# **Northern Ireland Water Ltd**

Annual Information Return 2009
To the
Northern Ireland Authority for Utility Regulation



# **Public Domain Version**

Part 1 of 7 containing:
Reporter's Report on the Board Overview

Reporter's Submission

Ву

CWJ Turner
Halcrow Management Sciences Ltd



# Northern Ireland Water Ltd

Annual Information Return 2009
To the
Northern Ireland Authority for Utility Regulation

Public Domain Version

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# Northern Ireland Water Ltd – AIR2009 Submission

This is the public domain version of the Reporter's submission for AIR2009.

Items mark (x) have been excised as they are considered commercially confidential or of sensitive nature.

# Reporter's Commentary on the Board Overview

# 1. Basis of Opinion

In accordance with its Instrument of Appointment, Northern Ireland Water Ltd (NI Water) has appointed Halcrow Management Sciences Ltd, a ring-fenced member of the Halcrow Group, to provide reporting services to the Northern Ireland Authority for Utility Regulation (NIAUR). NIAUR regulates the appointment and work of Reporters by a Protocol which formally sets out the mechanism for appointment and the tasks that the Regulator requires of Reporters.

The Interim Reporter for NI Water, Chris Turner, supported by a team of technical and operational specialists, has examined, tested and provided opinion on the information provided by the Company in its Annual Information Return 2009.

The Reporter's work includes:

- assessing the Company's compliance with NIAUR's reporting requirements and guidelines,
- ensuring that the Company's material assumptions have been exposed and explained, and
- preparing a written report together with a professional opinion on the Company's process for developing its submission and on the accuracy and reliability of the information.

In accordance with our appointment, we have carried out checks on the Company's reporting processes and examined the data in the context of our knowledge of NI Water's activities and the prevailing conditions in the regulated water sector. We have examined and provided opinion on the Company's tables, commentaries and other information forming its Annual Information Return 2009 to NIAUR.

# 2. The Board Overview

Except as identified in the following sections, we consider that:

- The Company has established procedures for collecting and reporting the required information consistently and accurately. They have enhanced their corporate governance and QA processes and applied them to the preparation of this submission. Senior managers and Directors are required to approve and thereby assume accountability for the integrity of the regulatory information provided.
- There has been a high degree of involvement of the Company's Internal Audit function in both AIR08 and AIR09 submissions, particularly focussing on the non-financial tables. (The financial tables are generally deemed to be adequately covered by well-established processes, independent audit and a history of improvement). This has improved the 'auditability' of information through the provision of formal methodologies as well as generating a further step-change improvement in the quality of many of the commentaries and in some cases, step-changes in the data reported.
- We have carefully considered the Board's statement on the compilation of the AIR09. We confirm that the measures and procedures they describe are consistent with those we have observed during our audits.
- Any departures from their prescribed methodologies that we identify are brought to the Company's attention and, where material, are reported on in our commentaries.
- Material assumptions embedded within the Company's procedures appear reasonable.
- The report adequately represents NI Water's activities and performance in the Report Year
- The information reported in AIR09 is consistent with the Reporting Requirements.
- The information and numerical data provided in the Board's Overview is founded on and is consistent with the tables and commentaries in the AIR09.

Our commentaries and this Reporter's Overview are based upon the information presented in NI Water's submission dated 31<sup>st</sup> July, 2009.

#### 3. Governance of the Annual Information Return

In the Board's Overview which accompanies the AIR09 submission to NIAUR, NI Water describes the processes and internal systems of control which have been applied to the preparation of the submission.

Our audits confirm that NI Water has developed line methodologies for all the non-financial information. To the extent we are required to audit and comment upon the financial measures information we confirm that methodologies also exist for all these with the exception of Table 33, where there remains some uncertainty as to what is required in NI Water's circumstances and how NI Water's current accounting systems can accommodate the Reporting Requirements.

Ownership of all reported lines was clear and determined well in advance of the submission. In many cases, the structure of the organisation is such that there are several contributors to a line and each has developed a methodology for collecting and processing the data they are responsible for sourcing. Although a detailed understanding of the requirements will take time to disseminate into the organisation, particularly when a significant re-structuring is in process, we would like to see a greater degree of consistency between these methodologies and a more coordinated ownership of information at earlier points in the processes.

Evidence of internal peer review and challenge of the reported information was generally not as well documented as we would expect to observe in our detailed audits, but a top-down review of senior management and director sign-off showed that this process does appear to have been implemented as described in the Board's Overview.

Appropriate project governance was established early and it is clear that there has been regular high-level involvement and support, with additional assurance of the detailed processes being sought through the Internal Audit function, which performed an extensive review of the methodologies and of their application.

We have carefully considered the Board's statement on the compilation of the Annual Information Return. We confirm that the measures and procedures they describe are consistent with those we have observed during our audits of the AIR information. Any departures from their prescribed methodologies that we have identified during the course of our work were brought to the Company's attention and, where material, are reported on in our commentaries.

The information reported in AIR09 is as consistent with the Reporting Requirements as is reasonable to expect from an organisation undergoing such transformation. Areas of concern are identified in our Main Report but the majority of these were already generally known to NI Water and appropriate improvements have been identified and are in hand.

NI Water has fully co-operated with the Reporter's team and facilitated suitable access to information, systems and staff and we express our thanks to all the staff involved.

NI Water also makes statements on the quality assurance procedures that they put in place through their Internal Audit function. Through specific meetings and evidence reviews, we assessed these processes and confirm the accuracy of these statements. Significantly more detail is provided in our Report on NI Water's Systems of Planning and Internal Control, 2009.

We are also able to confirm the degree of involvement of the Board in the production and completion of the AIR09 submission. We have witnessed Board and Executive Team meeting minutes and held meetings with Board Directors and Executive Team members to test their level of involvement and understanding: it is clear that Regulatory information submissions have been an important focus of much of their attention.

Significant time and resource has been invested in regulatory submissions. We assume that this is as a result of the importance in which the supply of reliable, accurate and complete information is held, and the speed with which the Company is trying to catch up by improving their fundamental systems and processes (which supply and collate the necessary information in a consistent and timely manner). Indeed, the investment targeted at providing and improving their regulatory information is more significant than that which is evident to us in England and Wales. We trust that the continuation of these efforts and the pace of improvement will hasten NI Water's progress towards the quality of information required to facilitate adequate comparisons at more granular levels than seems appropriate/possible at this time.

We also reviewed the processes and internal controls used to govern the production of the AIR09 submission to NIAUR. In this review, we focussed on the top down processes which define who does what and when.

NI Water demonstrated that their AIR09 submission process began in November 2008 when a presentation was given to the Project Board. All requirements and responsibilities are disseminated into the Directorates through the Project Board. Line authors, reviewers/checkers, and approvers (level 3 manager or above) were identifiable for all entries. For AIR09, line methodologies were produced in April and these were reviewed and approved, and received Director sign-off. A check-list was tabled during the audit which indicated receipt of all approvals, a sample of which was checked back to source documents (mainly emails from the approvers).

NI Water was also able to demonstrate that they had a process for receiving and disseminating the subsequent clarifications to the Reporting Requirements.

Following the receipt of all the non-financial tables and commentaries, the Regulation and Business Performance team undertook a full review of the commentary content against the requirements of NIAUR guidance. Again a check-list was in evidence and this appeared to cover all the headline issues. This should ensure the presence (but not the quality) of the key requirements.

As AIR information is reported to the Finance and Regulation team and approvals from senior management are received, the data is locked down and thereafter a formal change control takes effect. We reviewed the data receipts for a series of tables and confirm that where data had changed after the lock-down, the changes had been approved by relevant Senior Management.

Final AIR09 sign-off was achieved at the NI Water Board meeting of 28th July 2009.

The processes of control of AIR information by the Finance and Regulation team appear to be sufficiently sound, and simple but reasonable systems are in place to manage and check that the information they receive has been duly approved.

For ease and efficacy of audit, we would like to see a greater transparency of the topdown data collection process, better defining where information is received from and more clearly indicating the contribution that each source makes to the totals reported.

Our commentaries on each of the AIR09 tables provides further details of our findings on the processes and methodologies, assumptions and sources of information employed to assemble the components of reported data and the degree of compliance against the Reporting guidelines that has been achieved.

### 4. Levels of Service

# 4.1 DG2 – Properties receiving low pressure

Extensive investigations are ongoing into the number of properties on the DG2 Register. These are the principal cause of the significant reductions reported and we anticipate that further reductions will be made as information improves and matures. The current numbers on the Register is not supported by any sustained level of customer complaint.

# 4.2 DG3 – Supply Interruptions

NI Water has reported data on both unplanned and planned interruptions and calculated an overall performance score. The Company has reasonably well developed systems for reporting this information but we consider that further work is required to ensure that systems are embedded, reporting is consistent and robust audit trails are maintained.

# 4.3 DG5 – Sewer flooding

Significant improvements have been made to the quality of internal flooding data since AIR08 with each reported incident of internal flooding being investigated through flooding incident reports or site visits by NI Water staff to confirm whether internal flooding did actually occur. As a result, it was found that most of the incidents logged as potential internal flooding by the customer contact centre were not actually internal flooding. Further work is required to improve external flooding records and the at-risk registers for internal and external flooding. This is programmed for the coming year.

### 4.4 DG6 to DG9 - Customer Service

Billing contacts and numbers of complaints have increased due to the increase in the unmeasured non-domestic sector being billed.

During the year NI Water announced its intention to change the contractual arrangements of the Crystal Alliance consortium, which provides support in customer contact and billing services. The Company advised this change would allow NI Water to take direct management control of the core customer service support activities.

This change was effective on the 3 July 2009 and as such the AIR09 submission relates to a period under the previous contractual arrangements. We reviewed the Company's operation prior to this date and found their Levels of Service Methodologies were predominantly compliant and the implementation was reasonably consistent. Several weaknesses have been identified but were not fully addressed due to difficulties with the previous contractual arrangements. NI Water's direct management control of the customer function should now afford them better access to data and facilitate improvements to the processes and methodologies employed.

NI Water plan to undertake a number of specific activities and to implement new processes during 2009/10, which we believe will help the Company to improve performance further.

# 5. Key Outputs

# 5.1 Properties and population

There have been several significant changes in this information including: property reclassifications; improved data collection systems; surveys and metering of non-household properties; better accounting of 'void' properties; phasing in of sewerage charging. Comparisons with previous years' information should therefore be treated with caution.

# 5.2 Water efficiency

NI Water has reported an improvement in water efficiency in this Reporting Year. However the Company does not have savings targets.

There have been no material changes in the Company's methodologies since 2007/08. Free leakage repair services are not offered to its household customers. However, the Company has issued almost twice as many Leakage Notices compared with AIR08 and has distributed 13 times more cistern devices.

# 5.3 Leakage

NI Water is part way through a two-year programme to improve the robustness of most components of the water balance. Whist we consider that the 2008/09 water balance is more robust than previously, there are significant components where data is being collected over a full annual cycle This may materially affect the estimates in future. See our separate report *Audit of Leakage and ELL*, dated July 2009 for further details.

# 5.4 Security of Supply

Completion of PPP Alpha has contributed to a significant increase in the SOS Index.

# 5.5 Sewerage Explanatory Factors

The Company continues to find it difficult to allocate information into the sub-areas and the works size bands required in some of these tables and to support some of their key assumptions. Disaggregated information should therefore be treated with caution.

# 5.6 Sewage sludge

The amount of sewage sludge produced remains relatively consistent with AIR08, reflecting stable operation and good quality data collection which has been in place for a number of years. Improvements have been made by excluding small volumes of non-regulated sludge (septic tanks) and including grit and screenings, in accordance with the guidance.

The Company reported no unsatisfactory sludge disposal in the Reporting Year.

# 6. Service Delivery

NI Water have indicated improvements on all water quality and serviceability indicators, and achieved an increase in the overall OPI from 98.98% to 99.22%. There has been a slight increase in the number of samples failing target levels for lead and other metals, although the Company are currently investigating whether it is actual deterioration of water quality or whether it is a sampling issue. The Company remains relatively unaffected by legal instruments, with only 9 Authorised Departures (mainly for THMs) and no Article 31s currently in place. Much of these improvements are a direct result of the recent completion of the 'Alpha' works projects and the respective decommissioning of a number of smaller works and related sources. These results are a correct reflection of the information the Company has supplied to DWI, but as yet the DWI has not published their 2008 Drinking Water Quality report.

Improvements at wastewater treatment works are very evident in NI Water's compliance statistics but are slightly behind what was originally intended as NI Water has introduced additional front-end processes to improve the value for money of these programmes of work. There have also been a series of re-prioritisations undertaken in conjunction with NIEA which have impacted upon the programme. Although progress to date in output terms is reasonably on target, we are concerned over a number of emerging issues with land/planning which may increasingly impact on the programme.

The number of sewer collapses has approximately doubled since last year, but is similar to the base year. The data collection and methodologies are still being established for recording and reporting this information and it is difficult to identify meaningful trends until there are several years of reliable data to compare. The number of collapses includes collapses on lateral sewers which are the responsibility of NI Water. However this is only divided by the length of main sewer (rather than main sewer + lateral sewer) because the length of lateral sewers has not been measured. For this reason, this value will appear to be high compared with other water companies. Collection of data that distinguishes between collapses on main sewers and collapses on lateral sewers would be useful to allow more direct comparison to other water companies.

Within water service activities, we have raised some concerns regarding the reporting of these figures in Table 11. In particular, we have identified the possible double counting of upsizing by pipe bursting which we believe is causing a significant over-reporting in the length of new mains. NI Water has however stated their mains length accounting methodology conforms with the specific guidance issued for 2007/08. Two of the principal contributors to the table, Networks Water and Leakage Section, have both undergone significant restructuring this year, including the introduction of the new Mobile Works Management system, which the Company hopes will improve the logging and reporting of work orders and hence directly improve the reliability of the data being reported. The Company has continued to develop its zonal model studies and has increased the coverage of its distribution networks to 61% of population.

# 7. Key Supporting Information

# 7.1 Capital Works Programme

The Company's allocation methodologies have been substantially improved and now report reliable information on asset additions. Purpose category allocations have been thoroughly reviewed and corrected where necessary such that there is good alignment of the capital works programmes with allocation rules. Procedures are in place to ensure that allocations are checked at key project stages to capture any changes in solution.

Progress to date on the water service programmes is broadly in line with expectations although there have been adjustments to programme detail.

The WWTW programme has been subject to significant change, through re-assessment of scope, re-prioritisation and re-programming. Whilst quality outputs are being met numerically, and investment is currently perceived to be beating the efficiency targets, it is not clear whether what is being delivered is fully comparable with the original expectations.

We believe the regulatory process would benefit from a greater level of formality of outputs (sites, standards and dates) to allow a structured and more accurate assessment of progress in delivering the capital programmes to be made.

#### 8. Other Initiatives

# 8.1 Health and Safety

As is common across the water industry in England and Wales, NI Water is reasonably confident in the reliability of data relating to its own employees, but has less confidence in the information provided by its contractors. The Company is in the process of changing its absence reporting policy from paper-based forms to a computer-based reporting system. However these changes are ongoing and for the 2008/09 there has been no change from the practice adopted previously.

The Company has reported improvements in both its lost time due to illness, and RIDDOR incidents.

# 8.2 Carbon Accounting

We have reviewed the Company's carbon strategy and carbon accounting methodology given in its Board Overview and have met with NI Water's Energy team.

We can confirm from UKWIR worksheets and supporting information that NI Water has applied the correct methodology and used correct greenhouse gas conversion factors. The change of emission factor by Defra has been applied to the calculations and the calculations were made satisfactorily. The assumptions and omissions made by the Company, as described in detail in our commentary, are appropriate and we believe that the omissions are not material to the overall emissions figure.

### 8.3 Sustainable Procurement

We note the commentary provided by NI Water in their Board's Overview on this issue but are unable to confirm the extent of the Company's progress towards best practice and the implementation of their Sustainable Procurement Action Plan. This will be an activity we will pursue early in the current year with confirmatory meetings at year end.

# 9. Consistency of the Board's Overview with other parts of the AIR 09 submission

We confirm the consistency of Report Year information in Tables A to E in the Board's Overview with the relevant information provided in the AIR09 tables as follows:

- Table A fully consistent.
- Table B block A is fully consistent.
  - blocks B, B1 and B2 are consistent with NI Water's Service Target Report, table 2, lines 20-23 [X]
  - block C is fully consistent.
  - block D is consistent [X].
- Table C blocks A & B only checked. These are fully consistent.
- Table D fully consistent.
- Table E fully consistent.

CWJ Turner Reporter for Northern Ireland Water Ltd Halcrow Management Sciences Limited 10<sup>th</sup> August, 2009

# **Carbon Accounting**

# Commentary by REPORTER

#### 1. **Background**

This commentary provides details from our review of NI Water's Carbon Accounting assessment included in the Board Overview of AIR09.

#### 2. **Key findings**

- NI Water has applied the UKWIR carbon accounting methodology correctly
- NI Water has applied the correct greenhouse gas conversion factors

#### 3. **Audit Approach**

The audit consisted of an interview with the NI Water carbon accounting system owners and a review of relevant documentation, system methodologies, and data used to compile the table. The audit also included a review of the Company's commentary.

#### 4. **Audit Findings**

#### 4.1 General

We have reviewed the Company's statement on 'Carbon Accounting' in its Board Overview and have met with NI Water's energy team.

We can confirm from its UKWIR workbook that NI Water has applied the correct methodology and used correct greenhouse gas conversion factors.

We also had a discussion on the Company's carbon reduction commitment. The Company explained that NI WATER does not presently have a specific strategy akin to the Strategic Direction Statements for water companies in England and Wales but that they do accept the targets set by the Government. NI Water's long term target is 80% reduction in carbon emissions by 2050 against a 1990 baseline.

To assist in achieving the target, the Company has set targets for the renewable energy use (details described in the Company's commentary) and now purchase electricity from renewable sources. We challenged the Company why NI Water does not purchase 100% of its electricity from renewable sources. The Company explained that currently the suppliers cannot provide all of NI Water's electricity usage from renewable sources, however if it became possible, and did not entail excessive cost the Company may do so. NI Water advised that approximately 11.3% of total energy is currently self produced and purchased from renewable energy.

# 4.2 Reporting boundary

During our audit, we discussed with the Company its carbon accounting reporting boundaries. We suggested to the Company that they should report what is/is not included within its submission and where ambiguity exists that they should consult with NIAUR for further clarification. Areas such as the distinction between regulated & non regulated business would benefit from further clarification. Our key findings are:

- Emissions from air travel include all of NI Water's air travel which could be overestimated.
- Diesel use for transportation is purchased amount of diesel by the Company which again could be overestimated.
- Emissions from business mileage are not included as the Company could not identify totals from existing systems.
- Other GHG emissions and their carbon equivalents are not included as the Company does not presently record this information.

# 4.3 Operating emissions

Total operating emissions (calculated according to Defra guidelines) was 176,033 tonnes of CO2e. We understand that these emissions figures are correct at the time of Annual Information Return submission. However, these will reflect changes of conversion factors and methodologies, for example, the treatment of green electricity purchased.

The Company has calculated its net emissions/Ml water or sewage treated, using Table 10 Line 26 (for water) and Table 14 Line 7 (for wastewater), respectively.

During our audit, we discussed data sources, and use and requirements of data as per the UKWIR methodology. We believe the data acquisition process is appropriate. For example, energy suppliers send electricity invoices from half-hourly meters at each site to the Company's finance and energy teams on a monthly basis in a spreadsheet format which enables compilation for returns such as the AIR submission.

NI Water has included its emission from all of the Company's air travel, which could be overestimated as this emission figure may include non regulated business. However, we believe that the emission from air travel is immaterial.

Emissions of business mileage from cars have not been included. We challenged the Company on this. The Company explained that they could not separate the mileages between regulated and non regulated business. Therefore, the Company believes, and we are inclined to agree, that the emissions from transportation are underestimated.

# 5. Assumptions

During our audit, the Company confirmed the assumptions made for AIR09:

- The volume of water sludge has been calculated at 30% of wet tonnes to dry solids. This information was provided by its contractors. We confirm a ratio of 22 to 30% has been widely used in the industry, thus we confirm the approach is reasonable.
- Electricity usage for sludge disposal is included in sewage as the Company could not split usage between sewage and sludge disposal
- Other GHG gases such as PFC's, HFC's and SF6 are not included in AIR09. We believe emission from these gases would be immaterial.

#### 6. Confidence Grade

As electricity consumption contributes the most to the overall GHG emissions, overall confidence grades reflect the energy consumption confidence grades. 97.6% of total emissions according to CRC guidance are from electricity consumption, of which 98.3% (95.9% of the total emission) are based on half hourly metered data. Thus, we consider the overall confidence grade of B2 would be appropriate.

The confidence grade for Defra methodology is B3 which is less accurate than CRC guidance since some emissions were overestimated or excluded. We are concerned that these confidence grades were higher than what we expected. We believed that even though the vast majority of emissions are from electricity usage, the total emissions could change according to unknown amount of emissions. However, we believe that the unknown amount of these emissions would be immaterial. Therefore we concur with the Company's assessment.

# 7. Company Specific Guidance

None.

**Date:** 10 August 2009