

PC13 Monitoring Plan, 2013 - 2015

March 2013



THE MONITORING PLAN FOR 2013-2015

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Foreword

When we published the PC10 Monitoring Plan, our focus was firmly on the core business – the delivery of the highest quality water and wastewater services to our customers in the most cost efficient manner possible. Despite a challenging business and operating environment over the PC10 period, we did deliver the best ever water quality and wastewater compliance levels and at the same time reduced our operating cost base.

This Monitoring Plan builds on that success in a measured way and outlines the key commitments NI Water is making to its customers, shareholder and stakeholders for the 2-year PC13 period. Similar to PC10, our focus will continue to be on delivering water and wastewater services in a sustainable way including investment in the local economy and supply chain. As always improving the customer experience is at the core of our daily work, starting from the first point of contact with our staff in NI Water.

Theron Chasel.

Trevor Haslett
Chief Executive

March 2013

1 Our overall strategy for the period 2013-15

1.1 Introduction

- 1.1.1 NI Water delivers water and sewerage services across the whole of Northern Ireland. These vital services support the health, environment and local economy of the areas we serve¹.
 - Every day we deliver 584 million litres of clean, safe drinking water to approximately 753,400 households and businesses.
 - We do this by maintaining approximately 26,500 km of water mains.
 - The quality of water we deliver to our customers remains at historically high levels.
 - We collect approximately 320 million litres of wastewater per day from approximately 613,500 customers connected to the sewerage system, and transport it through over 15,000 km of sewers to 1,042 works where it is treated and disposed of safely.
 - Our wastewater compliance remains the highest ever experienced in Northern Ireland, after six years of continual improvement.
- 1.1.2 Our business is regulated by the Northern Ireland Authority for Utility Regulation (the Utility Regulator). We were required to produce a Business Plan to enable the Utility Regulator to establish the funding and performance targets for the organisation for the PC13 price control, the two year period from 1 April 2013 to 31 March 2015.
- 1.1.3 The Utility Regulator has reviewed our PC13 Business Plan and has made a Final Determination on the maximum tariffs NI Water is permitted to levy on customers and the investment programme and outputs which NI Water must deliver in the PC13 period.

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¹ The figures quoted in paragraph 1.1.1 are drawn from the NI Water Annual Report & Accounts for year ended 31 March 2012.

- 1.1.4 The purpose of this Monitoring Plan is to outline to customers and stakeholders the key commitments NI Water is making to its customers for the PC13 period.
- 1.1.5 The PC13 period is designed to build on the developments and success of our PC10 Business Plan and maintain and enhance services to customers. During the PC13 period we will:
 - Invest to maintain the current high levels of water quality and improve wastewater compliance;
 - Invest to reduce the number of interruptions in supply to customers;
 - Reduce the number of properties at risk of 'out of sewer' flooding; and
 - Further reduce leakage from our network.
- 1.1.6 The Monitoring Plan outputs are those as presented in the Final Determination. Any amendments to the programme will be managed through due regulatory process as agreed by key statutory stakeholders.

1.2 Summary of Key Benefits

- 1.2.1 Through the PC13 period, NI Water will continue to improve both its service to customers and the efficiency of the business. We will also continue to invest in the modernisation and upgrade of our infrastructure to maintain and, where possible, improve the highest levels of water quality and sewerage compliance ever achieved across Northern Ireland.
- 1.2.2 The Utility Regulator has prescribed two tables² (Tables 1 and 2 at the end of this document) to set out the key targets which we will be striving to achieve in PC13.
- 1.2.3 Progress in the delivery of our PC13 commitments will be monitored by stakeholders³ through quarterly Outputs Monitoring Submissions and an Annual Information Return (AIR).

PC13 Monitoring Plan Information Requirements, January 2013, The Utility Regulator
 Consumer Council for Northern Ireland; Drinking Water Inspectorate; Northern Ireland
 Environment Agency; Department for Regional Development; and the Utility Regulator.

1.2.4 The key benefits which will be delivered in the PC13 period are summarised below.

Table 1.1: Summary of Benefits for Our Customers

Maintain our assets	We will continue to invest in our existing assets to maintain levels of service to existing customers.
Maintain and enhance service to customers	 3 trunk mains will be laid to improve security of supply. Investment in the water distribution network will reduce interruptions to supply and reduce the number of properties supplied at low pressure by 288. Investment in the sewerage network will address the risk of internal flooding at 67 domestic properties. Completion of base maintenance at Impounding Reservoirs as identified in the current Reservoir Panel Engineers' Report
Growth and supply demand balance	 We will continue to connect new properties to the water and sewerage networks. We will invest in sewage treatment works to address development constraints due to lack of capacity.
Improve water quality compliance	 Continued investment in water distribution mains, to improve the water quality at the tap, as part of a programme to rehabilitate a further 445 km of mains. In addition, we will lay mains to support public realm, First Time Services and road realignment. We will upgrade 2 water treatment works to secure the quality of drinking water.
Improve environmental compliance	 We will complete 38 wastewater treatment schemes to improve the quality of treated sewage discharged back to the environment. 84 Unsatisfactory Intermittent Discharges (UIDs) will be upgraded to meet quality standards.
Improve sustainability	 We will further reduce the level of leakage and complete a sustainable economic level of leakage assessment to inform leakage targets for PC15. We will increase the proportion of energy derived from renewable sources and implement further energy efficiency measures. The sustainable water catchment management approach we have developed with stakeholders will be extended. We will prepare a drought plan to assess how we will respond if drought conditions exceed those already planned for. We will continue to improve our water supply area investigations and drainage area plans. Feasibility and development work will be undertaken to ensure the continuity of output delivery into PC15.

1.3 The Evolution of our Strategy for the Delivery of Services

1.3.1 As in the PC10 period, our PC13 Business Plan is based on the principle of prioritising our customers. We have achieved this by working closely with stakeholders and taking account of customer views as expressed in surveys undertaken by the Consumer Council for Northern Ireland (CCNI)⁴ and the Social & Environmental Guidance for Water & Sewerage Services (S&EG)⁵ issued by the Department for Regional Development (DRD).



Figure 1: The foundations for PC13

1.3.2 It was agreed by stakeholders that, due to the short two year duration of PC13, the views expressed by customers in 'Tapping into Consumer Views on Water' and the 'S&EG' should be adopted as the foundation upon which to base the PC13 Business Plan.

Guidance for Water &

1.3.3 The relationships with our stakeholders are critical to our business planning and we engaged with them throughout the preparation of the PC13 Business Plan.

⁴ Tapping into Consumer Views, CCNI, March 2009.

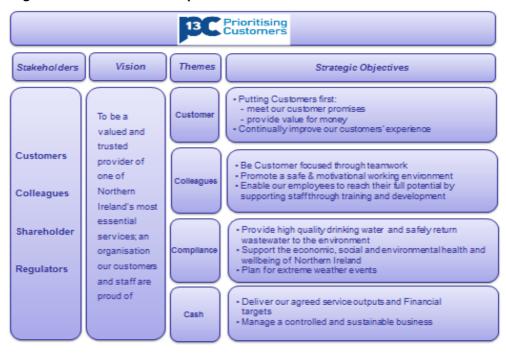
⁵ Social & Environmental Guidance for Water & Sewerage Services 2010-13, DRD, May 2010.

Customers Northern Ireland Assembly The Minister for Regional Development Department for Regional Development (DRD) Drinking Water Inspectorate Utility for Northern Regulator (UR) Ireland (DWI) northern ireland Consumer Council Northern Northern Ireland Ireland Environment Agency (NIEA) (CCNI) Customers

Figure 2: Water industry Stakeholders in Northern Ireland

1.3.4 Given the agreement that the customer views expressed for PC10 and the PC10 S&EG were to be adopted for PC13, NI Water revised the corporate strategic objectives for PC13 (see Figure 3 below).

Figure 3: The PC13 'Roadmap'



- 1.3.5 Our Business Plan is based on prioritising our customers and having a clear vision of the way ahead for NI Water.
- 1.3.6 The objectives of our PC13 "road map" are broadly similar to our PC10 corporate strategic objectives, as we continue to improve the services we provide and the efficiency with which we provide them.

1.4 Our Outputs and Improvements Visible to Customers

1.4.1 Prioritising customers remains at the heart of our corporate objectives and in the following sections we give some further detail of the improvements which will be seen by customers during the PC13 period. In summary, our Business Plan for PC13 has been shaped by the customer views expressed in 'Tapping into Customer Views'. Our PC13 Business Plan addresses the top 5 customer issues as determined by the survey⁶.

Table 1.2: Customer priorities

Top 5 Customer Priorities	PC13 Business Plan
Out of sewer flooding inside properties	✓
Pollution from sewage discharges to inland waters	✓
Safety of tap water	✓
Pollution from sewage discharges to coastal waters	✓
Response time to enquiries or complaints	✓

⁶ Tapping into Consumer Views, CCNI, March 2009

1.5 Expenditure per Property

1.5.1 Table 1.3 illustrates expenditure per property for each year of PC10 and PC13, broken down by indicative operating expenditure, indicative capital expenditure and total expenditure. Further details of the outputs resulting from this investment during the PC13 period are in the following sections of the Monitoring Plan.

Table 1.3: Indicative Expenditure per Property

	PC10			PC13	
	2010/11	2010/11 2011/12 2012/13		2013/14	2014/15
	£/prop	£/prop	£/prop	£/prop	£/prop
Indicative Operating expenditure	247	217	214	206	196
Indicative Capital expenditure	213	244	201	202	180
Total indicative expenditure	459	461	415	408	376

1.5.2 We are pleased to be able to demonstrate to customers that operating expenditure per property is reducing while we continue to improve our service to customers.

2 Our commitments on Service to Customers

2.1 Introduction

- 2.1.1 NI Water undertakes a wide range of capital investment activities to maintain and improve the sustainability of the water and sewerage services it delivers to consumers both now and in the future. Details of a range of activities which are designed to deliver measurable improvements to the service we provide are set out below.
- 2.1.2 The following paragraphs refer to water industry standard (DG) measures. DGs denote a series of regulatory performance indicators (numbers and targets) used across the UK water industry.

2.2 Consumer Service – Water

DG2 - Properties at Risk of Low Pressure

- 2.2.1 The DG2 register is the list of properties which are at risk of receiving water pressure below the defined standard. Through investment to improve pressure and detailed investigation of data, a number of properties have been removed from the DG2 register in PC10.
- 2.2.2 Investment has been identified for PC13 which will continue this work with the aim of removing a further 288 properties from the DG2 register.

Table 2.1: Properties to be removed from the DG2 register

	2013/14	2014/15
DG2 Properties at risk of low pressure removed from the risk register by company action	118	170

DG3 - Supply Interruptions

2.2.3 Customers expect to receive a continuous supply of clean water. Our performance has been improving since the major freeze/thaw incident in the winter of 2010/2011 and we are committed to continuing this trend of improvement. We will continue to reduce our "greater than 6 hour" and "greater than 12 hour" annual targets to encourage further reductions in the number of properties experiencing supply interruptions. We will also continue to monitor our working practices and improve our distribution system through investment, such as our trunk mains programme.

Table 2.2: Supply interruptions

	2013/14	2014/15
DG3 Supply interruptions > 12hrs (unplanned and un-warned) (% properties affected)	0.19%	0.19%
DG3 Supply interruptions (overall performance score)	1.12	1.08

2.2.4 During PC13, we plan to deliver a reduction of 200 properties per year in those experiencing supply interruptions (unplanned and un-warned) of greater than 6 hours. And we plan to deliver an annual reduction of 50 properties per year in those experiencing un-planned and un-warned interruptions of greater than 12 hours.

DG6, DG7, DG8 and DG9 - Customer Contacts

2.2.5 We realise that contact with our customers plays a central role in both the actual level of service we provide to customers and the perception customers have of the quality of that service. As in other areas, we have made significant strides during PC10 in improving the level of service we provide to customers. For most, the initial point of contact with NI Water is by telephone, billing or written communication. For this reason, we have a continual focus on customer contacts, reflected in a series of DG performance indicators.

Table 2.3: Customer Service DG Targets

	2013/14	2014/15
DG6 - % billing contacts dealt with within 5 working days	99.90%	99.90%
DG7 - % written complaints dealt with within 10 working days	99.25%	99.50%
DG8 - % metered customers received bill based on a meter reading	98.50%	99.00%
Call handling satisfaction score (1-5)	4.70	4.75
DG9 - % Calls not abandoned	99.00%	99.00%
DG9 - % Calls not receiving the engaged tone	99.90%	99.90%

- 2.2.6 For all of these measures, we will either maintain or improve the quality of service offered to customers in PC13. This will be achieved by delivering a series of key projects in the Customer Service Transformation Programme such as Case Management & Workflow and Self-Service, which will help improve performance in dealing with written customer contacts.
- 2.2.7 The targets for PC13 build in a significant challenge to improve performance. The focus on meter maintenance and meter reading performance will continue, whilst, at the same time, technology improvements are explored.
- 2.2.8 The delivery of key projects in the Customer Service Transformation Programme, such as High Volume Call Answering (HVCA) and Self-Service, will provide a more efficient way of handling customer contacts, allowing continued focus on quality, customer service and performance against regulated targets during the PC13 period.

Leakage

- 2.2.9 Leakage continues to be an area of concern for customers and NI Water alike. Significant strides have been made in reducing the level of leakage since NI Water's formation in 2007 and we continue to reduce the volume of water lost from the system as well as improve the accuracy and robustness of our leakage calculations. We have recently acquired new best practice leakage software (Netbase), which will replace the existing system from 1 April 2013, to further enhance the accuracy of our data.
- 2.2.10 The PC13 targets are based on the new leakage management software method of measurement and again show ongoing improvement.

Table 2.4: Leakage

	2013/14	2014/15
Total Leakage MI/d	169	165

Security of Supply Index (SoSI)

2.2.11 SoSI is a measure of the resilience of the water network to maintain supply to customers. The maximum possible score for this measure is 100.

Table 2.5: Security of Supply

	2013/14	2014/15
Security of supply index	97	100

2.2.12 While we score highly against this measure, we are committed to further improvement. Our Water Resource Management Plan (WRMP), covering the period 2010-2035, has resulted in further investment in the PC13 period. As a result of this investment and leakage reduction, SoSI is predicted to be 97 for 2013/14 and to increase to the maximum of 100 for 2014/15.

2.3 Consumer Service – Sewerage

DG5 - Properties at Risk of Internal Flooding

2.3.1 One of the most unpleasant customer experiences is internal flooding of a property. The DG5 register holds the location of properties at risk of internal flooding and, during PC10 it has been continually developed and refined.

Table 2.6: DG5 Properties at Risk of Flooding

	2013/14	2014/15
DG5 - Properties at risk of flooding: number removed from risk registers by company action.	23	44

2.3.2 For PC13, NI Water will continue to invest to remove properties from the DG5 register and improve the accuracy of our data. The targets set for PC13 are based on identified capital works projects and during PC13 we will continue to work with the other drainage agencies to develop more holistic solutions where possible.

2.4 Overall Performance Assessment (OPA)

2.4.1 The Utility Regulator has adopted an OPA framework to monitor the level of service that NI Water provides to our customers. The OPA combines a "basket" of 11 individual service measures and scores them against a predefined performance range. Scores are then weighted in order of importance and combined to give an overall picture of service level performance.

2.4.2 The graph below shows NI Water's historical increase in OPA scores, highlighting the significant improvement in the level of service to customers since NI Water's formation in 2007.

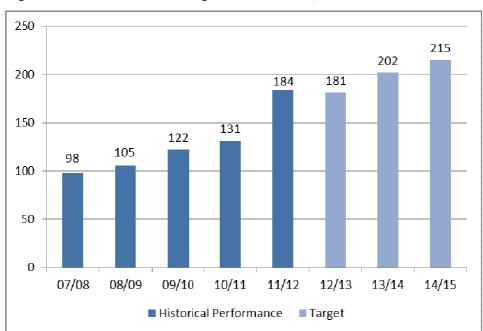


Figure 4: OPA Scores for Strategic Business Plan, PC10 and PC13

2.4.3 In line with the Utility Regulator's PC13 Final Determination, NI Water is targeting further improvements in OPA in each year of PC13:

Table 2.7: PC13 OPA Targets

	9	
	2013/14	2014/15
Target OPA Score	202	215

3 Our Commitments on Drinking Water Quality and Environmental Improvements

3.1 Maintaining and Improving Drinking Water Quality and Supply

3.1.1 Maintaining high water quality standards and security of supply are of primary importance to NI Water. These are vital to the health and welfare of the community and the economy of Northern Ireland. During the PC13 period, investment and other planned work are designed to maintain a stable level in the individual water compliance measures and improved security of supply.

Table 3.1: PC13 Water quality targets

	2013 ⁷	2014
Quality Water		
% mean zonal compliance with drinking water regulations	99.70%	99.70%
Operational Performance Index (turbidity, iron & manganese)	99.10%	99.10%

- 3.1.2 The drinking water quality targets for PC13 build on our performance in PC10 and reflect the impact of a number of changes to regulatory standards. For example, the regulatory limit for lead will reduce from 25ug/l to 10ug/l in December 2013. While our performance against the new standards may appear to dip, customers can be assured that the water delivered to their taps remains at the high standard of recent years.
- 3.1.3 A combination of targeted operational practices, capital works, water mains rehabilitation, disinfection policy implementation and catchment management, which have been included in the PC13 investment plans will assist in addressing the revised lead compliance measures being introduced in 2013. NI Water will develop a detailed action plan to demonstrate the actions the company is undertaking to improve lead compliance at the customer tap. The plan will include current and PC13 actions. These actions will assist in maintaining the quality of water at customers' taps and the security of supply to customers. For example:

15

⁷ Targets in sections 3.1 to 3.3 are measured on a calendar year basis.

- 3.1.4 Water mains NI Water has successfully undertaken a water mains rehabilitation programme during PC10 and will continue to drive improvements in its water distribution network through PC13. This will involve upgrading and improving 445km of mains. NI Water is also developing a revised prioritisation methodology which will include 'pre and post' project assessments of water quality criteria.
- 3.1.5 **Trunk mains** In addition to the distribution mains system, 3 trunk mains will be delivered in PC13 as follows:
 - Ballydougan to Newry;
 - Castor Bay to Belfast; and
 - Gravity II McVeigh's Well (north Belfast).
- 3.1.6 Water Treatment Works Upgrades to 2 water treatment works (WTW):
 - Killyhevlin WTW; and
 - Killylane WTW.
- 3.1.7 **Service Reservoirs** 1 new service reservoir will be delivered at Crieve.

3.1.8 **Drinking Water Safety Plans**

NI Water continues to maintain and develop Drinking Water Safety Plans (DWSP) in conjunction with DWI and these inform the development of work on our water assets including the Watermains Rehabilitation Programme. Robust risk assessments are an integral part of developing DWSP to manage contamination risk in the distribution system.

NI Water is developing a revised approach to prioritisation of mains rehabilitation work and is also developing a pro-active lead replacement programme to influence achieving the revised lead standard. These will evolve through PC13 for full use in PC15.

3.2 Maintaining and Improving the Environment

- 3.2.1 NI Water undertakes a wide range of capital investment activities to maintain and improve the quality of the wastewater services it delivers to consumers both now and in the future. Set out below are the details of a range of activities which are designed to deliver measurable improvements to the service we provide.
- 3.2.2 It is the function of wastewater treatment works (WwTW) to treat domestic sewage and trade effluent and safely return it to the environment. NI Water has performed well in this area during the PC10 period and, through operational activity and significant capital investment at a number of WwTW, has improved its compliance position. This approach will be continued into PC13 and the targets set out below show year-on-year improvement during the period, as capital investment projects are delivered. In the PC13 period, 38 WwTW will be improved to comply with new and existing consents.

Table 3.2: Wastewater Treatment Works Compliance

	2013	2014
% of WWTW discharges compliant with numeric consents	88.6%	91.0%
% of total p.e. served by WWTW compliant with numeric consents	97.2%	97.8%

3.2.3 In addition, during PC10, investment was targeted at small WwTW. We will continue this successful approach in PC13, which is consistent with the investment priority 1A of the S&EG, to provide appropriate treatment at small WwTW. A further 25 small WwTW will be delivered as part of the rural wastewater investment programme.

Pollution Incidents Attributable to NI Water

3.3.1 We know from engagement with our customers that pollution incidents are a major concern. During PC13 we will continue our efforts to reduce such incidents of pollution attributable to NI Water. Continued investment in WwTW, delivery of base maintenance investment, improvements in telemetry and management responses to incidents in the PC13 period, are all intended to enable us to achieve the target of continued improvement in this area.

Table 3.3: High and Medium Pollution Incidents

	2013	2014
Number of high and medium pollution incidents attributable to NI Water	46	44

Sewerage Activity

3.4.1 NI Water will build upon its performance in PC10 and will continue to deliver improvements to the sewerage network as outlined in Table 3.4 below. This activity will deliver customer benefits in reducing the number of properties on the DG5 register and also contribute to the planned maintenance of the sewer network.

Table 3.4: PC13 Sewerage Activity

	2013/14	2014/15
Sewerage activity - Length of sewers replaced or	9	14
renovated (km)		

Improvements to nominated UIDs

3.4.2 During the PC10 period NI Water developed a sound delivery mechanism for addressing unsatisfactory intermittent discharges which resulted in the outperformance of revised targets. We will continue this successful delivery approach into PC13 and will improve a further 84 UIDs.

Table 3.5: UIDs

	2013/14	2014/15
Delivery of improvements to nominated UIDs as part of a defined programme of work	12	72

3.4.3 Prescribed tables 1 & 2 at the end of this document provide a more complete range of targets and outputs which we will endeavor to deliver during the two years of PC13.

4 Our Commitments on Delivering Sustainable Services

4.1 Introduction

- 4.1.1 It is increasingly important that services are sustainable both now and in the future. This section sets out the actions that NI Water will take in the PC13 period to improve the sustainability of our services to customers and reduce our overall impact on the environment.
- 4.1.2 In carrying out our business, we contribute to and rely upon the quality of the natural environment. We will continue to strive to protect it by working in an environmentally responsible manner, demonstrating high standards of environmental care and operational performance.

4.2 Environmental Governance

4.2.1 NI Water's overall approach is set out in an 'Environmental Policy Statement', which outlines the environmental objectives to which we are committed as part of our wider commitment to sustainability. NI Water will continue to operate an Environmental Management System (EMS) to ISO 14001 standard, integrated with our business activities. Our EMS endeavours to prevent environmental pollution and ensures that environmental awareness is part of our corporate culture.

4.3 Towards Sustainability

Land Management

4.3.1 As a major land owner in Northern Ireland, the organisation will continue to develop productive partnerships with our key stakeholders to encourage a greater understanding of and to promote environmental issues. We are also committed to managing our landholdings and natural resources in a sustainable manner to protect and enhance water quality, encourage biodiversity and to permit public access where appropriate. To this end, we will continue to promote our 'Recreational Use and Access Policy'.

Sustainable Catchment Area Management Planning (SCAMP)

4.3.2 NI Water has developed a pilot SCAMP project in PC10. During PC13 the Drinking Water Catchment Areas will be risk assessed and prioritised for PC13. The funding available for the PC13 period will allow NI Water to target the top two drinking water catchment areas for detailed studies and recommendations to improve raw water quality / consistency. In addition NI Water will continue to address issues which potentially affect all drinking water catchment areas such as pesticide awareness and woodland creation across Northern Ireland in the period on a prioritised basis and develop a SCAMP strategy for PC15.

Capital Investment

- 4.3.3 Our capital investment programme will work towards full compliance with all relevant environmental legislation, regulatory obligations and standards, with environmental issues being taken into account at an early stage in the planning of new capital projects and the delivery of maintenance programmes.
- 4.3.4 We will also seek to use environmentally responsible suppliers of goods and services, working with them to secure delivery of our environmental objectives through the supply chain.

Water Investment Planning Process (WIPP)

4.3.5 NI Water maintains a Water Resources Management Plan (WRMP) to indicate how water resources will be developed and managed to enable the organisation to meet its obligations and consider the potential impacts of climate change. NI Water is further developing its investment planning processes for PC13 and PC15 through the development and implementation of the Water Investment Planning Process (WIPP), to set out a holistic, clear and consistent process for how NI

Water will develop the scope of all capital investment projects for water catchments, water supply and water distribution assets ('source to tap').

4.3.6 A key part of this is NI Water's proposed integral approach to WRMP and Drought Plans, for which we have asked DRD to provide detailed guidance, in consultation with NIEA, by the end of 2013.

Wastewater Investment Planning Process (WwIPP)

- 4.3.7 We are further developing our investment planning processes, for PC13 and PC15 through the development and implementation of the Wastewater Investment Planning Process (WwIPP). This will set out a holistic, clear, and consistent process for how NI Water will develop the scope of all capital investment projects for wastewater ('sink to sea').
- 4.3.8 This will include development and phased implementation of strategies and plans for:
 - The utilisation of Simulated Catchment Modelling (SIMCAT) to determine the optimum catchment-based solutions;
 - The introduction of a Storm Water Separation and Infiltration Reduction Strategy;
 - The development of "shared solutions", where the cost of projects is shared with the Department of Agriculture and Rural Development (DARD) Rivers Agency;
 - A revised sludge and odour strategy;
 - A revised scope for Drainage Area Plans and Studies; and
 - Progressing a sustainable wastewater treatment trial with the NIEA during the PC13 period.

Climate Change

4.3.9 The dual challenge of climate change is the need to adapt to the potential impacts (adaptation) whilst also needing to reduce greenhouse gas emissions (mitigation).
A climate change forum, which is open to representatives from the DRD and the

Utility Regulator, has been established within NI Water to coordinate the climate change policy and related work to be carried out across the organisation.

- 4.3.10 We are also committed to continuing to be an active member of the Climate NI Steering Group and the NI Climate Change Impacts Partnership to ensure that local knowledge and best practice are shared across public and private sector organisations for mutual benefit.
- 4.3.11 In developing our Business Plan for PC15, we will seek appropriate funding to implement the Climate Change Adaptation and Climate Change Mitigation strategies. This will involve significant consultation with DRD and the Department of the Environment (DOE), as DOE is coordinating the development of the NI Adaptation Plan. The cost of NI Water's continued mandatory participation with the UK Carbon Reduction Commitment (CRC) Energy Efficiency Scheme has been factored into future schemes.
- 4.3.12 Our PC15 Business Plan will also identify the possible range of impacts of climate change against our responsibilities and seek appropriate funding for the price control period. This will involve significant consultation with NIEA as NIEA fulfils a key role through assessing the potential impacts of climate change on the natural environment.

Mitigation Strategy

NI Water has also developed a four-point Climate Change Mitigation Strategy to:

- Align organisational structure and corporate strategies;
- Use less electricity;
- Use more renewable electricity; and
- Reduce other greenhouse gas emissions.

Work towards achieving these aims is already underway.

4.4 Long Term Water Strategy for Northern Ireland

- 4.4.1 DRD is developing a Long Term Water Strategy (LTWS) for Northern Ireland. NI Water is supportive of this approach and is actively participating in the development of the strategy. Some objectives contained within the strategy are to:
 - Deliver safe, secure supplies of drinking water;
 - Promote sustainability;
 - Assist in the delivery of the requirements of the Water Framework Directive (WFD) in a cost efficient way;
 - Assist with the balance between protecting the environment and cost;
 - Allocate responsibility to the organisations best able to manage the risk; and
 - Help to inform the S&EG for future NI Water price controls.
- 4.4.2 NI Water believes that this will assist in the identification of any policy gaps and conflicts which may exist between the policies and strategies of our stakeholders, and the extent to which these affect the sustainability of NI Water's activities.
- 4.4.3 In the PC13 period NI Water will develop detailed strategies and plans to implement those elements of the LTWS that relate to our duties and responsibilities, and can be processed through resources identified through the PC15 process.
- 4.4.4 In addition, we intend to develop a number of detailed systems and processes to support these high level actions, including development and implementation of:
 - A long term asset strategy;
 - A capital investment appraisal system;
 - Climate change adaptation and mitigation strategies and action plans;
 - A lead strategy / lead management plan;
 - A Mourne and Silent Valley strategy;
 - Storm separation and infiltration reduction policy and strategy;
 - SIMCAT modelling use strategy (river catchment modelling tool);
 - Sustainable Urban Drainage Systems (SuDS) implementation strategy;
 - · Revised Bathing Waters Directive compliance strategy; and
 - Shellfish waters compliance strategy.

Glossary

Glossary	
AIR	Annual Information Return
CCNI	Consumer Council for Northern Ireland
CRC	UK Carbon Reduction Commitment
DARD	Department of Agriculture and Rural Development
DG measures	Director General measures – regulatory key performance indicators
DG2	Reference to the number of properties at risk of receiving low pressure
DG3	Reference to the number of properties affected by unplanned and unwarned interruptions to water supply
DG5	Reference to the number of properties at risk of internal flooding
DG6	Reference to the percentage of billing contacts dealt with within 5 days
DG7	Reference to the percentage of written complaints dealt with within 10 days
DG8	Reference to the percentage of metered customers receiving bill based on a meter reading
DG9	Reference to telephone call handling
DRD	Department for Regional Development
DOE	Department of the Environment
DWI	Drinking Water Inspectorate
DWSP	Drinking Water Safety Plan
EMS	Environmental Management System
HVCA	High Volume Call Answering system
LTWS	Long Term Water Strategy for Northern Ireland
NIEA	Northern Ireland Environment Agency
OPA	Overall Performance Assessment
PC10	Price Control period April 2010 – March 2013
PC13	Price Control period April 2013 – March 2015
PC15	Price Control period April 2015 – March 2021
S&EG	Social & Environmental Guidance issued by the DRD
SCAMP	Sustainable Catchment Area Management Planning
SIMCAT	Simulated Catchment Modelling
SoSI	Security of Supply Index
SuDS	Sustainable Urban Drainage Systems
UID	Unsatisfactory Intermittent Discharges
Utility Regulator	Northern Ireland Authority for Utility Regulation
WFD	Water Framework Directive
WIPP	Water Investment Planning Process
WRMP	Water Resources Management Plan
WTW	Water Treatment Works
WwIPP	Wastewater Investment Planning Process
WwTW	Wastewater Treatment Works

Tables

Table 1 - Commitments on Water Provision and Service Outputs

	Line description	Units	DP	PC10		PC13		
	Enic description	Onits	D.					
Α	Consumer Service	1			_			
1	DG2 Properties at risk of low pressure removed from the risk register by company action	nr	0	283	262	255	118	170
2	DG3 Supply interruptions > 12hrs (unplanned and unwarned)	%	2	26.57	0.09	0.20	0.19	0.19
3	DG3 Supply interruptions (overall performance score)	nr	2	95.79	0.97	1.16	1.12	1.08
4	DG6 % billing contacts dealt with within 5 working days	%	2	98.87	99.97	99.90	99.90	99.90
5	DG7 % written complaints dealt with within 10 working days	%	2	99.51	99.27	99.00	99.25	99.50
6	DG8 % metered customers received bill based on a meter reading	%	2	96.11	97.88	98.50	98.50	99.00
7	Call Handling Satisfaction score (1-5)	nr	2	4.59	4.57	4.70	4.70	4.75
8	DG9 % calls not abandoned	%	2	88.19	99.15	99.00	99.00	99.00
9	DG9 % calls not receiving the engaged tone	%	2	32.77	100.00	99.90	99.90	99.90
10	Overall Performance Assessment (OPA) score (11 Measures)	nr	0	131	184	184	202	215
11	Total Leakage	MI/d	0	177	168	165	169	165
12	Security of supply index	nr	0	97	100	97	97	100
13	Percentage of NI Water's power usage derived from renewable sources	%	1	13.5	14.4	17.0	18.5	20.0
		-						
	Quality Water			_	1			
	% mean zonal compliance with drinking water regulations	%	2	99.82		99.80		99.70
	Operational Performance Index (Turbidity, Iron & Manganese)	nr	2	99.08	99.31	99.00	99.10	99.10
16	% Service Reservoirs with coliforms in >5% samples	%	2	0.00	0.00	0.00	0.00	0.00
_	W-1 Out-ut-	7						
	Water Outputs Water mains activity - Length of new, renewed or relined mains	km	0			244	244	224
18	Completion of nominated trunk main schemes		0	204	510	311	214	231
19	Completion of nominated trank main schemes Completion of nominated water treatment works schemes	nr nr	0	2	0	2	0	3
	Completion of nominated water treatment works scriemes Completion of nominated improvements to increase the capacity of service reservoirs and clear	TII	U		0	0	0	
20	water tanks	nr	0	5	3	1	0	1
21	Completion of nominated Major Inciident Mitigation schemes	nr	0	-	-	-	3	2
D	Serviceability	1						
	Water infrastructure serviceability	Te	c t	Stable	Stable	Stable	Stable	Stable
23	Water non-infrastructure serviceability	Text		Stable	Stable	Stable	Stable	Stable
		-		-				

Table 2 - Commitments on Sewerage Provision and Service Outputs

	Line description	Units DP		PC10			PC13	
	·	_		2010-11	2011-12	2012-13	2013-14	2014-15
Α	Consumer Service Sewerage							
1	DG5 Properties at risk of flooding - number removed from 2 in 10, 1 in 10 and 1 in 20 risk register by company action.	nr	0	4	14	42	23	44
В	Quality Sewerage	٦						
2	% of WwTWs discharges compliant with numeric consents	%	1	88.3	92.5	88.2	88.6	91.0
3	% of total p.e. served by WwTWs compliant with numeric consents	%	1	95.6	96.5	96.5	97.2	97.8
4	Number of high and medium pollution incidents attributable to NI Water	nr	0	46	44	48	46	44
		_	<u></u>					
С	Sewerage Outputs			_				
5	Sewerage activity - Length of sewers replaced or renovated	km	0	27	13	15	9	14
6	Delivery of improvements to nominated UIDs as part of a defined programme of work	nr	0	20	44	30	12	72
7	Delivery of improvements to nominated WwTWs as part of a defined programme of work	nr	0	32	. 7	9	19	19
8	Small wastewater treatment works delivered as part of the rural wastewater investment programme	nr	0	21	. 28	5	18	7
D	Serviceability	7						
9	Sewerage infrastructure serviceability	Tex	αt	Stable	Stable	Stable	Stable	Stable
10	Sewerage non-infrastructure serviceability	Tex	ίt	Stable	Stable	Stable	Stable	Stable