2004-05, and then the start of a decline in costs from PC10 reflecting the Utility Regulator's focus on efficiency and the need to reduce costs going forward.

A number of responses raised concerns regarding the risk to service resulting from such tough operational efficiency targets as required by the draft determination. In this final determination we have taken further account of the particular circumstances of NI Water and in consideration of its reclassification to an NDPB have allowed NI Water additional costs for power and chemicals.

## Chapter 4 – Economic Regulation of NI Water

### 4.1 Governance of NI Water

The reform of the water and sewerage industry in Northern Ireland involved setting up NI Water as a Government Owned Company in April 2007, together with other governance changes including the introduction of economic regulation. It was expected that domestic charges would have been phased in from April 2007 to March 2010, with NI Water fully funded from direct charges by April 2010. This has not been the case, resulting in approximately 73% of the revenue for NI Water being funded from central public expenditure in lieu of full charging.

A consequence of continued subsidy is the reclassification of NI Water from a Government Owned Company to an NDPB. This reclassification has influenced a number of the decisions we have taken in this final determination, to take account of the fact that:

- The company, as an NDPB will be regarded as any other public body, with its funding being allocated as part of the public expenditure regime;
- The company will have no direct access to reserves or a credit facility to manage risk;
- The company will be reliant upon DRD, who have to bid for funds from DFP; and
- DFP will make budgetary recommendations to the Executive based on a wider funding context and the requirements of other public bodies.

The final determination is published at a time of significant economic uncertainty and prior to the agreement of public expenditure budgets for 2010-11 onwards. While we have been liaising with both DRD and DFP to gain assurance that the funding made available to NI Water will reflect the final determination allowances, confirmation of the budget for NI Water is not assured. We acknowledge that should the Executive be unable to make this public expenditure available, key outputs would have to be delayed or reduced in scope. Should such circumstances arise, we will work with the company to redefine the price control contract. We are developing a change protocol and will engage with principal stakeholders to ensure that the consequences of any such agreed changes are fully understood and price control contract changes are transparent.

It remains the case however, that the company will have to comply with strict annual public expenditure budget allocations. This has a number of disadvantages:

- It reduces the company's flexibility to manage its capital programme and encourages an ethos of spending the money rather than achieving the right outputs;
- It reduces the incentive to outperform;

- In restricting the company's access to reserves or a credit facility, it curtails its ability to manage risks while maintaining service delivery.

We will continue to liaise with statutory partners, in particular DRD and DFP in trying to align the price control and public expenditure processes to ensure delivery of best value for today and tomorrow's consumer. As stated in our draft determination, we believe there is a way to accommodate this with the Executive being asked to approve the Social and Environmental Guidance, which could be updated to incorporate both the allowed funding and outputs for the three year period as defined in this final determination.

We will also continue to work with statutory stakeholders to develop common monitoring templates and to maintain and/or further develop effective bi-lateral and cross-working group structures.

We wish to emphasise the benefits delivered by applying a regulatory process and having an associated price control contract that provides:

- Financial savings of £91m compared to NI Water's Business Plan, resulting in reduced subsidy and reduced charges to paying customers;
- A linkage of expenditure to outputs and the transparent reporting of delivery both in terms of cost and performance;
- The requirement and incentive to improve data;
- The facilitation of longer term planning focused on key outputs with a drive to out perform the contract; and
- Clear accountability for delivery and the alignment of management and consumer interests.

## 4.2 The Utility Regulator's Challenge to NI Water

Set out below are some of the challenges associated with this final determination.

### Customer Service

We note and endorse NI Water's intention to achieve almost 100% compliance with the targets for all customer service measures. However, the current measures reflect only response times and do not necessarily measure the quality of the response itself. We therefore challenge the company to report on the following additional measures of customer service pending the formal development of more meaningful measures. We expect these additional measures to be based on consumer views determined through work undertaken by CCNI in conjunction with other stakeholders:

- Number and frequency of repeat complaints.
- Number and frequency of holding responses issued by the company.
- Number and frequency of sewer blockage clearance exceeding 24 hours.

## Efficiency improvements

We have set efficiency targets for both capex and opex, both of which have been informed by benchmarking to the English and Welsh water companies. Comparisons have also been made to Scottish Water; however, the structure and operation of water services in the Republic of Ireland did not facilitate similar benchmarking.

## Capital efficiencies

NI Water's capital enhancement efficiency gap, when compared to the better performing English and Welsh water companies, was assessed to be of the order of 16.7%. The final determination reflects Ofwat's approach of applying a 75% catch-up of this gap in year one, with a continuing efficiency assumption of 0.4%. We have not applied further capital efficiencies to carry-over projects which NI Water committed to in the SBP period, rather we have phased in the efficiencies applied to capital maintenance over PC10. The overall capital efficiency challenge equates to £58m over the course of PC10.

## Operational efficiencies

Benchmarking of NI Water's operational expenditure using Ofwat econometric modelling to the frontier company<sup>6</sup> would indicate an efficiency gap of 49%, implying that costs are 95% above the benchmarked company. This is a significant gap and again the challenge is how quickly it can be closed.

We have reviewed what has been achieved by others and in particular Scottish Water which was considered the most analogous organisation to have gone through a similar transformation. In the table below, our efficiency challenge for NI Water is compared to that of Scottish Water in its early transformation days of 2002-2006.

**Table 4.1 – PC10 final determination operational expenditure efficiency targets compared to Scottish Water operational efficiency targets 2002-2006<sup>7</sup>**

Scottish Water	2002-03	2003-04	2004-05	2005-06
Cumulative Opex efficiency target before merger savings	£63m	£96.9m	£115.9m	£128.8m
Cumulative efficiency excluding merger savings % of total Opex	16%	24%	28%	30%
NI Water	2010-11	2011-12	2012-13	
Cumulative Opex efficiency target	£11.6m	£21.2m	£31.2m	
Cumulative efficiency % of prior year Opex baseline (ex PPP capital charge)	5.9%	11.5%	18.2%	

<sup>6</sup> The frontier company may not represent the lowest cost operator. The appropriate benchmark is chosen by Ofwat and must fulfil three criteria i.e. no special concerns about data, no specific characteristics which significantly reduce costs and the company must be suitably large.

<sup>7</sup> Source: LECG Top-down analysis of efficiency assumptions in the UK regulated sector, and WICS Strategic Review of Charges 2002-06, p303.



The Scottish Water annualised opex efficiency average equates to 7.6% excluding merger savings which if included, would result in an average of approximately 9.2% p.a. The annualised average challenge to NI Water is 6.5%.

We note that while our efficiency challenge is less than that set for Scottish Water it is relatively large in comparison to the other regulators and water companies. We believe that NI Water is in a position to deliver this challenging target for the following reasons:

- The existing 49% efficiency gap reflects a relatively high level of inefficiency in NI Water thus presenting a large scope for improvement;
- NI Water has the advantage of learning from the regulated companies in England, Wales and Scotland; and
- NI Water has benefited over the last three years to save monies (i.e. Business Improvement projects) and continues to be funded to the order of £10m in the PC10 period.

We note that while Scottish Water failed to deliver the significant 16% saving in 2002-03, by the last year (2005-06) it had caught up and delivered the operational efficiency target. We look forward to reporting a similar success for NI Water.

The Regulator expects that if the efficiency targets are achieved, the company will reduce its relative efficiency gap. The Regulator also notes the aspiration of NI Water to move to an upper 'D' band company<sup>8</sup> by the end of PC10, which would result in an efficiency gap of 25% - 35%, as opposed to the current 49% gap.

### Water and wastewater quality

Since 2001 the company and its predecessor DRD Water Service have made great strides in improving water and wastewater quality standards. The associated compliance targets set in this final determination (refer to Annex 1) reflect allowed funding to improve compliance at treatment works. We will monitor and report on the company's progress in delivering the funded projects and achieving the associated targets.

### Overall Performance Assessment (OPA)

We would however challenge the company not just to focus on the improvement in water and wastewater quality, but to also gauge success on key customer concerns such as flooding, poor pressure and pollution incidents. The OPA provides a clear and holistic measure of overall success. The methodology we have applied is based on the approach adopted by Ofwat and WICS, with minor amendments to reflect particular reporting definitions in Northern Ireland. The table below reflects our projected assessment for the outturn score in 2009-10 and for each of the years in PC10 assessed from the key output targets associated with this final determination.

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<sup>8</sup> Upper Band D equates to operating cost reductions of between 25% - 30% to achieve benchmark.

**Table 4.2 – NI Water OPA score projected to 2012-13**

Reporting Year	2009-10	2010-11	2011-12	2012-13
Predicted OPA score for NI Water	135	142	168	201

**Improvement in data quality**

Good information and data integrity is a key enabler to enhance management decisions and staff and consumer confidence. We include the reporting of the reliability and accuracy of data for key performance measures in our annual Cost and Performance Report. We support the company's Data Quality Improvement projects and the targeted improvements to key data over the next three years. We will report on the company's performance in achieving its aim of 'A' grade data in terms of reliability (range A-D) and a score of '2' in terms of accuracy (range 1 – 6) for each dataset targeted in this programme of work.

## Chapter 5 – Conclusion and Next Steps

### 5.1 Conclusion

We believe that our final determination is good for customers, good for the environment and good for the Northern Ireland economy in this time of great uncertainty. It sets out a clearly defined contract for NI Water with funding and expenditure linked to key outputs and performance indicators. It sets challenging efficiency targets and an OPA score. We will continuously monitor NI Water's progress and transparently report that progress in terms of both cost and performance on an annual basis. There remains much work to be done with principal stakeholders, particularly DRD and DFP to ensure that the necessary subsidy funding for NI Water is secured. We will seek to establish a common monitoring process which reduces the burden of reporting for NI Water. We will look to NI Water to develop and publish a plan for delivery based upon this final determination should it decide to accept it. It would then be our intention to agree milestones and to develop an effective change protocol to facilitate any necessary revisions to the Business Plan.

NI Water has worked hard to deliver our information requirements in what was a demanding timeframe. The workload was challenging by virtue of the fact that it was the first time that the company, DRD, the quality regulators, CCNI and the Utility Regulator have carried out a Water Price Control. We wish to express our appreciation to all NI Water staff and to all the stakeholders for their co-operation and contribution to the process.

### 5.2 Next Steps

NI Water has the right to appeal against the price limits that are set out in this final determination. It can require us to refer this determination to the Competition Commission within two months of its publication.

The Competition Commission's conclusions would be binding, subject to judicial review by the Courts. Until the Competition Commission makes its decision, the price limits set out in this final determination would stand. In practice, this means that a referral to the Competition Commission could not impact on customer charges in 2010-11.

If NI Water decides to accept this final determination, it will prepare a Monitoring Plan to set the interim milestones in performance that it will deliver in line with the outputs which form part of the final determination. Our monitoring will be against those milestones and against the final outputs required of NI Water in this final determination.

## Annex 1 – PC10 Key Outputs

Consumer Service	2009-10	2010-11	2011-12	2012-13
Properties confirmed at risk of receiving pressure below reference level (DG2) alleviated by company action (Note 1)	665	220	300	280
Interruptions to supply – composite score (DG3)	1.27	1.24	1.20	1.16
Interruptions to supply >12 hrs (% of properties) (DG3)	0.230	0.222	0.214	0.205
Properties at risk of flooding – number removed from the risk register by company action (DG5)	-	-	-	200
Consumer Response				
Billing contacts dealt with within five working days (% billing contacts) (DG6)	98.0	99.9	99.9	99.9
Written complaints answered within 10 working days (% written complaints) (DG7)	98.0	98.5	98.5	98.5
Bills based on meter readings (% of total metered accounts) (DG8)	95.0	95.0	97.5	98.5
Call handling satisfaction score (1-5)	4.60	4.65	4.70	4.70
Percentage of calls not abandoned (DG9)	99.0	99.0	99.0	99.0
Percentage of calls not all lines busy (DG9)	99.9	99.9	99.9	99.9
Water Resources				
Security of supply index (maximum 100)	44	77	78	79
Leakage (Mld)	177	173	169	166
Nominated outputs for trunk main schemes (4nr) including schemes carried over from SBP and carrying into PC13. One new abstraction. Completion of reservoir inspection engineer's recommendations. Completion of the Water Resource Management Plan.				
Water Treatment and Distribution				
Mean zonal compliance (MZC) water quality at tap (%)	99.65%	99.70%	99.70%	99.70%
Operational performance indicator (MZC turbidity, iron and manganese) (%)	99.10%	99.10%	99.10%	99.10%
Nominated outputs for water treatment works upgrades completed (2nr), study to determine the upgrade for water treatment works (1nr), trunk mains completion and starts (4nr) and completion and work to increase capacity at 13 service reservoirs or clear water tanks.				
Activity output of 900km of new, replaced or relined mains over PC10, excluding the trunk mains programme.				



Sewerage	2009-10	2010-11	2011-12	2012-13
Length of critical sewer renewed or relined over PC10	63 km over PC10			
Length of non-critical sewer renewed	9 km over PC10			
Nominated outputs for improvements to 117 UIDs.				
Number of high and medium pollution incidents attributed to NI Water	56	54	51	48
Sewage Quality Outputs (Note 2)				
% of WwTWs compliant with (Water Order) numeric consents		85.0%	87.7%	90.8%
% WwTWs compliant (UWWTD consents)		89.8%	92.4%	96.2%
% of WwTW discharges complying with numeric consents		84.6%	87.4%	90.9%
% of total pe served by WwTWs complying with Water Order consent (LUT)		94.87%	95.98%	98.53%
% of total pe served by WwTWs complying with UWWTD consent (LUT)		95.73%	96.73%	99.11%
Nominated outputs for improvements delivered by 43 sewage treatment works schemes.				
Asset Serviceability				
All asset areas	Stable	Stable	Stable	Stable
Overall Performance Assessment				
OPA score based on 11 service areas included in 2007-08 assessment	135	142	168	201
<div>1. To provide flexibility in the capital programme, the key target will be the delivery of the total number of outputs over the PC10 period. NI Water will be asked to explain any shortfall from the cumulative target to date in its annual reporting to demonstrate that it remains on track to deliver the total output over the PC10 period.</div> <div>2. An increase in the number of small works with numeric consents in 2010 results in a nominal reduction in performance from 2009-10</div>				

## Annex 2 – Summary of Key Changes from the Draft Determination

In developing our final determination we have reviewed our initial assessment taking account of the representations received. As a result, our final determination includes an increase in capital expenditure of £44m (8.5%) and increased operational expenditure of £38m (7.1%). The key changes between draft and final determination are summarised below.

### Additional Expenditure Identified by NI Water

In its representations on the draft determination, NI Water identified additional expenditure over the PC10 period which was not included in its Business Plan submission. The total estimated increase was £14m of capital expenditure (mainly as a result of increased projected costs of water mains) and £5m<sup>9</sup> of operating costs (mainly as a result of projected increases in power costs and rates). We have taken account of these changes for the final determination and included additional revenue only to the extent the company has been able to justify the additional cost.

### Disallowed Additional Operating Costs

In our draft determination we considered the additional operating expenditure proposed by NI Water from the 2007-08 base year to establish a baseline operating cost for PC10. We allowed additional costs which were new and outside management control. NI Water and other respondents challenged the extent of the additional operating costs identified by the company which we disallowed. NI Water also commented that errors in our assessment of its Business Plan figures had contributed to the step change in opex. Many respondents commented on the step change between NI Water's projected costs in 2009-10 and our determination for 2010-11, stating that this implied an unachievable efficiency adjustment of 21% in one year.

In view of the strength of the representations on the draft determination we asked NI Water to provide further information on its projected 2009-10 operating costs. This showed that NI Water had continued to identify further cost savings to be delivered in 2009-10 which has allowed it to reduce its operating cost forecast since submitting its representations on the Business Plan. We were pleased to note that the revised opex estimate for 2009-10 is below our estimated baseline for PC10, ensuring that the efficiencies proposed for the first year in PC10 are achievable.

We have reviewed the disallowed opex for the final determination. NI Water has now provided supporting information for expenditure on continuing business improvement in PC10 which we excluded from our draft determination. Following clarification from NI Water on the scope of proposed adjustments we have included costs for additional sludge disposal and the Kinnegar PPP scheme.

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<sup>9</sup> The additional costs identified by the company in the consultation response totalled £14m above that in the business plan. The £5m stated is the net effect after proper account was taken for the treatment of Kinnegar costs (-£9m).

## Extent and Rate of the Operational Efficiency Challenge

The final determination includes continuing efficiency improvement over the PC10 period at the upper end of the range of efficiency achieved by other organisations in a similar position to NI Water.

We recognise that reductions in NI Water's workforce may be required to meet the additional efficiency challenge in our final determination. The final determination includes additional costs to fund voluntary early retirement or voluntary severance to support this.

## Regional Price Adjustment (RPA)

In our draft determination we applied an RPA in our assessment of capital efficiencies to reflect differences in local prices in Northern Ireland and average prices incurred by water and sewerage companies in England and Wales. This forms the basis of our comparative efficiency analysis. A number of respondents commented on the scale of this adjustment. We have reviewed our assessment to rely where possible, on nationally published data and concluded that an RPA of -12.2% is appropriate for locally procured goods and services.

The RPA is applied only to that proportion of the capital programme which is procured in national markets. Taking account of this, we estimate that NI Water should be able to procure its capital programme at costs which are 6% lower than the average for water and sewerage companies in England and Wales.

In the draft determination we applied the RPA to all investment in our assessment of capital maintenance. For the final determination we have reviewed this approach and applied the RPA to only that proportion of the capital maintenance expenditure which NI Water must procure in national markets.

## Unit Cost Rates for Water Mains

NI Water and other respondents to the draft determination questioned our challenge to water main unit rates based on our analysis of historical activity and costs provided by NI Water as part of its regular information submissions. NI Water provided revised information on historical water mains costs and activity which demonstrated that its unit costs were higher than the previous data indicated. NI Water also noted that it wished to increase activity in urban areas compared to the SBP period. NI Water also corrected an error in its allocation of capitalised salaries and on-costs and proposed a further increase in unit rates for water mains.

We have increased the unit rates for water mains to reflect the additional information on historical costs provided by NI Water and included a proportion of the increase proposed by NI Water for future work in urban areas.

## Capital Maintenance

NI Water and other respondents commented on the level of capital maintenance proposed in our draft determination which is lower than that proposed by NI Water. The revision to RPA and unit rates for water mains described above has increased the level of capital maintenance included in the final determination.

## Regulatory Capital Value (RCV)

In the draft determination we allowed additional revenue, equivalent to an increase in the RCV to maintain adequate financial ratios for the company. Both DRD and CCNI questioned the need for this change given the impact on revenue, subsidy and price limits. For the final determination we have reviewed our approach and we are satisfied that for the final determination it is not necessary to provide additional funding over and above that included in the original RCV to maintain a robust financial position for the company.

## Resubmission of Customer Data and Forecasts

In NI Water's response to the draft determination the company took the opportunity to update its forecasting information from that contained in its Business Plan. The revised forecast for the PC10 period was based upon actual customer numbers and volumes for 2009-10 which reflected a downward trend in consumption arising largely from the current economic climate. While, by its nature, any forecast may turn out to be inaccurate, we acknowledged the significance of the economic downturn and the importance of taking account of the impact of downward consumption trends on customer charges.

While accepting the reasoning for a revised forecast from the company's Business Plan submission, we were not satisfied that the company had assessed the impact of the information on customer charges in its response to the draft determination. We therefore found it necessary to delay the final determination to allow the company to assess the impact of data changes on customer bills, to assure itself that resubmitted data were correct. This also allowed the Regulator sufficient time to be satisfied with the re-submission, its implications for customers and the assessment and determination of their impact on K- factors.



## Annex 3 - Abbreviations

<b>CAPEX</b>	Capital Expenditure
<b>CCNI</b>	Consumer Council for Northern Ireland
<b>DFP</b>	Department of Finance and Personnel
<b>DGs</b>	Performance Indicators (originally set by OFWAT Director General)
<b>DRD</b>	Department for Regional Development
<b>ELL</b>	Economic Level of Leakage
<b>GB</b>	Great Britain
<b>K Factor</b>	The adjustment to charge caps excluding RPI
<b>LUT</b>	Look Up Table (used to assess waste water quality compliance)
<b>MZC</b>	Mean Zonal Compliance (used to assess water quality compliance)
<b>NDPB</b>	Non Departmental Public Body
<b>NIEA</b>	Northern Ireland Environment Agency
<b>NI Water/NIW</b>	Northern Ireland Water
<b>OFWAT</b>	Office of Water Regulation (England and Wales)
<b>OPA</b>	Overall Performance Assessment
<b>OPEX</b>	Operating Expenditure
<b>PC10</b>	Price Control 2010 – 2013
<b>PC13</b>	Price Control 2013 – 2018
<b>PPP</b>	Public Private Partnership
<b>Price Control</b>	The process by which limits on charges are determined
<b>RCV</b>	Regulatory Capital Value
<b>RPA</b>	Regional Price Adjustment
<b>RPI</b>	Retail Price Index
<b>SBP</b>	Strategic Business Plan (2007-2010)
<b>UID</b>	Unsatisfactory Intermittent Discharge
<b>UR</b>	Utility Regulator
<b>UWWTD</b>	Urban Wastewater Treatment Directive
<b>VER</b>	Voluntary Early Retirement
<b>VS</b>	Voluntary Severance
<b>WICS</b>	Water Industry Commission for Scotland
<b>WTW</b>	Water Treatment Works
<b>WwTW</b>	Wastewater Treatment Works







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