


Northern Ireland Water Ltd Annual Information Return 2012

Part 2 of 10 containing:
Key Outputs - commentaries for tables 1 – 5a

Public Domain Submission
3 December 2012

Table 1 – Water Service – 1**Commentary by REPORTER****1. Background**

The information and data collected in this table describes and quantifies the activities carried out by the Company in promoting water efficiency.

2. Key Findings

- We believe that the Company methodology and its application are appropriate to meet the Reporting Requirements.
- As the Company does not offer a free supply-pipe repair or replacement service it is unable to distinguish between external supply pipe leakage repairs and internal plumbing losses. Analysis by consultants during the Report Year has determined that offering a free supply pipe repair/replacement policy is not cost beneficial.
- The number of water efficiency devices distributed is based on actuals, with appropriate assessments of savings that are likely to be achieved, based on Ofwat report (Water Supply and Demand Policy, Ofwat, November 2008).
- The Company's Water Efficiency policies are in-line with those employed by water companies in England & Wales. NI Water makes more use of soft measures, so would be expected to achieve a higher installation rate and therefore be more efficient. However, the lack of domestic metering (customer have less incentives to save water) and not being funded to provide a free/subsidised supply-pipe repair/replacement policy limit the success of some of the measures.

3. Audit Approach

The audit comprised of an interview with the NI Water's system holders, a review of the Company methodology and a review of the table entries. We also undertook a consistency check between the table entries, commentary and the NIAUR Reporting Requirements.

4. Audit Findings**4.1 General**

During the audit the Company explained why the number of supply pipe repairs remained high despite the mild weather experienced in 2011-12. This was due to a carry-over of approximately 400 leak notices/repairs from the freeze-thaw incident in the winter of 2010-11.

The Company also explained its water efficiency strategy. We discussed the range of activities the Company has promoted and it outlined several initiatives which have taken place during the year. These activities have focussed on education (working both with the children and the schools themselves) and on face-to-face methods to

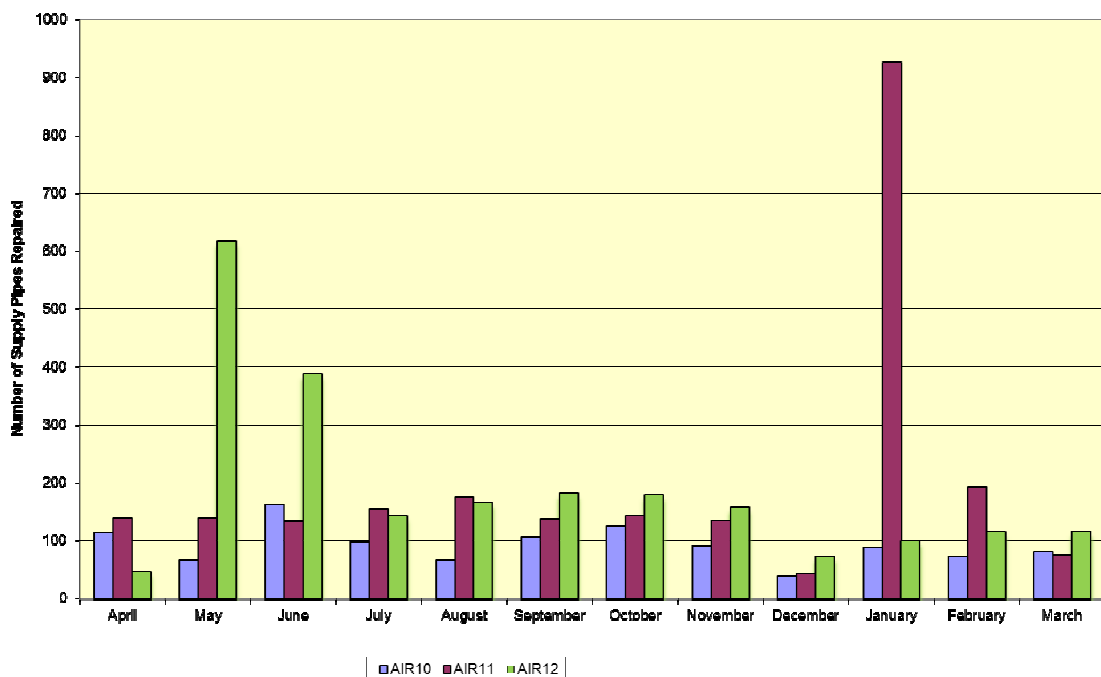
distribute water efficiency measures via school and at shows and through community talks. These initiatives are detailed below in ‘Section 4 – Audit Findings and 5 – Company Methodology’.

4.2 Household Leakage

Unlike water companies in England & Wales, NI Water is not funded to offer a free/ subsidised repair or replacement of domestic supply pipes. This policy has remained unchanged since AIR08. We were advised that the customer is liable for the entire cost of the repair. When a leak in a supply pipe is identified NI Water sends a Leakage Notice to customers which require the customers to repair the leakage within 28 days. After 28 days upon issue of final notice NI Water may undertake a repair and recover the cost from the customer. The policy is only applicable to domestic customers and does not apply to properties that are used wholly for commercial purposes. The policy applies to the point of entry to the household, except for common supplies, and does not include the customer’s plumbing losses.

The number of household supply pipes repaired reported in line 1 (2,286) is approximately 100 below the value reported in AIR11 (2,392) although this is approximately double the value reported in pervious years of 1,114 in AIR10 and 975 in AIR09. The Company explained that the number of repairs is still high due to a number of the notices and repairs in May/June 2011 – these were a carry-over from the freeze-thaw incident of 2010-11.

This monthly profile for the last three years can be seen in the following graph:



We discussed a number of points relating to leak notices, and undertook a sample audit of the waste notice database for May 2011. The database is used by leakage inspectors to check repairs have been undertaken after the 28-day notice period has expired. This showed that of the 618 leak notices that were marked as repaired in May 2011 the majority were issued in March (119), April (68) and May (219); this supports the company's statement that there was a significant "catch-up" in this month.

During the freeze-thaw incident of 2010-11 the Company only entered leak notices onto the database when the repairs were completed. The Company did not wish to issue leak notices when it was offering free repairs to a small number of customers to restore supplies to the wider population.

The Company does not offer its customers free or subsidised repairs or replacements of supply pipes, so lines 2-8 are entered as zero.

There is a marked difference in supply pipe repair policies between those in England and Wales and in Northern Ireland. In England and Wales companies offer free/subsidised supply pipe repairs/replacements to its customers. As such the savings reported in England and Wales are larger than those reported by NI Water. Due to this constraint there is little more NI Water can do to manage/reduce supply pipe leakage from current levels.

The Company provided us with a copy of a study that examined the economics of offering free supply-pipe repairs; this concluded that this option would allow leakage to be reduced but was not economic when compared with other options to balance supply and demand.

4.3 Household Water Efficiency Methods

Cistern devices (Lines 9 to 12)

The number of cistern devices distributed by the Company has increased slightly from last year by 16%. In total 2,946 devices were distributed in the Report Year.

The Company policy is to distribute cistern devices to customers who request a device. Customers can order cistern devices through the Company's Customer Relations Centre (CRC), however the number of cistern devices requested through CRC is a small proportion every year. As the Company does not issue bills directly to domestic customers there is less opportunity to facilitate awareness of water efficiency. NI Water prefers to use face-to-face distribution of devices to ensure they are only given to customers with appropriate cisterns. The Company has continued to promote water efficiency, including cistern device distribution, through schools and community visits and shows with a number of promotional days throughout the year.

For line 10 - "number of cistern devices installed by household customers" the Company has assumed a fit installation rate of 20% for those distributed at shows

and 70% for those requested through schools and community visits and CRC. These assumptions are from the Ofwat report 'Water efficiency targets 2010-11 to 2014-15'.

The Company has made several other assumptions relating to the savings assumed and these are described below:

- percentages of devices installed (shows) – 20%
- percentage of devices installed (customer request) – 70%
- occupancy rate – 2.5
- numbers of flushes per person per day – 5
- saving per toilet flush – 2.5 litres

To align with other parts of the Annual Information Return the average occupancy rate has been assumed to be 2.5.

During the audit, the Company illustrated how they had calculated the costs for this initiative. We found a clear audit trail was evident and confirm the Company has only included unit costs of production. We have not undertaken a detailed check on the derivation of these unit costs but these appear reasonable. We confirm the Company's calculation is as stated in its methodology.

Water Butts (Lines 13 to 16)

The Company has promoted the use of water butts through the distribution of advice leaflets. For AIR12, NI Water provided 22 water butts for a public competition.

The Company has made several assumptions relating to the savings assumed and these are described below:

- percentages of water butts installed – 100%
- saving volume of water butts – 190l
- numbers of fills per year – 6

During the audit, the Company illustrated how they had calculated the costs for this initiative. We found a clear audit trail was evident and confirm the Company has only included unit costs of production. We have not undertaken a detailed check on the derivation of these unit costs but these appear reasonable. We confirm the Company's calculation is as stated in its methodology.

Self Water Audit Packs (Lines 17 to 19)

The Company has reported 4,489 packs as being distributed during the Report Year. This is a significant increase (by circa 128%) over the number distributed in 2010/11. The focus has always been on face to face approach such as schools and shows.

The Company also established online water audit for household customers which can be accessed via NI Water website. There were 153 hits on the site, however no one had completed the online audit in AIR12. The home water audit website does not have a link to other websites for the reason that all the relevant information on water efficiency tips are already provided within NI Water's 3 dedicated pages on saving water in the bathroom, in the kitchen, and outside as well as a video giving water saving tips.

The Company has made several assumptions relating to the savings assumed and these are described below:

- installation rate (schools) – 70%
- installation rate (website) –10%
- saving per day – 10 litres

We confirm that the amount of water saved a day is in line with the assumption within Ofwat's 'Water efficiency targets 2010-11 to 2014-15' report.

We confirm the costs reported in line 19 relate to production of the self audit packs and prizes of £150 to schools who returned the audit packs. We have checked the audit trail and confirm the number reported is consistent with that reviewed during the audit.

Water Audits carried out by the Company (Lines 20 to 22)

The Company has not carried out water audits during the Report Year, as the focus has been on distributing self-audit packs to schools and at shows. Lines 20 to 22 are therefore reported as zero.

4.4 Non household Water Efficiency Methods

Self Water Audit Packs (Lines 23 to 25)

The Company explained that they have developed a website for large user customers to promote water efficiency. During 2011-12 there was a self-audit form for non-household customers available for download from within their existing "Commercial leaflet" which was on the NI Water website. This audit was removed in June 2012 to allow it to be updated.

As described above, NI Water prefers to use face-to-face distribution of devices and to educate pupils. As part of non household programmes, the Company has reported 314 packs as being distributed to schools and 35 packs to hotels during the Report Year. NI Water assumes that customers will save 10 litres of water a day with an implementation rate of 20%. These two assumptions are consistent with the values presented in "Water efficiency targets 2010-11 to 2014-15" published by Ofwat.

In summary, the assumptions used are as follows:

- installation rate – 20%
- saving per day – 10 litres

We confirm the costs presented in line 25 relate to production of the self audit packs. We have checked to audit trial and confirm the number reported is consistent with that reviewed at audit.

Water audits at commercial premises (Lines 26 to 28)

The Company outline that they did not undertake any non-household water audits during the Report Year. Lines 26 to 28 are therefore reported as zero.

4.5 Other water saving initiatives

During the audit we discussed both the details of the activities and the outcome of these schemes with the Company. The details are described in their commentary. Our additional comments are detailed below.

Winter Preparation Campaign – This campaign to provide information on insulating outside water taps, and finding stop tap locations. This was not directly affected to Table 1 figures, however this makes customers aware in case of freeze/thaw and bursts incidents.

Conservation pyramid – During AIR12 the Company has also carried out the pilot programme with hotels in Belfast to send the water efficiency messages to hotels and their customers using Conservation pyramid. However the uptake by hotels was very low.

Water Bus – The Company advised NI Water's Water Education Team has visited schools with the 'Water Bus'. It was explained that the bus is in great demand with a long waiting list.

Shower Timer – The Company has reported 3,886 shower timers being distributed during the Report Year. NI Water has made the following assumptions according to the Ofwat's 'Water efficiency targets 2011- to 2014-15' which are:

- saving per property per day from shower timer – 5 litres
- installation rate of shower timer – 23%

The Company has outlined other water efficiency actions directed at households and non-households which includes leaflets, bookmarkers, pencils, games, fridge magnets, shower timers, and its 'Water Bus' exhibition. The Company has presented the costs of each of the measures and estimated the assumed water savings achieved from these activities.

Total costs of these initiatives include costs of production, the Water Bus exhibition, and NI Water staff costs. The Company explained that this is consistent with AIR11

and we confirm that this appears reasonable.

We consider that the water savings associated with these water efficiency actions are reasonable given the inherent difficulties in calculating water savings from such activities. During the audits we discussed the Company's focus, which is on education, and some of the more "softer" measures that should bring long-term benefits. We consider an approach that provides incentives for implementing the "softer" measures is appropriate for NI Water. We were also asked by the Company what would be the most appropriate water efficiency activities for NI Water. Our suggestions and recommendations are summarised in Section 8.

A longer term issue for NI Water is that customers are not charged for water to their usage. Unless charging becomes enforced, we could not see any significant savings from NI Water's activities being derived as there currently is no financial incentive.

5. Company Methodology

We have reviewed the Company's methodology for reporting Table 1 in order to confirm that it is appropriate and meets the Reporting Requirements issued by NIAUR for AIR12.

5.1 Household Leakage

The Company methodologies are satisfactory and described in their commentary. The Company recorded actual numbers of leakage notice issued and repairs completed monthly and provided annual figures for AIR12.

We also note that, unlike water companies in England and Wales the Company is unable to distinguish between external supply pipe leakage and internal plumbing losses within the numbers presented in this table.

5.2 Household/Non-household water efficiency

Spreadsheets held by the system holder are used to obtain the information for Blocks B, C and E. This spreadsheet collects all data on cistern devices, self water audit packs distributed, other promotional materials (such as magnets and shower timers) dispatched.

We asked the Company how they count the number of devices handed out to the customer at shows. We also asked whether the customers who receive or take water efficiency products sign for it. They explained that they count the number of devices before and after the shows to derive the numbers distributed but do not ask for the customers' signature. Some water companies in England & Wales ask for customers' details (e.g. name and post code) to use for demand and operational purposes. For example, from the postcode information, NI Water could help target demand management or water efficiency promotion in a particular zone is reducing. However, given the relatively small level of savings achieved this is a longer term

recommendation when customer base is fully incentivised to consider water efficiency.

We have reviewed the Company methodology and believe that the practice adopted is consistent with the stated methodologies and in line with the Reporting Requirements.

6. Company Assumptions

In relation to water savings devices the Company has made several assumptions relating to the savings assumed. These are not changed from AIR11 and are as follows:

- percentages of devices installed (shows) – 20%
- percentages of devices installed (customer requested) – 70%
- occupancy rate – 2.5
- numbers of flushes per person per day – 5
- saving per toilet flush – 2.5 litres

For household and non-household Self Audit Packs, the Company has made several assumptions relating to the savings assumed. These are as follows:

- implementation rate (schools) – 70%
- implementation rate (shows) – 20%
- implementation rate (website) – 10%
- saving per day – 10 litres

For savings associated with the shower timer initiative, the assumptions used are:

- saving per property per day from shower timer – 5 litres
- installation rate of shower timer – 23%

7. Confidence Grades

The confidence grades assigned by the Company are consistent with those used for AIR11. The company has assigned the following confidence grades:

- numbers of items distributed: B3, except water butts: B2
- installation rate: B4
- water savings achieved: B4
- cost: B3

The number of items distributed (water notices issued, cistern devices, water butts, self water audits, leaflets and shower timers) are recorded by the Company on a monthly basis, with annual values entered in lines 1, 9, 13, 17, 23, 31a, 31b, 31c, 31d and 31e. Therefore the confidence grade of B3 is appropriate.

Total savings assumed in lines 11, 15, 18 and 29 were calculated according to

Ofwat guidance. Therefore the confidence grade of B4 is appropriate as the actual numbers distributed are B3.

The costs of the efficiency programmes reported in lines 12, 16, 19, 25, 30 and 33 have been assigned a B3 confidence grade. As these rely on cost estimation we believe a B3 grade is reasonable.

8. Recommendations

During our audit, we discussed various possible activities that NI Water is considering to undertaking during the period to PC15.

- We were advised that CCNI distributes its own water efficiency advice leaflets to the commercial customers. The Company works with CCNI to ensure a coordinated approach is adopted.
- CCNI has suggested that the online self audit form on the Company's website is not appropriate as no follow-up analysis is undertaken by the Company. NI Water suggested that they could look at a calculator for commercial customers on the website in the future. This could also accommodate information on greenhouse gas and other energy costs.
- The Company suggested they will liaise with NIHE who are currently installing water butts and/or other water efficiency products to their housing stock to ascertain the volume and nature of products being installed. We understand NI Water previously had contacted NIHE regarding water efficiency fittings in properties owned by NIHE but this initiative did not work.
- The Company suggested that they are liaising with InvestNI. We understand InvestNI is planning to provide free energy saving consultancy (the first consultation is free) services to commercial customers. We understand the scope of this service is yet to be developed but suggest a commercial customer specific water efficiency brief is considered.

We also discussed the following activities for NI Water to consider:

- No blanket mail shot has been carried out this year. Therefore we recommend the Company to delete this statement from their Methodology Statement.
- NI Water could consider using water efficiency partners who provide water efficiency products directly and also via water company websites. We are aware of similar schemes in England and Wales. Due to procurement rules we understand that the use of one particular supplier may not be appropriate but further investigation may be warranted.
- Internally, DSCT team currently approves the new connections to NI Water and has contacts with all developers in Northern Ireland. Therefore via DSCT, the Education team could liaise with the developers to promote water efficiency in new premises.

Date: 25 July 2012

Prepared by: HMS

Table 2 – Key Outputs - Water Service – 2**Block A – DG2 Properties receiving pressure/flow below reference level****Commentary by REPORTER****1. Background**

The information included in this table is used to monitor and compare Company performance against the DG indicators.

2. Key Findings

- A total of 279 properties were removed from the register, due to rehabilitation (224), infrastructure improvements (38) and better information (17). However, 7 properties were added to the register as a result of better information, leading to a net removal of 272 properties.
- The DG2 Register contains full documentary evidence for properties that remain, are added or are removed from the register.
- NI Water has investigated properties on the register with pressure below 7.5m, and this number has decreased to 133 properties.
- NI Water has estimated the cost of removing properties, although this remains an approximation as the cost is derived from schemes that have a range of different investment drivers.

3. Audit Approach

The audit consisted of interviews with the NI Water system which included a discussion on the Company methodology for data collection and collation, a review of the estimated cost of removing properties from the register and a demonstration of the DG2 Register and supporting documents.

4. Audit Findings**4.1 Properties connected at year end (Line 1)**

This line contains the total number of properties (domestic and non-domestic) connected to the distribution system at the end of the report year. We note an increase of 4,000 (0.5%) properties connected to water supply only from AIR11. The number of properties is derived from NI Water's billing system (RAPID).

The different methodologies were adopted to calculate this Line from AIR11 to AIR12.

	AIR11 Reported	AIR11 Using AIR12 methodology	AIR12
Extant Property Total	830,309	830,309	838,042
<i>less</i>			
Domestic no water / well water	7,994	7,994	8,049
Domestic sewerage only	6	6	6
Non-domestic no water / well water	3,044	3,044	3,566
Non-domestic sewerage only	21	21	19
Non-domestic measured – not charged (test meters)		3,269	2,087
Non-domestic site meters	12,799	12,799	13,254
Non-domestic trade effluent		96	92
Non-domestic unmeasured – not charged		622	587
Invalid Classification	1	1	15
Total Connected Properties at Year End	806,444	802,457	810,367

Although the methodology has changed, it is 0.5% difference between AIR11 reported figure and that using AIR12 methodology. We believe this is immaterial.

We confirm that the total property number quoted in this table is in-line with the sum of Lines 6 and 7 of Table 4.

Please refer our Table 7 commentary for the reconciliation of the property numbers in Table 2 to the figures reported in Table 7 of the AIR.

4.2 DG2 - Properties receiving pressure/flow below reference level (Lines 2-4c)

4.2.1 Line 2 – Properties below reference level at start of year

The total number of properties at the end of AIR11 Report Year was 2,020.

4.2.2 Line 3 – Properties below reference level at end of year

In order to confirm the validity of the DG2 Register we reviewed the results of the Lisburn Urban mains renewal scheme. This scheme has led to the removal of 19 properties from the DG2 register. The company provided details of the scheme including the Pre & Post Rehabilitation Assessment (PPRA) Report, map showing the location of the renewed mains and details of the properties removed from the DG2 register.

We confirm that the Company has an audit trail to confirm the removal of the 19 properties as a result of the scheme.

Overall, we found that for AIR12:

- 224 properties were removed from the DG2 Register as a result of mains rehabilitation schemes.
- 38 properties were removed due to infrastructure improvements.
- 17 properties were removed due to better information.
- 7 properties were added to due to better information.

We note that the logging exercises were undertaken over a 7-day period generally during the autumn/winter months. With water companies in England & Wales we would have concerns that this period would have lower demands, and hence higher pressures which may lead to an under-reporting of properties on the DG2 Register. This is not the case for NI Water; we have been shown historic distribution input values which demonstrate that the autumn/winter months typically have higher demands than the summer months.

4.2.3 Line 4 – Properties receiving low pressure but excluded from DG2

For AIR10 NI Water excluded 94 properties from the DG2 Register on the basis that they are located within 15m elevation of the service reservoir. Following guidance from the Regulator these do not form allowable exclusions, so these properties are included within the DG2 Register and zero is reported for this line.

NI Water advised that they do not currently have the infrastructure in place to validate other allowable exclusions, such as: abnormal demand, planned outages, one-off incidents and short-duration low pressure incidents.

4.2.4 Line 4a – DG2 properties with a pressure below a surrogate level of 7.5m

The DG2 Register was interrogated to identify those properties below a surrogate level of 7.5m; this identified 133 properties (a decrease of 40 properties from AIR11).

4.2.5 Line 4b – DG2 properties at risk of low pressure removed from the register by company action

A total of 262 properties were removed from the register following company action; 224 following mains rehabilitation and 38 following infrastructure improvements. The 17 properties removed due to better information have not been included in the line 4b entry.

4.2.6 Line 4c – Average cost of permanent solutions to DG2 problems

As discussed above, the removal of properties from the DG2 register through Company action is as a result of either mains rehabilitation or infrastructure improvement. The majority of the main rehabilitation schemes have multiple drivers for investment, whereas the infrastructure improvements are often relatively small schemes to remove clusters of properties on the DG2 register.

The Company has calculated the average overall cost of removing a DG2 property from the register. This was calculated by combining the total cost of the mains rehabilitation schemes (£773,995) and the infrastructure improvement schemes (£14,323) and dividing by the total number of properties removed i.e. 224 (mains rehabilitation) + 38 (Infrastructure Improvements) = 283. This gives the average cost per DG2 removal of £3k.

In our opinion, year-on-year this calculation is likely to result in widely varying estimates as removing properties from the DG2 register is not seen as a key driver for mains rehabilitation. The number of properties removed from the register will depend on the network in the vicinity of the mains renewal, therefore the cost per property removed will vary greatly.

The significant fall in the average cost, from £13.7k/property at AIR11 to £3.0k/property in AIR12 does not imply a change in efficiency but a different set of network layouts being worked in.

5. Company Methodology

NI Water has collected DG2 information using a representative network of critical pressure monitoring points and details which have been converted into numbers of properties at risk of receiving low pressure, by using its GIS system.

We found that the DG2 Register contains hyperlinks to all available information to support each property within the DG2 Register. This includes reports, logging traces, GIS plots and details of pressure analysis. This information is also retained for any properties originally on the DG2 Register and subsequently removed due to better information.

In terms of allowable exclusions, NI Water is aware of the various low pressure events that can be excluded from the DG2 Register. However, in the absence of comprehensive monitoring systems it has not reported any allowable exclusions. Since 2010/11 NI Water no-longer excludes properties that are located within 15m elevation of the service reservoir.

6. Confidence Grades

The Company has revised the confidence grade for Line 1 from C2 to A2; this is to be consistent with Tables 4 and 7. We believe that the confidence grades should remain C2. Please see our detailed comments on the confidence grades in Table 7.

The Company has amended the confidence grade for line 2 from B4 to B3. This line is identical to AIR11, table 2, line 3 which was B3. We therefore concur with the Company's view that B3 is appropriate for this line.

The Company has not changed the confidence grade for any of the remaining lines

in this table; we consider the values reported for AIR11 are still appropriate for AIR12.

7. Consistency Checks

We checked that the percentage of properties receiving low water pressure entered on Table A (line 1) is correctly calculated as line 3 divided by line 1 = $1,748/810,400 = 0.22\%$.

Date: 25 July 2012
Prepared by: HMS

Table 2 – Key Outputs - Water Service – 2**Block B – DG3 Supply Interruptions, Lines 5 to 19****Commentary by REPORTER****1. Background**

The aim of this indicator is to identify the number of properties affected by planned and unplanned supply interruptions lasting longer than 3 hours, 6 hours, 12 hours and 24 hours.

2. Key Findings

- The effects of the winter weather had a significant impact on NI Water's DG3 reported performance in the previous two report years. The mild winter, alongside operational improvements, in the 11/12 Report Year has helped to improve supply interruption performance.
- We discussed NI Water's interpretation of planned, unplanned, overruns on planned interruptions and on the basis of the discussions held (and incidents reviewed) we are satisfied that the Company's interpretation of the guidance is sound.
- We also verified the details of a number of the largest *unplanned* events affecting NI Water's customers which were recorded using the Company's reporting tool, OMIS. To test the application of the Company's methodology we were able to follow an audit trail to verify the details of each incident selected.

2.1 Key Recommendations

- We believe that a review of how *planned* work is scheduled may help improve customer satisfaction as there is a potential to reduce the impact of an interruption (see section 4.3)
- In obtaining audit details for our checks on *planned interruption* data, the Company noted a transcription error in the audit trail and have advised they will undertake additional sample checks to ensure similar issues are not repeated. We welcome this additional control and recommend the level of assurance is reviewed over the course of the year to ensure the data reported is accurate and complete.
- For *unplanned interruptions* we found the post incident verification for the longest duration interruption included cross referencing to Rapid customer contact time. Whilst is a valuable verification step, these checks are undertaken by the line owner during month end reconciliations. If cross referencing to customer contacts could be included in the post incident analysis of the interruption this could improve the efficiency of the reporting process (see Section 5).

3. Audit Approach

To verify the data reported by the Company, our audit consisted of an interview with the NI Water system holder, a review of the current Company methodology for data collation and an audit of the data from the Company's systems to the final table. This year's data has been compared with last year's table entries to identify significant areas of change.

4. Audit Findings

4.1 Reporting System

As we have found in previous years, OMIS is used as the main tool for recording supply interruptions. We found the system is used only by Operations Directorate as the contractors working for Engineering and Procurement Directorate (EP) and Customer Field Services do not currently have access. However, interruption data is provided by representatives of these workstreams on a monthly basis via spreadsheet templates. Interruption details are transferred to the Composite Interruption Data File along with information extracted from OMIS for Networks Water and Leakage Services.

4.2 Unplanned Interruptions (lines 5 to 8)

4.2.1 DG3 Performance

The effects of the winter weather had a significant impact on NI Water's DG3 reported performance in the previous two report years. The mild winter, alongside operational improvements, in the 11/12 Report Year has helped to improve supply interruption performance.

Review of the data reported by NI Water illustrates that their DG3 performance is in line with the targets set at PC10.

4.2.2 Unplanned Interruptions

During the audit we reviewed the nature of a number of the largest unplanned events affecting customers. The audit checks carried out for each incident are detailed below. We were able to follow an audit trail to verify the details of each incident. Where possible these incidents were reconciled to 'Upward Reports' produced at the time of the interruption.

A summary of our findings are detailed below.

Incident	Unplanned Categorisation	Duration	Comment
Conlig (No 16216)	✓	>6hrs (<12hrs)	<ul style="list-style-type: none"> 409 properties affected by burst in asbestos cement main. 1 property reclassified due to analysis of contact records on Rapid to greater the 12 less than 24 hours
Newtonstewart (No 16695)	✓	>6hrs (<12hrs)	<ul style="list-style-type: none"> 400 properties affected. No upward report produced but OMIS record and interruption register checked for consistency.

4.3 Planned and Warned Interruptions

For lines 9 to 12 – “Planned and warned interruptions” there has been a increase in the number of properties affected. NI Water advised this is primarily associated with an increase in activity in their Water Mains Rehabilitation Programme.

During the audit the Company representative demonstrated how data is collated from the various directorates and input in to OMIS. During the process interruption data is checked to ensure adequate warning has been provided and if not then the interruption is re-categorised as unplanned or an planned overrun. On the basis of the checks carried out we are content that the Company’s reporting process is sound.

To check the recording of planned interruptions we checked the details of two interruptions planned in March 2012 (E&P015 and 089). The Company supplied a copy of the carding notice, property listing and job details which should demonstrate consistency to the interruption register. In preparing this data NI Water noticed a transcription error in the property counts for E&P015, where 200 properties were reported on the Register but the extent of the interruption was only 83 properties. Upon finding this discrepancy the Company revised the interruption register and Table 2 by 117 properties to reflect the actual scale of this incident. Information provided on the other interruption (E&P089) was consistent with the interruption register.

To reduce the risk of similar data discrepancies the Company proposes to undertake a number of sample checks on planned interruption data received from their contractors on a monthly basis to ensure the audit trail is robust. NI Water advised that they intend to review 2 records from both of their contactors which should cover circa 5% of the volume of work.

In reviewing the planned interruption data we noted a large number of planned interruptions (usually related to the mains rehab programme) where interruptions were scheduled to start at 8am and end at 8pm. However, analysis of the actual interruption indicates actual durations are somewhat shorter. The Company highlighted that a prudent approach is adopted to ensure overruns are minimised due to unforeseen problems on site. Whilst we agree this approach is prudent, our experience in England and Wales indicates that planned times are much shorter.

Possibly customer satisfaction may be improved if interruptions are planned and warned on a more efficient basis. For example, it may be possible for a large interruption affecting 500 properties be split into two interruptions over the course of one day. Theoretically, each interruption would last 6 hours and affect 250 properties thus minimising the impact of the planned work (see Section 4.6 below) and reducing the total number of service hours lost. Whilst it is possible that the configuration of the network or type of maintenance activity makes this impractical, consideration as to how interruptions are planned to minimise customer impact may be warranted. Possible options could be to incentivise contractors to work within tighter interruption envelopes or organise interruptions differently. The Company outlined that reducing the planned interruption times may be impractical within the mains rehabilitation programme due to the volume of work undertaken during the shut off (installation of pipe, service pipe connections, boundary boxes, testing and super chlorination). Similarly, NI Water outlined it is impractical to split an interruption into several, shorter length, durations. They stated *“this is not practical using the pre-chlorination method of pipe installation, it is not cost efficient and would have the potential for water hygiene issues due to increases in mains pipe jointing”*. Following our comments however, NI Water did outline that they intend to review the warning times for new connection work which should reduce the warned interruption envelope.

4.4 Interruptions caused by Third Parties (lines 13 to 16)

We checked two incidents from the small number of incidents classed as third party and confirm both incidents were correctly reported as third party (caused by contractors or persons not acting on behalf of NI Water). On the basis of the checks carries out we are content the Company’s methodology in this area is sound.

4.5 Overruns of Planned Interruptions (lines 17 to 19)

As in previous years, the Company has reported a small number of overruns of planned interruptions. During the audit we discussed the methodology and checks the Company uses to identify overruns of planned interruptions and believe them to be satisfactory. We have not reviewed any specific incidents reported by NI Water.

5. Company Methodology

5.1 General

As reported above, the Company issued the Reporter with a copy of their updated methodology to derive data reported in for supply interruptions. This document contains several definitions which are replicated below for clarity. We believe the definitions used are in line with the Reporting Requirements.

- Interruption - An interruption to supply is defined as the actual loss of water supply to a property, whether planned or unplanned, warned or unwarned.
- Start Time - For a planned interruption the start time is the time at which water

is unavailable at the first cold tap in a property; for an unplanned interruption it is when customers first notice the loss of supply or if this is not available the time a 'no water' complaint is logged by the Customer Relation Centre.

- Duration - The duration is the length of time for which customers are without a continuous supply of water. An interruption starts when water is unavailable from the first cold tap in a property and finishes when the supply is restored.

Interruption end time

During the audit the Company demonstrated the checks they undertake to verify the end time of unplanned interruptions of 5 hours or more by comparing customer contacts relating to no water incidents and times input onto OMIS by field staff. If the call logs show a no water complaint after the noted restored time than a query is raised by the line owner with the field staff.

If the field representative approves the interruption duration for that particular contact (s) the duration is amended but only for those properties listed not the full population of properties. In one incident reviewed we found that 400 properties had been reported in the greater than 6 but less than 12 hours category but a contact from one property after the OMIS end time had resulted in that property being reclassified in the greater than 12 hour category. In effect the time stamp of this contact became the end time of the interruption for this property. Whilst the difference in times could be associated with supply problem affecting this individual property there is a risk that a) the time of the call is not the same as the actual end time of the interruption and b) other properties are also affected even though contacts have not been received from these customers. It is difficult to fully assess this uncertainty and we support the Company's efforts to validate interruption durations. In most cases we believe the interruption duration would not change the reporting of the interruption in the table 2 format but a residual risk remains.

For unplanned interruptions we found the post incident verification for the longest duration interruption included cross referencing to Rapid customer contact time. Whilst is a valuable verification check, these checks are undertaken by the line owner during month end reconciliations. If cross referencing to customer contacts could be included in the post incident analysis of the interruption this could improve the efficiency of the reporting process (see Section 5).

Interruption classification

We also reviewed how the Company classify interruption and believe these are in line with the Reporting Requirements. Again, the definitions used have been replicated below for clarity.

- Planned and warned - This is where notice of an interruption (more than 3 hours) is provided to properties affected at least 48 hours in advance of the beginning of the interruption.
- Unplanned/unwarned interruption - This is when an unplanned, or a planned and unwarned, interruption to supply occurs. Properties receiving less than

48hrs notice of a planned interruption (more than 3 hours) are to be counted as 'unplanned' and reported under this category.

- Overruns of planned interruptions - When a planned interruption and warned interruption begins before or continues beyond the end of the warned time, for whatever reason and whether or not a customer has been advised during the shut down that an overrun is going to occur, the interruption is described as an overrun and is reported separately.
- Third party interruptions - A third party is defined as anyone who does not act for, or on behalf of NI Water. This category is intended to cover damages to NI Water's mains or other equipment which directly or indirectly results in an unplanned loss of supply to enable the damage to be repaired.

We challenged the Company on whether a planned interruption which starts before the warned time should be classified as an overrun or an unplanned interruption. The Company advised this would be classified as an unplanned interruption. We believe this is in line with the Reporting Requirements.

Property estimates

We discussed with the Company their approach to counting the number of properties affected by an interruption and they advise properties are identified from either a manual count from network maps and in other cases are estimated using a GIS polygon. We have not reviewed the accuracy of the property counts made by the Company confirm the property types extracted from the Company's GIS system are detailed within their methodology.

DG3 Register

We also questioned the Company on the structure and content of the DG3 Register and we believe it contains the information demanded by the Reporting Requirements. We noted that the Company does not detail each property affected by an interruption but tends to group the listing by particular house numbers in a street or cluster.

5.2 Reporting Procedures

OMIS is used as the main tool for recording supply interruptions. We found the system is used only by Operations Directorate as the contractors working for Engineering and Procurement Directorate (EP) and Customer Field Services do not currently have access. However, interruption data is provided by representatives of these workstreams on a monthly basis via spreadsheet templates. Information from the two EP regions and Customer Field Services is provided for input each month on spreadsheets and transferred to the Composite Interruption Data File by the DG3 system holder.

NI Water's reporting procedures require field engineers to record events on standard proforma. The data collected on these sheets is subsequently uploaded on OMIS via the defined input screens on a monthly basis. The DG3 system holder

extracts data from OMIS each month and transfers it into a worksheet entitled the 'Composite Interruption Data' file, which is the DG3 Register. This data is combined with data from other workstreams to form a complete listing. Whilst we consider the Company has sound and centralised collation methodologies in place, further checks to enhance the controls in place could be carried out by further testing the interpretation of the DG3 definitions and recording methodologies of field staff responsible for recording the nature, type and duration of a supply interruptions.

We also questioned NI Water on several aspects of their reporting protocol and specifically how they ensure interruption which may have been uploaded into OMIS late or remained open (and therefore editable) on the system when the data is extracted. The Company representative advised that controls are in place to track late returns and the previous months report is re-run at the end of the following month to ensure that any late entries are picked up.

We noted the start and end times reported on OMIS are rounded to the nearest 15 minutes. The Company advised that this is a limitation of OMIS but that discussions are ongoing regarding a replacement system. We recommend that consideration is given to the facility to record more precise times in the design of a new process as currently there is a potential for a +/- 30 minute error due to rounding on each interruption.

5.3 Quality Assurance

We note that the Company's methodology demands that each monthly return of DG3 data is signed off by senior management.

The Company demonstrated the quality assurance controls they have in place to ensure the data collation process is robust. Over the course of our audits we saw evidence of data challenge and the correction of interruption details received from field operatives. We therefore believe that interruption data is being appropriately administered.

During the audit we also discussed some specific checks the Company undertakes to assure itself the start time of an unplanned interruption is correct. The Company advised they had continued to undertake analysis of when the time of no water calls into their customer contact centre and compared these to the start time reported by field managers within OMIS. Whilst the Company have only carried out a limited number of checks, we saw evidence of the start time of an interruption (and duration being) being amended. We believe these are useful check to verify and challenge the recording of interruption recording on OMIS.

6. Company Assumptions

The Company assumptions relating to the classification and duration of incidents have been discussed above.

7. Confidence Grades

The Company has assigned a B3 (5% to 10%) grade to each of the lines relating to supply interruptions. NI Water provides a detailed overview of their justification for this within their commentaries. After high level consideration of these and other factors, we believe that a B3 grade is reasonable. In brief, it is difficult to assess the level of accuracy/inaccuracy inherent but we believe it is appropriate to retain the grades which relate to NI Water's underlying methodologies. We have however not undertaken any specific statistical analysis to fully verify this.

Date: 25 July 2012
Prepared by: HMS

Table 2 - Water Service – 2**Block C - Population – Winter (Line 20)****1. Audit Findings**

We found the source of this data set has been revised from the NI Tourist Board due this data becoming unavailable. The estimate of winter population is now based on NI *Department of Enterprise, Trade and Investment (DETINI)* data.

The Company provide a detailed explanation of the approach adopted to derive winter population in their commentary for Table 2. We have followed the methodology laid out by the Company in their commentaries and believe the approach taken is reasonable. This is based on the Reporter checking a sample of data used in the calculation by checking monthly totals back to the DETINI website and being able to replicate the NI Water's calculations during the audit.

In terms of overall population reported there has been a small increase of 0.5%.

2. Assumptions

The configuration of the source data means that an adjustment needs to be made for visits from the Republic of Ireland (RoI) in 2011. The Company commentary demonstrates how this estimate for RoI visits has been derived from the "*Household Travel (HOTRA) Survey Quarter 1 2010*", published in November 2010 by CSO. whilst some extrapolation is required, we believe the approach is reasonable. This based on the estimate made has a relatively minor impact upon the overall estimate (which is also based third party data).

The Company assume the bed spaces sold during the winter are for those months with the lowest percentage of bed spaces sold. Given that calendar year data is only available for 2011 the Company has assumed these months are between January 11 to April 11 and November 11 to December 11. We believe this is reasonable as it is in line with our expectations of when visitor numbers are likely to be at their lowest.

The Company's calculated figure is dependent upon the resident population reported in Table 7 and we confirm the estimate used in the calculation is consistent with that reported within this table.

3. Confidence Grades

The Company have assigned a confidence grade of C2 to this line. We consider this confidence grade to be appropriate, based on the Company's reliance on a third party data sources to derive the estimate.

Date: 25 July 2012

Prepared by: HMS

Table 2 - Water Service – 2

Block D - DG4 - Restrictions on use of water (Lines 21-23)

1. Audit Findings

There have been no DG4 restrictions on the use of water during the report year. As such the entries for lines 21, 22 and 23 are correctly recorded as zero.

2. Assumptions

There are no assumptions to disclose.

3. Confidence Grades

The Company have assigned a confidence grade of A1 to this line. We consider this confidence grade to be appropriate.

Date: 25 July 2012
Prepared by: HMS

Table 3 – Sewerage Service – Internal Flooding**Commentary by REPORTER****1. Background**

The information included in this table is used to monitor and compare Company performance against the DG indicators.

The DG5 – Annual Flooding Summary includes properties internally flooded as a result of overloaded sewers and other causes

The DG5 – Properties on the “at risk” register cover properties at risk of flooding more frequently than once in twenty years and once or twice in ten years, problem status of the properties on the register and annual changes to the Register.

2. Key Findings and Recommendations

- We believe the Company has continued to make considerable improvements and introduced further rigour to the overall flooding process for AIR12. However, there remain a number of areas where improvements can still be made to make application of the DG5 methodology more effective and efficient.
- As a result of our AIR11 audit of DG5 related processes and data; we made a number of recommendations for process improvement, and are pleased to find that NI Water have responded to a number of these suggestions, particularly concerning issues within the Customer Response Centre (CRC). This appears to have had a positive effect on performance, with the number of DG5 contacts reducing by 40% from 687 (AIR11) to 419 (AIR12).
- As well as reducing the number of false contacts, involvement with the CRC has also helped to identify the cause of the false contacts, namely; incorrect definition of flooding; incorrect advice from NIHE and deliberate escalation of issue to improve customer perception.
- We are particularly concerned by the incorrect advice provided by NIHE to their residents, as this incurs significant expense for NI Water and diverts operational maintenance resources away from more urgent activities. We recommend that NI Water should make formal contact with NIHE to ensure the practice of incorrect referral ceases, and further reinforce their call script to ensure NIHE customers are identified at the point of contact.
- Whilst considerable effort has been made to improve performance/understanding within the CRC, we made further recommendations in AIR11 to improve the quality of information captured at the actual incident location. Whilst the involvement of the Customer Field Manager/Officer is apparent for all confirmed DG5 incidents and photographic evidence is included to support each incident, there is still a lack of information provided on the ‘Flooding Incident Report’ (FIR) for all non-incidents attended, making assessment and causal analysis difficult for the Company.

- Our subsequent review of the Company's AIR12 commentary identified a further property; 28 Onslow Parade, Belfast as reported to have flooded during the year on two occasions. We challenged the nature of these incidents, as they were not reported through the CRC and not included within T3 Line 2. The Company advised that these incidents were identified during the assessment by Asset Management, of other properties already on the DG5 Register. We advised NI Water that all confirmed in-year flooding incidents need to be reported in Table 3 Block A, regardless of the reporting source. As such T3 Line 2 should equal 10 and Line 3 should equal 15. We confirm this was updated prior to submission.
- As performance has been relatively consistent over the past four years of AIR DG5 reporting, and we have a better understanding of the nature of the excluded DG5 contacts, we are increasingly comfortable that the overall performance is broadly in line with the reported data, suggesting that internal sewer flooding is not a particular issue in Northern Ireland, although recent widespread flooding may contradict this view.
- NI Water is an outlier in terms of FOC (blockage) performance, and despite experiencing circa 4 times more blockages/km than Scotland and E&W, continues to experience a very low number of FOC incidents.
- Overall, we consider the DG5 Panel has tended to 'err on the side of caution' and allocated a number of properties to the 2in10 and 1in10 Flooding Registers, where addition to the 1in20 or External Registers could reasonably be argued, based on the evidence presented.
- In reviewing the available evidence packs, as presented to the 'DG5 Panel', we found that the information provided was not always consistent with the decision made by the 'DG5 Panel', suggesting that additional anecdotal evidence was made available during the presentation, influencing the final decision. We recommend that more comprehensive evidence packs are compiled for each property, including documentation of the 'DG5 Panel's' reasoning behind each decision
- We found that 171 suspected flooders are still subject to further review. As such the overall flooding register may still be subject to further movements.
- The Company has assigned a confidence grade of B2 to Lines 2 to 11, 12 to 14 and 22 to 24. Based on the observations/challenges made, highlighting the possible movement in numbers, we consider a B3 to be more appropriate for these lines.

3. Audit Approach

Our review of the Company's AIR12 Table 3 submission consisted of a meeting with the key NI Water system holders, including representatives from Wastewater Operations and Asset Management.

In order to assess the effectiveness of the Company's DG5 processes and appropriateness of the allocation of properties to the various Flooding registers we reviewed a random selection of properties that were:

- Initially reported as internal flooding, but subsequently deemed to be not at risk.
- Confirmed as internal flooding due to overloaded sewers.
- Confirmed as internal flooding due to severe weather.
- Confirmed as internal flooding due to other causes.
- DG5 Register additions, removals and movements.

Detailed summaries of our findings and resultant conclusions are contained within the body of our commentary below.

4. Audit Findings

4.1 Properties connected at year end (Line 1)

This line contains the total number of domestic properties connected to the sewerage system at the end of the Report Year. The number of properties is derived from NI Water's billing system (Rapid).

We note an increase of 6,369 properties connected from that reported in 2010/11, while an increase in household properties connected to water services is 9,227 (or 1%).

4.2 DG5 Annual Flooding Summary

4.2.1 General

We saw evidence to confirm that sewer flooding is becoming a key area of focus for NI Water. During the year, the Company has continued to refine the overall flooding process. Whilst there is still further room for improvement, refinement of the 'front end' incident identification process, has added further rigour and helped to reduce the number of false DG5 contacts.

As a result of our AIR11 audit of DG5 related processes and data; we made a number of recommendations for process improvement, and as described below, we are pleased to find that NI Water have responded to a number of these suggestions.

Due to the high number of false internal flooding contacts referred to the maintenance contractor for action by the Customer Response Centre (CRC), we recommended specific DG5 familiarisation training of all front line staff, to ensure; the correct line of questioning is followed; and to ensure CRC staff understand the information provided to them by the customer. In response to this, we found that the Company has:

- Provided training to all CRC staff on the DG5 indicator, which has been reinforced in follow up briefings by the CRC Managers.
- Installed a Customer Field Manager (CFM) into the CRC on a temporary basis to 'floor walk' and provide technical support on a real time basis, as calls came in.
- Met with the CRC Manager on a monthly basis to review all DG5 contacts and analyse all 'false DG5 contacts'

This appears to have had a positive effect on performance, with the number of DG5 contacts reducing by 40% from 687 (AIR11) to 419 (AIR12). Whilst this could be attributed to a drier than average year (as experienced in England and Wales), we believe the above initiatives have facilitated much of the improved performance. We also found that the Wastewater Operation's presence in the CRC has also helped to identify some of the reasons behind the high number of false DG5 contacts, and these include:

- Misinterpretation of the definition of internal flooding, whereby 'internal flooding' was defined as flooding within the property boundary, rather than within the actual dwelling/building. These incidents should be reported as external flooding.
- A large number of false contacts came from residents of public housing schemes, as it appears that the NI Housing Executive (NIHE) has been advising residents to contact NI Water, to resolve what appear to be private drainage issues.
- In the spirit of good customer service, some CRC staff were found to escalate 'routine' customer contacts to internal flooding, to ensure a rapid response is provided by the Company, thus keeping the customer satisfied.

Whilst a number of these findings were consistent with our observations in AIR11, i.e. incorrect interpretation of definitions, we are concerned with the incorrect advice provided by NIHE to their residents, as this incurs significant expense for NI Water and diverts operational maintenance resources away from more urgent activities. We recommend that NI Water should make formal contact with NIHE to ensure the practice of incorrect referral ceases, and further reinforce their call script to ensure NIHE customers are identified. Alternatively, NI Water could explore the introduction of a service level agreement whereby NI Water is reimbursed for all NIHE callouts.

As highlighted above, NI Water received 419 contacts that were initially defined as DG5 internal flooding, the majority of which were subsequently excluded. We reviewed a number of the excluded DG5 contacts, the findings from which are summarised below:

Incident Location	Date of Contact	Reason for exclusion
[x], Queens Quay	3/1/12	Blockage of private drain - caused by Fats/Oil/Grease build-up No details provided on Flooding Incident Report NIW spoke to customer & contractor
[x], Derry	11/1/12	Reported as cellar flooding. No details provided on Flooding Incident Report NIW undertook dye testing and confirmed ingress caused by potable water leak in adjoining property
[x], Lurgan	13/3/12	Reported as cellar flooding No details provided on Flooding Incident Report Blockage identified in private connection. Customer not at home, blockage cleared as a courtesy
[x], Newtonabbey	4/3/12	NIHE tenanted property. No details provided on Flooding Incident Report Internal plumbing issue. Not part of NIW asset base.
[x], Belfast	19/9/11	Internal flooding of integral store room caused by a blockage. Blockage was cleared by NIW, but because cleanup was completed by customer, incident was excluded. Recommend incident is reported in T3 L6 - FOC

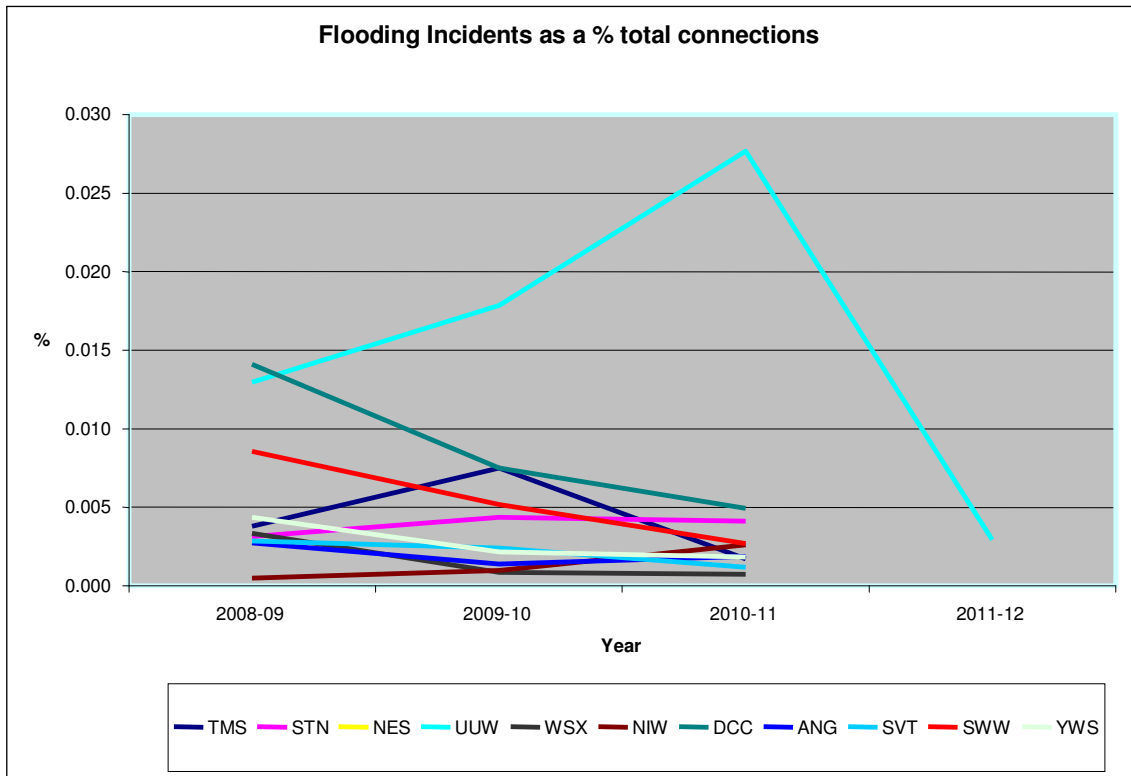
As demonstrated in the above findings, the general nature of the 'false DG5 contact' is consistent with our findings summarised above. We believe that the majority of excluded contacts relate to either external flooding or private drainage issues. We were however, concerned that there appears to be a misinterpretation of the guidance, whereby an incident is not considered reportable unless a cleanup is completed. This is obviously an incorrect interpretation by some staff and we recommend procedures are further improved to ensure all incidents are reported.

Whilst considerable effort has been made to improve performance/understanding within the CRC, further recommendations were made to improve the quality of information captured at the actual incident location. Whilst the involvement of the Customer Field Manager/Officer is apparent for all confirmed DG5 incidents and photographic evidence is included to support each incident, there is still a lack of information provided on the 'Flooding Incident Report' (FIR) for all non-incidents attended, making assessment and causal analysis difficult for the Company. Whilst the numbers of excluded DG5 contacts are still very high, it is important to capture as much information as possible to identify the root cause of the incorrect reporting.

4.2.2 AIR12 Flooding Incidents (overloaded sewers)

For AIR12, NI Water has reported 13 confirmed incidents of internal flooding, affecting nine properties, of which [x], Carrick, experienced two incidents during the year. Our subsequent review of the Company's AIR12 commentary identified a further property; [x], Belfast also reported to have flooded during the year on two occasions. We challenged the nature of these incidents, as they were not reported through the CRC and not included within T3 Line 2. The Company advised that these incidents were identified during the assessment by Asset Management of properties already on the DG5 Register. We advised NI Water that all confirmed in-year flooding incidents need to be reported in Table 3 Block A, regardless of the reporting source. As such T3 Line 2 should equal 10 and Line 3 should equal 15. We confirm this was updated prior to submission.

As we have reported in previous years, we continue to highlight the low proportion of confirmed incidents of internal flooding when compared to the number of contacts from customers reporting incidents of internal flooding. Whilst the number of contacts has reduced significantly for AIR12 (687 down to 419), thanks in part to further rigour applied in the CRC (as discussed above), we remain concerned that the number of confirmed incidents of internal flooding still seems disproportionately low for a company of NI Water's size. However, when compared to the number of internal flooding incidents (overloaded sewers) per domestic property connected to the sewerage system (T3 Line 3 / T3 Line 1) for England and Wales WaSCs, NI Water's performance is in line with some of the better performing England and Welsh companies. However, it should be highlighted that NI Water has not had the benefit of >10 years of targeted investment to resolve known flooding issues.



As performance has been relatively consistent over the past four years of AIR DG5 reporting, and we have a better understanding of the nature of the excluded DG5 contacts, we are increasingly comfortable that the overall performance is broadly in line with the reported data. Assuming the above assertion is correct, either internal sewer flooding is not a particular issue in NI or there are other factors affecting what would appear to be ‘exceptional’ performance. These could include a lack of public awareness of the Company’s responsibilities with regard to DG5, overall sewerage design (network configuration and inherent capacity), topography, impermeable area ratios and differing weather patterns to England and Wales. If the former is the case, it raises questions as to whether a DG5 programme should be funded in PC13.

4.2.2.1 Audit Checks

In order to test the process adopted by NI Water to assess and correctly verify all properties that have flooded during the year we undertook a detailed review of all the properties identified as flooding during the year, details of which are summarised below:

Incident Location	Date of Incident	Incident Summary
[x], Carrick	6/7/11 & 24/8/11	Problem reported by Customer Field Manager, not by customers. 3 incidents in 12 months. Flooding to integral garages, caused by upstream development that discharges to incorrect piped watercourse, causing sewer to back up and surcharge. Met Office reports confirm 1in1yr events. Added to 2in10 Register by DG5 Panel
[x], Belfast	7/7/11	Widespread external flooding along street, but NIW investigation confirmed that properties with low lying air bricks suffered internal flooding. Met Office reports confirm 1in0yr event. Added to 2in10 Register by DG5 Panel. Sewer upsize already proposed.
[x], Greyabbey, Newtonards	10/11	Property already on 2in10 Register, with an NRV installed. NRV was removed prior to a completion of a related scheme, and property subsequently flooded. Completion of scheme – upgrade to sewer and wwtw will resolve issue
[x], Antrim	23/10/11	Severe Weather Event – see below

On the basis of our findings, we believe the correct assessment appears to have generally been made. In the case of [x], we consider the properties would benefit from low cost mitigation (airbrick covers) to protect the properties in advance of a scheme. As discussed in more detail below, it is questionable as to whether [x], was in fact a hydraulic incident.

4.2.3 AIR12 Flooding Incidents (overloaded sewers attributed to severe weather)

For AIR12, NI Water has reported one incident of internal flooding (overloaded sewers) that was attributed to severe weather.

The incident, which occurred on 23rd October 2011 at [x], Antrim, involved the flooding of a residential care home during, what was anecdotally reported to be very heavy rainfall. A block of wood was found in the sewer, however NI Water believe the flooding and the blockage was caused by the severe weather. We were surprised that a Met Office radar based storm analysis report was not obtained for this incident, and that the allocation to severe weather was based on; local knowledge; and the fact the property had not flooded previously. On the basis of the evidence presented and absence of Met Office data, we would suggest this to be an incident of flooding (other causes) and should therefore be reported in Line 6 and Line 9. However, the Company were confident in their assessment, and as there was just a single incident, we are inclined to support their view on this occasion.

In AIR11, we highlighted that the industry approach to severe weather assessment has moved on significantly in recent years and that companies in England and Wales now utilise real time radar based rainfall depth and duration data from the Met Office Nimrod system to assess the storm return period for each event and recommended that the Company explores the feasibility of this approach as a future initiative. We did however, also highlight that given the relatively low number of incidents reported, this approach may be uneconomical.

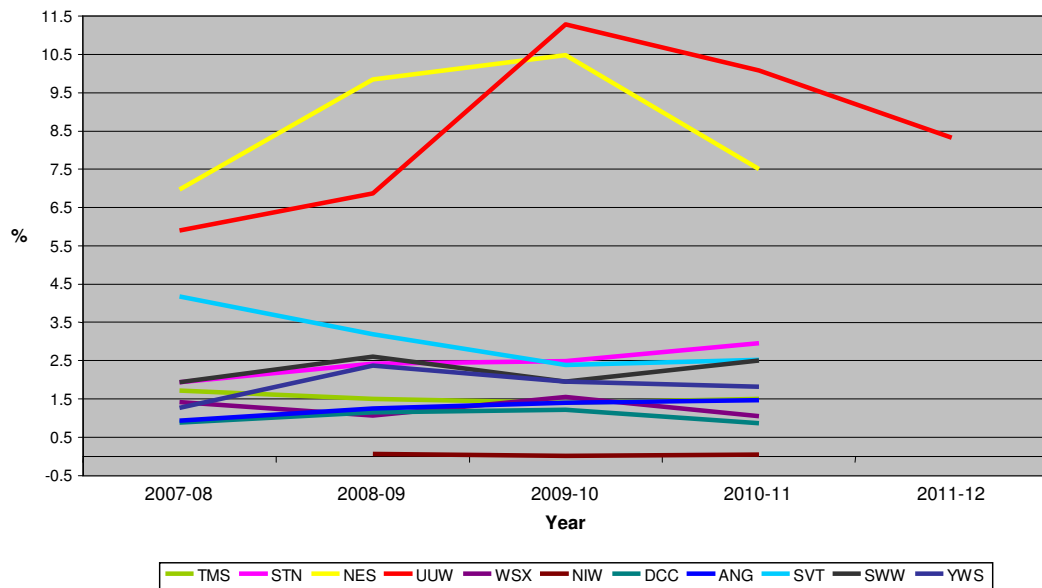
For AIR12, we found that NI Water has assessed the relative costs and opted to follow the 'real time radar' approach and are currently in the process of acquiring the raw radar data and data analysis service. Tender documents are currently being prepared and NI Water anticipates the raw data will be available from October 2012.

4.2.4 AIR12 Flooding Incidents (other causes)

For AIR12, NI Water has reported 23 incidents of flooding due to other causes, 17 due to blockages, 2 due to collapses and 4 due to equipment failure. As above, we queried the relatively low number of flood causing blockages when compared to the total number of blockages reported during the year, and compared overall performance with that experienced in England and Wales.

As demonstrated in the graph below, NI Water is an outlier in terms of FOC (blockage) performance, and despite experiencing circa 4 times more blockages/km than Scotland and England and Wales, continues to experience a very low number of FOC serviceability failures.

%FOC (Blockages) per Total Blockages



4.2.4.1 Audit Checks

As above, we reviewed a selection of FOC incidents reported during the year. As summarised below, our findings, are generally supportive of the Company's assessment.

Incident Location	Date of Incident	Incident Summary
[x], Lurgan	17/9/11	Blockage in main caused surcharge of MH and internal flooding of two properties FOC – Blockage
[x], Warrenpoint	6/8/11	Pump failure caused WwPS to overflow. Simultaneous telemetry failure meant NIW unaware of failure and did not respond. Significant overland flow issue exacerbated problem FOC – Equipment Failure
[x], Portadown	17/3/12	Blockage in main caused internal flooding in [x]. History of flood causing blockages on main, but previously external flooding only FOC – Blockage
[x], Derry		Collapse of sewer in garden of [x] caused internal flooding of downstairs room at [x]. FOC – Collapse

4.3 AIR12 DG5 Properties on the At Risk Register

4.3.1 Verification of Historic Risk Register

We found that the Company has almost completed an exercise to investigate, assess and cleanse all historic flooding records. At the time of audit, we found that Consultants have just completed a review of the East Belfast Catchment, whereby 71 properties were assessed, but these have not yet been considered by NI Water. In addition, a further 100 properties, where categorical evidence of flooding is not available, have been sent for independent review by Consultants.

On this basis, the Risk Register is still subject to +/- 171 potential movements.

4.3.2 AIR12 At Risk Summary

For AIR12, NI Water has reported 27 properties on the 2in10/1in10yr Flooding Registers. We reviewed a sample of these incidents, all of which have been presented to the 'DG5 Panel' for review and allocation, and have included summaries below.

Location	B.I Addition	Findings
[x], Belfast	2in10	<ul style="list-style-type: none"> Two incidents during the year, but not reported to NIW. Therefore no record on Ellipse of any incidents in year. Some evidence of external flooding historically (photographic and Ellipse), but only anecdotal evidence of internal flooding during heavy rain. DG5 Panel recommended addition to 2in10 Register, but would argue addition to 1in20 Register pending actual confirmed incidents.
[x], Derry	2in10	<ul style="list-style-type: none"> Two incidents reported in 2007 – 1 x external and 1 x possible internal. Although no FIR to support internal cleanup CFM suggests history of flooding in the area, and model confirms out of sewer flooding during a 2in10 year rainfall event DG5 Panel recommended addition to 2in10 Register - Ok
[x], Dunmurry	2in10	<ul style="list-style-type: none"> Property flooded on 14/3/11, but incident was not reported in AIR11, as assessment not completed. FIR suggests flooding caused by blockage, as pitch fibre pipe is severely deformed, restricting capacity of sewer. DG5 Panel recommended addition to 2in10 Register, but would argue FOC – Blockage, and recommend replacement of pitch fibre pipe, which is a known cause of flooding
[x], Lurgan	1in10	<ul style="list-style-type: none"> Following an incident at [x], a flooding extent assessment identified that [x] also suffered flooding through an air vent into garage. Interview suggested flooding was external only, but subsequently confirmed that garage was integral. DG5 Panel recommended addition to 1in10 Register, but [x] currently on 1in20 Register. Suggest both properties should be at same risk level.
[x], Belfast	1in10	<ul style="list-style-type: none"> Two incidents reported in 2009. Photographic evidence provided to confirm external flooding but no evidence of internal flooding. DG5 Panel recommended addition to 1in10 Register, although available evidence would suggest external only. Scheme already proposed
[x], Belfast	1in20	<ul style="list-style-type: none"> Anecdotal evidence from CFM of historic internal flooding, but no incidents reported. NRV installed Defaulted to 1in20 Register, but could argue NAR

Overall, we consider the DG5 Panel has tended to 'err on the side of caution' and allocated a number of properties to the 2in10 and 1in10 Flooding Registers, where addition to the 1in20 DG5 Register or External Register could reasonably be argued, based on the evidence presented.

In reviewing the available evidence packs, as presented to the 'DG5 Panel', we found that the information provided was not always consistent with the decision made by the 'DG5 Panel', suggesting that additional anecdotal evidence was made available during the presentation, influencing the final decision. We recommend that more comprehensive evidence packs are compiled for each property, including documentation of the 'DG5 Panel's' reasoning behind each decision.

4.3.3 AIR12 Annual Changes to the Flooding Registers

Register movements reported during the year related primarily to investigations and capital schemes completed during the year.

In terms of removals due to company action (Lines 22 and 30), the Company has identified four schemes completed during the year, whereby 14 properties were removed from the 1in20yr Flooding Register.

We reviewed the details for two of the schemes, [x] (5 properties), completed on 7/6/11, and [x] (3 properties) completed on 23/6/11, both of which involved the upgrade of sewers.

The Company has also reported 11 removals as a result of better information, of which we reviewed 3 examples:

Location	B.I Removal	Findings
[x], Belfast	1in20	<ul style="list-style-type: none"> Flooding reported in 2000 Investigations confirmed property was demolished in 2004 and site was redeveloped. Removed from 1in20 Register
[x], Newry	1in20	<ul style="list-style-type: none"> Upgrade to WwPS just downstream of property resolved previous issues Incorrectly allocated to DG5 Register, as FOC equipment failures Removed from 1in20 Register
[x], Belfast	1in20	<ul style="list-style-type: none"> No record of internal flooding at [x] CCTV investigation confirmed debris in sewer and identified need to de-silt External FOC –blockage Removed from 1in20 Register

4.4 Confidence Grades

The Company has assigned a confidence grade of B2 to Lines 2 to 11, on the basis that all data is derived from Ellipse, and that the Company undertakes an investigation of all reported incidents. We acknowledge the additional layer of investigation undertaken in order to verify each incident, but as the number of reported incidents is so small, we would consider any variance in numbers would be considerably greater than +/-5%. Based on the observations/challenges made highlighting the possible movement in numbers, we consider a B3 to be more appropriate for these lines to reflect the improving rigour applied.

A confidence grade of B2 has been assigned to Lines 12 to 14 and 22 to 34, a significant improvement on the B4 reported in AIR11. Whilst we acknowledge the increased rigour applied by the 'DG5 Panel' to assess all 'in year' incidents, there is still an element of uncertainty as to whether all properties are appropriately allocated. Based on the observations/challenges made highlighting the possible movement in numbers, we consider a B3 to be more appropriate for these lines to reflect the improving rigour applied.

All other confidence grades are consistent with our understanding of the systems used to derive the data.

5. Consistency Checks

- Line 14 = Line 14 previous year – (Line 22 + Line 23) + (Line 24 + Line 25)
- Line 15 = Line 15 previous year – (Line 30 + Line 31) + (Line 32 + Line 33)

Date: 25 July 2012
Prepared by: HMS

Table 3a – Sewerage Service – External Flooding**Commentary by REPORTER****1. Background**

The information included in this table is used to measure the frequency of actual flooding of external areas from the public sewerage system by foul water, surface water or combined sewage.

The Table 3a – Annual External Flooding Summary includes properties externally flooded as a result of overloaded sewers and other causes.

The areas on the external “at risk” register cover areas at risk of flooding more frequently than once in twenty years and once or twice in ten years, problem status of the external areas on the register and annual changes to the register.

2. Key Findings and Recommendations

- NI Water has reported 339 incidents of external flooding due to overloaded sewers for AIR12, and 2715 incidents of external flooding due to other causes.
- Raw contractor data was used to populate Table 3a and no verification of incidents was undertaken for AIR12.
- As the Company are still in the early stages of developing an external flooding register, they have not populated lines 12 to 25 for AIR12.
- As the procedures used for reporting internal and external flooding are theoretically the same, our findings and recommendations in our Table 3 commentary also apply to Table 3a.

3. Audit Approach

The audit consisted of a brief discussion with the NI Water system holder to discuss the methodology and data that has been used to populate this table.

4. Audit Findings**4.1 DG5 Annual Flooding Summary**

As highlighted in the Company’s commentary; responsibility for the population of Table 3a has been transferred from Customer Services Directorate (Networks Sewerage Business Unit) to Asset Management (Asset Performance section). The analysis for AIR12 has been made on the basis that the information supplied by the external contractor is accurate. No investigation has been carried out in relation to individual incidents. As a consequence the data has a low Confidence Grade of D6.

Whilst a process had been developed for AIR11 to ensure a cursory review of external flooding incidents was undertaken on a regular basis, this was not continued for AIR12.

For AIR12, 3,054 reported incidents were confirmed to have flooded externally, the majority of which were deemed to have flooded as a result of 'other causes', primarily blockages. Based on our understanding of network performance, the numbers of confirmed external flooding incidents do not appear to be reflective of a company the size of NI Water. Whilst significant work has been undertaken to improve understanding of the DG5 internal flooding measure, similar focus should either be given to the external flooding measure or reporting should be deferred until a time when NI Water are able to focus resources on this area. In England and Wales, external flooding only became an area of focus once the DG5 indicator was fully understood and reported.

4.2 DG5 Properties on the At Risk Register

As the Company are still in the early stages of developing an external flooding register, they have not populated lines 12 to 25 for AIR12.

5. Confidence Grades

A confidence grade of D6 has been assigned to lines 1 to 11 on the basis that the raw data has been taken from Contractor records without any further verification or analysis.

Date: 25 July 2012
Prepared by: HMS

Table 4 - Customer Service – 1**Commentary by REPORTER****DG6 Response to billing contacts (lines 1 to 5)****1. Background**

These lines collect data on the number of billing contacts received and the time taken to respond to them. This information is used to inform and compare performance for the DG6 indicator.

2. Key Findings

- NI Water reports an 11% reduction in billing contacts received. The Company have embarked on a number of initiatives which appear to have reduced contact volumes.
- We have reviewed a number of written contacts to satisfactorily test various aspects of the Company's methodology (see Section 4 for details). 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 largely in line with the reporting guidance.

2.1 Recommendations

- The Reporting Requirements ask NI Water for details on the protocol on how a DG6 contacts are reclassified to DG7 if they are recognised as complaints. We noted the Company of this requirement in the audit and advised their commentary be updated or information be provided to the Reporter for inclusion in their commentary. At the time of writing this protocol has not been provided. We recommend details are provided to NIAUR at the earliest opportunity.
- If possible, extend checking of non DG classification into routine checks.

3. Audit Approach

To verify the data reported our audit consisted of an interview with the NI Water system holders, an audit of the data from the Company's systems to the final table and a review of the current Company methodology for data collation. This years data has been compared with last years table entries to identify significant areas of change.

We have checked data reported in the final submission for consistency with previously audited information.

4. Audit Findings

In our AIR12 audits we have reviewed a number of aspects of the Company's

methodology. We have documented our audit findings below in the following structure:

- Section 4.1 – DG6 performance
- Section 4.2 – Dealing with paper based contacts
- Section 4.3 – Non-DG correspondence
- Section 4.4 – Telephone billing contacts
- Section 4.5 – Dispatch of items by third parties
- Section 4.6 – Web based and automated services
- Section 4.7 – QA procedures

4.1 DG6 Performance

NI Water document that they have received 92,832 billing contacts during the 11/12 Report Year. When compared to the previous Report Year the overall number of billing contacts has decreased by approximately 12,000 or circa 11%. Describing a number of initiatives, NI Water advised the decrease is thought to have had a positive effect on reducing contact volumes. Details on these initiatives are provided in the Company commentary.

In terms of responding to DG6 billing contacts, the Company has reported that they dealt with 99.97% of contacts within 5 working days 0.02% were dealt with in more than 10 working days. This represents an improvement in performance from that reported in AIR11. Using Ofwat's performance classification, the NI Water's reported performance in is classified as 'good' (>95% within five working days and less than 1.5% over ten working days). The performance reported in AIR12 is also better than the DG6 OPA target for the Report Year. 11/12 performance reported in PC13 and AIR12 is also consistent.

NI Water report in line 1, the actual number of complaints received in the Report Year whilst the those contacts reported in lines 2 and 3 are the number of open contacts responded to in the Year (please see Section 5 below for additional detail on the Company's reporting methodology).

4.2 Paper based correspondence

All Customer contact information is managed through customer contact and billing system Rapid.

We reviewed the operation of Rapid and confirm the principles of the Company's methodology are appropriate to meet the Reporting Requirements. All incoming correspondence is scanned and indexed before being passed to an Agent. The Rapid system subsequently offers work allocation, tracking and retrieval functions to the Company.

During our audits we reviewed a sample of correspondence received by the Company during the year. This sample was chosen at random from contacts closed over the course of the year. Our audit was designed to check the following:

- Correct categorisation
- Correct application of the DG6 Reporting Requirements, which included:
 - dispatch
 - substantive replies
 - application of response criteria
 - date recording on systems.
- Evidence of appropriate audit trails

In total we reviewed a sample of 17 contacts.

A summary of our audit findings are detailed below.

We reviewed the audit trail for all of the contacts selected and confirm that the majority were correctly reported as DG6 contacts and were treated in line with the Reporting Requirements. We highlighted 3 contacts which could be interpreted as complaints but we accept there is always a degree of subjectivity in complaint allocation.

We found that all written contacts received by the Company are logged on day of receipt. We specifically challenged the Company's treatment of email contacts received on non-working days (such as weekends) and we confirm that the methodology employed should ensure that contacts received at these times are reported in line with the reporting guidance i.e. the date of receipt is classed as day zero.

- Use of holding replies

NI Water explained that they do use holding replies to close out contacts for reporting purposes. In previous audits we have reviewed several examples of these where contacts generally relating to operational matters where additional investigatory work needs to be undertaken. Our AIR12 audit checks did also review replies of this kind and from the evidence reviewed and discussions held we believe the Company's approach to these types of contacts is in line with the Reporting Requirements i.e. a substantive holding response closes the contact for regulatory purposes. We also note the Company's efforts to reduce the number of holding responses and monitoring of the duration a contact is 'open'

4.3 Non-DG correspondence

During our audit we sampled 10 non DG items (which are defined as 'non-reportables' by NI Water) and found these to be correctly excluded from the DG6 measure.

We queried what types of communication are classified as non-DG and how these were separately identified. The Company briefly outlined the types of such correspondence, for example new metering correspondence and duplicate letters which have already been logged. From the checks carried out we confirm believe the Company's methodology is sound. However, our audit only selected a small

proportion of those excluded from the DG6 (or DG7) measure. We understand NI Water does not undertake routine checks on non-reportable categories to check if contacts are correctly allocated to non reportable CMS types. We therefore recommend NI Water undertakes an assessment to establish what the potential risk of non-compliance is and, if deemed appropriate, incorporate regular quality checks to mitigate this risk.

4.4 Telephone billing contacts

As anticipated the vast majority of DG6 billings contacts are received by NI Water over the phone. We have not undertaken any call listening exercises in AIR12 but discussed the quality checks the Company themselves undertake. NI Water shared details of their monthly checks which included the template used to assess each call. Importantly we note that these checks include how calls are logged and coded on Rapid. These are of particular relevance to DG6 (and DG9) and we would encourage the Company to continue this quality checking.

4.5 Dispatch of items by third parties

We have previously queried how they the date of dispatch for items undertaken by a third party e.g. such as re-bills are recorded. We understand the Company's agent has a 2 day Service Level Agreement to action these items, but for reporting purposes the date when the action was requested is used to close the contact. Whilst this is not strictly in accordance with the requirements, we understand that such requests are normally raised on the day of receipt i.e. day 0 therefore the impact upon reporting durations should be minimal as the day 5 standard should not be exceeded. NI Water also described the governance procedures applied to such items and these appear robust. However, we recommend the Company investigate what risk, if any, third party dispatched items may have on DG6 reporting.

4.6 Web based and automated services

During the audit we discussed the Company's approach to offering web based and automated services and it appears that whilst such services are currently limited, enhancements may be introduced in the future. If this is the case, we recommend that consultation takes place prior to their introduction to ensure that reporting of contacts is in line with regulatory requirements.

4.7 Quality Assurance

During our audit work we queried what QA controls NI Water operates on the calls/correspondence received. We reviewed the checks now undertaken by the Performance Team and believe those undertaken are soundly based.

5. Company Methodology

To confirm the methods used by the Company are as described and are generally in line with the Reporting Requirements, we performed a series of reviews and audit

checks. From these checks we are content that the approach adopted is in line with their stated methodology.

On the basis of our audits from AIR12 we have provided a summary of our findings and the Company's methodology below.

- As in previous years', NI Water deals with all written correspondence which is categorised as being billing related. Contacts received via the telephone are dealt with by the Company's agents, Echo.
- Correspondence is opened and date stamped on the date of receipt. At this point, correspondence is allocated between various categories including correspondence relating to DG6 (billing contact) and DG7 complaints.
- Written complaints about billing are recorded in DG7 (Table 5) not DG6.
- A high proportion of billing contacts are counted from the telephone system. Calls to these lines are recorded on Rapid.
- Contacts are recorded on Rapid and this system is interrogated to produce the data reported.
- Once correspondence has been opened and indexed it is routed to an agent for action. Managers maintain a list of prioritised contacts which ensures that contacts are dealt with in line with the SLA and regulatory timescales.
- Contacts are closed when a response is sent to the customer by the contact team. We discussed with the Company various logistical points of this process including the times of collection and dispatch, resourcing issues and contingency plans to ensure all mail is dispatched on the same day a contact is closed. From these discussions we believe the practice adopted by the Company is suitable (except for automated dispatch items) to ensure satisfactory compliance with the Reporting Requirements.

The Company reports all billing contacts received during the Report Year within line 1. To report lines 2 to 4 NI Water reports the number of contacts in the year as the number of contacts 'closed' in the year. We understand that more contacts have been closed in the year than received due to efforts addresses the previous backlog of enquiries. Care should therefore be taken when interpreting response time performance as received over closed trend information could be misleading.

To report data the Company relies on data extracted from CorVu reports. Previously, NI Water relied on data for lines 2 to 4 extracted from Rapid system but we understand the facility now exists for all data to be extracted from one system. We briefly questioned NI Water on the migration to using the new report to ensure the approach was consistent to previous years and the Company's explained the assurance work undertaken to achieve this. We have not checked this but from the Company representatives description of the steps taken we are content the change in methodology is appropriate.

The Company advised that whilst holding responses close the contact for reporting purposes the contact remains open on their system until a final response is issued by the contact team. NI Water explained its methodology for reporting contacts

received in one reporting period but not closed until the following year. We understand for AIR12, if a contact was received in the 2011/12 Report Year then this would be included line 1 of Table 4. If a complaint received in 2011/12 is addressed by a holding response in the 2012/13 year the response time will be reported in AIR13. Where a holding letter has been issued in the same year as the outstanding DG6 contact, but hasn't been closed by the date of the year end extraction then there is a risk this contact would not be reported. However, we believe this risk is reduced by the Company's efforts to reduce the number of holding responses issued.

The Reporter is content that the methodology employed regarding contacts received versus contacts closed in the year is satisfactory as the staggered approach should mean (assuming the methodology is consistent in subsequent AIR's) contacts are reported as received then closed in the subsequent year. Nevertheless there is also a small risk that contacts may be unreported if the scenario above exists.

6. Company Assumptions

NI Water publishes a number of telephone numbers for different specific purposes. The Company assumes that all calls on the specified billing contact lines will be billing contacts. It is assumed that there is only a low level of customers dialling the wrong number. We confirm that these are reasonable assumptions, appropriate for the volume of calls received.

7. Confidence Grades

The Company has applied a confidence grade of B2 to all the DG6 related information in the table. The corresponding grade in AIR11 was B3 and when questioned NI Water outlined they believe an improved grade is warranted based on the findings of the quality assurance checks undertaken each month. We reviewed checks on one month's data (which we were advised was representative of a typical month) and confirm that a B2 grade is warranted.

Further control and reassurance is also gained from checks undertaken by Internal Audit and also external quality certification held by the Company service agents.

Date: 25 July 2012
Prepared by: HMS

Table 4 - Customer Service – 1

Commentary by REPORTER

Table 4 - Connected properties, Lines 6 – 8

1. Background

This section of Table 4 collects details on the number of connected properties broken down by service category.

2. Key Findings

- Our audits indicated satisfactory compliance with the Reporting Requirements.
- However, the methodologies adopted for other parts of submissions, i.e. Tables 2, 7, 13 and 17a, are inconsistent from AIR11 to AIR12. Therefore NI Water can not compare the figures in AIR12 directly to those in AIR11.

3. Audit Scope

We carried out an audit with the Company's system holder for these lines. Our audit consisted of a review of the Company's methodology and the systems the Company employs to transpose the data from its billing system data extracts into the table.

4. Audit Findings

As reported elsewhere the Company has derived their estimates of property numbers from extracts produced from their Rapid billing system. We have followed the Company's methodology and believe it to be in accordance with the Reporting Requirements and consistent with the summary information presented to the Reporter during the audit.

However, because there are some differences in methodologies adopted between AIR11 and AIR12, we do not believe that the Company's commentaries on Lines 6 – 8 are fully comparable on a like for like basis. NI Water used AIR11 submission figures for the comparisons of each line.

The following table shows the differences in reported figures in AIR11 and AIR12.

	Line definition	AIR11 Reported	AIR11 using AIR12 methodology	AIR12 Reported
Table 2 Line 1	Total water connected property	806,444	802,457	810,367
Table 17a Line 4	Total sewerage connected property	659,264	655,489	660,813

We provide the line by line commentary in order of the calculations.

4.1 Line 8 – Number of properties connected for sewerage services only

	Line definition	AIR11 Reported	AIR11 using AIR12 methodology	AIR12 Reported
Table 4 Line 8	Sewerage only property	27	27	25

The number of sewerage only properties is directly from Rapid, therefore there is no change in AIR11 figure.

4.2 Line 7 – Number of properties connected for water and sewerage services

	Line definition	AIR11 Reported	AIR11 using AIR12 methodology	AIR12 Reported
Table 2 Line 1	Total water connected property	806,444	802,457	810,367
Table 17a Line 4	Total sewerage connected property	659,264	655,489	660,813
Table 4 Line 8	Sewerage only property	27	27	25
Table 4 Line 7	Water & sewerage property	$(659,264-27) =$ 659,237	$(655,489-27) =$ 655,462	$(660,813-25) =$ 660,788

There has been a slight increase of 5,326 (0.8%) in the number of water and sewerage connected property, not 1,551 as reported by NI Water. Although the methodologies applied from AIR11 to AIR12 are different, the difference in the AIR11 submission figure and the AIR11 figure using AIR12 methodology is 0.6%. We believe this is immaterial.

4.3 Line 6 – Number of properties connected for water supply only

	Line definition	AIR11 Reported	AIR11 using AIR12 methodology	AIR12 Reported
Table 2 Line 1	Total water connected property	806,444	802,457	810,367
Table 17a Line 4	Total sewerage connected property	659,264	655,489	660,813
Table 4 Line 8	Sewerage only property	27	27	25
Table 4 Line 7	Water & sewerage property	659,237	655,462	660,788
Table 4 Line 6	Water only property	(806,444-659,237) = 147,207	(802,457-655,462) = 146,995	(810,367-660,788) = 149,579

Again, there has been a slight increase of 2,584 (1.8%) in the number of water and sewerage connected property, not 2,350 as reported by NI Water. Although the methodologies applied from AIR11 to AIR12 are different, the difference in the AIR11 submission figure and the AIR11 figure using AIR12 methodology is 0.1%. We believe this is immaterial.

5. Confidence Grade

The Company assigned the confidence grades of A2 to Lines 6 to 8. However we believe that these lines are calculated from Tables 2 and 17a. During our Table 7 audit, we found some anomalies in their billing and new connection systems. Thus we feel that the confidence grades of these lines should be B3. Please see our Table 7 commentary for further detail.

6. Consistency Checks

We confirm that the sum of Lines 6 and 7 of Table 4 are consistent with Line 1 – Total connected properties at year end in Table 2 but please note the discrepancies in methodology described above.

Date: 25 July 2012
Prepared by: HMS

Table 5 - Customer Service – 2**Commentary by REPORTER****DG7 - Response to written complaints, Lines 1- 5****1. Background**

The DG7 indicator shows the total number of written complaints received and the number dealt with within the specified time bands.

2. Key Findings

- The Company report that the total number of written complaints received has decreased. Overall the number of complaints has decreased by 45% or 1,987 written complaints in real terms.

2.1 Recommendations

- The Reporting Requirements ask NI Water for details on the protocol on how a DG6 contacts are reclassified to DG7 if they are recognised as complaints. We noted this requirement in the audit and advised the Company commentary be updated or information be provided to the Reporter for inclusion in their commentary. At the time of writing this protocol has not been provided. We recommend details are provided to NIAUR at the earliest opportunity.
- If possible, extend checking of non DG classification into routine checks.
- We understand no process exists to record written complaints received by PPP concessionaires (or other contractors working on NI Water's behalf) which is not in accordance with the reporting guidance. We recommend investigations are carried out to ascertain the potential volume of such complaints and reporting protocols and methodologies updated to ensure inclusion in future years.

3. Audit Approach

To check the accuracy of the information reported, our audit consisted of an interview with the NI Water line holders, an audit of the data from the Company's systems to the final table and a review of the current methodology for data collation. This years data has also been compared with last years table entries.

4. Audit Findings

We found that the procedures and methodology broadly consistent to that reviewed previously.

We observed NI Water responds to the majority of complaints by letter. This somewhat differs to our observations elsewhere where there is an increasing

tendency to resolve complaints via telephone. Companies endeavouring to resolve complaints this way believe increased customer interaction assists in reducing the number of repeat contacts. It may be worth NI Water reviewing strategies adopted elsewhere and whether these could improve the 'customer experience' in NI.

4.1 Line 1 - Total written complaints

The number of complaints has decreased by 45% or 1,987 written complaints in real terms.

For AIR11, the Company reported that the total number of written complaints received had increased. Increases in 2010/11 written complaint volumes were attributed to the freeze thaw event but as no similar or other significant events occurred in 11/12 the complaint volumes have reduced significantly. Indeed, the volume of complaints has reduced to below the recent historic average.

4.2 Lines 2 to 5 – DG7 Performance

The Company has maintained a good level of performance in responding to complaints. Overall, nearly all written complaints were responded to within 10 working days and no written complaints were dealt with in more than 20 working days.

The Company's reported performance is ahead of their SBP target (98.5%) of contacts dealt with within 10 working days. Using the equivalent Ofwat assessment criteria for DG7, the NI Water's performance for 2010/11 Report Year would be classified as 'good'.

4.3 Audit Checks

During our audits we reviewed a sample of correspondence received by the Company during the year. This sample was chosen at random from contacts received throughout the 11/12 year. Our audit checks were designed to check the following:

- the contact has correctly been classified as DG7
- the Rapid system correctly records the incoming and response date
- there was an audit trail evident for each complaint
- the nature of the complaint (to inform table 5a)
- the response to the complaint is substantive.

In total we reviewed a sample of 15 contacts to review the criteria set out above. A summary of our audit findings are detailed below. Our audit checks covered complaints received by both post and email.

We found that the Company's approach is consistent with their stated methodologies. The complaints reviewed were correctly classified as DG7 written complaints. We reviewed the audit trail for all of the contacts selected and confirm

that they were treated in line with the Reporting Requirements.

- Dating of correspondence

During our audit checks, for each compliant we satisfactorily tested the date of receipt was consistent between date stamp on the incoming correspondence and the date recorded on Rapid. As all incoming date stamped on date of receipt we are content that the Company recording of incoming dates are appropriate.

- Use of holding replies

Within previous audit checks we noted numerous instances where the Company issues holding responses to customer complaints. This effectively closes the contact for regulatory reporting but the contact remains open on the Company's system to ensure a response is issued to the customer. Our audit sample did not review any holding responses of this type and we believe this is likely to be due to NI Water's efforts to reduce the number of holding responses issued.

- Substantiveness of Responses

We confirm that all replies reviewed were considered substantive. Therefore on the basis of the checks undertaken we are content that the Company's interpretation of a substantive response is sound.

- Dispatch

We also questioned the Company on various logistical points of the dispatch process, including the times of collection and dispatch and resourcing issues to ensure all mail is dispatched appropriately. On the basis of these discussions we are content NI Water's approach is consistent with their stated approach and with the NIAUR Reporting Requirements.

4.4 Treatment of emails (and faxes)

We asked the Company to clarify the processes for email communication and found in general it is treated in the same way as written correspondence. Emails are logged, date stamped, indexed and passed to an Agent as per the Company's methodology statement. We tested NI Water's methodology for recording the receipt date of a complaint received via email and the outcomes of these checks were satisfactory.

The Company advises it has updated its' procedures to ensure that all email contacts are logged on the day of receipt. Our audit checks did not reveal any issues in regard to dating of emails.

4.5 Exclusions from the DG7 indicator

NI Water advised that they do not generally exclude any complaints from the DG7 indicator (15 were excluded in 11/12).

The reporting guidance allows complaints to be excluded for a number of reasons (e.g. about non-appointed activities). Practice elsewhere also excludes contacts where they have fully exhausted the complaints process (where complaints are ongoing over a considerable period and any additional information received from the customer would not change the outcome of the complaint).

The small number of complaints excluded in 11/12 did not form part of our sample audit. In future audits we plan to review similar exclusions and recommend that clear audit trails are maintained to substantiate the exclusion made.

4.6 Non-DG correspondence

During our audit we sampled 10 non DG items (which are defined as 'non-reportables' by NI Water) and found these to be correctly excluded from the DG6 measure.

We queried what types of communication are classified as non-DG and how these were separately identified. The Company briefly outlined the types of such correspondence, for example new metering correspondence and duplicate letters which have already been logged. From the checks carried out we confirm believe the Company's methodology is sound. However, our audit only selected a small proportion of those excluded from the DG7 (or DG6) measure. We understand NI Water does not undertake routine checks on non-reportable categories to check if contacts are correctly allocated to non reportable CMS types. We therefore recommend NI Water undertakes an assessment to establish what the potential risk of non-compliance is and, if deemed appropriate, incorporate regular quality checks to mitigate this risk.

4.7 Postal Strikes

We questioned NI Water as to whether the mail strikes had a material impact on their operations (and performance) as they would not have received incoming mail or been able to dispatch mail on certain days. In response the Company advised that they do not believe interruptions in the postal service have had a material impact on their operations in 2011/12.

4.8 Complaints PPP and other contractors

We understand no process exists to record written complaints received by PPP concessionaires (or other contractors working on NI Water's behalf) which is not in accordance with the reporting guidance. We recommend investigations are carried out to ascertain the potential volume of such complaints and reporting protocols and methodologies updated to ensure inclusion in future years.

4.9 Treatment of contacts from CCNI

Please see Table 5a.

5. Company Methodology

5.1 Overview

To confirm the methods used by the Company are as described we performed a series of reviews and audit checks. From these checks we are content that the approach adopted is in line with NI Water's stated methodology and generally in line with the Reporting Requirements.

On the basis of our audits from, we have provided a summary of our findings and the Company's methodology below:

- The definition of a written compliant is aligned to that stated in the reporting guidance.
- Correspondence is opened and date stamped on the date of receipt. At this point, correspondence is allocated between various categories including correspondence relating to DG6 (billing contact) and DG7 complaints.
- All Customer contact information is managed through customer contact and billing system, Rapid Xtra.
- All mail is logged on the day it is received.
- Once correspondence has been opened and indexed it is routed to an agent for action. Managers maintain a list of prioritised contacts which ensures that contacts are dealt with in line with the SLA and regulatory timescales.
- Contacts are closed when a response is sent to the customer by the contact team. We discussed with the Company various logistical points of this process including the times of collection and dispatch, resourcing issues and contingency plans to ensure all mail is dispatched on the same day a contact is closed. From these discussions we believe the practice adopted by the Company is suitable to ensure satisfactory compliance with the Reporting Requirements.

5.2 Reporting

The Company reports all complaints 'received' during the Report Year within line 1. To report lines 2 to 4 NI Water reports the number of contacts in the year as the number of complaints 'closed' in the year.

To report data the Company relies on data extracted from CorVu reports. Previously, NI Water relied on data for lines 2 to 4 extracted from Rapid system but we understand the facility now exists for all data to be extracted from one system. We briefly questioned NI Water on the migration to using the new report to ensure the approach was consistent to previous years and the Company's explained the assurance work undertaken to achieve this. We have not checked this but from the Company representatives description of the steps taken we are content the change

in methodology is appropriate.

The Company advised that whilst holding responses close the contact for reporting purposes the contact remains open on their system until a final response is issued by the contact team. NI Water explained its methodology for reporting complaints received in one reporting period but not closed until the following year. We understand for AIR12, if a contact was received in the 2011/12 Report Year then this would be included line 1 of Table 5. If a complaint received in 2011/12 is addressed by a holding response in the 2012/13 year the response time will be reported in AIR13. Where a holding letter has been issued in the same year as the outstanding DG7 contact, but hasn't been closed by the date of the year end extraction then there is a risk this contact would not be reported. However, we believe this risk is reduced by the Company's efforts to reduce the number of holding responses issued.

The Reporter is content that the methodology employed regarding contacts received versus contacts closed in the year is satisfactory as the staggered approach should mean (assuming the methodology is consistent in subsequent AIR's) contacts are reported as received then closed in the subsequent year. Nevertheless there is also a small risk that contacts may be unreported if the scenario above exists.

5.3 Quality Assurance

During our audit work we queried what QA controls NI Water operates on complaints received. The Company outlined the various controls in place, including the administration of their customer service contract and the checks undertaken by the Contract Office team. We believe these should help to promote good practice and help improve the reporting process.

6. Company Assumptions

There are no further material assumptions that we have identified.

7. Confidence Grades

The Company has applied a confidence grade of B2 to all the DG7 volume related information in the table. NI Water advised the basis of the grade is founded upon the monthly assurance checks on the data and processes employed which are undertaken. We reviewed checks on one month's data (which we were advised was representative of a typical month) and on the basis of this review confirm a B2 grade appears reasonable. However, please note the audit finding on complaints received by PPP contractors which could potentially alter the complaint volumes reported.

DG8 - Bills for metered customers, Lines 6 – 12**1. Background**

This indicator identifies the proportion of metered customers who receive bills during the year based on actual meter readings and the proportion based on estimated readings.

2. Key Findings

- The Company report that 97.88% of customers received a bill based on a meter reading in 2011/12. The annual performance is ahead of the Company's PC10 target which was 97.5% and also an improvement on the previous year.

3. Audit Approach

To verify the information provided by the Company our audit consisted of an interview with the NI Water system holder, a review of the current methodology for data collation, an audit of the data from the Company's systems to the final table and a comparison with last years table entries.

We also checked the data in the final submission for consistency with previously audited data.

4. Audit Findings**4.1 General**

The information to derive DG8 data is supplied from reports produced from the Company's billing records. Summary tables are produced from these records to collate figures for the final table. We reviewed the data in the reports and followed the data trail through to the Company's final table.

4.2 Performance and Industry Comparison

After taking the number of exclusions reported in line 6 away from the total number of metered accounts reported in line 7, a total of 67,488 accounts are included with the DG8 indicator. The Company state that of this total, 97.88% of customers received a bill based on a meter reading in 2011/12. The reported performance is also above that reported in 10/11 and the Company's target of 97.5%.

The percentage of meters not read by the Company for two years equates to 0.7% of the metered base included in the DG8 indicator. We have checked these calculations and confirm that, after rounding, performance would be classed as 'acceptable' using the historic Ofwat DG8 assessment criteria (98 to 99.5% company or customer reads).

Within the audit, the Company explained some of the difficulties they have encountered in the year achieving their DG8 target, including gaining access to some properties. The DG8 target of 99% by the end of the PC13 period may be difficult to achieve if access is continually denied by a small proportion of the customer base.

We confirm the 11/12 DG8 performance reported in AIR12 is consistent with that reported in PC13 Table 4.3.

4.3 Line 6 – Total metered accounts

We noted the number of metered accounts had increased marginally (3%) from previous. This is broadly consistent with the number of household and non-household new connections reported in Table 7. The greatest proportion of this increase relates to household customers which are subsequently excluded from the indicator (see below). The actual number of non-household accounts appears relatively consistent to the previous report year.

4.4 Line 7 - Exclusions

As highlighted the above the number of exclusions has increased from 10/11 mainly due to an increase in the number of household accounts being reported in line 6.

Overall, NI Water excluded approximately 35% of its metered base from the DG8 indicator. This is somewhat higher than the average of accounts excluded historically by WaSCs in England and Wales, which is circa 11%. However, whilst providing a useful metric for comparison purposes, it is difficult to make any direct comparisons as NIW DG8 statistics include non-domestic accounts only.

During the audit the Company also cited a number of examples where an account would be reported in line 7 and excluded from the DG8 indicator. Whilst the Company advised that these have been previously agreed with the Regulator, we discussed a number of these and believe their exclusion from the DG8 indicator appears reasonable. Examples of such accounts include:

- Meters charged on another basis
- Test meters
- Trade-effluent meters
- DRD or NI Water meters
- Fire supplies
- Properties occupied less than six months
- Complex accounts – Including combination meters
- Void properties

To check the Company's methodology in this area, we asked the Company to provide a list of accounts from each exclusion category. NI Water was able to supply this listing and we selected a random sample of accounts to review for the following categories:

- Charged on other basis (5)
- New Property (5)
- Occupied less than 181 days (4)
- Void (5)

For each account reviewed we sought to check the billing history and consumption records on Rapid to ensure the account was correctly interpreted as an exclusion. In the majority of the accounts reviewed the Company was able to demonstrate why these accounts had been excluded. Whilst this represents only a small proportion of the total number of reported exclusions, on the basis of the checks undertaken we are content that the Company's methodology in this area reliably extracts data relating to the exclusion type. For several of the void properties reviewed, we noted consumption was recorded on the account even though the properties had been confirmed by inspections as being void. Whilst there are possible explanations for this e.g. supply pipe leakage, there is a risk that such properties are incorrectly classified as void. We did not investigate this issue further within our audit.

We have previously challenged the Company on their interpretation of the 'less than 6 month' category exclusion category. The Requirements infer that change of occupancy is taken into account when deriving the 6 month exclusion. NI Water confirmed that this is the case and any *meter* occupied for more than 181 days (irrespective of ownership) would be included in the DG8 analysis.

We also questioned the Company on whether they are able to reconcile the number of 'complex' accounts from one report year to the next as under normal circumstances we would expect the types of accounts to remain relatively static over time. NI Water was able to provide evidence to support this assertion.

4.5 Line 8 and 9 - Company readings/Company or customer readings

The Company methodology outlines that that is encourages customers to provide their own readings and these can be register via NI Water's website or by calling their billing line.

During the audit the Company provided data from the Rapid system to support the figures presented. Based on this and the audit checks undertaken we are content that the data produced is appropriate for reporting purposes.

4.6 Line 10 - Estimated Bills only

Whilst the Company has made endeavours to ensure that every non-household customer receives a bill based on at least one meter reading, NI Water report a number of instances where this was not possible.

The proportion of metered accounts of receiving a bill based on an estimated reading has again decreased in the Report Year. Approximately 2% of those accounts included in the DG8 measure received an estimated bill. We believe the

reduction from 4% is due to the Company's continued efforts to improve reading performance.

4.7 Line 11 - No bills received during the Report Year

NI Water reports a small number of accounts where the customer has not received a bill during the year. We have no sought to verify the accuracy of the number of accounts reported.

4.8 Line 12 - Unread by the Company for 2 years

The percentage of meters not read by the Company for two years equates to 1.0% of the metered base included in the DG8 indicator. This figure is somewhat higher than that typically reported in England and Wales but meaningful comparisons are difficult given that NI Water only bill non-domestic properties.

5. Company Methodology

The primary source of data is the Company's billing system and we confirm that the Company presents all the annual data and that no sampling techniques have been employed.

To confirm the methods used by the Company are as they describe and are in line with the Reporting Requirements, we performed a series of reviews and audit checks. From these checks we are content that the approach adopted is in line with their stated methodology.

On the basis of our audits from AIR12 we have provided a summary of our findings and the Company's methodology below:

- NI Water outsources its' billing activities to its third party provider.
- The primary source of data is the Company's billing system, Rapid.
- All customers who are eligible for billing are billed, regardless of consumption.
- Before the start of each reading period all meter accounts which need to be read are transferred from the Rapid system onto the Routestar system. These accounts are then transferred onto the PDA's of meter reader who then visits the meter.
- When in the field, all meter readings (including those not able to be read) are input by the meter reader on their PDA.
- Meter readings are uploaded back from the Routestar system onto the Rapid on a daily basis. Bills are then generated on Rapid based on the consumption recorded and appropriate tariff.

The Company described the processes by which meter readings are managed to the Reporter's satisfaction. When meter readings cannot be obtained the meter reader records this on their PDA as being 'skipped' and this is fed back into Rapid. On such occasions the Company has the facility for customers to enter a reading

via the phone or website. If no reading is provided before the subsequent billing run a system estimate is generated and a bill is issued.

6. Company Assumptions

We consider that there are no assumptions to be disclosed and that the data is based on sound procedures.

7. Confidence Grades

The Company assigned a confidence grade of A1 to lines 6 to 12. We understand this grade is assigned on the basis data used to provide DG8 performance driven by a system based report that does not require any manual interpretation or manipulation. The report is taken directly from the Rapid database source which categories each account automatically based its' status and therefore using the most current and up to date data. Whilst we have no doubt that recent system improvements will have improved confidence in the data, we suggest that the Company endeavours to quantify any error rate to fully substantiate that an A1 grade is appropriate as any inherent errors in the dataset will be ultimately reflected in the reported performance data.

DG9 - Telephone Contact, Lines 13-17**1. Background**

This indicator identifies the ease with which customers can make telephone contact with the Company.

2. Key Findings

- There have been improvements reported in the majority of the elements which make up the DG9 indicator. The qualitative customer satisfaction score is marginally less than last year but the Company provided evidence to suggest this was a legacy issue from the 10/11 freeze thaw and scores in the latter half of the report year had improved.

2.1 Recommendations

- We recommend the confidence grade assigned to line 14 'all lines busy' should be AX rather than A2. This is because no contacts have been reported within the all lines busy indicator and therefore an AX grade is more appropriate.

3. Audit Approach

Our audit consisted of an interview with the NI Water system holders, a review of the current methodology for data collation, an audit of the data provided and a listening exercise to calls received.

We have also checked the data in the final submission for consistency with previously audited data. We have not attempted to reconcile the numbers of calls received to the number of calls logged on the Company's contact management system.

4. Audit Findings**4.1 General**

The Company confirmed that there has been no material change in the methodology for AIR12. We found that as in previous years, the information is supplied from collation reports produced from the Company's telephony system. Data is extracted directly from this system and summary tables are produced from this system to produce figures for the final table.

Under normal circumstances, a call received from a customer is logged by the telephony system and routed directly to an agent. When all agents are busy, the customers call is placed in a queue until the next available agent is free.

For further details on the call services the Company offers and how these are reported within DG9 please see our commentary in Section 5.

We have checked and confirmed the DG9 performance reported in Table 5 is consistent with that reported in PC13 Table 4.3.

4.2 Line 13 - Calls received

NI Water reports that they have received 231,245 calls from customers during the year. We confirm the total number of calls received is circa 30% lower than received in 10/11. Whilst this decrease is probably associated with the volume of calls associated with 2010/11 freeze/thaw not being repeated, the Company also explained some of its efforts to reduce the volume of contacts.

4.3 Line 14 - All lines busy

The Company reports that no calls received an engaged tone during the year. We queried instances where the call centre may be evacuated (such as fire drills) and NI Water agents advised that if calls were received during such a time then callers would hear a message asking them to call back later. We understand the call would be counted as answered.

4.4 Line 15 - Abandoned Calls

After reporting a significant increase in the number of calls abandoned which are attributable to the winter freeze/thaw in 10/11, NI Water report only 1,975 calls were abandoned.

Overall, Company performance of 99.15% of calls not abandoned just exceeds their PC10 target of 99%.

4.5 Line 16 - Call Handling Satisfaction

During the audit the Company outlined that they has provided data to the market researcher during the year.

The Company briefly explained the process by which the call data is collated prior to dispatch to the market researcher. All calls are passed to the market researcher and no exclusions are made. In our experience elsewhere, Company's do make a number of small exclusions to the data provided to the market researcher. The possible circumstances where this occurs include

- Calls (mainly operational) that can be identified as "non-customer" calls (e.g. from field staff or contractors).
- Customers who have ex directory phone numbers.
- From customers sharing the same number (e.g. switchboard).
- If there is a "do not phone" indicator on the account.
- Calls from key customers.

It is also worth noting that companies in England and Wales have moved to providing data on 'resolved' contacts rather than all contacts received. Whilst this

does have the potential to hinder comparisons to England and Welsh company performance, it does provide consistency of data over time for NI Water.

We requested the Company provided evidence to support the score presented in line 16 and in response NI Water provided evidence to satisfactorily demonstrate the calculation of the average score reported.

4.6 Line 17 - Telephone Complaints

In the Company's draft submission we noted that the reported number of telephone complaints had decreased significantly. We found that the overall the number of telephone complaints has decreased by 10,872 complaints which is a 17% reduction on that reported in 10/11.

We have not undertaken any specific checks on the coding of complaints but believe the decrease is associated with the volume of calls associated with 2010/11 freeze/thaw not being repeated.

4.7 Other findings

- *Call 'handshake'*

The Company's 3rd party provider advised of their telephony network and the various reporting points within this network. Calls which are reported as received are derived from Call Media retrieves call data received at the Company's switchboard. We understand in the 'handshake' between the Company and external telephony provides system there is the potential for the routing of calls to become lost at which point the calls would not reach the switchboard and therefore not recorded in the Call Media reports.

We were advised that this issue could affect up to 500 calls per month and we recommend further analysis is undertaken to ascertain the nature of this issue in order to improve reporting and the customer contact experience.

- *Ballymoney Boil Notice*

During the audit NI Water highlighted that its IVR system was employed during the Ballymoney water quality issue in November 2011. Geographic based routing was employed to identify callers in the affected area which enabled a incident message to be played.

NI Water report 5,100 calls were handled by the system at this time and we were provided with MI data which broadly supports this figure. If and when similar call services are offered we recommend consideration to how MI data is retrieved is given to ensure reported data is accurate and complete. Particular care should be excised using automated facilities such as IVR and messaging facilities to ensure the treatment of calls is in line with the guidance.

5. Company Methodology

5.1 Overview

The Company's commentary describes the configuration of its telephony system. NI Water has also identified the telephone numbers and locations against which they are reporting in their Methodology Statement. The volume of each calls received on each line is taken directly from Call Media reports and we were able to review the process used to derive call volumes satisfactorily.

In summary:

- For Customer Billing the office hours are 8am to 8pm Monday to Friday, and 8am to 6pm Saturday.
- The Company's debt line office hours are 9am and 5pm weekdays only.
- For Service Enquiries, NI Water's Waterline and Leakline are open 24 hours a day 365 days a year
- Calls received outside of these advertised times are not included are in the report of calls received or calls abandoned.
- NI Water has not utilised any temporary customer contact points during the year.
- No message manager systems or answering machine facilities were used during the reporting year.

5.2 Call Services offered/telephony configuration.

During the audit we questioned the Company on the call services it offered in terms of IVR, TouchTone, Queuing or automated speech recognition facilities as were are aware from other experience that calls via such services are often difficult to track and report.

NI Water advised that their telephony system in the report year has been configured so that an IVR capability can be turned on if deemed be of benefit. Indeed, this option was chosen during the Ballymoney boil notice event (see above) when the service was used to play a recorded message advising customers of the latest information.

In terms of other call services, the Company stated that none of the services highlighted above were employed.

5.3 Reporting

NI Water advised that the telephony system is configured to produce data required by the Reporting Requirements. As such data is provided for the total number of calls received, calls abandoned, all lines busy and telephone complaints directly from the system itself. We have not undertaken any checks o the configuration of these reports.

During the audit we also met with staff whose responsibility it is to report DG9 and other management information. The Company has a documented methodology of how data is collated from the system and during the audit the representatives outlined the processes they follow.

We have checked and confirm that the totals presented in the DG9 lines of Table 5 are consistent with the summary Call Media reports compiled by the Company.

5.4 Telephone Complaints

The Company use CMS contact type rather than complaint flag on Call Media to report telephone complaints. We have not undertaken any checks on the categorisation of complaint calls in AIR11. We propose that this will form part of our audit in 12/13.

5.5 Call Handling Satisfaction

We found that the Company reports all calls received the market researcher as no exclusions are made. As such it is possible that allowable exclusions are included in the market researchers' sample in each of the three designated weeks.

5.6 Quality Assurance

NI Water advised that regular performance audits now take place, including checks on the call handling process, the logging of calls and allocation to CMS code. The Company shared several examples of the checks they had completed and believe the checks undertaken are sound. For reporting purposes the checks (and feedback) given on how calls are recorded onto the Rapid are deemed important and we would encourage the Company to continue these checks.

6. Company Assumptions

We believe that all relevant and material assumptions have been disclosed above by either the Company or the Reporter.

7. Confidence Grades

We believe the confidence grades assigned to lines 13 to 17 are appropriate but have not undertaken any specific or statistically significant checks to verify the volume of calls reported.

Special Needs Register - Line 18**1. Background**

This table identifies customers registered for special assistance.

2. Key Findings

- We believe the methodology to populate the Special Assistance Register is appropriate and in line with the Reporting Requirements.
- The number of customers registered on the scheme has increased significantly. We believe this is a combination of efforts to promote awareness amongst the customer base.

2.1 Key recommendations

- None.

3. Audit Approach

Our audit consisted of an interview with the data owners, a review of the current methodology for data collation, an audit of the data provided and a comparison with last years table entries. The focus of the audit has been to review the number of customers registered on the Special Needs Register, not the operation of the scheme.

We have also checked the data in the final submission for consistency with previously audited data.

4. Audit Findings**4.1 General**

The Company's Special Needs Register is called the Customer Care Register. At the end of the 10/11 Report Year the Company advised that 1990 customers were recorded on the Customer Care Register. The number of customers registered on the scheme has therefore increased by 75%. We believe this is a combination of efforts to promote awareness amongst the customer base.

During the audit we discussed a number of aspects of the operation of the scheme. The following provides an overview of these discussions:

- The reported figure is extracted from the Rapid system and registration on the scheme is managed by the Company's Service Provider.
- We met with representatives from the Company's Service Provider who explained how new registrations onto the scheme and how existing registrations are managed. We were advised that new registrations are managed by a dedicated team and existing registrations have been verified during the year

through a data cleansing exercise. The latter involved contracting customers to verify they are still eligible and wish to remain on the Register. From the discussions held we believe the approach adopted is reasonable.

- The Company confirmed that where a customer is registered for more than one service, they are only counted once in the total number of customers reported in Line 18.
- In our checks last year we noted a number of customers registered were non-household customers and based on experience elsewhere our expectation would be that all customers registered on the scheme would be domestic/household properties. During the year the Company advised that they have undertaken a data cleansing exercise that, where appropriate, corrects this anomaly.
- The Company also confirmed that customers are registered on a household rather than individual customer basis.
- The Company has assigned a confidence grade of A2 to this line. We believe this grade is appropriate.

Date: 25 July 2012

Prepared by: HMS

Table 5a – DG7 Response to Written Complaints (complaints data for CCNI)**Commentary by REPORTER****1. Background**

This table summarises written complaints received by a company into 5 complaint categories defined by the Consumer Council.

2. Key Findings

- The breakdown of complaints reported by the Company is consistent with the complaint volumes reported in Table 5.
- We have tested the Company's allocation of complaints to the various complaint categories and believe NI Water's methodology is satisfactory. However, there is a risk of misclassification as opening CMS codings are used rather than closed (post investigative) codings.

2.1 Recommendations

- We recommended NI Water consulted with CCNI and NIAUR to ascertain what contact types should be reported under the line definition for line 15 – CCNI investigations as we do not believe the Company's approach is in line with the guidance. Prior to finalising our commentaries the Company has consulted with CCNI and they state that additional codes in Rapid will be established in Rapid to ensure reporting under the CCNI's definitions going forward. Care should therefore be exercised when analysing the 11/12 figures reported.
- We encourage NI Water to consider ways in which this data for line 14 – number of holding responses could be provided in the future.

3. Audit Approach

The audit involved an examination of the procedures adopted by NI Water for its customer service activities regarding customer complaints. Whilst the main focus of our audits has been on the work systems and practices used by the Company in preparing data for Table 5, we have carried out a cursory inspection of the methodologies used to populate Table 5a.

4. Audit Findings**4.1 General**

During the audit, we discussed with the Company their methodology for completing this requirement. The Company explained that as for the DG7 measure, they extract data from the Rapid billing system.

4.2 Total written complaints - lines 1 to 3

We confirm the source of these lines is Table 5 lines 1, 2 and 4. Please see our DG7 commentary for the derivation of these lines. We also confirm that the totals reported in these lines is consistent with that reported in Table 5.

4.3 Category of written complaints – lines 4 to 13**Allocation to category**

During the audit the Company explained that as each complaint is logged it is allocated to a category. The categories are aligned to those in the reporting guidance. NI Water confirmed the allocation of complaints to categories is done on opening CMS codings rather than closing codes. There is a small risk of misclassification as opening CMS codings are used rather than closed (post investigative) codings.

We confirm the addition of lines 4, 6, 8, 10 and 12 equal the number of complaints reported in line 1.

Allocation to Stage

In our review of DG7 (see Table 5 commentary) we reviewed a number of complaints and witnessed evidence of complaints being logged at various stages within the Company's complaint handling process on Rapid. From the checks carried out we believe allocations made to be reasonable.

4.4 CCNI Investigations (line 14)

The Company report 80 CCNI investigations in line 14. We understand that these are complaints passed from CCNI for NI to address.

The line definition requests the investigations reported here should be 'those which have been escalated for consumer council investigation' which could be deemed different to NI Water's interpretation. We recommend NI Water consults with CCNI and NIAUR to ascertain what should be reported in this line.

Our interpretation, which is consistent to the England and Wales SIM guidance, is those contacts taken on by CCNI for further investigation following the Company's complaint process being exhausted should be reported here. We recommended NI Water consults with CCNI and NIAUR to ascertain what contact types should be reported under the line definition for line 14 – CCNI investigations as we do not believe the Company's approach is in line with the guidance. Prior to finalising our commentaries the Company has consulted with CCNI and they state that additional codes in Rapid will be established in Rapid to ensure reporting under the CCNI's definitions going forward. Care should therefore be exercised when analysing the 11/12 figures reported.

4.5 Number of holding responses issued (line 15)

The Company advised that it has not been possible to complete this line currently as data is not stored and managed in a way which is suitable for regulatory monitoring. We encourage NI Water to consider ways in which this data could be provided in the future.

5. Company Methodology

The Company methodology is similar to that it employs for DG7 – written complaints.

In essence, the Company interrogates the Rapid system to extract the required data to populate the table. During our audits of DG7 we reviewed the Company's processes for dealing with written complaints, including the operation of this system. Please see our Table 5 commentaries for further details.

From discussions with the Company and checks carried out we believe the methods used by the Company are as described in their methodologies. CMS codes are used by agents to allocate complaints to a particular category.

6. Company Assumptions

We believe all assumptions have been reported.

7. Confidence Grades

For lines 1 to 3 – “total written complaints”, data is copied directly from Table 5 and therefore the grades assigned to these lines are consistent. Please see our commentary on Table 5 on the appropriateness of the confidence grades assigned to these lines.

For lines 4 to 13 – “Category of written complaint”, the majority of data is extracted directly from Rapid and therefore the Company methodology does not rely on sampling or extrapolation to populate the table. Whilst a B2 grade has been assigned, there is some concern that the data reported is not accurately reported and a lower grade may be more appropriate. However, we have not investigated this issue sufficiently to make a judgement about whether any misclassifications are within the tolerances of the confidence grade.

Date: 25 July 2012

Prepared by: HMS