Utility Regulator
ELECTRICITY GAS WATER

Water and Sewerage Service Price Control 2010-2013

Draft Determination Summary Report

September 2009

Water and Sewerage Revenue and Charges Price Control 2010-2013

Draft Determination Summary Document

This document sets out the Utility Regulator's draft determination for our proposed price caps for NI Water for the three year price control period from April 2010 to March 2013.

In March 2008, we commenced discussions with NI Water on the process and timeline for the setting of price caps post 2010. In September 2008, we embarked upon a programme for the price control 2010 to 2013, referred to as PC10, which was supported by all the principal stakeholders, namely the Consumer Council for NI (CCNI), the Drinking Water Inspectorate (DWI), the Northern Ireland Environment Agency (NIEA), the Department for Regional Development (DRD) and NI Water. We are grateful to all these stakeholders for their input.

This Draft Determination Summary Report, together with the detailed Main Draft Determination Document, describes the context within which we are working, the approach taken to determine the price caps and overall required revenue, the decisions we have reached and their impact on the overall costs and charges for water and sewerage services.

We encourage stakeholders to comment on this draft determination. We will consider the representations in advance of our final determination, which will be published on the 18th December 2009.

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Representations should be made no later than 5.00pm on the 6th November 2009.
We will publish all responses to this consultation unless respondents request otherwise.

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Foreword

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

NI Water plays a vital role in the life of Northern Ireland, with almost every home and business relying on its services. It provides over 600 million litres of drinking water every day and treats over 134 million cubic metres of wastewater every year. This business is so important for our society and economy – it must run efficiently, and deliver excellent service.

This draft determination presents an enormous opportunity for the company and its customers. We are proposing to reduce tariffs significantly for businesses over the PC10 period, supporting competitiveness and employment through the recession. The cost of serving households would also come down – the notional average household bill being reduced by £22 – which reduces the burden on the public purse. Challenging efficiency targets have created scope not only to charge less, but also to invest more. This extra investment is targeted on supporting economic growth.

The draft determination, subject to public expenditure allocations that would be made by the NI Executive, provides for over £500m of investment by NI Water to benefit customers and the environment. We set out in the determination a detailed list of activities and outputs that we expect NI Water to deliver with that level of funding. For example, there are activities to improve security of supply, reduce instances of poor pressure and sewer flooding, reduce pollution of rivers and bathing waters and to further improve our high quality of drinking water. We will be holding NI Water to account for delivery of these improvements and we will impose penalties in the next price control in 2013 if they have not been delivered. This ensures that consumers and taxpayers only pay for improvements that have been achieved and that they do not pay twice for an improvement.

The price control spells out a great opportunity for the company and its staff. Improvements are already being made for consumers and the environment, but the company has a long way to go to reach acceptable efficiency and service levels. Our draft determination lays out a pathway for NI Water to meet its own aspiration to be the most improved water and sewerage company in the UK. By delivering these challenging targets, NI Water will be an asset to Northern Ireland and a source of pride for its staff.

We have developed this determination in partnership with the Department for Regional Development, CCNI, NIEA, DWI and the company, and we thank them for their constructive engagement and support. In particular we have had regard to the Social and Environmental Guidance published by the Regional Development Minister, which set out his priorities for this review. This spirit of partnership distinguishes economic regulation in Northern Ireland and enables our unique approach. We have used tried and tested approaches for this determination, but tailored them to the Northern Ireland context.

For example, we have benchmarked the efficiency of NI Water with other UK water companies, but taken account of the absence of domestic charges and the significant role that the Public Private Partnerships have for NI Water. We have also tailored our approach to recognise the limits of the data currently available to NI Water.

This partnership must continue throughout the 2010-2013 period, so as to underpin delivery of this challenging but achievable 'regulatory contract'. The lead delivery role rests with NI Water, and its managers must be allowed to focus on improving its business; they need a stable management context to transform working practices and to drive cultural change. Creating a stable management context is a responsibility for us, for the other (environmental) regulators, and for the NI Executive and Assembly. In the absence of domestic billing, the company requires a stable public funding envelope. Clear governance arrangements and appropriate incentives to reward success and penalise failure will also be important in that context. Delivering a supportive context is the shared responsibility of the public stakeholders, so as to enable a better, lower-cost service to NI Water's customers.

We will welcome comments on this draft determination from all interested parties.
We will review the comments we receive with care, as well as meeting with the principal stakeholders. We will publish our final decisions in December 2009 and explain any changes we have made. Thank you in advance for your input.

Iain Osborne
Chief Executive
Utility Regulator

Key Messages

This document sets out our draft determination on the price caps for NI Water for the three years commencing on the 1st April 2010. Our draft determination on price caps and allowed revenue would allow NI Water to fulfil its duties under both The Water and Sewerage Services (NI) Order 2006 and its operating licence. We have proposed the price caps taking account of the Ministerial Social and Environmental Guidance laid in front of the NI Executive.

Messages for consumers

1. **Driving down costs: –** NI Water's Business Plan asked for £1,190m to run its business over the next three years. Our draft determination shows that through efficiency and other savings its revenue requirement could be reduced by 11% which would provide a saving of £136m. While we have assumed that domestic charges will not be levied during this period of price control, it is useful to look at the impact these savings would have on the average notional household charge. This would fall by £22 from £391 in 2009/10 to £369 in 2012/13. All non-domestic customers would also see reduced tariffs over the PC10 period.

2. **Driving up performance: –** We have set clear targets for the company to achieve and will monitor and report on their delivery. The company's Overall Performance Assessment will be closely monitored, to ensure the reduction in costs will not result in lower levels of service. Services having a direct impact on consumers, for example, poor pressure, sewer flooding, interruptions to supply and pollution incidents would be openly monitored and reported.

3. **Additional outputs: –** While reducing the capital investment from £586m to £520m, we have included £38m of additional priority outputs. This would allow more wastewater treatment works to be improved to address environmental issues and development restrictions.

4. **Your views count: –** The Consumer Council's 'Tapping into Consumer's Views' document, together with the Minister's Social and Environmental Guidance and responses to its consultation, have helpfully guided this draft determination. However, we want to continue to listen to your views which will be considered prior to our final determination in December 2009.

Messages for NI Water

5. **Building on success: –** We consider that the challenging targets we have set offer an opportunity for NI Water to demonstrate that it can reflect the performance level of its UK counterpart companies.

6. **Improving data and systems: –** There is a need over this three year price control to improve your data and systems. This will help you to understand your asset base, allowing you to focus your efforts on critical areas and to better measure your successes.

7. **The efficiency gap challenge: –** Our draft determination begins to close the efficiency gap between NI Water and comparable industry providers. However, the right approach should see the company able to move beyond the challenging but reasonable targets set.

8. **Accountability: –** It is vital that services are only paid for once and provided on time and to budget. By establishing a clear baseline for expenditure and clear linkages between expenditure and outputs we will recognise your successes, as well as remaining areas for improvement.

Messages for other Stakeholders

9. **The price control process: –** We have worked in partnership with other statutory stakeholders: the Consumer Council, the quality regulators, the Department for Regional Development and NI Water. Our approach has been robust, and has used tried and tested methodologies tailored for local circumstances which have a proven record of driving costs down and service levels up.

10. **Impact of charging decisions on the PC10 process: –** We firmly expect that the price control process will provide the best mechanism for protecting the consumer, both in terms of costs and service. We believe this to be the case regardless of the source of revenue, be it from taxpayers or through direct charging.

11. **DRD Minister and NI Executive support: –** A successful outcome from the price control contract requires the agreement and support of the DRD Minister and NI Executive. It is only the NI Executive that can endorse the subsidy and funding allocation needed by NI Water.

12. **Important financial factors: –** In the absence of domestic charging there is a greater emphasis on a number of financial aspects which will be important to enable NI Water to deliver the contract:-

    - A stable funding envelope for the three year period;
    - Flexibility of funding between the three years; and
    - Clear governance and performance linked incentives.

13. **A vital industry: -** The water and sewerage industry is a long term industry; essential to the consumer, the economy and the environment. Funding arrangements need to enable long term investment to be planned and geared to providing a reliable and efficient service for everyone in Northern Ireland.

Draft Determination – Executive Summary

Background

In April 2007, under the Water and Sewerage Services (NI) Order 2006, NI Water was established as a Government Owned Company and the Utility Regulator established to provide economic regulation to NI Water as a monopoly supplier.

The primary duties of the Utility Regulator, as outlined in the Order, are:-

- To protect consumers' interests;
- To ensure NI Water carries out its functions properly; and
- To ensure NI Water is able to finance its functions.

The price control process determines the company's revenue requirements, sets price limits for charged consumers for the period in question, and is a central element of our duties.

For this price control we have, under the direction of the Minister for Regional Development, assumed that domestic water and sewerage charges will not be introduced. We have made allowance for this in our work and firmly believe that the price control process provides the best mechanism for protecting the consumer, both in terms of cost and service. This remains the case regardless of the source of revenue, whether from taxpayers or through direct charging.

The Price Control Process

Through the PC10 'Price Control' process, the Utility Regulator sets limits on NI Water's charges and overall revenue for the three year period 2010-13. The overall revenue requirement is based on our assessment of the lowest reasonable costs which the company should incur in delivering the priorities for consumer services, water quality and environmental improvements. These are set out in the Social & Environmental Guidance for the PC10 period issued by the Department for Regional Development in March 2009.

Our draft determination proposes an overall revenue requirement which is 11% lower than NI Water's Business Plan figure, while also including £38m of funding for additional essential outputs agreed with key stakeholders. We have achieved this by close scrutiny and analysis of NI Water's Business Plan and the setting of challenging but achievable efficiency targets.

In this Draft Determination Summary Report we have outlined some of the wider context and background to the water and sewerage industry in Northern Ireland in addition to summarising the findings of our main report. The main report can be accessed at www.niaur.gov.uk and provides greater detail on our approach and methodologies.

Draft Determination - proposed revenue requirement

This draft determination sets our proposed revenue requirements for NI Water for the period from April 2010 to March 2013. The requirement has been defined through the application of a robust regulatory price control process.

Table 1 – Draft Determination Revenue Proposal

	NI Water PC10 Business Plan	Utility Regulator Draft Determination	Difference £
Overall Revenue (out-turn)	£1,190m	£1054m	£136m
Level of subsidy (out-turn)	£852m	£757m	£95m
Revenue from Charging (out-turn)	£338m	£297m	£41m
Notional Average Household Charge (average over period) (09-10 prices)	£413	£369	£44

The Weighted Average Cost of Capital (WACC) has been set at 4.8%, which falls within the range recommended by our consultants NERA and reflects the expected cost of debt (2.88%) incurred by NI Water. We have set the cost of equity at 7.1% which reflects that set by Ofwat (England and Wales water regulator).

In determining the required revenue and price limits for NI Water, we assessed the financial sustainability of the company by comparing the financial ratios with the ranges applied by Ofwat and WICS (the Scottish water regulator) to their respective regulated water companies. In considering these ratios and all other factors, we determined a nominal overall revenue requirement of £1,054m compared to NI Water's Business Plan of £1,190m, a saving of £136m, or 11%.

The calculation of the overall revenue requirement for NI Water, as calculated by our financial model, is detailed in Table 2 below.

Table 2 – Draft Determination of Overall Revenue Requirement (out-turn prices) (£m)

Factor	Utility Regulator Draft Determination
Allowed for return	£243
Infrastructure Renewals Charge	£78
Depreciation	£160
Operational Expenditure	£434
PPP costs	£138
Overall Revenue (nominal)	£1,054
Note – Figures may not add due to rounding	

Draft Determination Price limits

We have a legal duty to set the 'adjustment factor' for each year, generally referred to as the price limit or the K factor, to be applied over the Price Control period. The K factor is the percentage increase or decrease above or below inflation by which tariff basket charge caps are allowed to rise or fall on an annual basis during the Price Control period.

We utilise price limits within the various tariff baskets to ensure that there is no cross subsidy between customer groups. In setting the price limits, we have been mindful of the Ministerial Social and Environmental Guidance, and sought to balance affordability with compliance and customer priorities.

Table 3 - The overall price limits translate into K factors for each tariff basket as follows:-

Tariff Basket	2010-11	2011-12	2012-13
Unmeasured Water Supply	-11.3%	-1.3%	-2.6%
Unmeasured Sewerage Service	-2.2%	1.5%	1.6%
Measured Water Supply	-6.0%	-6.0%	-6.0%
Measured Sewerage Service	-3.6%	-3.6%	-3.6%
Trade Effluent	-4.6%	-4.6%	-4.6%

NI Water is allowed to increase the weighted average charge for each of its tariff baskets by up to the K factor plus inflation. For the purposes of this draft determination we have assumed an inflation figure of 2.3% for each year of PC10.

Draft Determination – delivering more for less

While reducing costs we require NI Water to deliver additional outputs and improve the level of service to consumers.

The Investment Programme

We have concluded that the capital investment programme proposed by NI Water in its Business Plan was broadly reasonable in meeting the requirements of the Social and Environmental Guidance. We consulted with the Department for Regional Development, the Consumer Council, the Drinking Water Inspectorate and the NI Environment Agency to confirm that the outputs reflected agreed priorities.

The overall adjustments to the proposed capital investment programme are summarised in Table 4.

Table 4 – Summary of adjustments to the capital investment programme (2007-08 prices)

	NI Water Business Plan	Utility Regulator Draft Determination	Variance %
Total Capital Expenditure pre-efficiency	£ 622 m	£ 542 m	-12.8%
Total Capital Expenditure adjusted for efficiency	£ 586 m	£ 483 m	-17.6%
Overall efficiency	5.8%	10.9%	
Provision for additional essential outputs		£ 38 m	
Total investment in the determination		£ 520 m	

Notes:
1: *Figures may not add due to rounding*
2: *The adjustment to proposed expenditure pre-efficiency includes £8m of leakage expenditure reallocated from capital expenditure (CAPEX) to operational expenditure (OPEX).*

In coming to our view on funding and outputs, we challenged the scope and cost of the capital investment programme submitted prior to our review of efficiencies and the setting of an efficiency target.

The capital programme was reduced by £80m based upon our scope and cost challenge review, and by a further £59m following our benchmarking and econometric modelling analysis for efficiency. The overall reduction in the capital investment was therefore £139m.

In addition to supporting all the outputs included in NI Water's Business Plan, we have advanced the delivery of essential wastewater treatment works. This will both reduce the risk of infraction and ease potential development restrictions; an important factor in this sensitive economic climate.

Operating Expenditure

NI Water's Business Plan outlined an operating expenditure for the period of the price control of £629m, while our draft determination proposes an operating expenditure of £531m. This contributes some £98m of savings to the overall revenue saving of £136m.

To arrive at this reduced operational expenditure figure, we:-

1. **Established a baseline for operating costs** taking into consideration conditions particular to NI Water, as submitted by the company.

2. **Considered any additions to the baseline** which should be added to the established baseline operating costs and applied over the price control period.

3. **Assessed the operating cost efficiency** by tailoring existing tried and tested water industry methodologies to derive an appropriate efficiency target.

Our benchmark analysis of NI Water's operational efficiency as compared to the English and Welsh water companies showed a 50% efficiency gap. This being the case, there is clearly scope to reduce costs. The critical issue is the speed with which NI Water can close the gap.

Economic regulation and an RPI-X (retail price index minus a price limit factor) regulatory framework drive efficiency by incentivising the company to outperform targets. Many of these incentives are absent from the Northern Ireland regulatory regime. In Northern Ireland, we also face uncertainty around the security of funding and the flexibility to manage funding over the three year period. We have borne this in mind when setting our efficiency target. We have also noted the rate of catch up achieved in the past by other utility industries.

The overall adjustments to the proposed operational expenditure are summarised in Table 5.

Table 5 – Summary of Operational Efficiencies to be delivered

(2007/08 prices)	NI Water Business Plan	Utility Regulator Draft Determination[1]	Variance %
Total Operating Expenditure (post efficiency) £m	629	531	-15.50%
Annual Efficiencies[2] 2010-13	3.43%	6.12%	

1 Utility Regulator efficiency as proportion of total opex (including PPPs) which are largely 'pass through' subject to an efficiency challenge for technological change and productivity improvement only; our overall efficiency is therefore less than our 6.9% reported efficiency challenge
2 Calculated as annualised average cumulative efficiency of prior year post-efficiency total operating expenditure

In coming to our view on operating expenditure reductions we challenged the additions to baseline which NI Water submitted, reducing them from £100m to £39m. We made other adjustments to their operating baseline, for example reallocating costs, which accounts for £16m. Our review of efficiencies and the setting of an efficiency target delivered an additional cumulative efficiency of £21m.

It is important to emphasise that by efficiency we mean delivery of the same level of service for less money. We have therefore set NI Water Overall Performance Assessment milestones, which reflect 15 individual performance measures such as flooding, poor pressure and pollution incidents. We will monitor and report their progress in our annual Cost and Performance Report.

Longer Term Stewardship

The water industry is vital to Northern Ireland's economic well being, our environment and society. Developing and maintaining an infrastructure is crucial to today's and tomorrow's generations and in this changing climate we must take collective responsibility and manage for the longer term.

This PC10 price control has been limited by both time and the availability of robust data. It is fundamental that data integrity is improved over the PC10 period to remove the uncertainty in the data NI Water reports to regulators. It is important that we and NI Water can direct investment to those areas where maximum cost benefit can be demonstrated and improvements delivered. Accordingly, we will continue to work with NI Water on improving this aspect of essential investment and management control.

The water industry in Northern Ireland is in a period of rapid change. PC10 has focused on measures to enable NI Water to make significant progress in catching up with other UK water and sewerage companies in performance and efficiency.

PC13, currently planned to be a five year price control period, will seek further improvements in performance and efficiency. However we will also expect it to be framed in a long term context to ensure that NI Water is in a strong position to meet future challenges while also delivering value to consumers and a better environment.

Chapter 1 - Background to Price Control 2010

1.1 Context

This chapter outlines the important background to the draft determination for this, the first price control carried out for the water industry in Northern Ireland.

NI Water and the Utility Regulator were formally established in April 2007 with their duties and the roles of other stakeholders outlined in the Water and Sewerage Services (NI) Order 2006 and the Instrument of Appointment of NI Water Limited (referred to as the 'Licence').

A Strategic Business Plan for 2007-10 (SBP) had been developed by the Department for Regional Development in conjunction with the Water Service, the quality regulators (NIEA and DWI) and CCNI. The SBP defined funding levels and outputs for the period 2007- 2010. Post April 2007, it was NI Water's responsibility to deliver the SBP and for the Utility Regulator to monitor its delivery and develop the economic regulatory framework.

1.2 Regulatory framework - stakeholder roles

The stakeholders with statutory duties include:-

- **Consumer Council of Northern Ireland: -** The Consumer Council is the legally appointed body for representing consumers on water and sewerage matters. They work with the NI Assembly and other key stakeholders to ensure that consumer views are accounted for in policy formulation and decisions around water and sewerage services. They also handle complaints about water and sewerage services.

- **Department for Regional Development – Shareholder Division: -** DRD Water Shareholder Division is responsible for representing the DRD Minister's shareholder interest in NI Water, for ensuring the maximisation of shareholder value on behalf of the Minister and taxpayers, and for the benefit of the wider NI economy. It is advised by the Shareholder Executive.

- **Department for Regional Development – Water Policy Division: -** The DRD Minister is responsible for overall political and policy direction in relation to the water industry. He is responsible for the legislation agreement and can make regulations in a number of areas. DRD has a regulatory role, particularly on drinking water, which is exercised through the Drinking Water Inspectorate. Additionally, subsidies for, and loans to NI Water are made through DRD.

- **Drinking Water Inspectorate: -** The Drinking Water Inspectorate's role is to ensure the supply of safe and clean drinking water by monitoring its quality and advising and enforcing on remedial actions and infrastructure investment when necessary.

- **Northern Ireland Authority for Utility Regulation: -** The Utility Regulator acts on behalf of consumers to ensure that NI Water is adequately funded, and that investment plans serve the short and long-term interests of consumers.

- **Northern Ireland Environment Agency: -** The Northern Ireland Environment Agency's role is to ensure a high quality water environment, which meets the needs of all.

- **Northern Ireland Water: -** NI Water is responsible for providing good water and sewerage services for customers in an efficient and sustainable manner.

The Utility Regulator is responsible for determining revenue requirements and setting price limits for NI Water from April 2010. To achieve this, we engaged with the principal stakeholders to develop and agree a collaborative approach to setting price limits from April 2010 to March 2013. The detail of our approach is outlined in 'The Utility Regulator's approach to the 2010-2013 Overall Cost and Price Control for NI Water Limited' published in January 2009 which is available on our website: www.niaur.gov.uk

The input from the quality regulators, (NIEA and DWI) together with the work carried out by CCNI on consumer views was fundamental in informing the Department's Social and Environmental guidance. This guidance in turn provided the company with the direction on Ministerial priorities, informing NI Water's Business Plan submission to the Utility Regulator.

NI Water's Business Plan

The company's Business Plan represents NI Water's views on the levels of service it will provide and the costs it will incur over the PC10 period, to deliver Ministerial objectives taking account of consumers' views. NI Water's Business Plan was submitted to the Utility Regulator on the 15th June 2009.

1.3 Utility Regulator areas of focus

It is our duty to look after today's and tomorrow's consumers. We believe that in the long run consumers' interests are best served by a financially sustainable water company, operating within an effective and balanced governance and incentive framework. This ensures that each generation of consumer meets the costs of the service they have been provided with.

Our focus is not only on the level of cost incurred but also on the level of service provided to consumers. In this draft determination we have focused on the following areas:-

Efficiency

We promote the interests of consumers primarily by encouraging NI Water to deliver an appropriate level of service at the lowest reasonable overall cost. We have benchmarked NI Water's operational and capital costs to inform how efficient they are compared to the English and Welsh water industry. We have set targets for both costs and service to encourage NI Water to examine their level of activity against results, and to close the efficiency gap with other UK water and sewerage companies.

Because of our efficiency challenge, costs to both taxpayers and businesses will go down in this three year period.

Delivery of investment

It is critical that assets are maintained in an appropriate way and that problems are not stored up for the future. In the absence of robust data we have assessed an appropriate level of investment to maintain the existing asset base.

The Department's Social and Environmental Guidance, informed by the expertise of NIEA, DWI and CCNI's Consumer Views document, set out the priorities for the water industry in Northern Ireland for PC10. We have allowed sufficient capital expenditure to deliver all of the objectives supported by the Ministerial Guidance.

Improvements in consumer service

On the principle of 'what gets measured gets delivered', we have adopted the Ofwat Overall Performance Assessment, referred to as the OPA. The OPA applies a methodology which translates performance in areas such as water service, sewerage service, customer service and environmental compliance into a single score which is reflected in a league table for all the companies.

Establishing financial sustainability

If consumers are to benefit from a sustainable industry, we must ensure that funds are secure to support the appropriate level of investment in water and sewerage services. The regulatory price control process ensures this, with the revenue setting mechanism tied to changes in the regulatory capital value, allowing the appropriate level of charges to be made in a transparent way.

We have applied the regulatory building block approach (i.e. return allowed on RCV + allowed operating costs + depreciation on non-infrastructure assets + infrastructure renewal charge + allowed PPP costs + tax) for the setting of the overall required revenue in this PC10 process.

Rigorous monitoring

It is our role to monitor progress against targets and to verify that service levels to consumers do not suffer as a result of management action to reduce costs. We have set out in the OPA the aspects of performance we intend to monitor and report on annually.

We have endeavoured to be clear about outputs to be delivered from PC10 and to hold NI Water accountable. We have established with the principal stakeholders an Output Review Group (ORG) which meets quarterly. We will also publish an overall Cost and Performance Report on NI Water annually.

Customers only pay once for an agreed output

Regulation has introduced much needed transparency to the process of assessing NI Water's performance. Our detailed monitoring of the capital programme in PC10 will ensure that we can clearly account for what was delivered and funded in PC10 when considering PC13 – the price control to follow PC10.

1.4 Outcomes from the Strategic Business Plan 2007-2010

It is important to have a clear and established baseline for a price control period and to hold the company to account for delivery of previously funded outputs. We have compared the Strategic Business Plan (SBP) planned and actual expenditure and Key Performance Indicators (KPI) with performance. From this review we have concluded that: -

- The level of definition of the SBP was not sufficient to support detailed monitoring of expenditure and outputs through the SBP period. We expect the company to provide a clear and detailed monitoring plan consistent with our final determination to allow us to establish a clear baseline from which to monitor PC10 delivery.

- The company's projections indicate that it will fail to deliver a number of the KPIs for the SBP by 2009-10 including improvements to interruptions to supply, water quality mean zonal compliance and wastewater quality performance. The company has time over the remainder of the SBP to improve performance but it is possible that some KPIs will not be delivered. In the absence of good data and a robust link between activity, expenditure and targets it is difficult to determine whether some of the initial SBP targets were unrealistic. For the final determination we expect the company to review and clarify its outputs and targets and establish clearer links between activity, expenditure and outputs.

- The company will spend up to the level of capital allocated for the SBP period. Within this overall budget limit, the company has accelerated expenditure in some areas and reduced expenditure in others to meet annual budget limits. For example, additional expenditure was committed to water mains, partly funded by delays to the water treatment programme where the delivery of some outputs has been delayed to PC10. We believe that it is necessary for the company to have the ability to reallocate expenditure including the ability to move expenditure between years, subject to external change control of the outputs delivered.

Having considered the balance of changes to the SBP programme we have concluded that it would not be appropriate to introduce a process of logging up and logging down of expenditure to the SBP retrospectively.

It is however important that outputs funded in any price control period are delivered and that funding is not sought for the same output in future price controls. Consumers must only pay once for an agreed output. We have addressed this for PC10 by:-

- Requiring the company to develop a monitoring plan for the PC10 period which will include a Capital Investment Monitoring template to be submitted on a quarterly basis.

- Applying a change protocol, developed and agreed with all the principal stakeholders, whereby any variations to outputs are discussed and agreed prior to implementation.

- Introducing logging up and logging down between price control periods. This is a mechanism to record changes, primarily related to the capital programme in terms of projects, costs and related outputs. It takes account of projects not delivered or carried over into subsequent price controls.

- Working with the principal stakeholders through a formal Output Review Group (ORG) to monitor delivery by NI Water on a quarterly basis.

We reported NI Water's Overall Performance Assessment (OPA) score in our 2007/08 Cost and Performance Report as 98. While no target or assessment of the OPA score was assigned to the SBP, from an assessment of NI Water's Business Plan we are able to predict a score for 2009/10 of 119, an improvement of 21 points over the SBP period. This reflects improvements in customer service, low pressure, drinking water quality, wastewater treatment works consent breaches, unplanned interruptions and sewage pollution incidents.

While an improving picture, the challenge is how quickly NI Water can move from being at the bottom of the league table for UK water companies to the lower, median and upper quartiles. Our challenge to the company for PC10 is to outperform the predicted score of 201, by 2013.

Chapter 2 – Setting a Price Cap

This chapter provides an overview of our approach to this draft determination.

We are committed to the principles of better regulation of transparency, accountability, proportionality, targeting and consistency. We have sought to apply these principles in our draft determination and seek your views on our draft determination.

2.1 Transparency and accountability

We have worked with all the principal stakeholders in developing of the PC10 process. Technical compliance focused groups, a consumer group and overall governance groups were established.

The process and programme followed is detailed in 'The Utility Regulator's approach to the 2010-2013 Overall Cost & Price Control for Northern Ireland Water Limited' document which was published in January 2009, and is available on our website www.niaur.gov.uk.

The main milestones leading up to this draft determination are as follows:-

- PC10 Workshops with NI Water and principal stakeholders – March/April 2008
- Regional Development Committee briefing – June 2008
- Establishment of stakeholder working groups – September 2008
- CCNI Consumer Research – October/November 2008
- Draft Ministerial Social and Environmental Guidance – May 2009
- NI Water's PC10 Business Plan – June 2009
- NI Water's Annual Information Return 'AIR09' – August 2009

The following steps are required to complete the PC10 process:-

- NI Water and stakeholder response to UR Draft Determination – 6th November 2009
- Final Ministerial Guidance - expected mid November
- Utility Regulator PC10 Final Determination – 18th December 2009
- NI Water submit to UR PC10 Monitoring Plan – 1st March 2010
- NI Water publish PC10 Monitoring Plan – 31st March 2010

The timeframe for the final determination is dictated by the need for NI Water to submit its final draft scheme of charges for the 2010/11 year to the Utility Regulator in January 2010. This is necessary to facilitate analysis and approval by the Utility Regulator prior to the issue of bills to non domestic customers in April 2010.

If NI Water disputes the final determination, it can require the Utility Regulator to refer the final determination to the Competition Commission. The Competition Commission is an independent public body with the technical, economic and legal expertise to adjudicate in disputes between companies and their regulators.

Ministerial and NI Executive support

We have determined a total revenue requirement for NI Water over the period of £1,054m which is a saving of £191m, or 15% from that indicated in the DRD Draft Social and Environmental Guidance.

We look forward to receipt of the final Ministerial Social and Environmental guidance, endorsed by the NI Executive. It will confirm the priorities and thereby the objectives to be delivered and funds to be made available to NI Water for the PC10 period.

The successful outcome of the price control contract requires the agreement and support of the DRD Minister and NI Executive. It is only the NI Executive that can endorse the funding allocated to NI Water in light of the significant level of government subsidy.

We are conscious that decisions have yet to be made by the Executive in relation to charging and the other recommendations and findings of the Independent Water Review Panel (IWRP). We have assumed no domestic charges will be levied during this three year price control. Any changes to this decision can be incorporated at any stage through the period, as it does not alter the rationale and findings of the draft determination.

2.2 Calculation of the required revenue

The water and sewerage industry is a long term business with both high capital and operational costs. Treating water and transporting it through pipes to consumers is asset intensive – NI Water must manage 26,500km of water mains and 14,300km of sewers, together with 42 water treatment works and 1,078 wastewater treatment work (of which 804 serve a population equivalent less than 250). According to NI Water's second asset management plan it would cost some £6.5 billion to replace all of the company's assets.

The role of the regulator is to set charges that are sufficiently high – but no higher than necessary – to ensure the sustainable delivery of the desired level of service. We have therefore scrutinised and benchmarked costs carefully.

As well as a cash based approach for determining revenue, we have also taken account of an indicative notional Regulatory Capital Value (RCV) building-block approach for determining revenue and setting charges in this draft determination. This building-block approach facilitates comparisons with Scottish Water and the English and Welsh water companies. NI Water receives a rate of return on its notional RCV. Efficient investment in new assets is added to the notional RCV. Depreciation (reflecting the cost of using existing assets) reduces the notional RCV. The rate of return is the cost associated with financing the asset base. The cash cost of replacement is covered by the depreciation charge.

The revenue that we have allowed NI Water was calculated as follows:

Table 1 – NI Water allowed Revenue using Building Blocks approach

Revenue required
=
Return allowed on the notional regulatory capital value
+
Allowed operating costs
+
Depreciation on non-infrastructure assets
+
Infrastructure renewals charge (IRC)
+
Allowed Public Private Partnership (PPP) costs
+
Taxation

The effectiveness and value of assets decline over time and consumers should bear these costs as they receive the benefit from the use of the assets. The water and sewerage industry has two broad types of asset. These are termed infrastructure (essentially the water mains and sewers) and non-infrastructure (treatment plants, offices, vans, computers etc).

From a regulatory point of view, the depreciation policy of the water and sewerage business has to strike a balance between current and future consumers. We therefore allow for an appropriate depreciation charge for each type of asset to be recovered from consumers, be it through direct charges (non-domestic consumers) or from government subsidy.

Allowed for Rate of Return

The product of the notional RCV and the allowed rate of return gives the total return allowed on the RCV. This ensures that consumers only contribute towards those assets that have been created and which are providing a benefit to consumers.

We have decided to apply a modified version of the Weighted Average Cost of Capital (WACC) approach that is used by the regulators of private sector companies. We have combined an observed real cost of debt with an estimate of an appropriate rate of return on the equity portion of NI Water's notional RCV in order to produce an allowed rate of return. The future real rate of interest on debt for NI Water was estimated by looking at the current borrowing rate faced by NI Water, together with a predicted future rate for PC10. For the PC10 period, the borrowing rate set on NI Water's loan note facility is set at the prevailing rate at the time for the equivalent 2027 government gilt-edged bond plus a margin of 85 base points. We have collected information on the nominal rates offered by the 2027 government gilts. Expected RPI inflation is 2.3%. This gives an allowed rate of return for NI Water's debt of 2.88%. We have linked prices and the cost of capital to RPI in order to ensure that NI Water is not exposed to funding risks associated with changes in the RPI

The allowed rate of return on the equity portion of the RCV is 7.1%. This is the same as the cost of equity that Ofwat used in its draft determination for companies in England and Wales. We believe that the level of risk faced by NI Water is no higher than that faced by companies in England and Wales and therefore a rate of return on the equity portion of the RCV above 7.1% would not be appropriate.

We have therefore set an allowed rate of return of 4.8% real post-tax as shown in Table 2. We have used a debt to RCV ratio of 55%. This rate of return should be used by NI Water as the discount rate in any business case analysis in the PC10 period. The financial model also uses two separate inflation costs. We use the Retail Price Index to inflate the costs of all operating and PPP costs. The Construction Output Price Index is used to inflate capital expenditure. Charges have been set relative to RPI in order to remove the financing risk from NI Water. We have assumed 2.3% for both RPI and COPI for PC10.

Table 2: Allowed return for PC10

PC10: Allowed rate of Return	
Cost of Debt	2.88%
Cost of Equity	7.1%
Gearing	55%
WACC (Pre tax cost of debt, post tax cost of equity)	4.8%

In setting the required revenue and price limits for NI Water we assessed the financial sustainability of the company by comparing the financial ratios with the ranges applied by Ofwat and WICS to their respective regulated water companies. In considering these ratios and all other factors, we determined a nominal overall revenue requirement of £1,054m compared to £1,190m in NI Water's Business Plan; a saving of £136m or 11%.

The calculation of the overall revenue requirement for NI Water for PC10 is shown in Table 3 below.

Table 3: NI Water Revenue Requirement for PC10 (out-turn) (£m)

	Utility Regulator PC10 determination
Allowed for Return	£243
Infrastructure Renewals Charge	£78
Depreciation	£160
Operational Expenditure	£434
PPP costs	£138
Overall Revenue (nominal)	£1,054

Notes:
Operating costs includes atypical costs e.g.Voluntary Early Retirement
Figures may not add due to rounding

2.3 Calculation of charges

We have determined the overall price caps for each tariff basket as defined within NI Water's licence. These tariff baskets cover the regulated services provided by NI Water. The tariff baskets are important in ensuring that customers are paying for the service they receive and are not being subsidised by, or subsidising other customer groups. This facilitated us to determine the level of subsidy required.

Table 4 below shows the impact of subsidy on each revenue group.

Revenue groups for PC10

Table 4 - Revenue groups for PC10 (out-turn) (£m)

Revenue Group	Forecast Revenue over PC10 (£m)	Subsidy allocation
Domestic unmeasured water	335	100%
Domestic unmeasured sewerage	368	100%
Non-domestic measured water	129	domestic allowance subsidy
Non-domestic measured sewerage	86	domestic allowance subsidy
Non-domestic unmeasured water	13	50% subsidy
Non- domestic unmeasured sewerage	13	50% subsidy
Trade effluent (includes Roads Drainage costs of approximately £56.3m)	73	0% subsidy
Non tariff basket revenue (includes large users)	37	0% subsidy
Total Required Revenue	**1,054**	

An average of approximately 72% of the revenue requirement over PC10, i.e. £757m is forecast to be paid through subsidy.

Roads drainage and surface water charges

In the English, Welsh and Scottish water companies, customers pay a proportion of their sewerage charges for the collection and treatment of surface water drainage from individual properties and roads. This is because legislation in Great Britain does not permit any alternative method of cost recovery. However, the NI Executive endorsed the IWRP recommendation that in Northern Ireland, roads drainage costs should be recharged to DRD Roads Service. As such, the cost (calculated at approximately £56m) will be deducted from the average notional domestic customer charge over the course of PC10 and subsequent price control periods.

Charge limits

We have a legal duty to determine price limits, (referred to as K factors) to be applied over the Price Control period. The K factor is the percentage increase or decrease above or below inflation by which tariff basket charge caps are allowed to rise or fall on an annual basis during the price control period. We utilise price limits to ensure no cross subsidy between customer groups. In setting the price limits, we have been mindful of the Ministerial Social and Environmental Guidance, and sought to balance affordability with compliance and customer priorities.

Table 5 - K factors for PC10

Tariff Basket	2010-11	2011-12	2012-13
Unmeasured Water Supply	-11.3%	-1.3%	-2.6%
Unmeasured Sewerage Service	-2.2%	1.5%	1.6%
Measured Water supply	-6.0%	-6.0%	-6.0%
Measured Sewerage Services	-3.6%	-3.6%	-3.6%
Trade Effluent	-4.6%	-4.6%	-4.6%

We are mindful of the current economic situation for business customers and have based our assessment of charges on a smoothed revenue profile in the PC10 period to ensure both stability and reduced tariffs for non-domestic metered consumers.

While there are increases in tariffs for unmeasured sewerage services, these are more than offset by decreasing tariffs for unmeasured water supply. Tariffs for unmeasured sewerage services increase due to the forecast increased costs associated with this service relative to other services.

Weighted Average Charge Increase - WACI

NI Water is allowed to increase the weighted average charge for each of its tariff baskets by up to the K factor plus inflation. This is the weighted average charge increase, or WACI. The WACI is therefore equal to the K factor plus the reported Retail Price Index (RPI). The RPI figure is published by the Office for National Statistics on a monthly basis. The figure for the 12 months to November in the year prior to the year in question is used as the RPI figure for the WACI.

WACI (Weighted Average Charge Increase) = K factor plus inflation (RPI)

For the purpose of this draft determination, we have assumed an inflation figure of 2.3% for each year of PC10. This is the inflation figure that NI Water should use in its draft scheme of charges for 2010-11.

Average notional household charge

While we have assumed that there will be no domestic charges over the period of this price control, Table 6 shows the notional average household charge over the PC10 period.

Table 6 – 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	£407	£414	£418	£27 increase
Utility Regulator PC10 Draft Determination	£391	£369	£369	£369	£22 decrease
Utility Regulator Draft Determination saving	-	£38	£45	£49	-
Note: Smoothing of revenue over the period has led to a flat £369 notional bill in each year					

Affordability

We note the commentary and recommendations made in the IWRP reports and that decisions in relation to affordability rest with the Department and the NI Executive. However, to inform discussions, and based upon IWRP recommendations endorsed by the NI Executive, we note the impact of the following IWRP endorsed recommendations:-

- The cost of road drainage should be paid out of general taxation and charged to the DRD Roads service; and
- The contribution already made by consumers for water and sewerage services in their rates should be discounted from any direct bill for water and sewerage services.

We have therefore adjusted the notional average household bill to take account of these factors as shown in Table 7.

Table 7 - Adjusted average notional Domestic Charge

	Average notional Household Charge (2009- 2010 prices)			
	2009-10	2010-11	2011-12	2012-13
Utility Regulator PC10 Draft Determination includes Road Drainage - indicative	£411	£388	£388	£388
Reduction for Roads Drainage (recharged to DRD Roads Service) (approx £19 p.a.)	£391	£369	£369	£369
Reduction for contribution made in rates bill (approx £160 p.a.)	£231	£209	£209	£209

Level of subsidy (out-turn prices)

Table 8 - Level of subsidy in PC10 (out-turn prices) £m

PC10 2010-13	Total Allowed Revenue	Revenue from charges (inc Roads Drainage)	Revenue from Subsidy
NI Water Business Plan	£1,190m	£338m	£852m
Utility Regulator Draft Determination	£1054m	£297m	£757m
Savings	£136m	£41m	£95m

Approximately 72% of the allowed revenue is to be paid by subsidy, some £757m over the PC10 period excluding roads drainage. The roads drainage charge over the PC10 period is forecast to be approximately £56m which, even if charges where to be introduced, will be charged to DRD Roads Service and paid for by general taxation. The Utility Regulator draft determination renders a saving of £95m on the required subsidy.

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.

We have determined a draft infrastructure charge limit of £269 for both water and sewerage services in 2010-2011. This is £28 less than the equivalent charge in England and Wales. Charges for future years will increase in line with the Retail Price Index.

2.4 Financial sustainability

We built a financial model to allow us to set price limits and calculate the revenue that NI Water required to carry out its functions.

The financial model requires robust and detailed information. We provided NI Water with a copy of the model as part of the business plan guidance and information requirements.

One of the key considerations of our modeling was the financial sustainability of NI Water. The model automatically calculated key financial ratios. The RCV approach of determining the revenue facilitates direct comparisons of NI Water's financial sustainability with the English and Welsh water companies. In Table 9 we set out the value of each targeted ratio for each year of this regulatory control period. NI Water should comply with each of these ratios for 2012-13, provided it meets the terms of this draft determination. We have done this on the basis that the NI Executive will agree that NI Water should be a financially sustainable company. We will monitor NI Water's financial performance and sustainability in PC10 using these ratios.

Table 9 - NI Water financial sustainability for PC10

Financial Ratio	Targeted Value	2010-11	2011-12	2012-13
Cash Interest Cover	Around 3 times	3.2	3.2	3.2
Adjusted Cash Interest Cover 1	Around 1.6 times	1.7	1.8	1.9
Funds from operations: debt	Greater than 13%	12.9%	13%	13.1%
Retained Cashflow: debt	Greater than 8%	6.9%	9.6%	10.1%
Gearing (adjusted for PPP asset / liability)	Less than 55%	50.5%	51.1%	51.2%

Chapter 3 - The Investment Programme

This chapter outlines the capital investment programme required to deliver the priorities for consumer services, water quality improvements and environmental improvements set out in the Ministerial Social & Environmental Guidance. It explains how we have reviewed the capital programme to ensure that it is delivered at the lowest reasonable overall cost.

NI Water's Business Plan included capital investment of £586m (post efficiency) to deliver outputs within the indicative limits of revenue and borrowing set out in the Social and Environmental Guidance. Following our detailed assessment of the company's proposals we have concluded that the outputs in the company's plan (subject to some changes of scope and reallocations) can be delivered for £483m. This has allowed us to include a further £38m in our draft determination to fund other essential outputs agreed with key stakeholders. The overall adjustment to the proposed capital investment programme is summarised in Table 10.

Table 10 – Summary of adjustments to the capital investment programme (2007-08 prices)

	NI Water Business Plan	Utility Regulator Draft Determination	Variance %
Total Capital Expenditure pre-efficiency	£ 622 m	£ 542 m	-12.8%
Total Capital Expenditure adjusted for efficiency	£ 586 m	£ 483 m	-17.6%
Overall efficiency	5.8%	10.9%	
Provision for additional essential outputs		£ 38 m	
Total investment in the determination		£ 520 m	

Notes:
1: *Figures may not add due to rounding*
2: *The adjustment to proposed expenditure pre-efficiency includes £8m of leakage expenditure reallocated from capital expenditure (CAPEX) to operational expenditure (OPEX).*

3.1 Setting objectives for NI Water for 2010-13

The objectives to be delivered by NI Water in PC10 are set out in the Social and Environmental Guidance issued by the Department for Regional Development. After a period of consultation, a draft of the Principal Social and Environmental Guidance has been laid before the Assembly. The guidance is directed at the Utility Regulator and we have had regard to it in undertaking the price control. The key strategic investment priorities were summarised as:-

- **Affordability** – provide affordable cost effective services for consumers;
- **EU Compliance** – meet European legal obligations in relation to drinking water quality, waste water discharges into the environment, and contribute to flood risk management with other agencies;
- **Service delivery and improvement** – maintain current customer service levels and work towards improvements that provide customer benefits in areas such as sewer flooding and interruptions to water supply; and

- **Sustainability: -** improve our infrastructure to reduce leakage, cut unsatisfactory sewage discharges, lower energy consumption and allow for future growth.

The Social and Environmental Guidance draws on work undertaken by CCNI on behalf of NI Water to establish consumer views. The results of this work were published in 'Tapping into Consumer Views on Water', available through the Consumer Council's website at http://www.consumercouncil.org.uk/. Further work was undertaken in working groups by relevant stakeholders to determine and prioritise the outputs which must be delivered to meet the objectives of the Social & Environmental Guidance.

We have concluded that the capital investment programme proposed by NI Water in its Business Plan was broadly reasonable in meeting the requirements of the Social and Environmental Guidance. We consulted with DRD, CCNI, DWI and NIEA to confirm that the outputs, which will be delivered by the company:-

- Meet the priorities set out in the Social & Environmental Guidance;
- Align with consumer views; and
- Deliver necessary statutory obligations.

3.2 NI Water's proposed capital investment for 2010-13

NI Water's PC10 Business Plan provides the company's assessment of the capital investment required in the PC10 period to maintain its assets, provide for new development and growth, enhance levels of service to consumers, improve the quality of water supplied and sewage discharged, and provide the general facilities required to support its business activities. NI Water prepared its estimates based on current costs which were then adjusted to reflect the company's view on the efficiencies they believed could be achieved in PC10. The capital programme proposed by NI Water was £622m based on current cost, adjusted to £586 million to reflect their view on future efficiencies.

Capital expenditure falls under the following four 'purpose' categories which summarise the main reason for the investment:

- **Quality enhancement**: - additional investment required to deliver new statutory requirements including compliance with EU obligations.
- **Base maintenance: -** this involves the renewal or renovation of existing assets which have reached the end of their useful life and is required to maintain the existing asset base and the level of service delivered to consumers.
- **Enhanced service improvements: -** additional investment to improve the level of service to existing consumers by, for example, reducing the risk of sewer flooding or increasing the pressure of water supply.
- **Growth: -** additional investment to address the balance of supply and demand. This includes the provision of additional water resources, new water mains and sewers to connect new developments and additional treatment capacity to cater for growth.

Investment in quality enhancements, enhanced service improvements and growth are grouped and termed 'enhancement'. This is generally funded through borrowing and paid for by current and future consumers over the life of the asset. Base maintenance is an on-going commitment to maintain current assets and levels of service and is generally paid for directly from the revenue provded by current consumers.

The capital investment proposed by NI Water in its PC10 Business Plan is summarised by purpose category in Table 11. 43% of the proposed investment is required to maintain the service and 57% will enhance water and sewerage services.

Table 11 - Overall capital expenditure by purpose (2007-08 prices)

	Water	Sewerage	Total	% split
Quality	£35m	£129m	£164m	28%
Base	£112m	£140m	£252m	43%
Enhanced service	£19m	£28m	£47m	8%
Growth	£87m	£36m	£123m	21%
Total	£253m	£332m	£586m	
% split	43%	57%		

Note – Figures may not add due to rounding

3.3 Our draft determination of capital expenditure

Summary of the outputs included in the draft determination

The investment set out in our draft determination will allow NI Water to maintain existing assets and levels of service, improve service to consumers, improve compliance with standards for drinking water quality and discharge of treated effluent and meet needs for development and growth. A summary of the key benefits which will be delivered by PC10 is set out in the Table 12.

In most cases the outputs are activity measures, for example the length of main rehabilitated or the number of wastewater treatment works upgraded to a new standard. Poor quality data and the lack of reliable long term trends make it difficult to establish robust output targets and we will generally rely on activity measures to monitor the outcome of the investment plan. We have developed output measures in the detailed report supporting this determination, which we will also monitor in PC10 and develop for PC13.

Scope and Cost Challenge to the capital investment programme

We challenged the cost of delivery set out in the business plan using costs incurred by NI Water in the past. We also considered high level unit costs of delivery reported by water and sewerage companies in Scotland, England and Wales to form a view on overall costs of programmes of work. The company's expenditure plans were scrutinised by the Independent Reporter and we have taken account of his observations in arriving at our assessment of a reasonable level of expenditure for the PC10 period.

Table 12 – Summary of outputs

Base maintenance	• Investment in the existing assets will maintain levels of service to existing consumers.
Enhance consumers service	• Investment in trunk mains and water treatment works will improve security of supply in areas at risk during drought. • 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. • 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. • 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 develop more meaningful consumer measures for PC13. • Completion of a Water Resource Strategy in PC10 will inform future investment in PC13 to secure water supply.
Improve water quality compliance	• Completion of 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. • 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. • Work in PC10 will assess the extent of mains which impact on water quality to support investment in PC13.
Improve environmental compliance	• 43 wastewater treatment schemes to improve the quality of discharge from works >250 pe. • 117 unsatisfactory intermittent discharges will be upgraded to meet quality standards.
Growth and supply demand balance	• The company will be able to continue to connect new properties to the water and sewerage network. • Investment at sewage treatment works will address development constraints due to lack of capacity.
Improve sustainability	• Improvements to existing assets, levels of service and quality enhancements will contribute to a sustainable service. • Further reductions in leakage will reduce water lost to below the short run economic level of leakage (ELL). • The company will determine a sustainable long run ELL which will inform leakage targets for PC13. • The company will continue to increase the proportion of renewable energy used and consider opportunities for renewable power generation. • Carbon accounting will be introduced for significant investments in PC13. • Trials will be carried out on sustainable methods of catchment management and wastewater treatment.
Additional outputs	• £30m of investment in additional outputs focused on addressing development constraints and consent compliance at wastewater treatment works. • £8m to advance expenditure at Killylane WTW subject to the conclusion of further investigations.

Overall we concluded that NI Water had submitted a considered capital investment plan and we have only found it necessary to make limited adjustments to the level of investment proposed before applying our view of future efficiencies. However, our challenge of the investment programme has resulted in the following types of adjustments to the proposed investment (pre-efficiency):

1. Reallocation of expenditure between categories to correct allocations and maintain consistency within comparative analysis used in our draft determination. For example, we allocated part of the expenditure on WWTW's from capital enhancement to capital maintenance. We also allocated part of the expenditure on leakage from capital enhancement to operating expenditure and capital maintenance.

2. Alterations to the activities proposed by the company based on our review of outputs and discussions with the key stakeholders. For example, our draft determination maintains current activity on water mains until NI Water undertakes further analysis to demonstrate the benefits of an increased rate of activity.

3. Alterations to the scope of work proposed by the company based on our challenge to the work necessary to deliver the agreed output. For example, we have applied a scope challenge to WWTW enhancement to reflect the opportunity available to the company to optimise the scope of work in detailed design and construction.

4. Alterations to unit costs based on NI Water historic expenditure, comparison with benchmark costs for other companies or the observations of the Independent Reporter. For example, we have reduced the unit rate for water mains pre-efficiency based on current costs of delivery and we have applied reductions to contingency suggested by the Independent Reporter.

The key adjustments to the capital investment programme pre-efficiency are summarised in Table 13.

Table 13 – Summary of key scope and cost challenge to capital investment (pre-efficiency) 2007/08 prices

NI Water Business Plan (pre-efficiency)	£ 622 m
Correction of capitalised salary and on-cost percentages	£ -3 m
Reallocation of leakage expenditure to OPEX	£ -8 m
Reduction in unit rates for water mains to historical expenditure	£ -16 m
Reduction in water mains activity to historical levels	£ -18 m
Capital maintenance based on econometric analysis	£ -12 m
Other scope and unit cost adjustments	£ -22 m
Draft determination pre-efficiency	£ 542 m
Note – Figures may not add due to rounding	

Investment in capital maintenance

Capital maintenance is the investment required to maintain existing levels of service and secure improvements paid for in the past by replacing plant and equipment which has reached the end of its useful life. It is an on-going commitment which is of immediate benefit to current consumers and is paid for directly from current revenues.

NI Water's proposed capital maintenance investment of £252m (post efficiency) for 2010-13 is based on an assessment of historical data trends or comparison with past activity rates in England & Wales. The company concluded that the quality of its data prevented the development of a detailed, forward looking, risk based assessment to optimise capital investment. We agree with this conclusion and our draft determination allows for continuing investment in asset data to allow the company to optimise investment and improve the quality of future Business Plans.

We are concerned by the quality of the historical data available to support NI Water's analysis of capital maintenance investment. In view of these concerns, we used three alternative techniques to determine a reasonable level of capital maintenance: econometric analysis; unit cost analysis; and a cost base analysis.

Our draft determination is based on the econometric analysis of capital maintenance expenditure in England & Wales subject to three adjustments as follows:

Table 14 – Adjustments to capital maintenance spend (2007-08 prices)

	NI Water	Utility Regulator
Econometric analysis (pre-regional price adjustment)		£265 m
Adjustment for regional price base		£-32 m
Allowance equivalent to the capital maintenance of PPP plant included in the econometric models		£-18 m
Addition of water infrastructure capital costs based on projected activity and expenditure		£10 m
Total capital maintenance investment included in the draft determination	£252 m	£224 m
Note – Figures may not add due to rounding		

Investment in quality enhancements

The draft determination allows for investment of £132m to deliver the key quality outputs which NI Water included in its Business Plan.
The quality outputs include specific improvements to named assets which have been endorsed by either NIEA or DWI.

- 116 unsatisfactory intermittent discharges.
- Completion of improvements at 30 WWTWs started in the SBP
- Completion of improvements to 13 WWTWs started in the PC10
- Completion of improvements to 2 WTWs started in the SBP.

Further improvement to water quality will also be delivered through the water mains rehabilitation programme. NI Water was not able to define a specific water mains quality programme which would allow robust output targets to be set for this work. During PC10 we expect the company to continue its programme of water mains rehabilitation and to improve the quality of its asset data which would allow better definition of a water mains quality programme for PC13.

Following our challenge to the capital programme, we have included £38m for investment in additional urgent outputs agreed with key stakeholders. This provides the opportunity to accelerate work on Killylane WTW, subject to the successful completion of study work to determine a sustainable treatment solution, and deliver additional WWTW improvements to reduce the risk of infraction proceedings and support development. We have allocated £26m of this work to quality and the balance to growth, pending final prioritisation of the outputs to be delivered.

Investment in enhanced service levels

The draft determination allows investment of £40m to enhance levels of service.

This investment includes £25m to improve the company's management and general facilities. This covers the capital assets required to support the general delivery of services which are not directly related to the operational water and sewerage service assets. The funding of asset maintenance expenditure is described in greater detail below.

For the balance of the expenditure NI Water plans to:

- Address the risk of flooding from sewers due to hydraulic overload at 200 properties. The company is developing its register for flooding incidents and properties at risk of flooding. We expect the company to complete this work and develop its understanding of flooding risk to allow its programme of work to be better defined for PC13.
- Improve water supply pressure to 3,305 properties currently supplied at less than a 10m reference pressure. We do not believe that the company's assessment of the reduction in the number of properties at risk of low pressure is robust. We expect the company to review its assessment before the final determination taking account of potential improvements due to better information and the reduced level of water mains activity included in our draft determination.

Investment to meet growth

The draft determination allows investment of £99m to cater for growth and development. This includes £12m for the additional outputs described above.
A large proportion of the programme relates to work on named assets to meet future demand or reduce the risk of interruptions to supply including:

- Investment in trunk mains to improve interconnectivity between water resource zones.
- Additional service reservoir capacity.
- Increasing the capacity of wastewater treatment works for future demand at the same time as upgrading the works to meet new quality standards.

The balance of the growth programme addresses new development, allowing new properties to be connected to the water and sewerage network. This work is largely reactive as NI Water responds to demands from developers and consumers.

NI Water's Business Plan included £18m (pre-efficiency) to counter the background rate of rise in leakage and to move towards the economic level of leakage which it allocated to growth. We do not agree that all this investment enhances the service provided. We reallocated £8m of expenditure required to find and fix leaks, to OPEX, and reallocated a further £8m of expenditure to replace existing assets to base maintenance.

Investment in management & general facilities

The category of management and general covers the capital assets required to support the general delivery of services which are not directly related to operational water and sewerage service assets. It includes the provision and maintenance of general facilities such as accommodation, vehicles, information technology, and the updating of network records.

In the Business Plan, NI Water set out a detailed list of management and general projects for the PC10 period and estimated the cost of delivering this work as £58m. The business cases provided to support this investment are not yet sufficiently well developed to allow detailed assessments to be made.

We adopted two approaches to validate the level of investment proposed by NI Water: the Ofwat econometric analysis and a simpler unit cost analysis. Both indicated that the level of investment proposed by the company was broadly reasonable and our draft determination includes £52m post efficiency to fund the work proposed by the company.

We recognise that part of the management and general expenditure proposed by the company provides new systems and assets which will allow the company to enhance the service provided. We have allocated 48% of the investment to enhanced service level. The balance of the investment is included in the total capital maintenance investment determined by econometric analysis.

Improving efficiency of capital investment

NI Water based its assessment of capital investment on current prices. The company then reduced the proposed investment by £36m (5.8%) to reflect the scope of improving efficiency, arriving at capital investment of £586m (post efficiency) over 2010-13.

We have based our assessment of the scope for capital efficiency on the 'Cost Base' approach developed by Ofwat. We asked NI Water to price the standard water and sewerage asset specifications developed by Ofwat. NI Water also had the opportunity to raise special factors which would affect its cost base relative to the comparator companies. NI Water's cost base submission was audited by the Reporter and checked for consistency by our technical advisers, Mott McDonald to ensure consistency with the comparator companies used in our efficiency analysis.

We considered a number of techniques to quantify the difference in local procurement costs relative to those in England and Wales (regional price adjustment (RPA) factor). Our analysis indicated a range of RPA factors from 67% to 89%, with the company proposing a value of 93.4%. Our draft determination is based on a mid range RPA factor of 83% which was informed by work carried out by Mott MacDonald.

The efficiency adjustments in our draft determination assume that NI Water will close 75% (capital enhancement) and 60% (capital maintenance) of the gap between its efficiency and the upper quartile in England and Wales by the end of PC10. Our draft determination requires the company to achieve this catch up immediately for enhancement investment but allows for phased catch-up for capital maintenance efficiency over three years. In both cases we have included a 0.4% per annum frontier shift to reflect opportunities for continuous efficiency. Our efficiency assessment was applied at a programme level; it does not aim to assess the efficiency of individual projects. We have not applied future efficiencies to carry over projects already committed by NI Water under the agreed SBP.

We have concluded that the scope for additional efficiency following the adjustments for scope and unit costs is £59m. This includes the efficiency adjustment applied to capital maintenance.

3.4 Draft Determination summary of investment

Table 15 provides a summary of the investment included in our draft determination to deliver the outputs set out above.

Table 15 – Summary of investment included in the draft determination

	Water		Sewerage		Total		% allocation
	NIW	UR	NIW	UR	NIW	UR	UR
Quality	£35m	£29m	£129m	£128m	£164m	£157m	30%
Base	£112m	£105m	£140m	£119m	£252m	£224m	43%
Enhanced service	£19m	£15m	£28m	£24m	£47m	£40m	8%
Growth	£87m	£54m	£36m	£45m	£123m	£99m	19%
Total	£253m	£204m	£332m	£316m	£586m	£520m	100%
% Utility Regulator allocation		39%		61%			

1. Expenditure in £m post efficiency at 2007-08 prices before the deduction of capital income.
2. Utility Regulator determination includes £38m to fund additional outputs
3. Figures may not add due to rounding

Capacity to deliver investment

The average level of capital investment included in our draft determination is £173m per annum. In 2007-10 NI Water demonstrated the ability to deliver investment at an average level of £263m per annum with a peak of £284m in 2008-09. We have concluded that the company and the market have the capacity to deliver the lower level of investment planned for 2010-13.

While NI Water's level of investment in PC10 will be less than the investment in 2007-10, the overall level of investment remains at higher levels per property than investment in England & Wales. The overall level of investment proposed for PC10 is £259 per property compared to expenditure of £125 to £243 per property included in the recent draft determinations for England and Wales for 2010-15. Sustaining this higher level of capital expenditure in the medium to long term will continue to increase costs to consumers.

Chapter 4 - Operating Expenditure

This chapter outlines the operating costs that we have allowed in setting NI Water's maximum charges in this draft determination. The maximum total allowed for operating cost includes both 'baseline' operating costs to sustain the current level of service and any 'new' or additional operating costs.

4.1 Scope for operating cost efficiency

The allowed for 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 £629m (post efficiency). Following our detailed assessment of the company's special operating factors and efficiencies we propose an operating expenditure of £531m, resulting in a saving of £98m. The overall adjustment to the proposed operating expenditure is summarised in Table 16 below:

Table 16 – Summary of adjustments to the operating expenditure

(2007/08 prices)	NI Water Business Plan	Utility Regulator Draft Determination[1]	Variance %
Total Operating Expenditure (post efficiency) £m	629	531	-15.50%
Annual Efficiencies[2] 2010-13	3.43%	6.12%	

1 Utility Regulator efficiency as proportion of total opex (including PPPs) which are largely 'pass through' subject to an efficiency challenge for technological change and productivity improvement only; our overall efficiency is therefore less than our 6.9% reported efficiency challenge
2 Calculated as annualised average cumulative efficiency of prior year post-efficiency total operating expenditure

We have taken a robust approach to efficiencies given the scale of efficiency challenge facing NI Water. Analysis indicates that NI Water have a 50% 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.

Operating Costs

Operating expenditure comprises day-to-day running costs, as opposed to capital investment or financing costs. Operating expenditure therefore includes employment costs, electricity, materials, hired and contracted costs, rates, insurance, software licences and vehicle running costs. Bad debt is also regarded as an operating cost. Operating expenditure does not include depreciation or capital maintenance costs. It does include normal 'reactive' maintenance costs.

Each year we require NI Water to submit an Annual Information Return (referred to as AIR09 for the year 2008/09). This information allows us to analyse operating costs by both function and activity. The information submission defines functions and activities in the same way as the equivalent returns in England, Wales and Scotland. The analysis of expenditure by function provides information about how much it costs to provide a particular service. We established NI Water's level of efficiency by comparing it to its counterparts, and its progress in improving efficiency by monitoring its annual performance against an industry league table. The league table places companies into relative efficiency bands graded A to E; the 'best' and 'worst' performing companies respectively. We reported NI Water as being in band E in our 2007/08 Cost and Performance Report, having an efficiency gap greater than 35% above the benchmark.

In order to make like for like comparisons, we need to understand the factors that can influence the level of costs incurred by NI Water and comparative companies. We must therefore establish a base level of operating costs. We do this by identifying a base year and inviting the company to submit any special factors and/or atypical claims which they believe sets them apart from their English and Welsh counterparts against whom they will be benchmarked.

4.2 Establishing a baseline for operating costs

Using 2007/08 as the base year for this draft determination, we have used information from NI Water's regulatory accounts for 2007/08 and AIR08, with cross checks being made to the recently available 2008/09 regulatory accounts and AIR09 submission. We will carry out further cross checks to AIR09 prior to our final determination.

To establish the level of baseline operating costs for 2007/08 we:-

- reviewed reported regulated costs;
- adjusted for special factors and atypical costs (or savings); and,
- checked for consistency in cost allocation practices and adjusted where necessary.

Review of reported regulated costs:-

There has been a significant increase in operating costs through the SBP period.
We identified the most significant areas of increase as: -

Power costs:- A significant uplift in the cost of power occurred from 2007/08, this can be partially linked to the increase in the market price. Before allowing any additional power costs in PC10 we carried out a comprehensive review of the unit costs and volumes, (actual and forecast) for the period.

Public Private Partnership costs:- A significant uplift in costs has occurred from 2007/08 to 2008/09 which relate to the introduction of actual and forecast Alpha and Omega PPP service charges, which are accounted for as operational expenditure.

GoCo Costs:- This includes costs which accompany the reform of the water & sewerage industry, many of which are one-off costs.

Wages Costs:- We also noted that wages and salaries went up, while staff numbers declined over the period; however, this can be largely accounted for by a substantial increase in pension related costs and voluntary early retirement or voluntary severance costs.

We conclude that a portion of the additional costs are justified. However we are also of the opinion that given the associated increase in operating expenditure, the SBP did little to close the operational efficiency gap with comparator companies. Therefore there remains considerable scope for reductions in operating costs.

Review of atypical factors for adjustment to 2007/08 baseline opex

Atypical factors are costs (or savings) that are one-off in nature. NI Water submitted an atypical factor claim for £16.2m to be applied to their 2007/08 baseline for our consideration. We allowed £12.7m for Voluntary Early Retirement / Voluntary Severance (VER/VS) and the Business Improvement Programme.

Review of special factor costs for adjustment to 2007/08 baseline opex

Special factor costs are influenced by the conditions in which a company operates. They measure the impact of factors that are outside the control of managers on the level of costs incurred. NI Water submitted a special factor claim of £24.5m to be applied to the operating expenditure used in our relative efficiency analysis. We allowed £4.3m, reflecting the longer than average length of mains per property and a regional wage adjustment.

4.3 Additions to the baseline operating costs

Having established the base year operating costs, we take account of potential changes in costs during the regulatory control period. We must acknowledge any potential changes that may fall outside the prudent control of management. NI Water within their Business Plan suggested some £100m of additions to baseline operating expenditure, which it sought to be allowed for in its operational expenditure for PC10 but excluded from the operational efficiency challenge.

We have examined these additions to claimed operating expenditure carefully to ensure that NI Water has sufficient resources to deliver an appropriate level of service. Our allowances against those claimed by NI Water are detailed in Table 17 below:-

Table 17 – Claimed versus allowed additions to operating expenditure

Additions to baseline operating expenditure (£m) (2007/08 prices)	NI Water Claimed	Utilty Regulator Allowed	Variance %
Pure additions			
Power	27.5	18.6	-32.48%
Environmental compliance (70%) & Regulation (30%)	26.2	10.5	-59.83%
Information & Communications Technology	12.6	0.0	-100.00%
Corporate	14.2	5.3	-62.84%
New Organisational Functions	10.5	0.0	-100.00%
Chemicals	7.4	3.8	-49.01%
Rates	1.3	1.1	-14.93%
Sub-total	**99.7**	**39.3**	**-60.61%**
Atypicals Carried Forward			
VER/VS	17.6	17.6	0.00%
Business Improvement Programme	12.4	0.0	-100.00%
Total	**129.8**	**56.9**	**-56.17%**

Note: Figures may not add due to rounding

We undertook detailed analysis of all areas of additional claimed opex. This included for example, an office accommodation relocation to a centralised headquarters under 'Corporate'. We are of the opinion that these costs are already funded within baseline opex, reflecting business as usual activity. Given the level of inefficiency, we believe that adequate funding has been allowed and we have reduced NI Water's claim for 'pure additions' to operating expenditure by 61% saving £61m over the PC10 period.

NI Water also included claimed additions to operating expenditure to cover Voluntary Early Retirement/Voluntary Severance (VER/VS) and Business Improvement Programme (BIP) costs; a continuation of SBP funded activities. We recognise that these are an important means by which NI Water may deliver additional efficiencies, and note that NI Water does not have the same flexibility with regard to funding such savings as English and Welsh water companies.

- We have therefore allowed expenditure for VER/VS but require the transparent reporting of delivery (cost & headcount reduction) against target to facilitate regulatory claw-back as necessary.
- We are not satisfied with the level of detail provided in the PC10 Business Programme to justify the additional funding sought for Business Improvement. The BIP was funded through the SBP period, and while we acknowledge there may have been some delay, we are concerned about the extension of this funding for a further three years. We would encourage the company to submit more comprehensive evidence of delivery in the SBP period, and support for additional expenditure throughout the PC10 period.

Adjustment for review of cost allocation practices

It is important that we compare like with like and that costs are correctly and consistently assigned. During our analysis we identified that some expenditure on leakage had been mis-allocated to capital where our view was that a significant proportion ought to be allocated to opex. Additionally, we found some salaries and wages costs had already been capitalised without the commensurate reduction to opex. We have uplifted operational spend by £5m net for PC10 to allow for the correct allocation of costs in relation to leakage (+£8m) and salaries & wages costs (-£3m).

Other adjustments

In the course of our examination of NI Water's PC10 Business Plan we also made one further material change. This reflected the disallowed baseline cost of £2.87m per annum for Kinnegar wastewater treatment works, since we have treated all such PPP costs separately.

4.4 Operating costs and efficiency challenge

Building on our previous approach to efficiency targets we considered three options to inform our triangulated view of opex efficiency targets:-

- Speed of delivery or "catch-up" rate to the benchmark
- Discounts (either Ofwat, or an alternative derived by Professor Cubbin for Water UK) to reflect uncertainty in reported data and potential errors in modeling specifications
- Top-down precedent of the existing opex efficiency challenges met by other regulated companies

No one approach to efficiency modeling allows the derivation of a single point estimate of efficiency. The options above are primarily based upon econometric analysis of industry costs by service and functional area, to identify cost drivers. We compare NI Water's predicted opex costs across a suite of such functional models and compare the results to their actual costs. Any differences are largely attributable to inefficiency, although we make adjustments to the extent of inefficiency for special factors, atypical costs (see section 4.2 above) and by applying discounts.

Of all the options above, by far the most important is our choice of catch-up, informed by Ofwat and WICS precedent. We also examined the sensitivity of efficiency targets to adoption of either a pure Ofwat approach, using smaller discounts, rather than Cubbin's. Finally we applied a top-down review of existing regulatory precedent for setting efficiency targets. This identified what was achieved by other regulated utilities, including Scottish Water and the England and Wales industry in the past and offers useful insight into deliverability of efficiency savings.

Our detailed analysis has led us to setting an annual efficiency challenge for NI Water of 6.9%, which alongside a separate challenge for opex related costs pertaining to the PPPs, will deliver additional cumulative efficiencies of £21million (2007/08 based) over the PC10 period compared to NI Water's PC10 Business Plan. 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.

NI Water Operational Expenditure Challenge for PC10

The graph below represents the changes in operational expenditure which have occurred since 2003/04 and the challenge placed on the company to reduce its operating expenditure for this PC10 period.

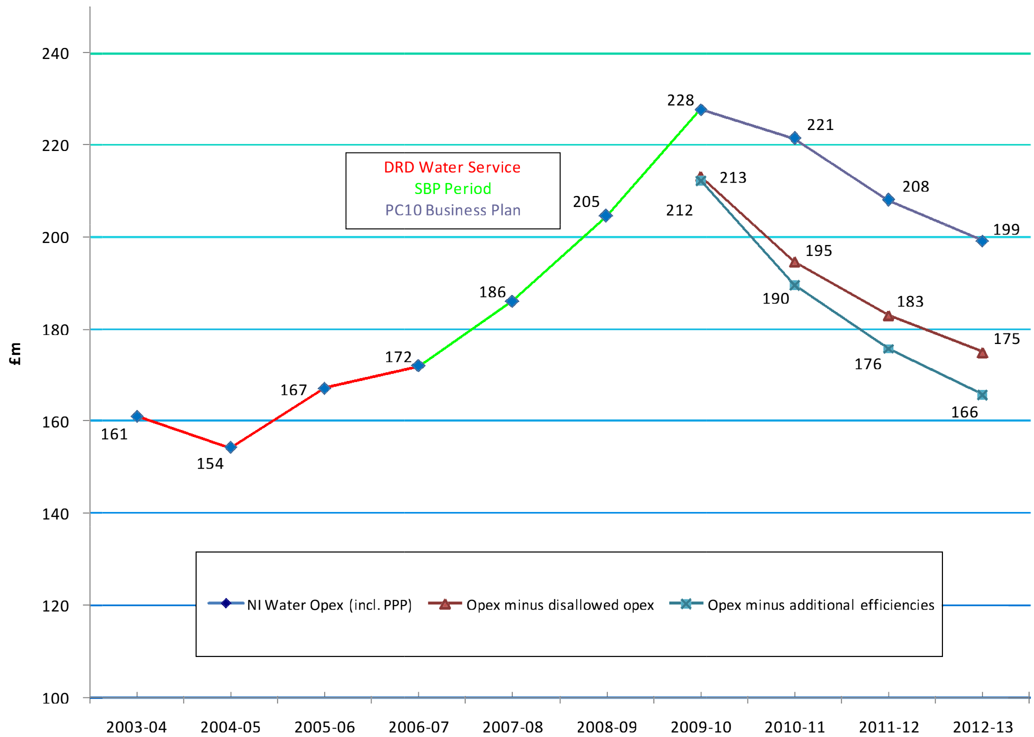
From the graph we note:-

1. While we share NI Water's view of declining operating costs from 2009/10 we have a different view of the opex starting point for 2009/10. We have plotted the company's estimate for 2009/10 at £228m. However, if NI Water is to fully meet their Ministerial efficiency target for 2009/10 we perceive our post efficiency opex view from 2010/11 onwards is both reasonable and achievable.

2. By the end of PC10 we return to levels of operating expenditure comparable to the early 2000s. This should be viewed in the context of an additional PPP service charge of circa £43m per annum and additional operating costs arising from power and chemical costs from advanced water and sewage treatment work solutions.

3. There is nevertheless considerable scope for additional efficiency given that the current efficiency gap requires close to a 50% reduction in opex, even after adjustment for local factors, to enable NI Water to be as efficient as its industry benchmarks.

Figure 1 – NI Water Opex 2003/04 to 2012/13 (2007/08 prices)



In coming to our final view on operating expenditure we have challenged each component element of NI Water's PC10 operating expenditure. Combined with our review of efficiencies and the setting of an efficiency target which results in additional efficiency savings, we reduced the company's estimate of £629m total operating expenditure to £531m total allowed opex across PC10. We therefore have reduced NI Water's claimed operating expenditure across the PC10 period by a total of £98m and the components of this saving are detailed in Table 18:

Table 18 – Breakdown of claimed versus allowed PC10 opex (2007-08 prices)

Area	2009-10	2010-11	2011-12	2012-13	PC10 Total
NI Water Opex (inc. PPP)	**£228m**	**£221m**	**£208m**	**£199m**	**£629m**
Disallowed additional baseline opex	£ -13m	£ -21m	£ -20m	£ -20m	£ -60m
Disallowed BIP	£0m	£ -5m	£ -4m	£ -3m	£ -12m
Disallowed baseline (Kinnegar)	£ -3m	£ -3	£ -3m	£ -3m	£ -9m
Allowed leakage and capitalised salaries	£2m	£2m	£2m	£2m	£5m
Total Disallowed Opex	**£ -14m**	**£ -27m**	**£ -25m**	**£ -24m**	**£-76m**
NI Water Opex LESS Disallowed opex	**£213m**	**£195m**	**183m**	**£175m**	**552m**
Additional Efficiencies (above NI Water)	£ -1m	£-5m	£ -7m	£ -9m	£ -21m
Utility Regulator Allowed Opex	**£212m**	**£190m**	**£176m**	**£166m**	**£531m**

Note: Figures may not add due to rounding

The table illustrates that the majority of the difference is represented by expenditure which the Utility Regulator does not deem to be required. On a 'cumulative efficiencies' basis, we apply £21m higher efficiencies to NI Water across PC10 (2007/08 based). We have adopted cumulative efficiencies in our analysis, as this is the more appropriate basis of comparison between NI Water's claimed operating expenditure and our final allowance under this determination

Chapter 5 – Long Term Stewardship

The water industry is vital to society and the environment and to today's and tomorrow's generations; it is therefore crucial that we, the Utility Regulator, the key stakeholders and the NI Executive take collective responsibility for the long term stewardship of this industry.

There are a number of areas which we intend to focus on during this three year price control to position the industry on a more strategic and longer term footing for PC13.

5.1 Improving data and asset intelligence

The licence under which NI Water operates sets out an expectation for five yearly price controls to be carried out. However, due to the limitations of NI Water's data and systems together with the curtailed timeframe within which to conduct the price control, the principal stakeholders agreed to carry out a three year price control. In this three year period it is imperative that NI Water improves its key data reliability and accuracy.

We have identified some concerns about the integrity of the data supplied by NI Water in their PC10 Business Plan. In some areas the uncertainties about data integrity have been such that we have been unable to use the data with confidence.

We therefore need to ensure that data integrity is improved over the PC10 period to remove much of the uncertainty in the data, and ensure that we, and NI Water, can direct investment to those areas where maximum cost benefit can be demonstrated and hence the largest improvements delivered.

The review includes a significant investment for 'Management and General', much of which is based around improvement of data quality and management. For this reason we will consider appropriate outputs for new systems and asset data improvements for inclusion in the final determination.

We are also working with the company and reviewing their 'Data Quality Improvement Programme' in the context of undertakings which the company is bound to delivery to improve the consistency and reliability of data.

5.2 Value and sustainability

The water industry is in a period of rapid change in Northern Ireland and PC10 has necessarily been focused on measures to enable NI Water to make significant progress in catching up with other UK water and sewerage companies in performance and efficiency.

PC13, currently planned to be a five year price control, will seek further improvements in performance and efficiency but we also expect it to be framed in a long term context to ensure that NI Water is in a strong position to meet future challenges while also delivering value to consumers and the environment.

We will therefore require NI Water to prepare a 25 year strategic direction statement in advance of PC13 to inform stakeholders and the price control. This statement will set out NI Water's expected challenges, needs and broad investment requirements over the next 25 years, together with its proposals for mitigating the impacts of investment on costs of delivering services. The statement will address the expected impact of climate change on NI Water's operation, the need to reduce carbon emissions, and anticipated changes in legislation, as well as future maintenance needs. It will also address innovation and the beneficial impacts that this will have on service to consumers, the environment and prices.

We would expect the implications of issues such as:-

- The Water Framework Directive;
- Climate Change;
- Carbon Commitments; and
- Water efficiency

to be comprehensively addressed in the strategic direction statement.

5.3 PC13 indicative programme

While we have yet to develop our programme for PC13, the following provides an indicative outline of the timeline:

January to June 2010
- Utility Regulator consult with Principal Stakeholders on strategic approach and timeline
- Utility Regulator consult on overall approach to PC13

July to December 2010
- Utility Regulator consult NI Water on information requirements
- NI Water publish Strategic Direction Statement

January to June 2011
- Utility Regulator issue Information Requirements

July to December 2011

- NI Water draft Business Plan submission

January to June 2012

- NI Water final Business Plan submitted
- Utility Regulator draft determination published

July to December 2012

- Utility Regulator final determination published

We have yet to consult with the principal stakeholders on this time line. It does not therefore include CCNI research into consumers' views, nor Ministerial Social and Environmental Guidance consultation.

Annex 1- PC10 and Implications of Charging Decisions

Context

In this Annex we provide an overview of the decisions and current position regarding domestic charging and how we have accommodated them in this PC10 Price Control.

The reform of the water and sewerage industry in Northern Ireland was developed and implemented by direct rule ministers. The reform involved the setting up of NI Water as a government owned company in April 2007 together with other governance changes including the introduction of economic regulation. The associated legislation and licence provided for the phasing in of domestic charges from April 2007, with 33%, 67% and 100% phasing for each of the three years to 2010.

Following the re-establishment of the NI Executive in May 2007, a comprehensive review of the water and sewerage reform process was prompted by the Minister for Regional Development. An Independent Water Review Panel (IWRP) was set up to advise and report to the Minister in two strands.

- Strand One (October 2007) – Costs and Funding
- Strand Two (January 2008) – Management, Governance and Delivery

Pending the outcome of these reports, the Minister supported by the NI Executive postponed the introduction of domestic charging in 2007/2008. Following the Strand One report, the Minister made an announcement on the 22nd October 2007, supported by the Executive stating that:-

- From 2008/09 there should be full recognition that some £109m collected from the rates contributes to the funding of water and sewerage services, equating to around £160 contribution per average household.
- Domestic households should pay 100% of the levied charge for water and sewerage services in 2011/12, paying two thirds in 2010/11, with an allowance of £160 in acknowledgement of household contributions through their rates bills.
- For all non-domestic customers, the introduction of 50% of the sewerage charge in 2008/09 with 100% in 2009/10.
- A decision on the issue of a single bill to consumers, with rates and water and sewerage charges separately identified, was deferred until the outcome of the second review and further analysis by DRD and DFP.

No decision to date has been made regarding the issue of a single bill and consequently no domestic charges were issued for 2009/2010. In recognition of this, a domestic sewerage allowance has been introduced for non-domestic measured customers for 2009/2010, alongside the 100% sewerage charge.

The NI Executive has yet to consult on and make decisions on the recommendations from the IWRP reports. Domestic charges for water and sewerage services have not therefore been introduced. This has significant implications as the shortfall in raising revenue from charges must be met by government subsidy post-2010, when it had been perceived that there would be 100% domestic charging.

The Minister for Regional Development has proposed postponing the introduction of domestic billing for another three years. This was the assumption made by NI Water in submitting their PC10 Business Plan and the basis upon which we have made our draft determination.

Implications of charging decisions

The decision not to introduce domestic charges and thereby establish NI Water as a fully revenue generating entity has implications for both the existing legislation, and the company's classification as a GoCo. In the latter context it also raises the question of how funding requirements, as determined by the Price Control process, rest within wider public expenditure.

We firmly believe that the price control process provides the best mechanism for protecting the consumer, both in terms of reducing costs and enhancing levels of service. We believe this to be the case regardless of the source of revenue, be it from charges or from government as a subsidy.

Reclassification of NI Water as a Non-Departmental Public Body

A dilemma arises from any reclassification of NI Water from a government owned company into a non-departmental public body. Such reclassification would bring it within the remit of public expenditure, which is monitored and managed by the Department of Finance and Personnel. This in turn would require resolution between:-

- The price control process determining required funding guided by the Ministerial Social and Environmental Guidance endorsed by the NI Executive and;
- Funding decisions made within the wider context of public expenditure as directed by the NI Executive.

Therefore if the company is to be reclassified, either in the short or longer term, we believe that the focus should be on aligning the price control and public expenditure processes to ensure delivery of best value for today's and tomorrow's consumer.

We believe there is a way to accomodate this – already built into the process is the endorsement by the NI Executive of the Social and Environmental Guidance. This guidance not only sets out the investment priorities but also indicates the available funding over the price control period. The company, in preparing its PC10 business plan, prioritised investment to live within the required funding. Our draft determination again shows a further saving on this figure, which until the final determination should not be assumed as fixed.

In this climate of significant economic uncertainty with increasing pressure on public expenditure, we have held back in the draft determination from adding to outputs to reflect the funding available as indicated in the Social and Environmental Guidance. Having done so, it would be with reluctance that we would counsel further reduction of the allowed funding. However, should the NI Executive be unable to make the level of public expenditure determined available, delivery of the priorities and outputs as included in the draft determination would have to be delayed or reduced in scope.

Economic regulation NI water

NI Water is a monopoly business as it provides water and sewerage services to all of Northern Ireland and consumers have no alternative supplier of this service. The purpose of regulation is to ensure that such monopoly businesses act in the consumer interest. As the economic regulator, we take steps to encourage the supplier to provide reduced costs while maintaining or improving the level of service.

Regulatory framework

Similar to the other water and sewerage regulators in the UK, we have adopted the price cap model of regulation (RPI – X). This regulatory model sets the maximum revenue and hence prices that NI Water can charge for their services over the period of the price control.

For monopolies in the private sector, the RPI-X model provides an incentive to the company to improve its efficiency. This is because it has to drive down costs in order to improve returns to the shareholder. This has a beneficial pass through effect for consumers in the medium to long term, as the more efficient reported costs become the baseline for costs for the next price control.

In 'not-for-profit' private sector companies the extra returns available from out-performing the regulatory contract may be available to customers more quickly. In these organisations consideration is generally given to the following options for deploying any extra return:-

- Improving the financial strength of the company for example by building reserves.
- Investing to improve the levels of service to customers.
- Investing to facilitate future improvements in efficiency.
- Reducing charges to customers.

The incentive to outperform the regulatory contract is not as strong in the public sector and we must therefore look to further develop incentives to drive additional efficiencies alongside improvements in levels of service.

Developing incentive – based regulation for NI Water

In considering how best to incentivise NI Water to outperform the regulatory contract, the following factors need to be taken account of:-

- **The objective of the Government as the owner: -** NI Water, operating as a government-owned company is required to pay DRD a dividend as the shareholder. The SBP stated the level of dividend expected in each year, and DRD budgets for delivering its other functions were based upon the payment of the stated level of dividend.

- **Incentive to out-perform: -** a reduced incentive to out-perform the regulatory contract because there is no threat of takeover.

- **Sensitivity concerning management bonuses: -** public sector businesses are relatively rare. It is difficult to reconcile the pressures of a public sector pay policy with the need to create a real incentive for out-performance. This is even more stark in the current economic climate.

- **Government funding: -** in the private sector the providers of finance require a return on any capital provided. The public sector may not be as rigorous in its allocation of capital funding and as a result the regulated company may not face a truly hard budgetary constraint.

- **Fixed and ring-fenced budgetary contract: -** Given the need to align funding requirements alongside the wider public expenditure rounds, there is a concern that NI Water's required funding for the price control period may not be ring-fenced. This potentially renders the funding level fluid to uncontrolled increases and decreases in funding over the price control period. This removes the tight regulatory contract which is defined by the price control determination. This is crucial to holding the company accountable for delivering, if not out-performing outputs, levels of service and efficiency targets.

- **Consequence of failure to meet the regulatory contract: -** In the private sector the level of dividend paid to the shareholders and the level of bonuses paid to managers would be reduced. In the current environment it is difficult for DRD to accept a lower level of dividend, as this will have repercussions for other public services it is required to oversee. However, NI Water is bound by legislation to only pay a level of dividend that will not impair their ability to finance their functions.

Protecting the consumer and sustaining a tight regulatory contract

We have reviewed the approaches taken by other public sector and 'not for profit' monopolies. Glas Cymru a 'not for profit' monopoly (which owns Welsh Water), and Scottish Water and Network Rail (public sector organisations), have directed out-performance to 'ring fenced reserves'. In the case of Scottish Water, cash reserves were invested in government securities or 'gilts'. For Network Rail a financial buffer was introduced within the Office of Rail Regulation's 2008 periodic review, which protected against unanticipated cost or revenue shocks[1].

In the case of Glas Cymru, it provided a customer dividend to its customers which reduced the customer bill in real terms by £21 in 2008-09[2]. In Scotland, WICS suggested a regime whereby Scottish Water would be allowed to retain the benefits of any out-performance for a regulatory period, before it was to be returned to customers through lower charges[3]. In this way the consumer is both protected from operational shocks and subsequently could benefit from reduced bills.

In considering NI Water's particular circumstance, we consider it important to both protect the consumer against financial shocks and to secure the company's financial sustainability. We therefore provide for a modest reserve to be built up over the PC10 period, allowing it to be further enhanced over the period through any out-performance by the company.

Dividends

Within our PC10 business plan information requirements, we asked NI Water to indicate any dividend they would expect to pay over the PC10 period

The actual level of dividend that NI Water pays in any one year is a matter for NI Water, as stated in Condition F 6.12 of the Licence:

- the dividends declared or paid will not impair the ability of the Appointee to finance the Appointed Business: and
- under a system of incentive regulation, dividends would be expected to reward efficiency and the management of economic risk.

As such we have not stated a fixed dividend sum.

Proposed incentives

To incentivise NI Water, we propose that managers' interests should be aligned as closely as possible to the interest of consumers, and that any payment of bonuses should be directly linked to financial and service out-performance of the regulatory contract.

1 Office of Rail Regulation (October 2008) Periodic Review 2008 – Determination of Network Rails outputs and funding for 2009-14
2 Glas Cyrmu Report and Accounts 2009
3 WICS SR 10-14 Staff paper 2 – Governance and Incentives

UTILITY REGULATOR WATER

We seek support from the shareholder, DFP and the NI Executive, together with engagement and transparency in the operation of any management incentive scheme. We further propose that the incentive arrangement reflects those successfully operated across other similar regulated utilities, with:-

- The generation of restricted financial reserves being considered, and access to such reserves subject to approval from both the Department and the Utility Regulator.
- Improved service to consumers and the environment being informed by our annual assessment of the company's Overall Performance Assessment, as well as performance against individual measures.

An important distinction between NI Water and Glas Cymru, Network Rail and Scottish Water is that NI Water pays a dividend to the Government as shareholder.

Important factors

There are a number of important factors which must exist if benefits for customers under a RPI-X regulatory framework are to be maximised, namely that :-

- **A tight regulatory contract is agreed: -** funding as determined in the final PC10 determination needs to be ring fenced for NI Water. Price cap regulation will not be effective if the company is not made accountable for delivering funded outputs within, or below, revenue made available to it over the period.
- **Objectives and outputs must be clearly defined: -** The contract must be transparent and achievable and monitored rigorously. Out-performance of the regulatory contract can be used to bolster financial reserves (thus protecting the consumer from operational risks), used to reduce charges, or used to improve levels of service.
- **Interests of management should be aligned with those of consumers: -** Management incentives should be transparently linked to financial out-performance of the contract and an improving overall service performance.
- **The company must have the freedom and flexibility to manage delivery of the contract: -** There needs to be full flexibility in the timing of borrowing over the period. Any significant surplus or drawdown in any one year should not be interpreted as meaning that either resources will not be needed, or that the company is performing poorly.
- **Regulatory accounts must be maintained**:- Regulators rely on being able to make like-for-like comparisons between companies (or over time) to form a view about the performance of a regulated company and ensure that customers receive value for money.
- **Transparent, accountable and clear governance must apply:** The roles of the statutory stakeholders must be clear and transparently applied in holding the company to account.

UTILITY REGULATOR WATER

Ministerial support for the Regulatory Framework

To be successful, the proposed framework requires the agreement and support of the DRD Minister and NI Executive together with acceptance by NI Water. It will be important to clarify and agree the incentive framework during the course of the draft determination consultation period. This will facilitate its inclusion in the final determination and subsequent monitoring plan.

We suggest that the process reflects the following principles:-

- **Clear and transparent governance: -** Roles between principal stakeholders need to be clear and we would seek to remove any duplication of role between the Department, DFP (given the reclassification of the company) and the economic regulator. Co-ordinating groups have been established, including an Output Review Group. This collaborative and transparent monitoring should continue to be supported.

- **Rigorous monitoring: -** NI Water continues to submit, and drive improvement in, its quarterly reporting to the regulator on both its capital investment and financial expenditure. Analysis by the Utility Regulator of NI Water's annual information returns, together with annual submissions of both statutory and regulatory accounts result in the publication of the annual Cost and Performance Report.

- **Fixed budgetary constraint: -** The DRD Minister and the NI Executive endorse the investment priorities as set out in the Social and Environmental Guidance. They also sanction and ring fence funding for NI Water to inform the PC10 final determination and hence the regulatory contract in terms of both money and required outputs.

- **Incentive based regulation delivering for the consumer: -** That the company is facilitated to build modest reserves which will assist all parties to secure its financial sustainability, protect consumers from shocks and incentivise the company to outperform the regulatory contract. In this regard, we would draw up a policy in conjunction with the Department for the utilisation of such funds, which would only be accessible by the company following formal approval by both the Department and the Utility Regulator.

- **Management and consumer interest are aligned: -** Management bonuses should only be paid if the company out-performs its regulatory contract. Such bonuses should only be funded from out-performance and transparently linked to regulatory confirmation of the Overall Performance Assessment score and delivery of efficiency targets.

Appendix 2 - Abbreviations

AIR	Annual Information Return
BIP	Business Improvement Programme
BP	Business Plan
CAPEX	Capital Expenditure
CCD	Current Cost Depreciation
CCNI	Consumer Council for Northern Ireland
COPI	Construction Output Price Index
DD	Draft Determination
DFP	Department of Finance and Personnel
DGs	Performance Indicators (originally set by OFWAT Director General)
DRD	Department for Regional Development
DWI	Drinking Water Inspectorate
E&W	England and Wales
ELL	Economic Level of Leakage
FD	Final Determination
GB	Great Britain
GoCo	Government owned company
IRC	Infrastructure Renewals Charge
IRE	Infrastructure Renewals Expenditure
IWRP	Independent Water Review Panel
K Factor	The adjustment to charge caps excluding RPI
KPI	Key Performance Indicators
M and G	Management and General
MEAV	Modern Equivalent Asset Value
MNI	Maintenance Non-Infrastructure
NDPB	Non Departmental Public Body

NIAUR	Northern Ireland Authority for Utility Regulation 'Utility Regulator'
NIEA	Northern Ireland Environment Agency
NI Water	Northern Ireland Water
OFWAT	Office of Water Regulation (England and Wales)
OPA	Overall Performance Assessment
OPEX	Operating Expenditure
ORG	Output Review Group
PC10	Price Control 2010 – 2013
PC13	Price Control 2013 – 2018
PPP	Public Private Partnership
Price Control	The process by which limits on charges are determined
RCV	Regulatory Capital Value
RD	Roads Drainage
RPA	Regional Price Adjustment
RPI	Retail Price Index
RPI-X	A form of price control where charges are linked to RPI
SBP	The Strategic Business Plan (2007-2010)
STW	Sewage Treatment Works
VER	Voluntary Early Retirement
VS	Voluntary Severance
WACC	Weighted Average Cost of Capital
WACI	Weighted Average Charge Increase
WICS	Water Industry Commission for Scotland
WTW	Water Treatment Works
WwTW	Wastewater Treatment Works

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