THE MONITORING PLAN FOR 2010-2013

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Foreword

This Monitoring Plan outlines the key commitments NI Water is making to its customers, shareholder and stakeholders for the 3-year price control period 1 April 2010 – 31 March 2013 (referred to as the PC10 period).

As acting Chief Executive my focus will be on our core business – the delivery to our customers of high quality water and waste water services in the most cost efficient manner possible. This will be through:

- Reducing costs and improving the efficiency of NI Water through a series of corporate projects and initiatives targeted at delivering cost savings;
- Delivering further improvements in water and wastewater standards and reducing leakage levels;
- Improving customer satisfaction by reducing the time taken to respond to our customers and by better understanding the root cause of their complaints; and
- Improving our control environment by implementing the recommendations of the Independent Review Team.

Since the Draft Monitoring Plan was submitted to the Utility Regulator in February 2011 it has been necessary to review the capital works programme as a consequence of the Government’s Spending Review, the consequences of NI Water’s status as a Non-Departmental Public Body and other factors. This Monitoring Plan reflects the changes resulting from that review.

Trevor Haslett
Acting Chief Executive

October 2011
Section 1 Our Overall Strategy for the Period 2010-13

1.1 Background

This is the first price review for NI Water which was formed as a Government Owned Company (GoCo) on 1 April 2007. The early activities of the organisation were shaped by a Strategic Business Plan (SBP) covering the three year SBP period up to 31 March 2010. Among the strategic objectives set in the SBP were:

- To deliver sustained, prioritised investment in the water and wastewater networks, improving environmental outcomes and delivering much improved wastewater compliance at works and water quality at the tap; and
- To become a customer focused business which offers quality responsive services efficiently and plays its part in improving the health and environment of the community.

NI Water also continued the process of transformation from an agency in the Department for Regional Development (DRD) to a regulated Company and, in line with the strategic objectives, delivered a number of notable achievements during the SBP period including:

- The best ever results for Northern Ireland for drinking water quality and discharges to the environment;
- Approximately £781m investment in our water and wastewater infrastructure, including the completion of the Belfast Sewers Project. The Belfast Sewers Project commenced in 2004 and was, at a cost of around £160m, one of the most significant infrastructure investments ever made in Belfast. In addition Public Private Partnership (PPP) projects were completed in the period with a capital cost in the region of £232m;
- Improved customer service and delivery of our customer Key Performance Indicators, including agreement on a Customer Charter with the Consumer Council for Northern Ireland (CCNI); and
• Delivery against our operating cost efficiencies target of £53.8m\textsuperscript{1}. Work has included a reduction in size of NI Water and the removal, where possible, of a reliance on consultants.

NI Water is committed to continuing improvements in the services provided to customers and the efficiency with which the services are delivered. These intentions were detailed in our PC10 Business Plan, submitted to the Utility Regulator in June 2009.

1.2 Changes to the Company Status and the Impact on the Company

In March 2009, NI Water was also categorised as a Non-Departmental Public Body (NDPB), continuing to receive an annual subsidy from DRD in respect of domestic water and wastewater charges. Therefore, whilst the Utility Regulator has determined the level of expenditure necessary to deliver outputs over the 3-year PC10 period, we are aware of the predominant nature of annual Public Expenditure allocation of subsidy to the Company. This situation was not envisaged at the outset of the PC10 process but has since been addressed by a Memorandum of Understanding between DRD and the Utility Regulator which sets out the process for the Final Determination to be reviewed annually, once the Public Expenditure allocation is confirmed for each year.

Since NI Water accepted the Utility Regulator’s Final Determination for the PC10 period in December 2010, this process has been utilised to review the capital works programme, to reflect changes in the Public Expenditure allocation and the significant impact which the move to NDPB status has had on how we manage our capital investment within the business:

1. An under-spend in 2010/11

Complex governance arrangements and the freeze/thaw incident of 2010/11 had an adverse impact on the ability of the Company to deliver the planned capital works programme in 2010/11. Our NDPB status does not allow for

\textsuperscript{1} Measured in 2006/07 prices from a 2003/04 base and takes into account additional electricity costs in the SBP period.
delayed investment in one year, to be carried forward into the following year, thereby restricting the opportunity to ‘catch up’ the delivery of outputs.

2. Real cuts in the 2012/13 budget
As NI Water is now subject to Public Expenditure processes the funding available to the Company in 2012/13 (Year 3 of the PC10 period) has been significantly reduced as a result of the Government’s Spending Review. This not only has the direct affect of reducing the capital programmes that can be started in 2012/13, but also has the indirect effect of constraining the type of projects that can be started in Year 2 of PC10. In practice, the ability to execute large projects in Year 2 which incur expenditure in Year 3 is severely curtailed with the result that the desirable optimum mix of investment is not now possible due to the loss of flexibility.

3. Efficiencies
The combination of factors outlined above reduces the level of efficiency with which the capital programme can be delivered. NI Water had planned to introduce an Alliance partnering arrangement to deliver a significant proportion of the capital works programme. A core objective of the partnering arrangement was to deliver efficiencies. The uncertainty around funding and the Company’s status has meant that we have not been able to take forward the Alliance. Despite this, NI Water continues to seek efficiencies in the delivery of capital projects by using a variety of competitive procurement routes, but our efficiency is currently limited to the benefits that can be derived from the market at tender stage.

In summary, the change of status of NI Water has a number of implications for the Company. The Memorandum of Understanding (MoU) and Consequent Written Agreement (CWA) between the Utility Regulator and DRD were prepared to address these and other issues associated with the acceptance of the Final Determination. This Monitoring Plan is based on the principles set out in the MoU and CWA in respect of construction inflation (COPI). All expenditure in this Monitoring Plan is in “Nominal prices” unless stated otherwise.
The revised programme reflects the outputs we are able to deliver due to our loss of end of year flexibility (particularly in light of actual spend in 2010/11), a significant cut in the capital available in 2012/13 and the impact on capital efficiencies of constraints on our approach to procurement. The changes in outputs have been agreed with our stakeholders. The Utility Regulator has indicated the action it will take in PC13 to protect the interests of those non-domestic consumers who pay directly for their water services to ensure that they do not continue to pay for PC10 outputs which have not been delivered.

1.3 Statement on Commitments

This Monitoring Plan seeks to outline the key commitments for the PC10 period made by NI Water to customers. However, in light of the funding regime within which the organisation operates, it is important to recognise that these commitments have changed since the Final Determination was made as a result of a review undertaken to reflect the changes to Public Expenditure in 2010/11. Any commitment made within this Monitoring Plan may be subject to further change should the annual allocation of Public Expenditure funding lead to further changes. In adjusting our capital programme delivery to align with the available funding, the Company has followed the processes detailed in the MoU and CWA, including consultation with the Drinking Water Inspectorate (DWI), the Northern Ireland Environment Agency (NIEA) and CCNI on the priorities for capital investment, given the reduced funding available.

The NI Water capital programme is large and complex and is frequently subject to external influences which impact the delivery of individual projects. Since the NI Water PC10 Business Plan was submitted the capital programme has been subject to change. The expenditure in year one (2010/11) was lower than projected due to governance and freeze/thaw issues. The DRD budget indicates funding has been reduced significantly in 2012/13. At a high level the differences between the Final Determination and the current funding levels are outlined in table 1.1 below.

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2 Targets for year 1 of the PC10 period are generally those agreed in the Final Determination. Targets for years 2 & 3 reflect the changes that result from the review.
Table 1.1 Comparison of Final Determination and Public Expenditure capital expenditure

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>Total PC10 2010 -13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Determination (FD)</td>
<td>190</td>
<td>184</td>
<td>192</td>
<td>566</td>
</tr>
<tr>
<td>Public Expenditure (PE)</td>
<td>158</td>
<td>189</td>
<td>148</td>
<td>495</td>
</tr>
</tbody>
</table>

1.4 Strategy for the Delivery of Services

NI Water’s key theme for 2010-13 is to prioritise customers. To ascertain customer priorities and preferences at an early stage in the planning process, NI Water commissioned CCNI to carry out research into customer priorities and views on our behalf. In doing so, we aimed to secure research that was impartial and transparent. The results of this work were published in March 2009\(^4\). In addition, the views of non-domestic customers were assessed with a sample of these customers being asked about their overall preferences for service improvements.

The PC10 Business Plan was also heavily influenced by the Social and Environmental Guidance (S&EG) provided by DRD.

The results of the CCNI survey and the S&EG were assimilated into table 1.2 which shows the correlations between the results of the survey (shown in columns) and the priorities indicated by the S&EG (referenced in the boxes).

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\(^3\) Actual expenditure

\(^4\) “Tapping into Consumer Views on Water,” a research report by the CCNI commissioned by NI Water, March 2009.
Table 1.2 - Domestic customer weighted priorities for service improvements in 2010-13 and their relationship with the S&EG

In addition, working groups were established with the DWI and the NIEA to ascertain the views of these quality regulators to ensure the PC10 Business Plan would provide for the ability to meet and, where possible, exceed quality compliance targets.

As a result of this work, there was early recognition that there needed to be a balanced approach taken to PC10 as there was a continuing need to improve the service to customers, invest in the water and wastewater networks and treatment facilities and improve the efficiency with which these are operated.

Through evaluating all of these requirements and aspirations, a strategic ‘roadmap’ has been developed to focus attention within the Company and communicate objectives. Four strategic strands have been developed within the overarching theme of prioritising customers. These are:

- To focus on and deliver the needs of improving services to Customers;
- Develop our People to deliver better services;
- Become a more efficient and effective organisation in managing our Cash; and
- To meet and where possible exceed quality Compliance standards.
From these, the following twelve strategic objectives have been set:

**Customers**
- Improve customer satisfaction
- Better understand the cause of complaints

**People**
- Develop the capability to deliver
- Champion Health & Safety
- Efficient and effective resourcing

**Cash**
- Reduce costs and improve efficiency
- Improve the control environment of NI Water

**Compliance**
- Create a data quality culture
- Deliver improvements in water & wastewater quality
- Develop an effective and controlled business
- Deliver stakeholder requirements
- Focus on data quality and systems

### 1.5 Improvements Visible to Customers

From the twelve strategic objectives above, NI Water has developed further detailed objectives that will deliver visible improvements to customers. These are discussed through the remainder of this document but are briefly outlined here.

#### 1.5.1 Customers

A range of projects and initiatives have been put in place to improve services to customers. It is important that we understand and respond to customer needs in a timely manner. We will therefore be working towards a greater understanding of what causes complaints and addressing those more efficiently and effectively. We shall also continue to address problems facing a number of our customers by working to alleviate the risk of flooding from sewers from 143 properties and alleviating the risk of low water pressure from 800 properties. Investment will also be targeted at installing new trunk mains which, in association with on going
work to reduce water leakage, will maintain and improve the water supply / demand balance across Northern Ireland.

1.5.2 People
As an organisation, we can only function and improve through the efforts of our people. In order to continue to improve the effectiveness and efficiency of how we operate as an organisation, we will maintain high standards of training with a key focus on the health and safety of staff.

1.5.3 Cash
We recognise the need to operate more efficiently and are working towards achieving very challenging efficiency targets. For example, we aim to reduce annual operating expenditure from £198m in 2009/10 to £176m in 2012/13. This will involve a rationalisation of our office accommodation which is already underway, the continuing re-structuring of the Company and a voluntary early retirement / voluntary severance scheme. Improving the quality of our data is also of key importance in driving efficiencies and is a priority for the Company. In addition efficiency gains are being sought in our programme of capital investment to ensure that the maximum benefit is derived from every pound invested.

1.5.4 Compliance
The need to improve the quality of data within the Company was recognised early in the SBP period and much work has already been completed. Nevertheless, much work remains to be done. Throughout the PC10 period we will continue to work with all the regulatory bodies to ensure the reliability and accuracy of our data underscores the delivery of improved water and environmental standards. NI Water is currently delivering the best water quality ever experienced in Northern Ireland and we are committed to continuing to meet and, where possible, exceed the high standards expected of us.

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5 Nominal or outturn prices.
1.6 Summary - A Balanced Approach

Our plan is based on meeting the requirements of the S&EG that reflect customers’ priorities for improvements. NI Water is also committed to delivering the outputs linked to the level of funding available. However, as discussed in Sections 1.2 and 1.3 above, the funding set out by the Utility Regulator in the Final Determination is not now available to the Company and consequently the outputs shown in the Monitoring Plan reflect the adjusted level of funding.

In response to the themes of responsiveness, efficiency and maintaining service standards, NI Water’s strategy will be to invest in the processes and systems that will enable more prompt, better informed responses to incidents on our water and sewerage networks. The aim is to enable more proactive work to reduce the need for reactive work. A key enabler will be improving the quality of our data and systems capability; linking the assets that provide services with customer records in our systems. In aligning S&EG and customer priorities, we have sought to achieve the right balance for customers offering the optimal mix of schemes in our plan. By investing in improved data quality and operating systems, we will deliver efficiency gains across the organisation.

The Capital Investment Programme for PC10 was developed to continue the enhancement and maintenance strategy begun in the SBP period and was also designed to meet the needs of both the S&EG issued by DRD and the key priorities of customers as expressed through the research carried out by CCNI. As a result of the Spending Review, funding levels have been reduced from those outlined in the Final Determination necessitating a reprioritisation of investment. In addition, the freeze/thaw event of winter 2010/11 has significantly influenced the reprioritisation process. Nevertheless, despite reduced overall funding, NI Water has maintained investment in maintenance activity and also in water mains projects.
Section 2 Our Commitments on Drinking Water Quality and Environmental Improvements

2.1 Outline of key Company outputs – maintaining and improving drinking water quality.

Maintaining the quality of water is of primary importance to NI Water. This is vital to the health and welfare of our customers and the economy of Northern Ireland. Since transition from the DRD Water Service to NI Water in 2007, the quality of water delivered to customers is the best ever in Northern Ireland.

During the PC10 period, investments and other planned work are designed to maintain a stable or gradual improvement in individual water compliance measures. Water quality is measured and reported against a number of individual Mean Zonal Compliance (MZC) parameters, e.g. Operational performance indicator (MZC turbidity, iron and manganese) – OPI (TIM).

Table 2.1 Operational performance indicator (MZC turbidity, iron and manganese)

<table>
<thead>
<tr>
<th>Performance Indicator</th>
<th>Target 2010/11</th>
<th>Target 2011/12</th>
<th>Target 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>% OPI (TIM)</td>
<td>99.1%</td>
<td>99.1%</td>
<td>99.1%</td>
</tr>
</tbody>
</table>

A combined MZC, an average of over 40 individual parameters, is a key measure identified within the S&EG. The combined MZC target is set at 99.70% for each year of the PC10 period. NI Water will be working hard to try to out perform this target.

Capital investment to maintain and improve water treatment and supply will include:

- Completion of 2 water treatment works upgrades;
- Completion of a study for one water treatment works to determine future quality improvements;
- 900 km of new, replaced or rehabilitated water mains;

\[^6\] This target is measured on a calendar year
• Complete or commence the provision of increased capacity at 9 service reservoirs and clear water tanks; and
• Completion of drinking water safety plans.

2.2 Outline of key Company outputs – maintaining and improving the environment.

In addition to the investment in water treatment and supply, significant investment will also be made in wastewater treatment works. Improvement schemes will be delivered at 42\(^7\) wastewater treatment works, with a further programme of upgrades to small (under 250pe\(^8\)) treatment works across Northern Ireland.

This, and the replacement and renovation of 63.8km of sewers will contribute to increasing levels of wastewater compliance and a reduction in high, medium and low level pollution incidents.

**Table 2.2 Sewage compliance and sewerage outputs**

<table>
<thead>
<tr>
<th>Performance Indicator</th>
<th>Target(^9)</th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of WwTWs compliant with (Water (NI) Order) numeric consents.</td>
<td>85.0%</td>
<td>85.8%</td>
<td>88.2%</td>
<td></td>
</tr>
<tr>
<td>% of WwTWs compliant (UWWTD Consents)</td>
<td>89.8%</td>
<td>91.1%</td>
<td>94.9%</td>
<td></td>
</tr>
<tr>
<td>% WwTWs discharges complying with numeric consents</td>
<td>84.6%</td>
<td>85.5%</td>
<td>87.9%</td>
<td></td>
</tr>
<tr>
<td>% of total pe served by WwTWs in complying with Water Order consent (LUT)</td>
<td>94.87%</td>
<td>94.83%</td>
<td>96.50%</td>
<td></td>
</tr>
<tr>
<td>% of total pe served by WwTWs complying with UWWTD consent (LUT).</td>
<td>95.73%</td>
<td>94.23%</td>
<td>98.78%</td>
<td></td>
</tr>
<tr>
<td>Pollution Incidents (medium &amp; high)</td>
<td>54</td>
<td>51</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Reduced incidents of pollution will also be the result of improvements to 68 Unsatisfactory Intermittent Discharges (UID’s). The list of UID’s to be improved is drawn from the organisation’s Drainage Area Study programme which is being undertaken in close liaison with NIEA.

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\(^7\) Excluding small WwTWs.
\(^8\) Population equivalent
\(^9\) These targets are measured on a calendar year
2.3 Benefits to Customers

Collectively, the investment in water and wastewater treatment and networks, together with a customer centred approach, are designed to deliver customer benefits, both in terms of the quality of water and wastewater as outlined in the tables above, and the visible service qualities and other deliverables summarised in the following sections and tables.

The ability to monitor and demonstrate these benefits is increasing through the continuing improvement in the quality and robustness of data available within the Company. Improved confidence in data will allow further robust service targets to be set for PC13.
Section 3 Our Commitments on Service to Customers

3.1 Customer Expectations

Our PC10 Business Plan is the outcome of customer research, conducted in partnership with CCNI and the S&EG issued by DRD. We therefore recognise and understand that customers have a right to expect that we will not only continue to deliver our water and wastewater services but improve the efficiency and quality with which we do so. CCNI therefore has an important role to play in assessing our service delivery and we maintain regular contact with CCNI, including consultation on customer service matters.

At our first point of contact with customers, we will maintain high levels of accessibility and improve our overall call handling satisfaction.

Table 3.1 Customer Contact Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>DG6 – Billing contacts dealt with within 5 days</td>
<td>99.9% 99.9% 99.9%</td>
</tr>
<tr>
<td>DG7 – Written complaints dealt with within 10 days</td>
<td>98.5% 98.5% 98.5%</td>
</tr>
<tr>
<td>DG8 – Metered customers receiving bill based on a meter reading</td>
<td>95.0% 97.5% 98.5%</td>
</tr>
<tr>
<td>DG9 – Percentage of calls not abandoned</td>
<td>99.0% 99.0% 99.0%</td>
</tr>
<tr>
<td>Call handling satisfaction</td>
<td>4.65 4.70 4.70</td>
</tr>
</tbody>
</table>

While the existing measures accurately record the way the organisation communicates with customers, we also need to demonstrate that issues concerning customers are efficiently dealt with to the satisfaction of customers. For this reason, we will work with the Utility Regulator and CCNI to define and introduce additional new measures to monitor:

1. The number and frequency of repeat complaints\(^{10}\);  
2. The number and frequency of ‘holding’ responses issued\(^{11}\); and

\(^{10}\) Repeat Complaints - where a complaint necessitates a period of correspondence, each letter from the customer is to be counted as a complaint and recorded separately.  
\(^{11}\) Holding Response - defined as a response to a customer contact (i.e. billing contact, written complaint) which advises the customer that the company will need to undertake additional research or other actions before being able to respond to the customer's contact in full.
3. The number and frequency of sewer blockage clearances taking more than 24 hours to clear.

3.2 Commitments to Customers

Within this three year period NI Water has committed to delivering a number of improvements of particular and direct relevance to customers. As highlighted earlier, from our previous and on-going consultation with CCNI, we are targeting service improvements identified by, and most visible to, customers so that by March 2013 we will have taken action to:

1. Remove 143 properties from the register of those at risk of internal flooding arising from hydraulic incapacity. The 143 properties will be removed by Company action which will be by a combination of construction projects and capital expenditure on improvement works including de-silting, root removal and minor collapse repair;

2. NI Water is committed to working towards full reporting capability for internal flooding incidents by April 2011 and full external and internal flooding reporting by April 2013. Management procedures, policies, systems, business processes and business rules for holding and moving properties within the register categories are being developed which align with corporate strategic initiatives in order to deliver maximum benefit to our customers, shareholders and indeed to the organisation itself. In addition during PC10 NI Water will continue to undertake detailed studies to identify and prioritise work to remove properties from the Register in the period beyond PC10;

3. Remove 800 properties from the register of those at risk of receiving low pressure. The 800 properties will be removed by Company action through construction projects carried out under the water mains rehabilitation programme;

4. NI Water will continue to respond to customer contacts and through the defined DG2 process add properties to the Register as appropriate. The programme of Zonal Studies to identify properties which may be at risk during the PC10 period will continue through the PC10 period. The mains rehabilitation programme generates Post Project Rehabilitation Appraisals which verifies the removal of appropriate properties from the Register during
the PC10 period. In addition, during PC10 NI Water will continue to undertake detailed studies to identify and prioritise work to remove properties from the Register in the period beyond PC10;

5. Reduce the DG3 Overall Performance Score\textsuperscript{12} for supply interruptions to 1.16;
6. Reduce the overall number of written complaints received from customers and work to identify and address root causes; and
7. Increase our customer satisfaction through a range of measures and initiatives to reduce the number of customer contacts through analysis of data and identification of root cause and appropriate resolutions, including working with customers to improve our data, accuracy and reliability of bills.

Other objectives and targets are illustrated in Tables 1-4, attached at the end of the Monitoring Plan. Whilst the changes in capital funding outlined in Section 1 have not necessitated an amendment of the DG targets in Table 2, it is very likely that the Company will continue to receive sustained or increased customer contacts. This will be particularly true if reductions in the capital programme lead to a drop in performance of DG2 and DG3 (See Table 2) leading to increased customer contacts, reflected in DG7 and DG9 scores.

The major concern to consumers is out of sewer flooding and is a particularly unpleasant experience when it occurs within properties. It is the number one issue identified by our customers in the Customer Views Survey\textsuperscript{13} and is specifically mentioned in the DRD S&EG. The recent completion of the Belfast Sewers Project, at a cost of around £160m, has reduced the number of properties at risk of flooding in central and south Belfast.

During the PC10 period we will remove 143 properties from the DG5 Register\textsuperscript{14}, continuing to reduce the number of customers at risk of out of sewer flooding through a combination of expenditure on capital projects and detailed hydraulic modelling. In addition to removing properties from the DG5 Register, NI Water is committed to working towards full external and internal flooding reporting by April

\textsuperscript{12} DG3 Overall Performance Score – A water industry standard measure to reflect interruptions to water supply in excess of 6 hours, 12 hours and 24 hours.
\textsuperscript{13} “Tapping into Consumer Views on Water,” a research report by the CCNI commissioned by NI Water, March 2009.
\textsuperscript{14} The Register of properties at risk of internal flooding due to hydraulic incapacity.
Management procedures, policies, systems, business processes and business rules for holding and moving properties within the register categories are being developed which align with corporate strategic initiatives in order to deliver maximum benefit to our customers, stakeholders and indeed to the Company itself.

We will also be developing reporting and targets on the number and frequency of sewer blockages taking more than 24 hours to clear. We acknowledge that this is a matter of concern for customers and is a matter of key significance for NI Water. To underpin this work a major investment (almost £4.3m over the PC10 period) will be made in the Asset Data Acquisition and Improvement project to improve our systems and the quality of the asset data held within those systems. Of those matters relating to sewerage, all will either maintain or improve performance during the PC10 period. In particular, the number of pollution incidents will be reduced and the number of sewage treatment works compliant with their consent conditions will increase.

The research conducted by CCNI showed that for a majority of customers, safety, taste, smell and appearance of drinking water were their main priorities. The Northern Ireland Drinking Water Regulations also demand high standards in these areas.

Therefore, throughout the PC10 period, NI Water will continue to focus on maintaining and improving water quality, but reference to Table 2 reveals that improvements in performance will also be delivered in other key areas such as low pressure, interruptions to supply and leakage.

NI Water intends to invest approximately £90m in the mains rehabilitation programme which will deliver water quality and enhanced service outputs. The enhancement element of this programme is targeted at ensuring 800 properties will be removed from the risk of receiving low pressure. This, together with other complementary field validation work to improve the quality of data and improve the accuracy of the DG2 Register, continues the process of reducing the problem of low pressure across the network.

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15 The Register of properties at risk of receiving low pressure
NI Water will undertake work to reduce the number of unplanned interruptions to supply and develop work practices in order that, where an unplanned interruption does occur, our response time is decreased. Overall we are targeting a reduction in the DG3 Overall Performance Score for supply interruptions to 1.16 in 2013.

Funding will also be directed to the timely repair of defects, infrastructure improvements and other measures to further reduce leakage from the water distribution system to 168 Ml/d\textsuperscript{16} in 2013.

During the PC10 period we will be targeting a reduction in the number of written complaints received from customers by identifying root cause of customer complaints and addressing these issues. We will increase the percentage of written complaints dealt with within 10 days by the provision of a substantive response and develop reporting and targets on the number and frequency of repeat complaints and ‘holding’ responses issued.

It is important that customers have access to us when they need us and we will be ensuring accessibility for customers to our services and reducing the time taken to respond to customers. We will be improving access to services whereby customers can have their requests addressed via a number of channels, therefore increasing customer choice.

Customer satisfaction is important to us. Based on the quarterly DG9\textsuperscript{17} McCallum Layton surveys we are expecting a steady improvement over the PC10 period, from 4.6 to 4.7. We will also be working to improve our customer service and reduce the number of customer contacts through analysis of data and identification of root cause and appropriate resolutions, including working with customers to improve the accuracy and reliability of our bills.

### 3.3 Explaining the Overall Performance Assessment (OPA)

The Utility Regulator has adopted an Overall Performance Assessment (OPA), similar to that used by Ofwat\textsuperscript{18} and the Water Industry Commission for Scotland.

\textsuperscript{16} Mega litres a day
\textsuperscript{17} The measure of the service received when telephoning NI Water.
\textsuperscript{18} Ofwat, the water regulator for England & Wales, is currently reviewing the use of OPA.
(WICS), to provide a single measure by which the organisation’s overall performance can be monitored.

The four tables which form part of the Monitoring Plan, to be found at the end of the document, show the detail of the planned performance of the organisation over the PC10 period. These tables reflect performance across the key areas of the business and the levels of investment available, including the delivery of water and sewerage services, the quality of water, compliance with environmental standards, the standard of service to customers, enhancements to the infrastructure and financial performance.

The OPA is a composite score calculated from a selection of these standard performance measures. Although not all of the OPA parameters are directly comparable to their equivalents in England, Wales and Scotland, the Utility Regulator uses the OPA score to provide an indicator of the improvement in service. In the case of Northern Ireland, eleven measures covering performance across a range of activities are included within the Utility Regulator’s basket of parameters used to calculate a single OPA ‘score’ in PC10:

- Properties at risk of low pressure (DG2)
- Unplanned interruptions to water supply (DG3)
- Hosepipe restrictions (DG4)
- Customer contact (DG6, DG7, DG8, & DG9)
- Drinking water quality
- Sewage sludge disposal
- Leakage assessment
- Water pollution incidents (High & Medium)
- Sewerage pollution incidents (High & Medium)
- Sewerage pollution incidents (Low)
- Sewage treatment works consent compliance

Table 3.2 shows the actual OPA scores for the SBP period of 2007/08 to 2009/10 and the target OPA scores for the PC10 period.

**Table 3.2 NI Water’s Overall Performance Assessment**

<table>
<thead>
<tr>
<th>SBP Period</th>
<th>Actual OPA Scores</th>
<th>PC10 Target OPA Scores</th>
</tr>
</thead>
</table>
Section 4 - Our Commitments on Maintaining Serviceability to Customers

4.1 Maintaining Serviceability for Customers

The most important function for NI Water is to provide good quality drinking water efficiently to customers and to minimise the effect of discharges to the environment.

The most important aspect of this work is to maintain and operate efficiently the existing systems. This requires continuous investment in the existing asset base, so the process of prioritising investment must start with maintaining the existing systems. About 48% of our capital investment for the PC10 period is allocated to the maintenance of serviceability, referred to as Base Maintenance. In re-prioritising the capital investment following the Spending Review, the amount of money spent on Base Maintenance has been protected. The relative percentage of Base Maintenance therefore increases as the overall level of spend decreases. We will therefore deliver a sustainable level of Base Maintenance which will continue to provide safe and dependable services to our customers but, by the very nature of our work, much of the results of the capital investment designed to maintain services will go unnoticed by customers. Some of the work of the Base Maintenance programme that may be noticed by customers includes a reduction in the number of customers that will experience an interruption to water supply lasting more than 12 hours.

NI Water will continue to work with the Utility Regulator on the development of a suite of serviceability indicators which provide robust information for the Company to base its serviceability decisions on and, at a high level, provide indicators that NI Water is maintaining its level of serviceability.

We also have to maintain and in many areas improve our management systems through capital investment. In preparing our PC10 Business Plan, the Company examined the serviceability trends for all of our assets and carried out comparative benchmarking with other companies. In general terms, we have concluded that although there are issues with historic data quality and coverage,
serviceability has been stable or improving for most of our assets during the recent years of increased investment. Continuing improvements will be made during the PC10 period, supported by a programme of capital investment and initiatives to further improve data quality and operational efficiency.

4.2 Investment Strategy and Programmes

4.2.1 Strategy Development
The comprehensive strategy for capital investment to maintain serviceability was developed within NI Water’s PC10 Business Plan, which was submitted to the Utility Regulator in June 2009. Since the publication of the Utility Regulator’s Final Determination in February 2010, the organisation has reviewed the capital investment plan and agreed the capital programmes to be implemented within the PC10 period. Progress in delivering the capital programme is regularly monitored by the Utility Regulator. The change in overall funding levels imposed by the Spending Review together with the change in the profile of the expenditure has necessitated a fundamental detailed review of our prioritisation of projects. We have worked within the overall strategy of maintaining expenditure on Base Maintenance. In addition, following the freeze / thaw incident of winter 2010/11, we have sought to maintain our investment levels in our water networks and consequently have deferred some of our investment on wastewater. In taking forward this approach we have consulted with our key stakeholders – DWI, NIEA, CCNI, DRD and the Utility Regulator.

4.2.2 Base Maintenance Strategy
The Base Maintenance investment which will maintain serviceability will be delivered through 2 distinct mechanisms:

- Base Maintenance investment linked to Enhancement programmes; and
- Specifically targeted Base Maintenance programmes.

4.2.3 Base Maintenance Linked to Enhancement Programmes
When Enhancement projects, such as the upgrades of wastewater treatment works to meet environmental standards or to serve increases in population, are undertaken, elements of the work frequently contribute to maintaining the existing levels of service. It is therefore not always possible to separate out Base
Maintenance into a stand alone programme. Indeed it would not be cost effective. Consequently it is intended that an element of the Base Maintenance programme will be delivered in association with Enhancement Programmes.

4.2.4 Targeted Base Maintenance Programmes

NI Water uses a wide variety of assets to deliver its water and wastewater services. These range from very long life assets such as impounding reservoirs, with a working life greater than 100 years, to computer control and telemetry systems which may have to be replaced every 5 years. The regimes to maintain this wide array of assets are also varied. To maintain assets in a serviceable condition both planned maintenance and reactive maintenance interventions are required. This leads to programmes of targeted Base Maintenance and 4 sub programmes of work. In reprioritising our capital works programme following the Spending Review we have increased the number of projects which will solely deliver Base Maintenance investment.

This Base Maintenance investment is defined in the individual projects and the programmes of work which are summarised in Tables 2 and 3. This includes:

- Maintenance of watermains through laying 900km of new, replaced or rehabilitated water mains;
- A reduction in the number of bursts;
- Maintenance of sewers through replacement / renovation of 63.8km of sewers;
- A reduction in the number of sewer collapses;
- Maintenance of equipment through upgrading or refurbishing approximately 75\(^{19}\) sewage treatment works. This includes WwTWs which were started prior to PC10, identified WwTWs which are to commence in PC10 and the small WwTWs which will be constructed under the Rural Wastewater Investment Programme; and
- A reduction in the number of equipment failures at pumping stations.

In addition to the Base Maintenance associated with our assets, that treat and deliver drinking water and convey and dispose of our wastewater, NI Water is

\(^{19}\) Including small WwTWs.
committed to maintaining and improving its supporting systems and processes. During the PC10 period we will deliver a series of projects and programmes to improve efficiency, such as upgrades to our IT systems and data quality improvements.

4.3 Investment Strategy and Programmes

It will be important to assess the benefit of investment on the water and wastewater infrastructure. NI Water is therefore currently engaged with the Utility Regulator in developing a number of Asset Serviceability Indicators to indicate whether the condition of the infrastructure is stable, improving or declining.
Section 5  Our Commitment to Delivering Sustainable Services

5.1 Introduction

This section sets out the actions that NI Water will take to improve the sustainability of the services it delivers to customers both now and in the future. It highlights actions which will be taken in the PC10 period to improve sustainable service delivery and describes how we will build on this work in the future to reduce our overall impact on the environment.

In carrying out our business, NI Water contributes to and relies 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.

5.2 Environmental Governance

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.

5.2.1 Environmental Management System

NI Water will continue to operate an Environmental Management System (EMS) to ISO 14001 standard, integrated with our business activities. The EMS endeavours to prevent environmental pollution and ensures that environmental awareness is part of our corporate culture.

The EMS is supported by on-going staff development programmes to raise awareness of, and provide appropriate training in the environmental aspects of our activities.

We will also continue to identify relevant proposed, changed and new Environmental Legislation through the procedures set out in the NI Water Corporate Compliance Framework. Where necessary, we will seek the
appropriate funding through the appropriate regulatory processes, or as otherwise instructed by DRD to implement new legislation.

5.3 Towards Sustainability

5.3.1 Land Management
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 bio-diversity and to permit public access where appropriate. To this ends we will launch a ‘Recreational Use and Access Policy’ in 2011.

5.3.2 Sustainable Catchment Area Management Planning (SCAMP)
NI Water will explore opportunities for adopting a more sustainable approach to drinking water treatment in the PC10 period through the Sustainable Catchment Area Management Planning (SCAMP) project. A key driver of this project is to develop improved stakeholder relationships that will help the organisation to understand how the risks posed by climate change interact with and might change, the other risks to which we have to respond.

5.3.3 Capital Investment
The 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.

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.

5.3.4 Water Resource Management Planning
In line with the Water and Sewerage Services (Northern Ireland) Order 2006, NI Water will prepare and maintain 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 impacts of climate change.

### 5.3.5 Sustainable Wastewater Treatment

NI Water will conduct a sustainable treatment trial with the NIEA during the PC10 period. This will look at attempting to reduce costs through integrated modelling of the network, wastewater treatment works and discharge, taking into consideration seasonal conditions and possibly also time variable discharge standards. For example, by using marine modelling to investigate the economic viability of using improved dispersion to avoid increased energy consumption associated with tertiary treatment such as Ultra Violet. Discharge standards at marine and freshwater sites will also be reviewed with NIEA.

### 5.4 Climate Change

Climate change has the potential to affect many aspects of our operations. A Climate Change Forum has therefore been established within the organisation to co-ordinate the climate change policy and related work to be carried out across NI Water. We are also committed to being an active Tier 1 member of the NI Climate Change Impacts Partnership (NICCIP) to ensure that local knowledge and best practice are shared for mutual benefit.

In developing our Business Plan for the next price control submission, we will identify the possible range of impacts of climate change against our responsibilities and seek appropriate funding for the relevant 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.

### 5.4.1 Mitigation Strategy

NI Water has developed a Climate Change Mitigation Strategy with four key aims. Work towards achieving these aims is already underway:
Aim 1 – Align Organisational Structure and Corporate Strategies

- Continue to include an assessment of the NI Water carbon footprint using an industry wide approach within each Annual Information Return (AIR) to the Utility Regulator;
- From 2010/11, provide a separate assessment of the carbon footprint to NIEA in compliance with the UK Carbon Reduction Commitment Energy Efficiency Scheme (CRC); and
- Work towards having Greenhouse Gas (GHG) emissions targets in place for 2013/14 (following the first 3 years of reporting under the UK CRC scheme).

Aim 2 - Use Less Electricity

We will implement a range of strategies to reduce the use of electricity. Among these are, for example, an improved operational control regime that will be established to help identify current performance and best performance to reduce electricity use. Leakage reduction targets will also be set to reduce the amount of pumping required.

Aim 3 - Use More Renewable Electricity

NI Water will derive 13% of its energy use from renewable sources and seek future capital investment to install additional renewable energy capacity.

Aim 4 – Reduce Other Greenhouse Gas Emissions

NI Water will seek to reduce the volume of chemicals used as part of the water and wastewater treatment processes and sewage pumping.

5.5 Long Term Water Strategy for Northern Ireland

We are aware that DRD is reviewing the benefits of developing a Water Strategy for Northern Ireland. NI Water is supportive of the concept of a Water Strategy and is keen to engage with other stakeholders in formulating this emerging strategy which we expect will:

- Promote sustainability;
- Assist in 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;
Allocating responsibility to the organisations which are best able to manage the risk; and
Help to inform the S&EG for the next price control review.

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.
Section 6  Our Commitment to Improving Information

6.1 Data Quality

NI Water, like all organisations, needs reliable, accurate, timely and easily understood information to manage its services and account for its performance. Good information allows NI Water to make evidence based judgements about efficiency, effectiveness and responsiveness and enables it to prioritise and plan effectively for the future. The term good ‘data quality’ is used to describe a state where accurate and trustworthy data is used in decision-making, resource allocation and the planning process. The improvement of data quality has been a key objective within NI Water and remains one of our twelve strategic objectives for the PC10 period.

Good quality data is essential to underpin and inform decision-making, manage services effectively, set priorities and allocate resources. As part of a wider piece of work on data and information management, NI Water's ICT Strategy continues to identify Data Quality as a key area of investment. The successful governance structures developed during the Data Quality Undertakings programme will remain in place, to ensure clear executive oversight of this area and that the level of investment has been maintained going forward into PC10.

In the context of NI Water, data can be associated with customers, properties, employees, assets, operational performance and financial performance. Each area is addressed in turn below.

6.1.1 Customer Billing

NI Water recognises the need to improve the accuracy of customer bills. Inaccurate bills not only cause frustration and concern among customers but also lead to an inefficient use of staff time. Improving the accuracy of customer bills will therefore be a primary output from a number of the data improvement projects outlined here.

6.1.2 Customer Data

In the customer area the data breaks down into further subsections, such as:
• The accuracy and reliability of customers’ names, addresses and phone numbers;
• Confirmation that the correct industry/VAT classification has been applied to each customer’s account. Errors in this area can lead to incorrect bills for non-domestic customers if the wrong VAT rate is used;
• Correct recording of whether a property is domestic or non-domestic;
• Correct recording of whether a customer should be recorded as requiring ‘priority assistance’ in the event of disruption to service; and
• Ensuring all data relating to the history of contacts is recorded properly.

6.1.3 Property Data

In the property area the data breaks down into further subsections such as:
• Having the correct address recorded including the post code;
• Ensuring map references relating to properties are accurate (important for meter reading);
• Property status in terms of whether a property is occupied or vacant; and
• The correct connection date is recorded.

Errors in this area can mean that a property can be located in the incorrect District Metering Area. This means that if a customer informs NI Water that they have no water supply in their house we may dispatch the wrong engineer/field manager. Incorrect recording of this data also impacts on calculations on Leakage and Interruptions to Supply reports. This can lead to incorrect, long term planning assumptions for capital works planning.

A project, titled ‘Customers and Properties’, is in place within the Data Quality Programme to address these two broad areas. The project is examining the processes for updating customer information and putting in place any enhancements needed to improve data quality. Currently the programme has five main strands:

a) The delivery of additional training of advisors on best practice for updating customer and property records.;
b) Performing a complete reconciliation across main customer and property databases. This is to ensure that property numbers are consistent across NI
Water’s key databases and that they are allocated to the correct District Metering Area;
c) The use of external data sources to validate and, if necessary, resolve discrepancies in billing address, business names and building occupancy status for NI Water’s non-domestic customer base;
d) The review and updating of all non-domestic customers VAT codes to ensure correct VAT allocation; and
e) The cleansing of records of government buildings and removal of duplicates.

6.1.4 Asset Data
In the Asset area the data breaks down into further sub-sections, such as sewer records, water treatment works, supply network records, meters etc. Accurate asset data is essential to both our operational performance and the reporting of this performance to the Utility Regulator and other stakeholders. The Asset Data Acquisition and Improvement project sits alongside the Data Quality programme and is a major investment (almost £4.3m over the PC10 period) in improving our systems and the quality of the asset data held within those systems. Within the Data Quality Programme the main project in this area is the Meter Data Cleanse which will improve meter data integrity through cleansing activity for some 10,500 meter records. This is key to ensuring NI Water’s billing system is populated with accurate and reliable meter data. In addition, outside the Data Quality Programme there is a major programme, Asset Data Acquisition and Improvement (ADAI); being progressed to validate and update all our key above ground assets during the PC10 period.

6.1.5 Operational Performance Data
In the Operational Performance area the data breaks down into job records, telemetry alarms etc. The majority of this information is obtained via reports on other data areas such as customers, properties and alarm information. In the 2009/10 financial year there was considerable focus on verification and correction of telemetry data. As NI Water move into the 2011/12 Financial Year the focus of the Data Quality programme will move from Customer & Billing data on to operational and asset data. Both Customer Services Delivery and Asset Management have work in hand to address Leakage and Asset Verification. The
focus of the Data Quality Programme of Work in this area will be on improving the reliability and timeliness of reporting in areas such as Interruptions to Supply.

6.1.5 Financial Data
Financial data is predominately held in our Oracle Finance system, supplemented with MIS reports from the billing and customer care systems. The financial data is subjected to regular and rigorous reviews via the internal and external audit process and is viewed as a high quality area of data. As such, there are no active projects in this area within the Data Quality Programme.

6.2 Measuring Data Accuracy
A generic issue with data quality across all industries is assessing accuracy of data and setting targets within acceptable tolerance levels of overall accuracy. The Water Industry works on six accuracy grades.

<table>
<thead>
<tr>
<th>Accuracy Band</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Rate</td>
<td>&lt; 1%</td>
<td>1-5%</td>
<td>5-10%</td>
<td>10-25%</td>
<td>25-50%</td>
<td>50-100%</td>
</tr>
</tbody>
</table>

If the accuracy of critical data is in Band 1 or 2 then the operational impact, whilst potentially significant for individual customers, is accepted as industry best practice.

The major issue in the use of Accuracy Grades is in assessing the data in an objective and consistent manner. The Data Quality Programme has addressed this issue by developing a measurement tool which checks that the data is syntactically correct across its key operational databases for customer care, billing and workforce management. This structured approach will increase our confidence in the accuracy but will need to be supplemented by additional checks to ensure that the data is factually correct.

The final area that is being address by the Data Quality Programme is that of data ownership and cultural change. A critical success factor in NI Water's drive to improve its data quality is to mobilise the entire workforce and ensure that everyone views it as their responsibility to provide reliable, accurate and timely data. The Communications Project has developed and rolled out a series of
training and promotional material on Data Quality, stressing the importance of accurate data to NI Water. The Data Ownership project is identifying managers across the business who will accept responsibility for the accuracy and on-going improvements to critical data objects such as meters and properties.
## Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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</thead>
<tbody>
<tr>
<td>ADAI</td>
<td>Asset Data Acquisition and Improvement</td>
</tr>
<tr>
<td>AIR</td>
<td>Annual Information Return</td>
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<tr>
<td>CCNI</td>
<td>Consumer Council for Northern Ireland</td>
</tr>
<tr>
<td>CRC</td>
<td>Carbon Reduction Commitment Energy Efficiency Scheme</td>
</tr>
<tr>
<td>CWA</td>
<td>Consequent Written Agreement (linked to MOU)</td>
</tr>
<tr>
<td>DG measures</td>
<td>Director General measures – Regulatory key performance indicators</td>
</tr>
<tr>
<td>DG2</td>
<td>Reference to the number of properties at risk of receiving low pressure</td>
</tr>
<tr>
<td>DG3</td>
<td>Reference to the number of properties affected by unplanned and un-warned interruptions to water supply</td>
</tr>
<tr>
<td>DG5</td>
<td>Reference to the number of properties at risk of internal flooding</td>
</tr>
<tr>
<td>DG6</td>
<td>Reference to the percentage of billing contacts dealt with within 5 days</td>
</tr>
<tr>
<td>DG7</td>
<td>Reference to the percentage of written complaints dealt with within 10 days</td>
</tr>
<tr>
<td>DG8</td>
<td>Reference to the percentage of metered customers receiving bill based on a meter reading</td>
</tr>
<tr>
<td>DG9</td>
<td>Reference to telephone call handling</td>
</tr>
<tr>
<td>DRD</td>
<td>Department for Regional Development</td>
</tr>
<tr>
<td>DWI</td>
<td>Drinking Water Inspectorate</td>
</tr>
<tr>
<td>EMS</td>
<td>Environmental Management System</td>
</tr>
<tr>
<td>FD</td>
<td>Funding/outputs associated with the Final Determination</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gas</td>
</tr>
<tr>
<td>GoCo</td>
<td>Government Owned Company</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding (between DRD and NIAUR)</td>
</tr>
<tr>
<td>MZC</td>
<td>Mean Zonal Compliance</td>
</tr>
<tr>
<td>NDPB</td>
<td>Non-Departmental Public Body</td>
</tr>
<tr>
<td>NICCIP</td>
<td>NI Climate Change Impacts Partnership</td>
</tr>
<tr>
<td>NIEA</td>
<td>Northern Ireland Environment Agency</td>
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<tr>
<td>OPA</td>
<td>Overall Performance Assessment</td>
</tr>
<tr>
<td>PC10</td>
<td>Price Control period April 2010 – March 2013</td>
</tr>
<tr>
<td>PE</td>
<td>Funding/outputs associated with the Public Expenditure</td>
</tr>
<tr>
<td>PE</td>
<td>population equivalent</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>PSA</td>
<td>Public Service Agreement</td>
</tr>
<tr>
<td>SBP</td>
<td>NI Water Strategic Business Plan, April 2007 – March 2010</td>
</tr>
<tr>
<td>S&amp;EG</td>
<td>Social &amp; Environmental Guidance issued by the DRD</td>
</tr>
<tr>
<td>SCAMP</td>
<td>Sustainable Catchment Area Management Planning</td>
</tr>
<tr>
<td>UID</td>
<td>Unsatisfactory Intermittent Discharges</td>
</tr>
<tr>
<td>Utility Regulator</td>
<td>Northern Ireland Authority for Utility Regulation</td>
</tr>
<tr>
<td>WICS</td>
<td>Water Industry Commission for Scotland</td>
</tr>
<tr>
<td>WFD</td>
<td>Water Framework Directive</td>
</tr>
<tr>
<td>WRMP</td>
<td>Water Resources Management Plan</td>
</tr>
<tr>
<td>WwTW</td>
<td>Waste water treatment works</td>
</tr>
</tbody>
</table>
APPENDIX 1

Prescribed Tables

The following tables are an integral part of the Monitoring Plan and should not be read in isolation.
In developing our Business Plan for the PC10 period, a series of Working Groups were established to ensure a close liaison with the quality and economic regulators, the Consumer Council for Northern Ireland (CCNI) and the Department for Regional Development (DRD). This joint work shaped both the Customer Survey, undertaken on our behalf by CCNI, and the Social and Environmental Guidance issued by DRD which set our priorities for the period.

From this range of consultation, survey and guidance, NI Water set out its corporate strategic objectives for delivering improvements during the PC10 period in a ‘Road Map’, encompassing the four key elements of the organisation - our Customers; our People; the Cash we manage and the levels of quality Compliance that we must achieve:

Customers:
- Improve customer satisfaction
- Better understand the cause of complaints

People:
- Develop the capacity to deliver
- Champion Health & Safety
- Efficient and effective resourcing

Cash:
- Reduce costs and improve efficiency
- Improve the control environment of NI Water

Compliance:
- Deliver improvements in water & wastewater quality
- Create a data quality culture
- Develop an effective and controlled business
- Deliver stakeholder requirements
- Focus on data quality and systems

### AVERAGE EXPENDITURE PER PROPERTY

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>£/Prop</td>
<td>274.94</td>
<td>268.47</td>
<td>263.75</td>
<td>247.93</td>
<td>233.07</td>
</tr>
<tr>
<td>2</td>
<td>£/Prop</td>
<td>345.58</td>
<td>347.73</td>
<td>347.64</td>
<td>353.28</td>
<td>355.40</td>
</tr>
<tr>
<td>3</td>
<td>£/Prop</td>
<td>440.89</td>
<td>610.19</td>
<td>477.89</td>
<td>501.31</td>
<td>428.70</td>
</tr>
</tbody>
</table>

* The 2010-2011 figure is based on the actual expenditure

### OVERALL STRATEGY FOR 2010-2013 PERIOD AND OUR TOP STRATEGIC OBJECTIVES

Our Top 5 quality and service improvement commitments to customers are listed here. In determining these priorities, we have both taken account of the results of the customer survey which shaped our PC10 Business Plan to ensure we deliver improvements that are visible to customers and, continue to improve our communications with customers to further enhance customer satisfaction.

1. **Sewer Flooding (DG5)**
   - Reduction in number of properties affected by sewer flooding
   - Specific enhancement funding to address sewer flooding

2. **Low Pressure (DG2)**
   - Reduction in number of properties affected by low pressure

3. **Interruptions to Supply (DG3)**
   - Reduction in the Overall Performance Score to 1.16 by 2012/13.
   - Reduction in the number of customers affected by interruptions to water supply

4. **Response to Written Complaints (DG7)**
   - Reduction in the number of written complaints received from customers
   - Identifying the root cause of customer complaints
   - Increasing the percentage of written complaints dealt with within 10 days, including the provision of a substantive response; and
   - Develop reporting/tariffs on the number and frequency of repeat complaints and ‘holding’ responses issued.

5. **Customer Experience**
   - Ensure customer satisfaction with services
   - Improvement in accessibility for customers to our services and reducing the time taken to respond to customers when they need us
   - Customer satisfaction will be based on the quarterly DG9 McCallum Layton surveys. We are expecting a steady improvement over the PC10 period, from 4.6 to 4.7;
   - Work with customers to improve our data, accuracy and reliability of bills;
   - Improving access to services whereby customers can have their requests addressed via a number of channels – therefore increasing customer choice; and
   - Improve our customer service and reduce the number of customer contacts through analysis of data and identification of root cause and appropriate resolutions.

### TOP 5 QUALITY AND SERVICE IMPROVEMENTS IN 2010-2013 PERIOD

- Reduce the number of customers affected by interruptions to supply.
- Develop reporting/tariffs on the number and frequency of sewer blockage clearances taking more than 24 hours; and
- This is the number one issue identified by NI Water customers in the Customer Views Survey and is specifically mentioned in DRD guidance to the Utility Regulator.

- Improve customer satisfaction
- Better understand the cause of complaints
- Developing the capacity to deliver
- Champion Health & Safety
- Efficient and effective resourcing
- Reduce costs and improve efficiency
- Improve the control environment of NI Water

- Deliver improvements in water & wastewater quality
- Create a data quality culture
- Develop an effective and controlled business
- Deliver stakeholder requirements
- Focus on data quality and systems

- Customers:
  - Improve customer satisfaction
  - Better understand the cause of complaints
- People:
  - Develop the capacity to deliver
  - Champion Health & Safety
  - Efficient and effective resourcing
- Cash:
  - Reduce costs and improve efficiency
  - Improve the control environment of NI Water
- Compliance:
  - Deliver improvements in water & wastewater quality
  - Create a data quality culture
  - Develop an effective and controlled business
  - Deliver stakeholder requirements
  - Focus on data quality and systems

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Table 1: NI Water - A summary of our monitoring plan for 2010 – 2013

#### OVERALL STRATEGY FOR 2010-2013 PERIOD AND OUR TOP STRATEGIC OBJECTIVES

<table>
<thead>
<tr>
<th>TOP 5 QUALITY AND SERVICE IMPROVEMENTS IN 2010-2013 PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Top 5 quality and service improvement commitments to customers are listed here. In determining these priorities, we have both taken account of the results of the customer survey which shaped our PC10 Business Plan to ensure we deliver improvements that are visible to customers and, continue to improve our communications with customers to further enhance customer satisfaction.</td>
</tr>
<tr>
<td>1. <strong>Sewer Flooding (DG5)</strong> Reduce number of properties affected by sewer flooding</td>
</tr>
<tr>
<td>2. <strong>Low Pressure (DG2)</strong> Reduce number of properties affected by low pressure</td>
</tr>
<tr>
<td>3. <strong>Interruptions to Supply (DG3)</strong> Reduce the Overall Performance Score to 1.16 by 2012/13. Reduce the number of customers affected by interruptions to water supply</td>
</tr>
<tr>
<td>4. <strong>Response to Written Complaints (DG7)</strong> Reduce the number of written complaints received from customers</td>
</tr>
<tr>
<td>5. <strong>Customer Experience</strong> Improve customer satisfaction with our services</td>
</tr>
</tbody>
</table>

---

**Average Expenditure per Property**

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>£/Prop</td>
<td>274.94</td>
<td>268.47</td>
<td>263.75</td>
<td>247.93</td>
<td>233.07</td>
</tr>
<tr>
<td>2</td>
<td>£/Prop</td>
<td>345.58</td>
<td>347.73</td>
<td>347.64</td>
<td>353.28</td>
<td>355.40</td>
</tr>
<tr>
<td>3</td>
<td>£/Prop</td>
<td>440.89</td>
<td>610.19</td>
<td>477.89</td>
<td>501.31</td>
<td>428.70</td>
</tr>
</tbody>
</table>

---

* The 2010-2011 figure is based on the actual expenditure
**Table 2  Commitments on water provision and services**

<table>
<thead>
<tr>
<th>Line description</th>
<th>Units</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
<th>PC10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A  Consumer Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  Complete work to improve records of properties at risk of receiving low pressure and ensure continuity of company action to address low pressure.</td>
<td>txt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2  DG2 Properties at risk of low pressure removed from the risk register by company action</td>
<td>nr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  DG3 Supply interruptions &gt; 12hrs (unplanned and unwarned)</td>
<td>nr</td>
<td>2.010</td>
<td>3.673</td>
<td>1.750</td>
<td>1.700</td>
<td>1.650</td>
<td></td>
</tr>
<tr>
<td>4  DG4 DG5 Supply interruptions (overall performance score)</td>
<td>nr</td>
<td>1.42</td>
<td>2.21</td>
<td>1.24</td>
<td>1.20</td>
<td>1.16</td>
<td></td>
</tr>
<tr>
<td>5  DG6 % billing contacts dealt with within 5 working days</td>
<td>%</td>
<td>98.6</td>
<td>98.1</td>
<td>99.9</td>
<td>99.9</td>
<td>99.9</td>
<td></td>
</tr>
<tr>
<td>6  DG7 % written complaints dealt with within 10 working days</td>
<td>%</td>
<td>97.6</td>
<td>99.4</td>
<td>98.5</td>
<td>98.5</td>
<td>98.5</td>
<td></td>
</tr>
<tr>
<td>7  DG8 % metered customers received bill based on a meter reading</td>
<td>%</td>
<td>93.3</td>
<td>92.3</td>
<td>95.0</td>
<td>97.5</td>
<td>98.5</td>
<td></td>
</tr>
<tr>
<td>8  Call Handling Satisfaction score (1-5)</td>
<td>nr</td>
<td>4.40</td>
<td>4.60</td>
<td>4.65</td>
<td>4.70</td>
<td>4.70</td>
<td></td>
</tr>
<tr>
<td>9  DG9 % Calls not abandoned</td>
<td>%</td>
<td>98.9</td>
<td>97.4</td>
<td>99.0</td>
<td>99.0</td>
<td>99.0</td>
<td></td>
</tr>
<tr>
<td>10 DG9 % calls not receiving the engaged tone</td>
<td>%</td>
<td>100.0</td>
<td>100.0</td>
<td>99.9</td>
<td>99.9</td>
<td>99.9</td>
<td></td>
</tr>
<tr>
<td>11 Anticipated Overall Performance Assessment (OPA) score</td>
<td>nr</td>
<td>103</td>
<td>121</td>
<td>142</td>
<td>161</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>12 Total Leakage</td>
<td>Ml/d</td>
<td>180.93</td>
<td>186.86</td>
<td>175.00</td>
<td>171.00</td>
<td>168.00</td>
<td></td>
</tr>
<tr>
<td>13 Percentage of NI Water's power usage derived from renewable sources</td>
<td>%</td>
<td>11.31</td>
<td>12.72</td>
<td>11.00</td>
<td>12.00</td>
<td>13.00</td>
<td></td>
</tr>
<tr>
<td><strong>B  Quality Water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 % mean zonal compliance with drinking water regulations</td>
<td>%</td>
<td>99.49</td>
<td>99.74</td>
<td>99.70</td>
<td>99.70</td>
<td>99.70</td>
<td></td>
</tr>
<tr>
<td>15 % mean zonal compliance for Operational Performance Indicator (Turbidity, Iron &amp; Manganese)</td>
<td>%</td>
<td>99.22</td>
<td>98.30</td>
<td>99.10</td>
<td>99.10</td>
<td>99.10</td>
<td></td>
</tr>
<tr>
<td><strong>C  Water Outputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Length of new, renewed or relined mains</td>
<td>km</td>
<td>659.05</td>
<td>471.10</td>
<td>300.00</td>
<td>300.00</td>
<td>300.00</td>
<td></td>
</tr>
<tr>
<td>17 Completion of nominated trunk main schemes to improve security of supply.</td>
<td>nr</td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>18 Completion of nominated water treatment works schemes to improve water quality.</td>
<td>nr</td>
<td></td>
<td></td>
<td>2</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>19 Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks.</td>
<td>nr</td>
<td></td>
<td></td>
<td>7</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
# Table 3  Commitments on sewerage provisions and services

<table>
<thead>
<tr>
<th>Line description</th>
<th>Units</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Consumer Service Sewerage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 DG5 Properties at risk of flooding - number removed from the Risk Register by company action</td>
<td>nr</td>
<td>N/R</td>
<td>185</td>
<td>100</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>2 Complete work to improve records of properties at risk of sewer flooding and ensure continuity of company action to address internal property flooding.</td>
<td>txt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B Quality Sewerage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 % of WWTWs compliant (Water (NI) Order numeric consents)</td>
<td>%</td>
<td>90.0%</td>
<td>91.6%</td>
<td>85.0%</td>
<td>85.8%</td>
<td>88.2%</td>
</tr>
<tr>
<td>4 % of WWTWs compliant (UWWTD consents)</td>
<td>%</td>
<td>92.0%</td>
<td>92.9%</td>
<td>89.8%</td>
<td>91.1%</td>
<td>94.9%</td>
</tr>
<tr>
<td>5 % of WWTWs discharges compliant with numeric consents</td>
<td>%</td>
<td>88.8%</td>
<td>92.1%</td>
<td>84.6%</td>
<td>85.5%</td>
<td>87.9%</td>
</tr>
<tr>
<td>6 % of total p.e. served by WWTWs compliant with Water (NI) Order consent (LUT)</td>
<td>%</td>
<td>89.70%</td>
<td>93.80%</td>
<td>94.87%</td>
<td>94.83%</td>
<td>96.50%</td>
</tr>
<tr>
<td>7 % of total p.e. served by WWTWs compliant with UWWTD consent (LUT)</td>
<td>%</td>
<td>98.40%</td>
<td>97.60%</td>
<td>95.73%</td>
<td>94.23%</td>
<td>98.78%</td>
</tr>
<tr>
<td>8 Number of high and medium pollution incidents attributable to NI Water</td>
<td>nr</td>
<td>56</td>
<td>55</td>
<td>54</td>
<td>51</td>
<td>48</td>
</tr>
<tr>
<td><strong>C Sewerage Outputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Length of sewers replaced or renovated</td>
<td>km</td>
<td>12.13</td>
<td>13.45</td>
<td>24.00</td>
<td>25.90</td>
<td>13.90</td>
</tr>
<tr>
<td>10 Delivery of improvements to nominated UIDs as part of a defined programme of work</td>
<td>nr</td>
<td></td>
<td></td>
<td>16</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>11 Delivery of improvements to WWTW through nominated schemes as part of a defined programme of work</td>
<td>nr</td>
<td></td>
<td></td>
<td>20</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>12 Investment in improvements to small wastewater treatment works as part of the rural wastewater investment programme.</td>
<td>£m</td>
<td></td>
<td></td>
<td></td>
<td>4.2</td>
<td>7.9</td>
</tr>
</tbody>
</table>

NIW action to improve processes & data set out in Section 3.2.2 of the Monitoring Plan.
Table 4  Financial projections

<table>
<thead>
<tr>
<th>Line description</th>
<th>Units</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Current cost profit &amp; loss and financial indicators for regulated business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Turnover</td>
<td>£m</td>
<td>327.395</td>
<td>347.569</td>
<td>357.862</td>
<td>366.539</td>
<td>374.225</td>
</tr>
<tr>
<td>2 Operating costs</td>
<td>£m</td>
<td>207.591</td>
<td>198.491</td>
<td>195.015</td>
<td>184.932</td>
<td>175.846</td>
</tr>
<tr>
<td>3 Capital Charges</td>
<td>£m</td>
<td>108.454</td>
<td>130.443</td>
<td>122.761</td>
<td>130.800</td>
<td>139.102</td>
</tr>
<tr>
<td>4 Operating Profit</td>
<td>£m</td>
<td>11.008</td>
<td>22.963</td>
<td>39.145</td>
<td>51.069</td>
<td>60.272</td>
</tr>
<tr>
<td>5 Regulatory capital value - year end</td>
<td>£m</td>
<td>1,194.686</td>
<td>1,421.544</td>
<td>1,522.629</td>
<td>1,656.194</td>
<td>1,797.545</td>
</tr>
<tr>
<td>6 Pre tax return on regulatory capital value</td>
<td>%</td>
<td>1.003%</td>
<td>1.720%</td>
<td>2.692%</td>
<td>3.213%</td>
<td>3.490%</td>
</tr>
<tr>
<td>7 Cash interest cover</td>
<td>nr</td>
<td>5.75</td>
<td>3.97</td>
<td>3.17</td>
<td>3.17</td>
<td>3.22</td>
</tr>
<tr>
<td>8 Adjusted cash interest cover I (maintenance charges)</td>
<td>nr</td>
<td>0.77</td>
<td>0.49</td>
<td>0.77</td>
<td>0.87</td>
<td>0.97</td>
</tr>
<tr>
<td>9 Adjusted cash interest cover II (maintenance expenditure)</td>
<td>nr</td>
<td>1.62</td>
<td>1.86</td>
<td>1.52</td>
<td>1.66</td>
<td>1.79</td>
</tr>
<tr>
<td>10 Funds from operations:debt</td>
<td>%</td>
<td>24.00%</td>
<td>18.00%</td>
<td>12.48%</td>
<td>12.65%</td>
<td>12.97%</td>
</tr>
<tr>
<td>11 Retained cashflow:debt</td>
<td>%</td>
<td>18.00%</td>
<td>11.00%</td>
<td>7.25%</td>
<td>9.32%</td>
<td>9.97%</td>
</tr>
<tr>
<td>12 Gearing (net debt/RCV)</td>
<td>%</td>
<td>36.41%</td>
<td>43.42%</td>
<td>51.53%</td>
<td>53.11%</td>
<td>53.76%</td>
</tr>
<tr>
<td>13 Total capital programme expenditure net of grants and contributions*</td>
<td>£m</td>
<td>276.305</td>
<td>252.646</td>
<td>158.334</td>
<td>189.000</td>
<td>147.600</td>
</tr>
</tbody>
</table>

* The 2010-2011 figure is the actual expenditure