

# Northern Ireland Water

## Reporter's Report on the Board Overview

Public Domain Submission

Prepared for  
Utility Regulator and NI Water

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**CH2MHILL®**

304 Bridgewater Place  
Birchwood Park  
Warrington WA3 6XG

# Reporter's Commentary on the 2014 Board Overview

## 1. Base Opinion

In accordance with its Instrument of Appointment, Northern Ireland Water Ltd (NI Water) has appointed CH2M HILL UK, a member of the CH2M HILL Group, to provide reporting services to the Northern Ireland Authority for Utility Regulation (UR). The UR regulates the appointment and work of Reporters by a Protocol which formally sets out the mechanism for appointment and the tasks that the UR requires of Reporters.

The Interim Reporter for NI Water, Jon Bateman, supported by a team of technical and operational specialists, has examined, tested and provided opinion on the information provided by NI Water in its Annual Information Return 2014. The appointed Reporter, Chris Turner, has supported and overviewed at the audit and report.

The Reporter's work includes:

- assessing NI Water's compliance with the UR's reporting requirements and guidelines,
- ensuring that NI Water's material assumptions have been exposed and explained, and
- preparing a report, and a professional opinion on the adequacy of NI Water's processes for developing its submission and the accuracy and reliability of the information.

In accordance with our appointment, we have carried out checks on NI Water's reporting processes and examined the data in the context of our knowledge of its activities and the prevailing practices in the UK regulated water sector. We have examined and provided opinion on NI Water's tables, commentaries and other information forming its Annual Information Return 2014 to the UR.

We would like to thank NI Water for the time and assistance they have afforded throughout the 2013/14 audits. We have received full co-operation from NI Water and have had sufficient and timely access to the staff and information that we reasonably require to form our opinions. We have no reason to believe that any relevant information has been withheld.

## 2. NI Water's Governance of the 2014 Annual Information Return

In the Board's Overview, which accompanies the AIR14 submission, NI Water describes the processes and internal systems of control which have been applied to the preparation of their submission.

In accordance with our appointment, we have carried out checks on NI Water'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 NI Water's tables, commentaries, compilation methodologies and other information forming its Annual Information Return 2014 to the UR.

To the extent we are required to audit and comment upon the financial measures information, we confirm that methodologies also exist for these tables. Any departures from NI Water's prescribed methodologies that we have identified during the course of the audit have been brought to NI Water's attention and, where material, are reported on in our detailed commentaries or where of concern, have been escalated into this Overview commentary.

As stated in their Board's Overview, NI Water has compiled their AIR submission in accordance with their AIR Completion Manual (ACM) which it has developed and for which is responsible. We confirm that this document addresses our key observations and recommendations from prior years for enhancing the regulatory reporting processes and information quality.

All NI Water's requirements and responsibilities are disseminated into the Directorates by the Regulation Manager. The project management team communicates with the full team directly. We confirmed that line authors, reviewers / checkers, and approvers (level 3 manager or above) were identifiable for all AIR entries. 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 note that NI Water makes ongoing enhancements to their approach to delivering services and reporting data. These enhancements are reflected in their methodologies and quality assurance procedures and result in a greater understanding of, and confidence in, their reported data. In particular, a computerised tracking system has been deployed for AIR14, which holds evidence of sign-off by the authors, reviewers and level 3 managers of the line methodologies, data and commentaries.

We also note that the actions pertaining to any recommendations made by the Reporter, Auditor, Internal Auditor or Regulator are now monitored by the Finance and Regulation Directorate (a recommendation from 2010/11). In planning and conducting our audit we have liaised with the External Auditor (KPMG), Internal Auditor and Regulator to clarify regulatory requirements, responsibilities and respective boundaries or interfaces.

Queries and clarifications are co-ordinated by NI Water's Economic Regulation (project management) Team but referenced and passed through to the relevant staff for information/resolution. The Economic Regulation team also maintains control of the definitive version of the AIR document, including the issue of any errata.

We audited the reported data and challenged the processes on a sample basis. Except where detailed below and in the individual commentaries, we consider the data reported in the tables is robustly prepared using systems and process that are appropriate and in line with the reporting requirements and that are properly implemented with effective quality control and governance arrangements.

We have carefully considered the Board's statement on the compilation of the Annual Information Return and, except as identified below or in our detailed commentaries, we consider that to all intents and purposes:

- The measures and procedures NI Water describes are consistent with those we observe being implemented during our audits of the AIR information.
- Material assumptions embedded within NI Water's procedures appear reasonable.
- The report adequately represents NI Water's activities and performance in the Report Year.
- The information reported in the AIR is consistent with the Reporting Requirements.
- NI Water has established suitable procedures for collecting and reporting the required information with reasonable consistency and accuracy (and consistent with the confidence grades, where given).
- The processes of control of AIR information by NI Water's Finance and Regulation team appear to be sound, and simple but reasonable systems are in place to manage and check that the information they receive has been duly approved.
- NI Water continues to enhance their corporate governance and QA processes and have applied them to the preparation of this submission.
- NI Water's senior managers and Directors are required to approve and thereby assume accountability for the integrity of the regulatory information provided.

We are also able to confirm the degree of involvement of NI Water's Board in the production and completion of the AIR submission. We have witnessed Board and Executive Team meeting minutes which demonstrate that Regulatory information submissions have been an important focus of their attention. Indeed, significant time and resource is invested by NI Water in Regulatory submissions and we consider that this is the result of the importance with which the supply of reliable, accurate and complete information is held, and also the speed at which the Company is converging on regulated water businesses across UK by improving their systems and processes.

Our commentaries on each of NI Water's AIR tables provide further detail of our findings on the processes and methodologies, assumptions and sources of information which are employed to assemble the components of reported data and the degree of compliance (against the reporting guidelines) that has been achieved.

On the basis of the above, we consider that NI Water's Annual Information Return process is appropriate for generating suitable information for the 2014 AIR and has been effectively implemented for producing AIR14.

### **3. Consistency Checks**

#### **3.1 Reconciliation between the Board's Overview to AIR14**

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

- Table A – Fully consistent.
- Table B – Fully consistent.
- Table C – (Block A): Fully consistent.

#### **3.2 Table 44 – Overall performance assessment**

Table 44 is consistent with other sections of the AIR and the processing rules have been followed.

## 4. Summary of Key Findings

In the following sections, we summarise the principal issues arising from our audit work. Further information and background is contained in our detailed table commentaries.

### 4.1 Levels of Service Information Tables

#### Table 2 - DG2 - Properties receiving pressure/flow below reference level

A total of 163 properties were removed from the register in 2013/14, due to a combination of mains rehabilitation and better information. Of these 132 have been removed by company action; thus the Company has exceeded, by 14 (26%), the target of removing 118 properties from the DG2 register in 2013/14.

The DG2 Register contains full documentary evidence for properties that remain, are added or are removed from the register.

NI Water has continued to investigate properties on the register with pressure below 7.5m, and this number has increased slightly to 169 properties from 138 at AIR13.

NI Water has estimated the average cost of removing properties from the DG2 register as £9.1k/property, although this remains an approximation as the cost is derived from schemes that have a range of different investment drivers.

#### Table 2 - DG3: Interruptions to supply

NI Water reported a decrease in the number of properties experiencing a supply interruption. This decrease is due to the mild weather in winter as well as NI Water's initiatives aimed at reducing reported interruption durations. The reported 13/14 performance exceeded the PC13 targets.

#### Table 3 - Sewerage Service – Number of domestic property connected to sewerage service at year end

There is a small inconsistency between Line 1 and DG5 figures in which the reported number of **domestic** properties connected to sewerage service (Line 1) should include non-household properties that receive **domestic** allowance. NI Water agreed to clarify with UR.

#### Table 3 - Sewerage Service – Internal Flooding

The 2013/14 report year has seen further consolidation of the overall sewer flooding process for NI Water. Whilst incident reporting is now part of 'business as usual' operations, the quality of data collected is still of relatively poor quality. The number of 'false' internal flooding contacts referred to the Maintenance Contractor by the Customer Response Centre (CRC) is still of concern to us and should continue to be a primary area of focus for the Company.

During the year, NI Water received 490 internal flooding contacts representing a 26% decrease on the 656 contacts reported in AIR13. However, the proportion of 'false' internal flooding contacts (i.e. 419 out of 490) is significantly higher than we would expect and needs ongoing focus. We note the introduction of the 'Flood Incident Line' (FIL) following recommendations in the Performance and Efficiency Delivery Unit's (PEDU) Report, using call handlers, who have not received the same level of training as CRC staff, referring calls, which may contribute to the sustained level of 'false' internal flooding contacts received during the year.

For AIR14, NI Water has reported 6 incidents of internal flooding (due to overloaded sewers), of which 5 were attributed to severe weather, and 55 incidents of flooding due to other causes. This assessment is

supported but as previously note NI Water continues to be an outlier in terms of internal flooding compared to the rest of the UK, supporting the view that the overall sewerage design and network configuration may be the main explanatory factor for the low levels of internal flooding reported in NI.

Whilst NI Water's process for investigating and understanding the 'false' contacts is quite robust, it is very labour intensive, requiring a member of the Wastewater Business Unit team to complete a desktop investigation of each contact to identify whether flooding has occurred. The need to undertake this secondary verification stems from poor quality incident records collected by the Maintenance Contractor whilst attending each incident and we have identified that as an area for improvement. It appears that the Maintenance Contractor places emphasis on the completion of the Flooding Incident Report (FIR) and collection of evidence, for incidents where there is confirmed flooding and a clean-up is required. During our AIR13 audit of Table 3, we identified a section of sewer that was subject to frequent repeat blockages. In response to this, the Company is now proactively targeting repeat blockages, and a dedicated CCTV crew has been assigned to each area to undertake CCTV inspections on all blockage hotspots, carry out cleaning, desilting and repairs, where problems are identified. NI Water may also wish to consider a targeted Sewer Rehabilitation Programme, in conjunction with the above, to help further reduce the number of blockages and collapses.

We noted that NI Water is tending to take wider responsibility for flooding issues (particularly across Belfast), such as for multiple flooding mechanisms over and above sewer surcharge or overland flow from adjacent natural watercourses. In many cases, the solution proposed for this type of catchment wide problem is both large and expensive, with a long lead-in time to develop the proposed solution. In such cases customers can be left at risk of flooding for prolonged periods and we recommend that temporary mitigation (as used in other UK water companies) be considered in these instances to temporarily reduce the risk of subsequent incidents of internal flooding pending a permanent solution.

For 2013/14, the Company completed 4 schemes during the year, whereby 3 properties were removed from the 1in10 Register and 3 properties from the 1in20yr Flooding Register. A further 5 properties were removed from the 1in20 Register, when investigations confirmed that 5 properties have been protected from a DAP rehabilitation scheme completed in 2012.

Against a PC13 Year 1 target of 23 capital removals, NI Water delivered 11 removals by company action (of which 5 were actually delivered in PC10). Overall, NI Water has committed to deliver 67 capital removals over PC13, which would require them to deliver 56 outputs in Year 2 of PC13. On this basis, we consider the Company is unlikely to deliver their PC13 DG5 programme.

NI Water has reported an average capex cost per output of £234k for the 2in10/1in10 outputs and £144k for the 1in20 outputs in AIR14. However, the average cost for the 1in20 outputs is not a reflection of actual cost. For KL469, which enabled the removal of 2 properties [ x ], there was no allocation to ESL and have therefore been claimed as zero cost outputs, despite the scheme costing £263k to deliver.

The Company has assigned a confidence grade of B2 to Lines 2 to 11, using data from Ellipse and the Company investigations of all reported incidents. We support this assessment.

### Table 3a - External flooding

Historically, there has been very little focus on the management and reporting of external flooding data, and this position has not changed for AIR14. The process is still heavily dependent on the assumption that information provided by the maintenance contractor is accurate and complete. During the year, NI Water received 7,770 external flooding contacts, and an additional 1,780 potential incidents, referred to the CRC by Network Operations staff, of which 6,021 were not deemed to be external flooding incidents. For AIR14, 115 contacts were found to relate to external flooding incidents (due to overloaded sewers) and 3,389 contacts related to external flooding incidents (other causes).

The Company currently places very little importance on the collection and reporting of external flooding data and are primarily relying on the Contractor collecting an appropriate level of evidence/information at the time of the incident. We have suggested improvements to the internal assurance of contractor-reported data, which is not consistently occurring, so that NI Water can ensure sufficient information (evidence) is collected to enable the true nature of each contact to be determined.

A confidence grade of D6 has been assigned to Lines 1 to 15 on the basis that the raw data has been taken from Contractor records with limited investigation completed to verify the Contractor records.

#### **Table 4 - DG6: Response to billing contacts**

We observed a 2% increase in billing contacts received by NI Water. We have reviewed a number of written contacts to satisfactorily test various aspects of the Company's methodology. On the basis of the checks carried out and discussions held we believe the Company's approach is as described in their methodology statement and is accordance with the reporting guidance.

We note that due to a change in their methodology, 433 contacts which were received in 2012/13 and remained open at the end of 2012/13, are not reported in AIR13 nor AIR14.

#### **Table 5 - DG7: Response to written complaints**

The Company report that the total volume of written complaints received has decreased. Overall the number of complaints has decreased by 21% or 668 complaints in real terms.

Due to a change in DG7 Reporting methodology, there were 24 complaints where a contact was received in 2012/13 year, but have not closed by the end of 2012/13, then these contacts are not reported in AIR13 nor AIR14.

#### **Table 5 - DG8: Bills for metered customers**

The Company report that 99.11% of customers received a bill based on a meter reading in 2013/14. This is ahead of the Company's PC13 target which was 98.50% and also an improvement on the percentage reported in the previous year.

#### **Table 5 - DG9: Telephone contact**

Whilst NI Water point to the introduction of HVCA as an explanatory factor, overall call volumes and the abandonment rate has increased from that reported previously. We have checked and confirmed the DG9 performance reported in Table 5 for the calls not abandoned metric falls marginally below the target set at PC13.

Scores from the customer satisfaction survey are also marginally below target.

#### **Table 5 - Special assistance register**

The number of customers registered on the scheme has increased by 8.5%. We believe this is a combination of efforts to promote awareness amongst the customer base.

#### **Table 5a - DG7 Response to Written Complaints (complaints data for CCNI)**

The breakdown of complaints reported by the Company is consistent with the complaint volumes reported in Table 5.



## 4.2 Water Service Information Tables

### Table 7 – Water Properties and Population

We are able to reconcile the property numbers reported to the Rapid extract presented by NI Water.

We confirm the confidence grade of A2 for non-household data. After the Company's submission, we discussed and agreed with the Company that the confidence grade for household should be B2. We also agreed that the CG for HH remains B2 until NI Water having a direct commercial relationship with their household customers.

We consider that NI Water has used data from the NISRA website to develop an appropriate estimate of connected population.

### Table 8 – Water Metering

NI Water has made significant progress in understanding the difference between the number of domestic meters installed and the number of new domestic properties which we have identified in previous years. The Company explained that the main reasons for the difference is that a meter cannot be fitted due to the meter box being damaged, at insufficient depth or the groundwork not being completed. For 2014/15 it is proposed that a period of eight weeks is left between the date of connection and the date of meter installation to allow more time for the developer to complete the site works.

We recommend NI Water clarify with the Regulator the exclusions for water demand at recently metered NHH properties (Table 8 Line 13) and using lesser percentage of statistical function.

### Table 9 – Water quality

Although some indicators have deteriorated slightly from the previous year, water quality indicators generally remain good.

No existing or new 'Legal Instruments of Work' or Authorised Departures for distribution input are in effect.

### Table 10 – Water Delivered

NI Water's total leakage is 167 MI/d against a target of 169 MI/d. The Company has implemented an improved leakage management software package and has used this for developing the estimate of bottom up leakage; this makes direct comparisons with leakage from previous annual information returns invalid. We confirm this figure and assess that the Company has reduced leakage by between 3.5 and 4.0 MI/d during 2013/14.

During 2013/14 the Company developed an updated Sustainable Economic Level of Leakage (SELL) (which we reviewed separately), and used the opportunity to refresh the leakage assumptions, including supply pipe leakage, hour to day factor and night use allowances. We reviewed the revised estimates and found them to be appropriate and recommend that the Company refreshes the estimates/assumptions on a regular basis.

The pre-MLE estimate of distribution input (562.40 MI/d) was less than the sum of the components of the water balance by 3.15 MI/d (0.56%), which is well within the 5% threshold set by the Utility Regulator and continues to show the improvements seen in previous years 1.29% at AIR13, 2.32% at AIR12 and 4.14% at AIR11. As a consequence of this improvement we support a confidence grade of A1 for the water balance.

### Table 10a – Security of Supply Index

The SOSI has been calculated by reference to figures contained within the Water Resources Management Plan and has achieved a SOSI score of 100.

In recognition of the weather experienced in 2013/14 the Company has applied a dry-year uplift (+7%) to the report year distribution input. We consider this a reasonable approach, but recommend the Company investigates whether it is possible to further refine the normal year uplift for use in future years.

### Table 11 – Water Service Activities

Due to NI Water's personnel changes during 2013/14, it has become apparent that the Company needs to maintain clearer records of source data including supporting commentary to explain trends or one-off changes to activity levels.

All Zonal Study models have now been completed, and plans are in place to start the updating of the oldest models.

The continuing reduction in the number of mains bursts reported (Line 11) can largely be attributed to the weather (lack of a significant period of winter weather) and success of the mains renewal programme.

There was a slight improvement in Mean Zonal Compliance from AIR13.

The Nominated Water Service Outputs were accurately derived from the capital delivery database. NI Water is still confident of completing the PC13 as programmed.

A 12.44 km trunk main was located that was marked as "Out of Service" on the Corporate Asset Register. On review it appeared that the trunk main was strategic for water resources management purposes and although not currently in use, was not abandoned. Due to this we considered that this "Out of Service" trunk mains should be included in the Total length of Mains. NI Water has subsequently reviewed the methodology and updated it for the AIR14 submission.

### Table 12 – Water Explanatory Factors

Following some significant changes during 2012-13 to the counting of impounding reservoirs and river abstractions sources, there have been no further changes in methodology in AIR14. There are no changes to the numbers of sources or treatment levels at existing works in AIR14 with no significant change to line totals this year. All changes are due to fluctuations in distribution input.

The Company has continued to improve reliability and accuracy of flow and load data used to calculate average pump head (Line 5) through further expansion in the use of telemetry data at key pump sites and cross checking to remove duplication. This has resulted in a decrease in the average pump head value of -4.3%. The value is largely in line with other UK water companies.

The calculation process would still benefit from some further improvements in change control, clarification of excluded pumpsets and targeting of specific high-input pumpsets.

The Potable Mains data reflects that shown in Table 11. The breakdown into bands is via GIS database queries and was checked to confirm consistency.

### 4.3 Sewerage Service Information Tables

#### Table 13 –Sewerage Properties and Population

We have reconciled the property numbers reported to the Rapid extract presented by NI Water.

We confirm the confidence grade of A2 for non-household. After the Company's submission, we discussed and agreed with the Company that the confidence grade for household should be B2. We also agreed that the CG for HH remains B2 until NI Water having a direct commercial relationship with their household customers.

#### Table 14 – Sewage Collected

After the Company's submission, we agreed with NI Water that the confidence grades for HH should be B2. Whilst we acknowledge significant improvements in property numbers, unmeasured sewage volumes (Lines 1-3) are based on several assumptions and figures used in Table 10. We believe that the confidence grades for Table 10 would be B. We therefore believe that the confidence grades for Table 14 unmeasured volumes should remain consistent with those assigned in AIR11.

Significant increase in trade effluent volumes in Line 6. The increase was wholly due improved flow measurement at Duncrue Incinerator reporting higher flow volumes. This masked an underlying slight decrease in trade effluent from other sources.

#### Table 15 – Sewage Treatment

There has been no significant change to the totals in Lines 2 to 9 due to relatively few physical changes to treatment works in AIR14 (5 closures and 2 new works). The majority of change in line totals is due to adjustments in population equivalents. There are no significant change to methodologies affecting the line totals. There has been a small increase in trade effluent loading, although the majority was due to improved measurements at Duncrue incinerator rather than any significant change in throughput.

NI Water is continuing to invest in flow and load surveys and analysis to improve their understanding and the accuracy of their estimates. It is expected that significant further improvements will come about in the next few years as a result of the need for MCERTS compliance at all works with numeric consents.

Confidence grades remain unchanged from previous years, but we recommend increases in confidence grades for Lines 5-7 to C3 to recognize increased confidence in values and improve consistency across tables. We also recommend an increase in confidence grade for PPP works Line 5 (PPP works) from C5 to B2 to represent improved data accuracy and improve consistency across tables.

For PPP operated works the comparable ratios of BOD load increase and sludge load increase from last year do not align with each other, the explanation for this is not clear.

#### Table 16 – Sewerage Service Activities

No Drainage Area Plans have been completed in this year although there are now 8 updates ongoing. The previous procurement issues have now been resolved.

The number of reported collapses and blockages is improving year on year, but are still very high when compared to E&W water companies. We consider a targeted Sewer Rehabilitation Programme would help to further improve performance.

The Company has reported that circa 5% of total blockages in 2013/14, required in excess of 6 hours to repair.

With NI Water's personnel changes during 2013/14 it has become apparent that the Company needs to maintain clearer trails of the source data from Engineering Procurement and the Customer Services

Directorate's contractor. This includes obtaining supporting commentary to explain any trends or one-off changes to activity levels.

We have not been able to complete a comprehensive audit of the data provided by Customer Service Directorate's external contractor. Although not material to the total changes made to sewerage infrastructure during the report year, it does comprise the majority of Line 5 (83%) and nearly half (46%) of Line 8. Although we noted no issues with the data once provided to NI Water by the contractor we consider an internal assurance regime for contractor-reported data is needed.

We note that post-audit the Developer Services data was altered due to a further analysis on the criticality categories applicable to the Developer Services' dataset, impacting on Lines 3 and 8 (new sewers). We have not been able to confirm the post audit changes to the split in new sewers between Lines 3 and 8 at this time. We are however satisfied with the reasoning for the change and confirm that the overall totals of new sewers (for NI Water's formal post-submission amendment, shown below) are consistent with that audited.

The total length of sewers and critical sewers are taken directly from the Company's GIS system as per previous submissions. The queries used to extract this data are based in the WRc methodology, however for critical sewers, there is a degree of extrapolation and estimation based on the difference between the GIS data available and actual infrastructure. For example Hospitals are shown in the mapping information as a point reference rather than as an overall area. Criticality is determined from manhole to manhole.

Data indicate a slight improvement in the performance of intermittent discharges largely consistent with previous years. Consent failures were recorded at 19 water treatments works, including a size band 6 site [ x ]. A much higher confidence grade of B2 should be applied to Lines 24 and 24a to reflect the accuracy of the amalgamated source data.

The Nominated Sewerage Service Outputs were accurately derived from the capital delivery database. NI Water is still confident of completing the PC13 as programmed.

#### **Table 17a – Sewerage Sub-Area Explanatory Factors**

The audit has revealed that NI Water does not report data in a format required by the reporting requirements. The financial data contained in this table has simply been transposed from appropriate lines in Table 22. No allocations have been made across different sewerage sub areas for AIR14.

#### **Table 17b – Sewage Treatment Works – Large Works Information Database**

NI Water has identified 13 large works, each of which has its own location code to enable the identification of related costs.

Only a single power meter exists at each site. Where a treatment works provides both sewerage and sludge treatment facilities the operating costs are split on the basis of the judgement of operational staff.

The Company has used the same approach to reporting general and support costs as AIR13.

Noting the above limitations, based on our audit of sample data, we believe that the data reported in this table is consistent with the reporting requirements.

#### **Table 17c – Sewage Treatment Works - Numbers**

There is a slight reduction in the total number of STWs. The line totals include significant change to treatment categories, primarily due to a change in the Company's interpretation of the definition of the tertiary treatment standard and improved information rather than physical changes to works.

A minor error in line 6 (PPP) was noted during audit and not corrected for the final table.

#### **Table 17d – Sewage Treatment Works – Loads**

There has been some changes in STW load at 42 sites although the majority are due to improved information rather than physical changes. The line totals are also impacted by the change in treatment categories due to NI Water's revised interpretation of the tertiary treatment standard.

There are no material areas of concern regarding the data in this table.

#### **Table 17f – Sewage Treatment Works - Costs**

NI Water is increasingly relying on the cost to serve project to assign all costs for this table. It estimates that around 80%-85% of costs are directly attributable based on the cost to serve project, whilst the remainder are allocated on the basis of population equivalents. In future years the cost to serve project is likely to be able to allocate more than 85% of costs directly, though it is believed there will always be a residual cost value that is allocated on a different basis.

Noting the above limitations, based on our audit of sample data, we believe that the data reported in this table is consistent with the reporting requirements.

#### **Table 17g – Sludge Treatment and Disposal Information**

The costing data is extracted from the Company general ledger system. Some assumptions are required to apportion costs between categories. We believe these are appropriate in the absence of more relevant data.

Based on audit of sample data we believe that data reported in this table is consistent with the reporting requirements. Some assumptions are required to apportion costs between categories. We believe these are appropriate in the absence of more relevant data.

## 4.4 Financial Tables

### Table 21 - Activity Costing Analysis – Water, and

### Table 22 - Activity Costing Analysis - Sewerage

The focus of our audit is on movements in expenditure between years. We have liaised with KPMG and confirm they review the accuracy of the data reported in this table as part of the audit of the regulatory accounts.

NI Water has applied the same method to the completion of these tables for AIR14 compared to AIR13.

We consider that the approach to the allocation of cost data is capable of reporting as required.

The Company has reported a number of atypical costs. These are discussed in more detail below.

The Company has not disclosed details of donations to charitable trusts or fines and provisions made against Section 74 of the Roads and Street Works Act, although it has not incurred any such fines.

The cost data relies on a combination of service activity code, expense code and responsibility code. In the majority of cases this should be sufficient to report data for the purposes of Tables 21 and 22. However, it is possible that some costs will not neatly fit into the coding structure and the coding may require additional definition to ensure that NI Water is able to report more accurately at lower levels of granularity.

In general cost variations have been small between AIR13 and AIR14.

### Table 25 – Analysis of fixed assets by asset type

NI Water advised that it has not made any AMP adjustments in this table for AIR14. During AIR 14 we noted that NI Water has added some values to lines 7, 11, 12, 13 and 14 for infrastructure assets. These relate to disposals, charge for year and depreciation at 31 March. We noted that no cells existed for this data. Since then cells seem to have been added for these lines under infrastructure assets.

We understand from NI Water that the auditor believes the approach followed by NI Water is the correct one.

Noting the above comments, we believe that the data reported in this table is consistent with the reporting requirements.

### Table 30 – Capital Investment (covering Tables 32, 36, 36a, 40 and 40a)

NI Water's proportional allocation procedures are well established and consistently applied and we only found a few instances where the allocation of expenditure between purpose categories required review/adjustment. We continue to see evidence that the CIDA allocation of schemes are regularly critiqued by the NI Water Finance and Regulation Team and that Project Managers liaise with the same team to ensure consistency of approach, as in the case of Aghagallon WwTW and new development schemes.

In allocating total expenditure to the various sections of Table 32, an issue was identified with CPMR, whereby contract details for a number of different Operational Capital schemes were consolidated into a single project, with a single incorrect project allocation to service area in Table 32. We confirm that a manual review of all projects was completed and circa 4 projects were found to require manual adjustment.

As part of our review, we sought to reconcile individual AIR14 line totals back to Oracle, to verify the reported data. We found that T36 L11a (£11.221m) did not reconcile with new development expenditure as recorded in the 3 CIDA worksheets (£11.579m). NI Water advised that they completed a full reconciliation of Line 11a cost data in CIDA at year-end and found that L11a was intended to include

expenditure relating to Sewage.

Overall, capital expenditure of £167.5m has been incurred in 2013/14 against a forecast £171.4m, with Water Service related expenditure circa 10% lower than budget and Sewerage Service circa 4% above budget. There are a number significant variances in expenditure, with T36a L7 – Sewerage Non-Infra Maintenance circa 56% greater than the equivalent FD allowance for 2013/14.

As a result of additional PE that was made available in the final year of PC10, NI Water allocated the money to sewerage base maintenance projects that were already in the process of being delivered, and extended the scope to include lower priority improvements (that had previously been identified) and thus enable timely utilisation of the additional PE.

Reduced levels of sewerage enhancement expenditure reflects the deferral of a number of DAP schemes (each containing a significant number of UID outputs) and a number of WwTW outputs (including Kilmore WwTW).

In terms of the delivery of the PC13 capital programme, NI Water is broadly on target to deliver the overall water programme, despite deferral of a number of Year 1 outputs to Year 2. The wastewater programme however, is subject to significant change, with a number of Change Protocol submissions proposed to radically amend the overall UID programme and revise the WwTW programme.

In terms of the UID Change Protocol, the Company are proposing to swap 34 nominated outputs with an equivalent number of relatively simple WwPS solutions, whereby screens are being installed on WwPS overflows in order to meet Quality objectives. On this basis, NI Water will not deliver a like for like UID programme for PC13. Whilst a similar number of outputs will be delivered the outputs will be lower priority, delivered at a significantly lower cost and may not provide equivalent environmental benefit.

### **Table 33 – Depreciation charge by asset type**

We have commented on proportional allocation between base and enhancements and by asset lives in our commentaries to Tables 32, 35-36.

We note significant accelerated depreciation in the year, which follows similar levels of acceleration reported in AIR13, AIR12 and AIR11. We suggest that NI Water should get to a stable accelerated depreciation position.

W queried why NI Water made a one way downward adjustment for impaired assets which could impact on the value of the GMEAV and were advised that they have taken advice from their external financial auditors and this approach is consistent with UKGAAP.

NI Water has been applying what could be considered abnormal levels of accelerated depreciation for the last five years. This has related to both infrastructure and non-infrastructure assets. This suggests that the underlying data may need improvement. The last MEAV was done nearly 15 years ago. Given the amount of accelerated depreciation being applied, asset impairments and the fact that asset values will have moved somewhat in 15 years it is now critical that NI Water undertake a revised MEAV exercise.

Overall the Company has a relatively small prepayment balance. For Water NI Water has a prepayment of £12.1 million, whilst for Sewerage, they have an accrual of £12.1 million. This suggests that planning could be improved to avoid such significant variances.

Noting the above comments, based on the sample data audited, we believe that the data reported in this table is consistent with the reporting requirements.

#### **Table 34 – Analysis of non-infrastructure fixed asset additions by life category**

Due to their governmental ties, NI Water is required to spend money within the year that it is allocated, resulting in potential inefficient expenditure.

The appropriateness of the average asset lives was reviewed in our audits of the PC15 submissions. In general, these were deemed to be satisfactory and in line with assumptions employed elsewhere.

The audit trail for the basis of the split of assets is not transparent.

We have previously reviewed the allocation of expenditure contained in business cases submitted to the investment board. We noted that in some cases the asset allocation section of that document was not populated, whilst in other cases incorrect asset lives were being assigned. NI Water has advised that there has been no fundamental change to process since our review last year.

Noting the above limitations, based on our audit of sample data, we believe that the data reported in this table is consistent with the reporting requirements.

#### **Table 35 – Capital Investment – Public Expenditure Reconciliation**

This is a new table which provides a statement of the capital budget available and capital budget utilised in Public Expenditure terms and the gross capital expenditure by NI Water, all expressed in nominal terms. The table follows the content and structure of Table 3.2 of the PC13 information requirements to facilitate comparison between the Business Plan submission and actual expenditure.

Only minor adjustments have been made to the capital allowance. The Company report that these have had no material impact on their ability to deliver the capital programmes.

There has been a change in accounting methodology of the Alpha PPP Maintenance charge. This is now calculated as a flat annual charge rather than one which varies according to assumed asset investment.

In order to reconcile the Available PE to Table 3.2 of PC15, Line 1 should be as assumed for the Determination. However, the PE budget has been shown to be subject to movement in the past and it may be worth an additional line in block A which captures (and requires explanation of) such changes. An explanation of >2% variance between the adjusted PE capital budget and the NI Water gross capital budget would fulfil the requirements of the regulator.

#### **Table 37 – Capital Investment - Capital Grants and Contributions**

The reported data can be traced back to the working papers supporting the audited statutory accounts.

Based on our audit of sample data we believe that the data reported in this table is consistent with the reporting requirements.

#### **Table 38 – Capital Investment - Capital Grants and Contributions**

The information is extracted from various reports before being consolidated and aggregated to report data in this table. We have reviewed the aggregated spreadsheet and calculations on a sample basis and found no shortcomings.

Based on our audit of sample data we believe that the data reported in this table is consistent with the reporting requirements. There may be some scope for improving allocations which we will explore in AIR 15.



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**Table 42 – PPP Data**

There are atypical costs of [ x ] for Omega and [ x ] for Alpha and [ x ] of efficiency [ x ] reported for AIR14.

There has been a significant change to the capital repayments schedule for Alpha. This reflects a discrepancy between the financial lease repayment term and the contract term that was discovered during the audit of the 2012/13 statutory accounts. As a result NI Water also allocates a proportion of the capacity charge [ x ] to opex. The financial auditor should be consulted for the correctness of these adjustments.

Based on our audit of sample data we believe that the data reported in this table is consistent with the reporting requirements.

**Table 43 – PPP Operating costs**

In order to report data for some lines NI Water has used data from external sources.

Some apportionments and assessments are required to report the data. Where these have been applied we believe they are appropriate and likely to result in data that is reflective of the actual position.

Noting the above limitations, based on our audit of sample data we believe that the data reported in this table is consistent with the reporting requirements.

## 4.5 Additional Information

### Table 41 – Health & Safety – Policy & Performance

The Company's 'occupational ill health' rate and 'days lost' rate deteriorated slightly from previous year. This is largely due to an increase in number of critical illness which led to deaths in service.

We would encourage NI Water to monitor operational contractors' H&S information so the Company can monitor contractors' performance.

### Table 45 – Carbon accounting

Whilst we confirm that NI Water has a Climate Change Mitigation Strategy in place, it is largely founded on the basis of seeking new routes to greener energy rather than improving energy efficiency and, with the PE budgets not being sufficient to allow for such long term strategic investments, there is little tangible progress being made at present.

Improving the accuracy of the Flow to Full Treatment figure needs to be considered in the future.

#### 4.6 Table 46 – Serviceability Return

This is the first year this data has been reported.

NI Water has followed methods for assessing serviceability as used by other UK water businesses and we confirm the robustness of the reported assessments.

Comments on the individual service area assessments are given below:

##### 4.6.1 Water infrastructure (Lines 1 to 8 and 13 to 16)

We concur with the assessment that serviceability is Stable.

- The number of mains bursts have continued to decrease, driven by a combination of the mild winter weather and the ongoing mains rehabilitation programme.
- The level of distribution losses have continued to fall, however a change in the method of calculation due to new leakage management software has led to a re-adjustment of the reported leakage level for AIR14.
- The serviceability, as measured by a range of indicators has been assessed as “stable”.
- The customer contacts for discoloured water (Line 13) was audited satisfactorily back to the source data from customer services. The number of discoloured related customer contacts has continued its long-term decline.
- We located an issue with the calculation used for Line 14 which we challenged the Company on. This has resulted in a correction being made to the Data table submitted by the Company. The corrected figure is 1.9 customer contacts per 1000 population (for discoloured water).

##### 4.6.2 Water non-infrastructure (Lines 25, 29 and 30)

We concur with the assessment that serviceability is Stable.

- This is first year this data has been reported and it would appear that the Company is providing a generally acceptable level of availability of equipment which is equated to an acceptable level of unplanned maintenance.
- We found no material issues from our audit of events at WTW resulting from treatment difficulties or ineffective treatment categorised as ‘significant’ or higher (Line 25).

##### 4.6.3 Sewerage infrastructure (Lines 31 to 37 and 40 to 45)

We concur with the assessment that serviceability is Stable.

- NI Water is now able to separately identify blockages occurring on the public main sewer, public laterals and private laterals, and have been reporting on this basis since April 2013.
- For 2013/14, NI Water confirmed that only 371 of the 18,062 blockages and 74 of the 1120 collapses reported, actually occurred on a public lateral, which suggests this is not an explanatory factor for the disproportionately high number of blockages reported.
- Collapse and blockage performance is improving year on year, and we consider that the recently introduced proactive blockage hot spotting programme will help to further reduce the number of blockages year on year.
- This is first year this data has been reported and it would appear that the company is providing a generally acceptable level of availability of equipment which is equated to an acceptable level of unplanned maintenance.

#### **4.6.4 Sewerage non-infrastructure (Lines 53 and 54)**

We concur with the assessment that serviceability is Stable.

- This is first year this data has been reported and it would appear that a company is providing a generally acceptable level of availability of equipment which is equated to an acceptable level of unplanned maintenance.
- Although there is a small upward movement in the service indicators used for the assessment of Line 54 the overall assessment of stable is appropriate for AIR14.

## 5. Reporting of Confidence Grades

We list Tables and Lines where we could not agree on the Confidence Grades in AIR14 submission with the Company. Further information and background is discussed in our table commentaries.

Topics	Table	Line	NIW's CG	Our CG
Unmeasured volumes	14	1-3	A2	C3
Total load entering sewerage system (NIW, Total)	15	5	C5	C3
Total load entering sewerage system (PPP)	15	5	C5	B2
Equivalent population served (NIW, Total)	15	6-7	C5	C3
	44	55	C5	C3
% of total p.e. served by WwTWs compliant with numeric consents	16	24-24a	C5	B2
Population equivalent of total load received	17b	2	C5	C4
Number of High and Medium sewage incidents per million resident p.e. served	44	56	C5	C3
Number of Low sewage incidents per million resident p.e. served	44	58	C5	C3
Number of High and Medium water incidents per million resident population served	44	61	C5	C3
WWTW Discharge consent % compliance	44	63	C5	C3

## 6. Additional Reports

In addition to our review and report on NI Water's 2014 AIR and associated data, in accordance with the terms of our Appointment we have reviewed and reported to the regulator the following activities by NI Water:

- Review and Report on NI Water's Systems of Planning and Internal Control
- Review and Report on NI Water's Procurement Activities

These have been prepared and reported separately to UR.

***Jonathan S Bateman***

*Interim Reporter for Northern Ireland Water Ltd*

*CH2M HILL United Kingdom*

*29 July 2014*