northern ireland water

Annual Information Return 2015

Public Domain Version

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Section 1

Board's Overview

Board's Statement

In support of Northern Ireland Water's 2015 Annual Information Return (AIR15), its Board of Directors is required by the Utility Regulator to prepare a statement on the compilation of AIR15, explaining that it has satisfied itself as to the accuracy and completeness of the information provided.

The Directors consider that AIR15 provides a true and fair view of the state of affairs of NI Water for the financial year 2014/15. In preparing AIR15, the Directors confirm, subject to any departure and explanation described in the commentary, that:

- suitable accounting policies have been selected and applied consistently;
- judgements and estimates that have been made are reasonable and prudent;
- UK Accounting Standards and applicable law (UK Generally Accepted Accounting Principles) have been followed, subject to any material departures disclosed and explained in the financial statements.

The Directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that its financial statements comply with the Companies (Northern Ireland) Order 1986.

The Board's Statement sets out how NI Water's Board has satisfied itself that the information provided in AIR15 is as reliable, accurate and complete as is reasonably practicable.

Processes and Internal Systems of Control

AIR15 has been compiled in accordance with NI Water's AIR Completion Manual, which ensures clear ownership of AIR data, evidence of peer review and procedural documentation covering the processes were followed in compiling the AIR submission.

The AIR Completion Manual details roles, responsibilities and governance procedures, and provides guidance and templates for the completion of AIR methodologies, data tables and company commentaries.

<u>AIR15 Project Governance</u>

The AIR15 project was coordinated by the Regulation Manager and representatives (senior managers) from relevant functional areas, i.e. those functions which contribute data to the AIR15 submission.

The Regulation Manager ensured:

1. information was disseminated to and from functional working groups;
2. coordination of cross-functional working groups;
3. adherence to the AIR submission programme;
4. implementation of Reporter's recommendations.

Senior managers from across NI Water were responsible for:

- ensuring that the Utility Regulator's "Reporting Requirements" were understood and followed;
- ensuring that relevant Line Methodologies were updated in line with the Reporting Requirements;

- coordinating the population of Data Tables and the drafting of associated Company Commentaries in accordance with Line Methodologies and Reporting Requirements in compliance with the AIR programme;
- ensuring that relevant Line Methodologies, Data Tables and Company Commentaries were reviewed and approved in accordance with the AIR Completion Manual roles and responsibilities matrix and that all assurance statements were completed.

In order to maintain accuracy, consistency and a clear audit trail, roles and responsibilities for each element of the AIR submission were defined for the three key deliverables of the AIR submission, namely:

- Line Methodologies,
- Data Tables, and
- Company Commentaries

Population of Data Tables and drafting of associated Company Commentaries was in accordance with the Utility Regulator's Reporting Requirements. In addition, company-specific methodologies (Line Methodologies), explaining how raw data is collected, processed and input to the Data Tables, were updated and adhered to when populating Data Tables and drafting Company Commentaries.

Authors, reviewers and approvers of Line Methodologies, Data Tables and Company Commentaries were designated for all input data in the AIR15 submission. To ensure reporting consistency for AIR15, every item of data provided in the AIR15 tables had a designated author, reviewer and approver. In all cases, the approver was an appropriate senior manager.

Audit plans were developed by the Reporter and external Auditor. The Reporter's audit plan was developed in accordance with the Utility Regulator's Reporter Protocol, and was agreed with NI Water and submitted to the Utility Regulator.

The Utility Regulator issued AIR15 Reporting Requirements on 31st March 2015. Audits were undertaken by the company's Auditor and the Reporter in May and June 2015. Feedback from the Reporter and Auditor was used to redraft the tables and commentaries when appropriate.

The complete AIR15 submission was endorsed by the Executive Committee and Board in June 2015.

Board Involvement
In summary, the involvement of NI Water's Board in the completion of AIR15 included:

- Reviewing monthly company business performance analyses;
- Receiving presentations from the Reporter and Auditor in June 2015;
- Reviewing, commenting on and approving the Board's Overview;
- Reference back to NI Water's Executive Committee and Senior Management Team to verify corporate information;
- Executive Directors received regular reports on progress and reviewed, challenged, commented and influenced the content of AIR15.

The following measures help to ensure that AIR15 complies with the Utility Regulator's Reporting Requirements and provides some assurance in respect of material assumptions and judgements included in the AIR15 commentaries:

- Clear accountability at senior management level for the ownership of all elements of AIR. NI Water has established an accountability trail from the information providers to the line owners through to heads of function.
- Briefings on the importance of the AIR process have been disseminated to all staff involved in the data collection process.
- Every item of data in AIR has a designated owner, reviewer and approver.
- Every provider of data produces a written methodology documenting the method used for the derivation of the data reported.
- Every item of financial data is prepared and reviewed by separate individuals and reconciled to the chart of accounts.
- Every item of financial data is reviewed against the Utility Regulator's guidance by a separate individual to the preparer and reviewer. This includes undertaking cross-checks of tables to ensure consistency.
- Before each item of data is submitted for AIR it is reviewed and approved by senior management in the data provider's business area.
- NI Water facilitates access to allow the Reporter and Auditor to review all relevant information required to discharge their duties.
- The Board receives regular presentations during the course of the year on key performance indicators, regulatory performance and key issues reported in the AIR.
- Both the Reporter and the Auditor present to the Audit Committee and/or Board near the conclusion of the AIR audit process.
- Directors may challenge the production and content of AIR to satisfy themselves that their duties are fulfilled.
- In any case of uncertainty regarding data, commentary or line methodology, NI Water seeks advice and clarification from the Utility Regulator, the Reporter or the Auditor as appropriate.

Directors' Endorsement

In light of the above, NI Water's Board believes that it has developed and applied processes, governance and systems of internal control sufficient to meet its obligations for the provision of information contained in AIR15.

Each Director is satisfied that:

a) so far as he/she is aware, there is no relevant audit information of which NI Water's auditors or reporters are unaware;
b) He/she has taken all the steps that he/she ought to have taken as a Director in order to make himself/herself aware of any relevant audit information and to establish that NI Water's auditors and reporters are aware of the information.

For and on behalf of NI Water:

Sara Venning
Chief Executive, Northern Ireland Water

Kevin Steele
Non-Executive Director, Northern Ireland Water

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL RETURN - BOARD'S OVERVIEW

TABLE A - WATER SERVICE - KEY OUTPUTS AND SERVICE DELIVERY (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	2 REPORTING YEAR 2012-13	3 REPORTING YEAR 2013-14	4 REPORTING YEAR 2014-15	5 REPORTING YEAR 2015-16
A	**Consumer Service**							
1	DG2 Properties at risk of low pressure removed from the risk register by company actior	nr	0	262	297	132	186	
2	DG3 Supply interruptions > 12hrs (unplanned and unwarned)	%	2	0.09	0.32	0.14	3.10	
3	DG3 Supply interruptions (overall performance score)	nr	2	0.97	1.98	0.97	11.72	
4	DG6 % billing contacts dealt with within 5 working days	%	2	99.97	100.09	99.92	99.97	
5	DG7 % written complaints dealt with within 10 working days	%	2	99.27	99.78	99.72	99.96	
6	DG8 % metered customers received bill based on a meter reading	%	2	97.88	98.73	99.11	99.11	
7	Call Handling Satisfaction score (1-5)	nr	2	4.57	4.54	4.63	4.65	
8	DG9 % calls not abandoned	%	2	99.15	98.45	98.40	97.99	
9	DG9 % calls not receiving the engaged tone	%	2	100.00	100.00	100.00	99.99	
10	Overall Performance Assessment (OPA) score (11 Measures)	nr	0	184	198	216	206	
11	Total Leakage	Ml/d	0	168	162	167	166	
12	Security of supply index	nr	0	100	100	100	100	
13	Percentage of NI Water's power usage derived from renewable sources	%	1	14.4	13.4	33.1	51.4	
B	**Quality Water**							
14	% mean zonal compliance with drinking water regulations	%	2	99.83	99.80	99.85	99.84	
15	Operational Performance Index (Turbidity, Iron & Manganese)	nr	2	99.31	98.96	99.30	99.52	
16	% Service Reservoirs with coliforms in >5% samples	nr	2	0.00	0.00	0.00	0.00	
C	**Water Outputs**							
17	Water mains activity - Length of new, renewed or relined mains	km	0	510	326	226	223	
18	Completion of nominated trunk main schemes	nr	0	0	2	0	1	
19	Completion of nominated water treatment works schemes	nr	0	0	0	0	3	
20	Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks	nr	0	3	1	0	1	
21	Completion of nominated Major Inciident Mitigation schemes	nr	0			3	2	
D	**Serviceability**							
22	Water infrastructure serviceability	Text		Stable	Stable	Stable	Stable	
23	Water non-infrastructure serviceability	Text		Stable	Stable	Stable	Stable	

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL RETURN - BOARD'S OVERVIEW
TABLE B - SEWERAGE SERVICE - KEY OUTPUTS AND SERVICE DELIVERY - WATER SERVICE (TOTAL)

	DESCRIPTION	UNITS	DP	REPORTING YEAR 2011-12	REPORTING YEAR 2012-13	REPORTING YEAR 2013-14	REPORTING YEAR 2014-15	REPORTING YEAR 2015-16
A	**Consumer Service Sewerage**							
1	DG5 Properties at risk of flooding - number removed from 2 in 10, 1 in 10 and 1 in 20 risk register by company action.	nr	0	14	66	11	28	
B	**Quality Sewerage**							
2	% of WwTWs discharges compliant with numeric consents	%	1	93.3	93.3	92.0	92.4	
3	% of total p.e. served by WwTWs compliant with numeric consents excluding upper tier failures	%	1	96.5	98.8	98.0	98.4	
4	Number of high and medium pollution incidents attributable to NI Water	nr	0	44	18	26	25	
C	**Sewerage Outputs**							
5	Sewerage activity - Length of sewers replaced or renovated	km	0	13	24	25	21	
6	Delivery of improvements to nominated UIDs as part of a defined programme of work	nr	0	43	38	11	17	
7	Delivery of improvements to nominated WwTWs as part of a defined programme of work	nr	0	15	12	17	16	
8	Small wastewater treatment works delivered as part of the rural wastewater investment programme	nr	0	23	14	7	18	
D	**Serviceability**							
9	Sewerage infrastructure serviceability	Text		Stable	Stable	Stable	Stable	
10	Sewerage non-infrastructure serviceability	Text		Stable	Stable	Stable	Stable	

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL RETURN - BOARD'S OVERVIEW

TABLE C - EXPENDITURE & FINANCIAL PERFORMANCE MEASURES (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	2 REPORTING YEAR 2012-13	3 REPORTING YEAR 2013-14	4 REPORTING YEAR 2014-15
A	**TOTAL EXPENDITURE**						
1	Total operating expenditure - water service (NI Water only)	£m	3	76.089	71.882	70.914	69.932
1a	Total operating expenditure (PPP) - water service	£m	3	2.051	1.845	8.234	8.431
2	Total capital expenditure (excl. adopted and nil cost assets)	£m	3	84.067	69.303	71.809	86.920
3	Total operating expenditure - sewerage service (NI Water only)	£m	3	69.725	72.113	73.300	71.330
3a	Total operating expenditure (PPP) - sewerage service	£m	3	23.457	26.488	24.896	24.323
4	Total capital expenditure (excluding adopted and nil cost assets) - sewerage service	£m	3	107.944	92.709	95.548	71.881
B	**CURRENT COST ACCOUNTS - PROFIT & LOSS**						
5	Total Turnover	£m	3	354.819	366.398	361.313	364.407
6	Current cost operating costs (including CCD & IRC)	£m	3	-355.174	-349.47	-343.723	-306.624
7	Current cost operating profit	£m	3	2.184	19.872	19.799	59.111
C	**CAPITAL BASE & POST TAX RETURN**						
8	Capital Value Year - End (outturn)	£m	3	1724.786	1812.8	1948.800	2045.500
9	Total net debt	£m	3	809.900	868.158	909.323	946.748
10a	Post tax return on capital	%	2	0.13	1.12	1.05	2.96
10b	Pre tax return on capital	%	2	0.13	1.12	1.05	2.96
D	**KEY FINANCIAL INDICATORS**						
11	Cash interest cover (funds from operations; gross interest)	ratio	2	3.55	3.34	3.60	3.52
12	Adjusted cash interest cover (funds from operation less capital charges; gross interest)	ratio	2	0.16	-0.03	0.27	0.91
13	Adjusted cash interest cover (funds from operation less capital maintenance; gross interest)	ratio	2	1.52	1.70	1.67	2.00
14	Funds from operations: debt	ratio	2	0.16	0.15	0.13	0.13
15	Retained cash flow: debt	ratio	2	0.13	0.12	0.12	0.12
16	Gearing: D/RCV	%	2	46.96	47.89	46.66	46.74
17	Gearing: D/RCV (adjusted for PPP liability)	%	2			49.12	49.09

Chapter 1
Monitoring Plan Outputs
Tables A and B

1.1 Monitoring Plan Outputs

Chapter 1 of the Board's Overview is intended to summarise NI Water's delivery of services and outputs against the PC13 Monitoring Plan, subject to any changes agreed through the Change Control Process. Table 1.1 below provides a tabular summary of performance in 2014/15 compared to PC13 targets.

As can be seen, NI Water has not fully achieved several targets. The reasons for these variances and the actions we are undertaking to recover underperformance are set out below.

1. **Supply Interruptions (greater than 12 hours)**

   During 2014/15, customers in some parts of the province experienced significant loss of supply as a result of industrial action and the supply interruptions target (greater than 12 hours) was missed. However, if the impact of industrial action is excluded, NI Water would have met this target. In 2015/16, NI Water aims to further reduce the impact of supply interruptions on its customers.

2. **Supply Interruptions (overall performance score)**

   The overall performance score reflects a composite of supply interruptions of different magnitudes (more than 6 hours, 12 hours and 24 hours). The industrial action in 2014/15 had a significant impact on this score. However, even if the effects of industrial action are taken into account, NI Water would have missed this target. Several major incidents contributed to this failure, including a non-visible burst main in Londonderry in August 2014, a burst main in Coleraine with limited rezoning opportunities in November 2014 and a delayed response by the repair contractor to a burst main in the Gilford area in February 2015.

   In order to ensure supply interruptions are minimised in future, NI Water will use enhanced asset maintenance planning techniques to prioritise capital investment in those areas of the water network which most need it.

3. **Call handling satisfaction score**

   Although the call handling satisfaction score for 2014/15 missed the target, we were able to report our highest ever annual customer satisfaction performance and a further increase in customer satisfaction from the previous year's score.
   The PC13 target for this measure was simply set at an unrealistically high level and has been amended for the start of the PC15 period to a more realistic level of 4.65.

   NI Water is committed to improving the service we offer our customers and we continue to make enhancements to our service delivery. Improvement will be supported through our 'Customer Experience' projects, as well as looking at the further use of technology-based solutions to engage with and inform customers.

4. **Percentage of calls not abandoned (DG9)**

   The PC13 target for abandoned calls was set before NI Water introduced its High Volume Call Answering (HVCA) system. HVCA was introduced following the freeze/thaw incident of 2010/11 in order to provide customers with an improved

level of service – providing tailored updates on known problems in their specific geographical location.

Whilst providing up to date information to customers, automated systems such as HVCA are known to result in higher levels of abandoned calls.

Although NI Water will endeavour to make the HVCA interface as 'user friendly' as possible, the fact that the PC13 target for abandoned calls did not take into account the use of an automated telephone system meant that the PC13 target for 2014/15 would be very difficult to achieve. Unlike in England and Wales, the PC13 target does not take account of the higher level of abandoned calls within an HVCA system.

If NI Water adopted a similar approach to England and Wales, we would have achieved 98.69% (compared to our target of 99.00%) – narrowly missing the target for 2014/15. This was due to a number of unexpected systems issues experienced in the middle part of the year that resulted in higher than usual numbers of abandoned calls.

As previously noted, NI Water is committed to improving the service we offer our customers and we continue to make enhancements to our service delivery through our 'Customer Experience' projects, as well as looking at the further use of technology-based solutions to engage with and inform customers.

5. Leakage

In 2014/15 we continued to reduce leakage by a further 1.2 million litres per day. However, this was above the target of 165 Ml/d, with the industrial action being a contributing factor.

6. Trunk mains

The Castor Bay to Belfast trunk main did not achieve beneficial use within 2014/15. Whilst the trunk main pipeline was complete by the end of March 2015, the new pumps associated with the scheme could not be installed without first emptying the Magheraliskmisk service reservoir. This could not be done due to the risk of industrial action. Once the risk of industrial action had ended, the new pumps were installed and the trunk main achieved beneficial use by May 2015.

The Ballydougan to Newry trunk main is underway, but with beneficial use now scheduled for the end of August 2015.

7. Removal of properties from sewer flooding register (DG5)

NI Water's forecast number of properties which could be removed from the flood risk register (DG5) by company action during PC13 were estimates based on past experience of the number of DG5 properties removed by drainage area schemes.

During 2014/15, the actual number of properties confirmed to be at risk after detailed feasibility studies were complete was considerably less than originally estimated. This means that there are actually fewer properties at risk of internal flooding than was originally thought. Properties confirmed by feasibility studies to not be at risk of internal flooding have been removed from the risk-register, albeit due to better information rather than on-the-ground company action.

Consequently, whilst the number of properties removed from the at-risk register by the end of PC13 was 100 in total, those removed by "company action" (39) was lower than target (67).

8. Improvements to nominated UIDs

Out of the original PC13 list of 84 nominated Unsatisfactory Intermittent Discharges (UIDs), 29 achieved beneficial use by the end of 2014/15. Additional UIDs were delivered, bringing the PC13 total to 68. This reduction in UID delivery is due to a variety of factors including an unplanned archaeological dig at Clandeboye Stream (Bangor) and 'buildability' issues at Rathmore Stream.

9. Wastewater treatment works

Three nominated WwTW schemes did not achieve beneficial use in PC13. Castle Archdale WwTW has been delayed due to the requirement for a wildlife survey; Artigarvan WwTW did not achieve beneficial use in 2014/15 due to delays incurred when reviewing the delivery approach; UWWTD MCERTS (Monitoring Certification Scheme) compliance did not achieve beneficial use at all sites.

However, two additional WwTW were completed: Waringsford WwTW was delivered through Sub-Programme 17 (RWwIP) but, as the upgrade increased the site to over 250 pe, it has been included as an additional WwTW output; Annacloy WwTW (originally scheduled for delivery in PC15) was completed as part of the Kilmore WwTW scheme.

10. Overall Performance Assessment

The Overall Performance Assessment (OPA) is a metric adopted by the Utility Regulator which uses a "basket" of customer service measures to generate an overall score of water company performance. As a result of failing to achieve the supply interruptions target, as noted above, the resulting OPA score also failed to achieve its target.

When the impact of industrial action is accounted for, the OPA score would have been 225 compared to a target of 215.

Table 1.1 – Monitoring Plan Targets[1] and Outturns

Line Description		2014/15	
		Target	Outturn
Water			
DG2 Properties at risk of low pressure removed from the risk register by company action (PC13 cumulative)	nr	288	**318**
DG3 Supply interruptions >12hrs (unplanned and unwarned)	%	0.19	**3.10**[2]
DG3 Supply interruptions (overall performance score)	nr	1.08	**11.72**[3]
DG6 % billing contacts dealt with within 5 working days	%	99.90	**99.97**
DG7 % written complaints dealt with within 10 working days	%	99.50	**99.96**
DG8 % metered customers received bill based on a meter reading	%	99.00	**99.11**
Call Handling Satisfaction score (1-5)	nr	4.75	**4.65**
DG9 % calls not abandoned	%	99.00	**97.99**
DG9 % calls not receiving the engaged tone	%	99.90	**99.99**
Overall Performance Assessment (OPA) score (11 Measures)	nr	215	**206**[4]
Total Leakage	Ml/d	165	**166**
Security of supply index	nr	100	**100**
Percentage of power usage derived from renewable sources	%	20.0	**51.4**
% mean zonal compliance with drinking water regulations	%	99.70	**99.84**[5]
Operational Performance Index (Turbidity, Iron & Manganese)	nr	99.10	**99.52**[5]
% Service Reservoirs with coliforms in >5% samples	%	0.00	**0.00**[5]
Length of new, renewed or relined mains (PC13 cumulative)	km	445	**449**
Completion of nominated trunk main schemes (PC13 cumulative)	nr	3	**1**
Completion of nominated water treatment works schemes (PC13 cumulative)	nr	3	**3**
Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks (PC13 cumulative)	nr	1	**1**
Completion of nominated Major Incident Mitigation schemes (PC13 cumulative)	nr	5	**5**
Water infrastructure serviceability		Stable	**Stable**
Water non-infrastructure serviceability		Stable	**Stable**
Wastewater			
DG5 Properties at risk of flooding - number removed from 2 in 10, 1 in 10 and 1 in 20 risk register by company action (PC13 cumulative)	nr	67	**39**
% of WwTWs discharges compliant with numeric consents	%	91.0	**92.4**[5]
% of total p.e. served by WwTWs compliant with numeric consents	%	97.8	**98.4**[5]
Number of high and medium pollution incidents	nr	44	**25**[5]
Length of sewers replaced or renovated (PC13 cumulative)	km	23	**46**
Delivery of improvements to nominated UIDs (PC13 cumulative)	nr	84	**68**
Delivery of improvements to nominated WwTWs (PC13 cumulative)	nr	38	**37**
Small WwTWs delivered as part of the rural wastewater investment programme (PC13 cumulative)	nr	25	**25**
Sewerage infrastructure serviceability		Stable	**Stable**
Sewerage non-infrastructure serviceability		Stable	**Stable**

[1] Subject to any changes agreed through the Change Control Process.
[2] 0.10 excluding the impact of industrial action
[3] 1.33 excluding the impact of industrial action
[4] 225 excluding the impact of industrial action
[5] Targets measured on a calendar year basis.

1.2 Delivering Service to Customers

We have improved the levels of service to our customers. When the impact of industrial action is excluded, our OPA score reached its highest ever level in 2014/15.

Drinking water and wastewater compliance is at some of the highest levels experienced in Northern Ireland, fewer customers are facing the risk of low pressure and pollution incidents continue to be at near record low levels.

Levels of complaints are at near record low levels.

The removal of properties at risk of sewer flooding remains a key area of focus. We have internal and external historical flood reporting capability to better plan our capital investment and alleviate the problems faced by areas which have experienced flooding events. We underperformed against the sewer flooding (at risk) target. Importantly for customers, more properties were removed by better information and, therefore, fewer were available for removal by company action. We underperformed against the sewer flooding (other causes) target. Most incidents resulted from blockages due to inappropriate items being put in the sewers. We outperformed against the sewer flooding (overload) target.

Our continued investment in the water mains improvement programme is contributing towards a reduction in levels of leakage. In 2014/15 we continued to reduce leakage by a further 1.2 million litres per day. We reduced the number of properties at risk of low pressure and the number of complaints.

We prioritise customers by listening to their views and building these into our plans. This ensures that our customers' needs are at the heart of our service delivery. We need to retain this focus and continue to build confidence with our customers and wider stakeholders so that we can meet the challenges that lie ahead.

It is anticipated that over the coming 25 years there will be new European, UK and Northern Ireland legislation aimed at improving drinking water and environmental standards. We will continually monitor the introduction of new legislation and seek necessary funding to enable compliance with the legislation.

The 2011 census showed a continuation in the trend of increasing population in Northern Ireland. This is an important factor in our planning for the future provision of water and wastewater services. Shifts in the urban / rural split, periodic variances in economic activity and constantly changing business needs between water intensive industrial processes and the service sector, all impact on where, when and how much investment is needed to secure future water and wastewater services.

The adoption of advanced science and technology in recent years has assisted us in delivering better quality services in more efficient ways. With ever increasing challenges on sustainability, efficiency and cost, we will continue to look to science and technology to seek innovative and practical sustainable solutions to improving our services and minimising costs.

Customer contact

By improving the standard of service delivery and the accuracy of customer data we aim to reduce the number of times our customers need to contact us.

We achieved our 2014/15 targets on 'calls not receiving an engaged tone', but we failed to achieve our 'calls not abandoned' target due mainly to higher levels of abandoned calls within our high volume call answering (HVCA) system. Unlike in England and Wales, the target does not take account of the higher level of abandoned calls within a HVCA system.

Substantial efforts have been made to drive down call volumes. We met our internal target of no more than 247,500 calls in 2014/15, receiving 230,847 calls.

Vulnerable customers

We have increased the number of individual customers on our Customer Care Register from 2,903 in 2013/14 to 3,084 in 2014/15.

Systems improvements

We aim to implement enhancements to the online facilities available to our customers, including the ability to: access and update billing account details, make payments, request septic tank emptying and view up-to date operational information via an interactive map.

Launch of 'Self Service' for Customers

In 2014/15 NI Water announced the provision of additional web-based services for customers. The services are aimed predominantly at business customers who have an account with NI Water and will make it easier for them to pay bills online and check their accounts. The service will also allow domestic customers with septic tanks to order their tank to be 'de-sludged'.

Major Incident Plan

The company continues to maintain, develop and improve emergency response arrangements for responding to major disruptions to water and sewerage services. We undertook a full scale mock incident exercise in November 2014. The exercise was planned to practise and validate the company's major incident management arrangements and, in particular, its effectiveness in responding to a major interruption to water supply. Training and pre-exercise briefing sessions were held for over 150 staff who participated in the exercise.

Our major incident response was enacted over December 2014 and January 2015 in response to industrial action by the Water Group of Trade Unions. Although subject to significant resource constraints, NI Water's contingency plans were generally well implemented, minimising service disruptions and delivering alternative water supplies for customers. The company will endeavour to maximise the lessons learned from a review by the Utility Regulator and our internal review.

Metering and billing

Our charges are reviewed annually by the Utility Regulator and published in our Scheme of Charges.

Accurate measured bills are central to customer account management and we had a series of performance targets for meter reading and measured billing in 2014/15:

- 99.0% of bills to be based on actual meter reads: We achieved 99.11%; and
- We achieved the 5 day target response time for billing contacts at 99.97% against the target of 99.90%.

In 2014/15 we introduced a new bill format which has been easier for all customers to understand. We continue to maintain a reduced level of billing related contact and quicker customer payments.

During 2015/16, we will be working on making major enhancements to our customer contact and billing system and reviewing business processes to enhance our customers' experience and ensure accurate and timely billing.

Customer satisfaction

Quarterly independent market research is carried out through telephone surveys of 400 customers who have called us for any reason.

The customer satisfaction surveys were completed in quarters 1 to 4, achieving an overall average score of 4.65 out of 5. The performance was below the target of 4.75. These surveys are invaluable and we will continue to use them to identify opportunities to improve our customer experience.

We achieved the 10 day target response time for written complaints with a performance of 99.96% against the target of 99.50%.

We are working with the Utility Regulator, CCNI and DRD to develop a new Customer Satisfaction metric. We will engage industry expertise and experience to provide actionable data to inform service improvements.

During 2014/15, we introduced the key Customer Satisfaction elements from the industry based Service Incentive Mechanism (SIM) that will double the number of customers currently being surveyed and cover the 'end to end' customer delivery process.

CCNI undertake an annual review of our complaint handling process and we work to implement any recommendations.

1.3 Improvements to Drinking Water and Environmental Quality

Drinking water

Our goal is to provide complete confidence to our customers in the safety and quality of their drinking water. Our priorities to 2021 are to continue to provide high quality water which complies with statutory standards and obligations; address pockets of our water distribution network that do not currently meet customer expectations in relation to taste, smell or appearance; reduce customer contacts regarding water quality; implement all Drinking Water Safety Plans; and develop and agree with stakeholders a joined up approach to the removal and management of lead in public and private water supply systems.

We continue to provide high quality water for the protection of public health which complies with statutory standards and obligations.

We have well developed Drinking Water Safety Plans which identify risks to drinking water quality and address the risks through focused investment.

We will continue to invest in the latest technology to monitor our asset performance. This will include real time automated monitoring of water quality, allowing us to identify and rectify problems before service is affected.

We will move from reactive to proactive asset maintenance, seeking to maintain our assets before failures affect customers.

We work hard to provide our customers with high quality drinking water. We carry out over 210,000 tests every year to make sure our water is clean and safe.

The 2014 compliance levels for drinking water at the customer tap are at some of their highest levels, with a Mean Zonal Compliance (MZC) of 99.84%.

The compliance for 2014 demonstrates the continued high quality drinking water provided to the people of Northern Ireland and exceeds the requirement of DRD's Social and Environmental Guidance of 99.7%.

We use Drinking Water Safety Plans (DWSP) to proactively highlight investment needs for those water supply systems which are likely to fail any parameters or where new potential risks to water quality have been identified

Lead management

The end of 2013 saw a reduction in the regulatory limit for lead in drinking water. We continue to implement our strategic Asset Standard for Management of Lead and our lead pipe replacement programme focused on improving compliance with EU Lead standard (10µg/l).

We recognise that we need to work together with DRD, DWI and other stakeholders to develop and implement a strategic approach for addressing lead compliance issues associated with private supply pipes and domestic distribution systems. We have produced an Asset Standard for Management of lead and input into DRD's Long Term Water Strategy.

Discolouration

Discolouration can arise when we carry out essential maintenance work, or from the condition of old iron mains within our supply network. We use our customer contacts to help target investment and employ operational best practice to minimise frequency of discolouration events. During 2014 we reported 5 water quality events due to discolouration and appearance complaints to the Drinking Water Inspectorate.

Wastewater

NI Water will contribute to achieving the Water Framework Directive's objectives through a capital works programme to upgrade WwTW and sewerage networks. We continue to work with NIEA and environmental stakeholders to develop partnerships which deliver on pollution reduction.

Our wastewater compliance continues to be at near record levels. We bettered our targets for wastewater treatment compliance in 2014, with 92.4% of wastewater treatment works compliant (compared to a target of 91.0%) and 98.4% population equivalent served by compliant works (compared to a target of 97.8%).

The revised Bathing Water Directive comes into force in 2015, introducing more stringent standards and will consider compliance over a four year period. Eight beaches were awarded the Blue Flag in 2014, against the increased compliance requirements under the revised Directive.

NI Water is progressing a number of sustainable wastewater treatment pilot projects that will allow costs to be reduced whilst enhancing their surrounding natural environment. These will inform expansion of the use of this approach in the PC15 period.

We are committed to reducing pollution incidents and will work with stakeholders to play our part in reducing flooding which we recognise causes distress and inconvenience.

Our priorities are to:

- Prioritise investment to address issues in the sewerage system which leads to out of sewer flooding.
- Investigate opportunities to increase storm water separation and reduce infiltration.
- Increase the use of Sustainable Urban Drainage Solutions.
- Investigate areas of known or suspected storm water sewer misconnections and consider options for, and implement, their removal.
- Further progress all actions in NI Water's Pollution Reduction Strategy.
- Deliver customer education campaign to reduce sewer blockages.
- Contribute to the development of the NI Executive's Flood Risk Management Plans (2015-21) of appropriate, affordable solutions that reduce flood risk and support the Water Framework Directive.
- Undertake a focused programme of repair and renewal in relation to gravity sewers, CSO structures, pumping stations and siphons.

Pollution from sewers

We are committed to reducing the number of our pollution incidents through our Pollution Reduction Strategy and Action Plan and by working in partnership with our stakeholders through our 'Partners Against Pollution Forum'.

We work in partnership with the Rivers Agency and DRD Transport NI to manage the drainage systems and prevent flooding. The Flooding Incident Line is a single telephone number that can be used all day, every day to report flooding.

There were one high and 24 medium severity pollution incidents attributed to NI Water in 2014, against a target of no more than 44 high and medium incidents.

1.4 Delivering Sustainable Services

Climate change

Our goal is to adapt our activities to deal with the potential consequences of climate change while substantially reducing our own 'carbon footprint'.

We are prioritising key areas:

- Investing in our key water and wastewater treatment works and other critical sites to improve flood resilience;
- Developing a programme which continues to work towards separating storm water from the sewerage system.
- Investment in energy conservation / reduction measures with a particular focus on the larger energy consuming facilities.
- Expanding our use of sustainable wastewater treatment solutions which protect the environment, improve carbon efficiency and reduce operating costs.
- Reducing our carbon footprint.
- Exploring options to use renewable energy on our sites.

We have already started preparing the business for the challenges posed by climate change. This includes understanding of potential climate change impacts and risks within Northern Ireland and promoting the adaptation actions necessary to address these.

We will maintain and protect essential services to customers by adapting to the negative impacts, while taking advantage of any benefits that a changing climate may bring. We are looking to adapt our assets and operations to ensure that our services can always be delivered, irrespective of the effects of a changing climate.

Our Climate Change Adaptation Strategy and Action Plan sets out how we will maintain and protect essential services to customers by adapting to the negative impacts (risks), whilst also taking advantage of any benefits (opportunities) that a changing climate may bring.

The outputs have been used to inform NI Water and DRD's input into the Northern Ireland's first Climate Change Adaptation Programme, which is being coordinated by Department of the Environment (DOE) and is a cross-departmental response to the risk and opportunities identified in the NI Climate Change Risk Assessment.

During 2014/15 we commenced work on developing a storm water separation pilot programme. This will assess ways of removing storm water from the combined sewer network so that it can better cope with the more intense storms that are predicted to occur due to climate change. Delivery of the £5m programme will commence in 2015/16.

NI Water is a member of Climate Northern Ireland's steering group. This is a network devoted to increasing the understanding of potential climate change impacts and risks within Northern Ireland, and promoting the adaptation actions necessary to address these.

The detailed action plan includes actions to address around 200 possible risks and opportunities caused by potential climate change.

We worked with DRD, CCNI, DRD and the Utility Regulator to complete development of technical guidance for the first Water Resource and Supply Plan which will bring together Water Resource Management and Drought Management Plans.

During 2014/15 NI Water identified a number of ways to promote the increased use of Sustainable Drainage Systems (SuDS) in new developments. During 2015/16 we will work with the members of NIEA led NI Storm Water Management Group to develop and agree the NI responsibility for maintenance and adoption of soft SuDS, and that Planning Policy guidance be issued for developers.

Mitigation

We are implementing a detailed climate change mitigation strategy, the aims of which are to reduce the production of climate change gases from our operations and to become more energy efficient.

The following are examples of the activities being undertaken:

- Operation of four hydroelectric power generation plants;
- Installation of additional hydro-turbines at 8 sites through PC15;
- Reducing the energy used in aeration at wastewater treatment works through installation of improved controls and air distribution systems;

- Consideration of carbon emissions in NI Water's 'Capital Investment Appraisal System', which enables environmental impact to be more fully considered in the economic appraisal of capital investment projects;
- Reducing the energy used in pumping through focused refurbishment and replacement of major pumps;
- Construction of Integrated Wetlands Wastewater Treatment Works as a low carbon alternative to conventional treatment processes;
- Optimisation of usage of electricity, chemicals and fuels through more accurate measurement and definition of responsibility for usage; and
- Inclusion of the cost of carbon in the calculation used to determine the level of leakage that NI Water should seek to achieve.

We are currently undergoing the process of re-accreditation under the 'Carbon Trust Standard'. To achieve the standard, organisations must:

- Measure their carbon footprint;
- Meet an absolute reduction in emissions; and
- Demonstrate that it is managing carbon in an appropriate manner.

In 2014/15 over 50% of NI Water's electricity consumption came from renewable sources (green grid).

Leakage

In 2014/15 we continued to reduce leakage by a further 1.2 million litres per day. However, this was above the target of 165 Ml/d, with the industrial action being a contributing factor.

We recognise that customers perceive the levels of leakage as high. However, there is a balance to be struck between the costs of fixing leaks (including environmental impacts) against the value of water saved – the sustainable economic level of leakage.

We have both internal and external leakage detection resources focused on proactive leakage detection. In addition, there is an ongoing emphasis on improving the quality of flow data within the company to assist with improved leakage targeting and reporting. Alongside this, capital investment will continue on pressure management and district meter area rationalisation which help to identify and reduce leakage.

Demographics

The 2011 census showed a continuation in the trend of increasing population in Northern Ireland. This is an important factor in our planning for the future provision of water and wastewater services. Shifts in the urban / rural split, periodic variances in economic activity and constantly changing business needs between water intensive industrial processes and the service sector, all impact on where, when and how much investment is needed to secure future water and wastewater services.

Sustainable land management

As one of the largest landowners and users of electricity in Northern Ireland, our activities have a significant impact on the environment. We have implemented Sustainable Catchment area Management Planning (SCaMP NI) for drinking water catchments to provide a more environmentally sustainable way of improving water quality. We are also targeting energy efficiencies and the use of renewable sources of energy to mitigate our impact and reduce the production of climate change gases.

Our goal is to work collaboratively with all stakeholders to provide NI Water's essential services to customers in a way that is sustainable for our natural environment.

Our priorities are to:

- Complete a Catchment Management Plan for each catchment and further extend the range of work being under the SCaMP NI programme.
- Further progress all actions in NI Water's Pollution Reduction Strategy.
- Complete delivery of the improvements recommended through the asset management planning capability assessment carried out in late 2013.
- For the 2015 Water Framework Directive Programme of Measures, deliver those actions assigned to NI Water where they have been prioritised by stakeholders and are funded.
- Complete the appraisals and business cases necessary to secure the investment to achieve compliance with the revised Bathing Water Directive.
- Gradually deliver year on year increases in the percentage of new WwTW investment which is delivered by 'more sustainable solutions'.

Sustainable Catchment Area Planning (SCaMP NI) is an approach to sustainable land management within drinking water catchments. The objective is to improve the quality and reliability of the raw water.

In the past year there have been considerable successes. The Garron Plateau Blanket Bog Restoration Project won the Business and Biodiversity Award with Business and the Community and was a UK finalist in the Utility Week Environmental Awards in London. We have also successfully developed our cross-border liaison with Irish Water and other stakeholders in the Republic of Ireland. Work is currently underway to obtain EU funding to deal with SCaMP issues on cross border catchments.

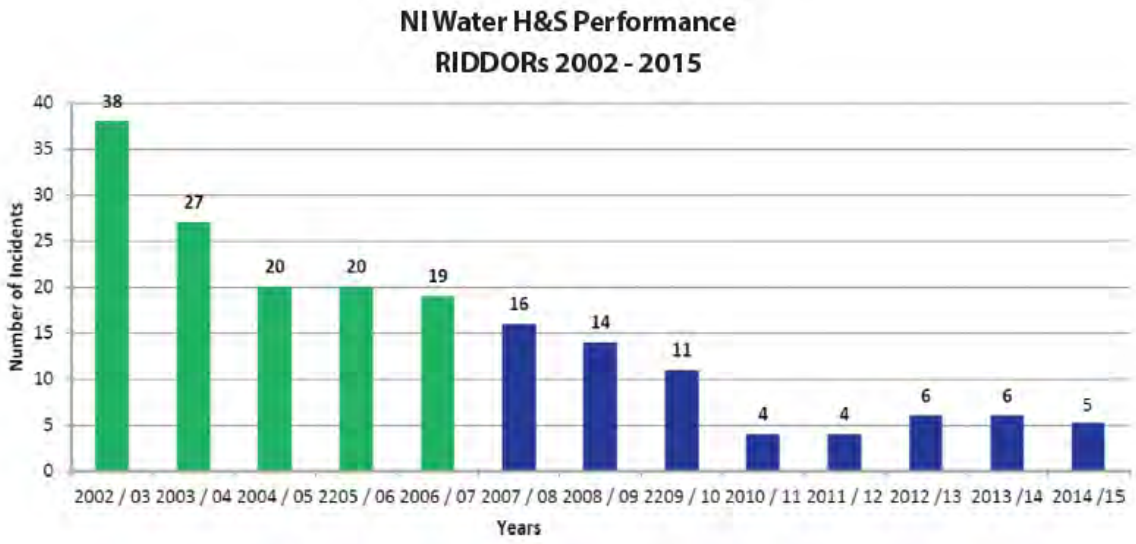
1.5 Health and Safety

NI Water has a zero accident ambition. We continue to focus on making NI Water a healthy and safe place to work by working closely with our employees, trade unions and contractors to improve the health and wellbeing of our employees and reduce accidents within the workplace.

We are always striving for continuous improvement across all aspects of health and safety, with one such initiative being our 'Safe Contract Management' theme which focuses on delivering a safety culture through effective safety behaviours.

This year NI Water has maintained a strong focus on continual safety improvement and through the 2014/15 'Training Reduces Your Risk' campaign we believe that incidents and harm have been avoided within areas of our business. Our colleagues within NI Water and those stakeholders we come into daily contact with are important to us, and this drives our value of placing "safety first".

The health and safety performance and safety behaviours within NI Water continue to set an example to all other water companies. The table below shows our performance since 2002 which, despite an increase from 2011/12 of four RIDDORS to six in 2012/13, shows a significant drop since 2002 when we had 38 incidents.



This year for the first time after achieving five consecutive RoSPA Gold Awards, NI Water has been recognised with the award of the RoSPA 'Gold Medal' for Achievement in Occupational Safety and Health Performance.

Chapter 2
Financial Performance Measures
Table C

2.1 Financial Performance

Summary Statement of Comprehensive Income

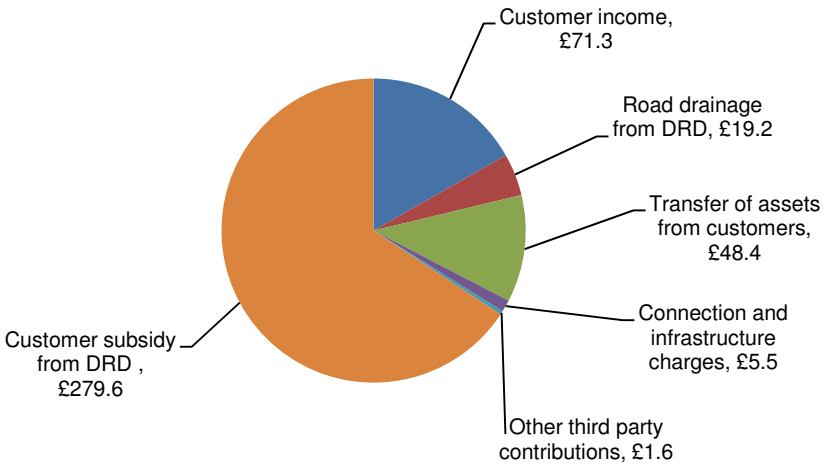
	Year to 31 March 2015 (£m)	Year to 31 March 2014 (£m)
Revenue	**425.6**	432.7
Results from operating activities	**193.1**	196.8
Net finance charges	**(61.6)**	(58.3)
Profit before income tax	**131.5**	138.5
Income tax expense	**(24.1)**	14.9
Profit for the year	**107.4**	153.4
Other comprehensive income, net of income tax	**(11.1)**	7.9
Total comprehensive income for the period	**96.3**	161.3

Revenue

Revenue was £425.6m for the year to 31 March 2015 (2014: £432.7m). Included in revenue was £298.8m (2014: £297.3m) received from DRD (Subsidy £279.6m; Road Drainage Charges £19.2m). The remaining components of revenue are measured and unmeasured charges, transfers of assets from customers, connection/infrastructure charges and other third party contributions.

The increase in the customer subsidy in 2014/15 was due to a combination of changes in the notional household tariffs (water tariff increase and sewerage tariff decrease) and increases in the total number/capital valuation of the customer base.

Sources of revenue 2014/15 (£m)

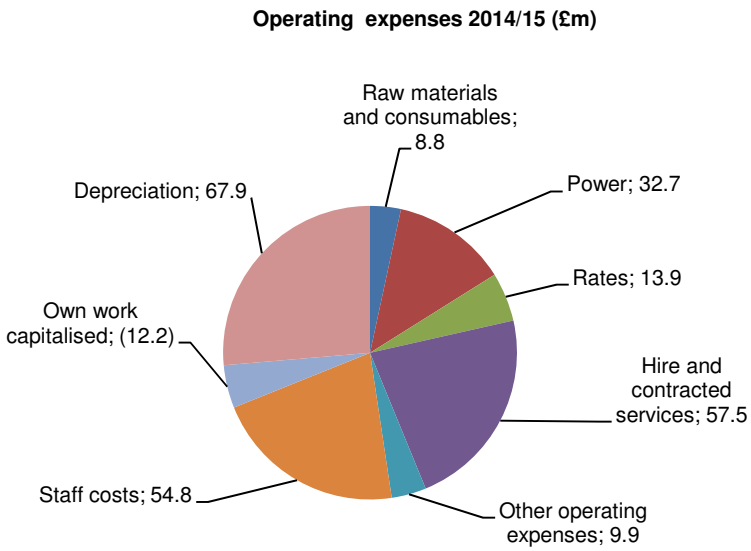


2.2 Costs (capital and operating) against expectations

Operating activities

Operating expenses in 2014/15 of £233.1m (2014: £236.2m) decreased from last year. The decrease primarily resulted from reductions in power, materials and staff costs offset in part by higher rates costs.

Results from operating activities before interest for the year was £193.1m (2014: £196.8m).



Finance income and costs

The net finance costs are primarily due to interest on our borrowings of £41.4m (2014: £37.5m) and on our PPP liabilities of £20.4m (2014: £20.6m) offset by net finance income on the pension fund £0.2m (2014: net costs £0.3m) and bank interest received of £0.1m (2014: £0.1m).

Taxation

The tax charge for the year was £24.1m (2014: tax credit of £14.9m). The effective tax rate for the year to 31 March 2015 was 18.4% (2014: (10.6%)).

Distributions

The Board will consider a proposal to declare a dividend of £25m in July 2015 (2014: £24m).

Capital Structure

The Statement of Financial Position at 31 March 2015 is summarised below.

Total assets increased by 5.6% to £2,711m (2014: £2,568m).

Our net debt[6] figure was £1,162.8m at 31 March 2015 (2014: £1,127.8m).

Gearing (the ratio of net debt to equity and net debt) decreased to 49.4% (2014: 50.2%).

The main movements in the financial position items were increases in property, plant and equipment of £144.4m (2014: £162.7m) relating to our Capital Investment Programme offset by increases in net debt.

[6] Net debt consists of loans of £947.6m (2014: £911.6m) and finance leases of £216.1m (2014: £218.9m) less cash and cash equivalents of £0.9m (2014: £2.7m).

Summary Statement of Financial Position

	At 31 March 2015 (£m)	At 31 March 2014 (£m)
Total non-current assets	**2,672.7**	2,532.8
Total current assets	**38.1**	35.2
Total Assets	**2,710.8**	2,568.0
Equity	**1,193.4**	1,120.6
Total non-current liabilities	**1,376.9**	1,314.3
Total current liabilities	**140.5**	133.1
Total liabilities	**1,517.4**	1,447.4
Total equity and liabilities at 31 March	**2,710.8**	2,568.0

Liquidity

Operating activities generated a net cash inflow of £220.2m (2014: £213.6m). Net cash outflows of £169.2m (2014: £169.0m) related to investing activities. Net financing activities created a cash outflow of £52.7m (2014: £62.7m).

Our working capital requirements are met from a committed working capital facility of £20m and from available positive cash balances. Interest is accrued on the working capital facility at floating interest rates based on London Inter-bank Offered Rates (LIBOR).

Investing activities included the acquisition of property, plant and equipment of £170.6m (2014: £170.3m), proceeds from the sale of property, plant and equipment of £1.0m (2014: £1.2m) and interest received of £0.1m (2014: £0.1m).

Dividends

Dividends paid to DRD during the year totalled £24m in respect of the previous financial year (2014: £29m in respect of 2013).

Pension funding

The pension scheme was valued at a liability of £11.6m at 31 March 2015 (2014: surplus of £3.5m). This was made up of a total market value of assets of £204.1m (2014: £171.0m) less actuarial value of liabilities £215.7m (2014: £167.5m). The movement to a liability has been driven primarily by actuarial losses in the year arising from a decrease in the discount rate assumption offset by a decrease in the inflation rate assumption used to calculate the scheme liabilities.

Capital

We delivered £159m of capital investment during 2014/15. Our Capital Works Programme (CWP) invested £111.7m in 2014/15.

2.2.1. Atypical operating expenditure items

We consider the following items to represent atypical and re-organisational operating expenditure in accordance with Regulatory Accounting Guideline 3.06 (RAG 3).

Atypical and re-organisational operating expenditure items:

	Year to 31 March 2015 (£m)	Year to 31 March 2014 (£m)
Business improvement programme	**1.6**	1.3
Voluntary Early Retirement / Voluntary Severance schemes	**0.7**	1.2
Total	**2.3**	2.5

2.3 PPP contracts

Project Alpha:

A contract with Dalriada Water Limited was signed on 30 May 2006 for the provision of bulk drinking Water supplies. This has a capital cost in the region of £111 million. The service provision commenced roll-out from November 2008. The contract is for 25 years with an end date of 29 May 2031. The cost and net book value of assets included in Property, Plant and Equipment at 31 March 2015 is £116.17m and £93.92m respectively (2014: £115.59m, £96.86m). The amount included in PPP Creditors at 31 March 2015 is £94.39m (2014: £96.06m).

Project Omega

A contract with Glen Water Limited was signed on 6 March 2007 for the provision of sewage treatment and sludge disposal at seven sites with a capital cost in the region of £132 million. The contract is for 25 years with an end date of 5 March 2032.

Kinnegar Wastewater Treatment Works

A contract with Coastal ClearWater Limited was signed on 30 April 1999 for the provision of sewage treatment which covered the upgrading of the Kinnegar Wastewater Treatment Works with a capital cost in the region of £11 million. The contract is for 25 years with an end date of 30 April 2024.

2014/15 PPP Cash Payments

On Balance Sheet	
Alpha	**£k**
Opex	8,431
Interest	6,824
Total P&L Impact	**15,255**
Capital Repayment	1,672
Life Cycle Maintenance	1,516
Total Balance Sheet Impact	**3,188**
Total PPP Payments	**18,443**

Effective Interest Rate used to calculate Alpha finance charge	**3.57%**

Off Balance Sheet	***Omega (£k)***	***Kinnegar (£k)***
Opex	22,055	2,268
Residual Interest	3,207	262
Total PPP Payments	**25,262**	**2,530**

Estimated Residual Value at End of Contract

Alpha	£84m
Omega	£113.5m
Kinnegar	£5.98m

Details of PPP contractual performance failures are set out in the company commentary for AIR table 42.

2.4 Regulatory Capital Value (RCV)

The RCV has been developed for regulatory purposes and represents the capital base established for the purposes of setting price limits. In line with RAG 1.04, this note is compiled using figures assumed in setting prices during the Price Control process. The 2014/15 data is therefore consistent with data contained within PC13 published by the Utility Regulator in December 2012. Within the RCV, the prior year balance has been indexed by the average RPI over the year to March and the capital expenditure has been indexed by the latest available Construction Output Prices Index (COPI) forecast.

	At 31 March 2015	**At 31 March 2014**
	£'m	**£'m**
Prior Year Closing RCV	**1,949.1**	1,812.8
Indexation and other adjustments	**38.2**	52.3
Opening RCV	**1,987.3**	1,865.1
Capital expenditure	**129.6**	137.3
Infrastructure renewals expenditure	**33.9**	34.1
Infrastructure renewals charge	**(33.9)**	(34.1)
Grants and contributions	**(6.1)**	(5.8)
Depreciation (including capital grants)	**(42.4)**	(46.7)
Disposal of assets	**(6.6)**	(1.1)
Closing RCV (pre regulatory adjustments)	**2,061.8**	1,948.8
Regulatory adjustments	**(15.8)**	-
Other adjustments*	**-**	0.3
Closing RCV	**2,046.0**	1,949.1
Average RCV	**1,997.6**	1,881.0

Regulatory Adjustments for the PC13 period	
Notified Index	3.3
Logging up / down	(22.7)
Asset disposals	3.6
Total PC13 Regulatory Adjustments	**(15.8)**

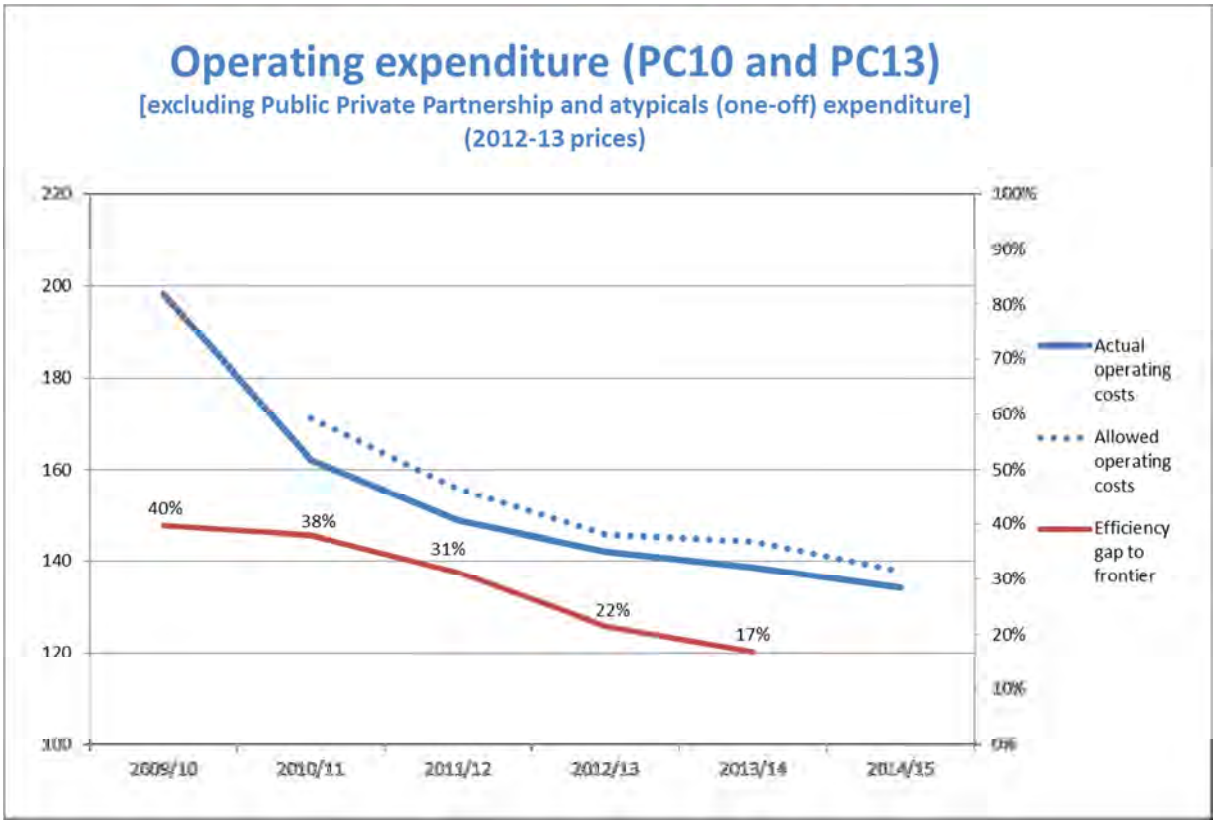
* Adjustment to reflect an amendment in the 2013-14 Construction Output Prices Index (COPI) from that used to derive the 2013-14 note. COPI is held in a provisional state for 4 quarters with adjustments normally taking place in the last 2 quarters, hence a prior period adjustment has been included to reflect actual COPI for 2013-14. This adjustment ensures the closing RCV in 2013-14 agrees to the Utility Regulator's PC15 Final Determination.

Chapter 3
Efficiencies

3.1 Capital and operating expenditure efficiencies

Our focus on controlling operating expenditure and working more efficiently contributed towards a reduction in running costs of around £5m[7] in 2014/15, resulting in a £12m reduction in running costs over PC13 and a £66m[8] reduction since the start of the PC10 price control in 2010/11. We are targeting further reductions in running costs across PC15 as set out in the Final Determination.

We have more than halved the efficiency gap with the leading companies in England and Wales from 49% in 2007/08 to 17%[9] in 2013/14.



3.2 Business Improvement

We are committed to investment in innovation through new systems and technology that provide benefits in terms of improving service performance or reducing operational costs, whilst improving the resilience and security of essential control and monitoring networks.

We have developed and implemented a new Research, Development and Innovation (RDI) Strategy. This sets out how technical needs and opportunities are identified, before research and development, or innovation projects, are then initiated.

Over 2014/15, our research, development and innovation programme projects included:

- developing Instrumentation, Control and Automation signature designs;

[7] Based on an approach used by the Utility Regulator. Details of this approach are contained within the Utility Regulator's Cost and Performance Report.
[8] Based on a reduction in operational costs between 2009/10 (baseline year) and 2014/15 using 2012/13 prices.
[9] Subject to determination by the Utility Regulator. Measured 1 year in arrears.

- providing Radar Rainfall Data software that will convert raw radar data into a format which can be viewed graphically and used for calculation of return periods for storm events at specific locations;
- developing a Network Distribution Control System to permit remote controls at key service reservoirs, allowing the demand from the upstream water treatment works to be smoothed. This improves drinking water quality and reduces costs; and
- participating in an EU INTERREG IVA Project "ANSWER" using willows to develop low carbon and environmentally sustainable solutions for dealing with organic waste.

Together with other UK water and sewerage companies, we employ research bodies such as the United Kingdom Water Industry Research Limited (UKWIR) to provide a collaborative programme of research tailored to suit the needs of the UK water industry.

Our 2015/16 RDI programme includes:

- development of Intelligent Leakage (iLeakage) monitoring systems using the increased functionality available within telemetry outstations;
- exploring energy recovery options from our water network; and
- investigation of new energy efficient wastewater treatment processes.

Innovation

The adoption of advanced science and technology in recent years has assisted us in delivering better quality services in more efficient ways. With ever increasing challenges on sustainability, efficiency and cost, we will continue to look to science and technology to seek innovative and practical sustainable solutions to improving our services and minimising costs.

We are committed to investment in innovation through new systems and technology that provide benefits in terms of improving service performance or reducing operational costs, whilst improving the resilience and security of essential control and monitoring networks.

3.3 Risk of Failure to Deliver

On 3 March 2015, DRD wrote to NI Water confirming the final 2015-16 budget position for NI Water of £109.2m DEL Resource Cash and £140m DEL Capital. Compared to the funding set within the Utility Regulator's challenging PC15 Final Determination, this results in a significant shortfall of £7.7m in DEL Resource Cash and £15m in DEL Capital.

Since its inception in 2007, NI Water has made significant improvements to water and wastewater services. We have achieved the highest ever levels of quality in drinking water delivered to customers and wastewater compliance in Northern Ireland. Underpinning much of these improvements is the delivery of a £1.7bn investment programme since 2007/08 maintaining and improving our infrastructure.

We are proud that these improvements in performance have been achieved against a background of improving cost control, efficiency and cost improvement. As a result customers in Northern Ireland are experiencing improved service and quality and more is being delivered for less than when we embarked as NI Water in 2007.

We do, however, raise a significant concern as to the impact that the reduction in funding has in terms of undermining momentum of delivery and on the real risk of ongoing regression in outputs and service levels experienced by customers.

Chapter 4
Competition

There are no developments to report in respect of inset appointment proposals, common carriage or water supply licensing proposals. NI Water has made no requests for common carriage or wholesale water supplies.

Annual Information Return 2015

Section 2

Tables and Commentary

Promoting the Efficient Use of Water

Range of activities undertaken by the company over household and non-household

NI Water has during this year continued its efforts to promote water efficiency to its customers.

These efforts have included using the methods successful to date i.e. education schemes, distribution of water saving devices and working in partnership with other organisations on new projects, and by designing and introducing new strategies.

The Water Education Team (WET) consists of two personnel serving schools, community and specialist groups, stakeholders and partners. Sixty percent of their time is spent promoting water efficiency.

The key elements of our strategy are as follows

1. Efficient use of water in the home
   a) ensuring no leaks from taps, toilets, pipe joints etc.
   b) cistern displacement devices used where necessary
   c) efficient use of domestic appliances e.g. full load for washing machine, dishwashers and care as to the machine selected (water saving)
   d) use of showers rather than baths and shower timers to reduce time spent in the shower
   e) shower heads and water tap aerators are recommended
2. Efficient use of water in the garden

WET have attended a variety of external public events, these have reduced due to budget constraints

- Balmoral Agricultural Show (May)
- Sunflower Fest (August)
- European Heritage Open Day (September)
- Winter Planning for Older People-Be Safe, Be Well, Greysteele (November), Bogside and Brandywell Forum (December)
- Sure Start Fairs, Newtownabbey (December) and Ardoyne (March)
- Winter Ready Clinic (Volunteer Now) - Ballysillan Leisure Centre, (Oct) Shaftesbury Community Centre (Oct), Anderstown Leisure Centre (Oct), Avoniel Leisure Centre (Nov)

Small events were attended at several company premises on request:

- All State Derry and Strabane Office (June)
- Delta Packaging Belfast Office (December)
- Moy Park Craigavon Office (February)

At these events staff attended to discuss water conservation and distribute leaflets and a selection of promotional items and advice on using water wisely.

A Water Efficiency Day was organised at Fofanny Water Treatment works with STEM Project (Sustainable Together through Environmental Management) with over 30 businesses attending to learn about efficiency methods for their business.

NI Water was given the opportunity to promote the water efficiency messages to the Council Energy Managers at their December meeting.

From September ’14 - March ’15 NI Water ran a programme through NISEP (Northern Ireland Sustainable Energy Programme) where shower regulators and water saving information was given to the public at selected shopping centres around Northern Ireland over 10,000 people were targeted.

Talks are presented twice a month to community groups including:-

- Homestart - mother and toddler groups
- Health Visitors and their New Mother Groups
- Rotary groups
- Church groups
- Allotment and gardening groups

The WET promotes water efficiency at their Education Centre, at Silent Valley where sessions take place in alternating weeks. Specific classroom talks on conservation are given to primary school children supporting the Eco Schools initiative or at their request. Monthly educational visits to the Wastewater and Water Treatment Centres for both schools and the general public are organised by the team.

During the year we introduced a KS3 talk which has been widely taken up by teachers; this has mainly been through the Home Economics strand.

A variety of water efficiency promotional items are used whilst delivering all these types of talks which include:

- Water-butt leaflets
- Drought resistant gardening leaflets and seeds
- Promotional and educational leaflets
- School water audits
- Interactive games encouraging conservation
- Hippo bags and instructions
- Shower timers (5mins)
- Fridge magnets
- Water cycle poster (teacher’s aide)

All of the water efficiency leaflets are available for download from the NI Water website along with a printable poster “Stop those drips”.

Household

1. Cistern Displacement Devices (CDD’s)

These can be requested by the customer directly through NI Water’s Customer Relations Centre (CRC) or from communication to the Education Team. For 2014/15 NI Water has distributed 1331 CDD’s at school visits, community talks, shows and at the request of an organisation. Each teacher we came into contact with was also issued with a sample. Community Groups receiving presentations on conservation also received a hippo bag.

The calculation for the water savings achieved in 2014/15 report year is as follows:

S*O*F*(D*I) = Savings in litres

S= Savings per flush, O= Occupancy rate, F= Flushing frequency per person per day, D= Number distributed, I= Installation rate.

Values derived from the Ofwat Water Efficiency Targets 2010-11 to 2014-15 were used to estimate the number of CDD's installed. Using the OFWAT Efficiency Report the volume displaced per flush was recorded as 2.5 l/per flush and flushes per person per day as recorded as 5. This figure is the average savings per flush achieved through the installation of Hippo Bags which are the CDD distributed by NI Water. An installation rate of 70% was due to the distribution method used i.e. through requests, schools and community groups. Occupancy rate was 2.5 from NISRA

Calculation:
2.5*2.5*5*(1331*0.7) = 29115.625 l/per day = 0.029116 Ml/d

2. Distribution of Water Butts

For the report year 2014/15 NI Water have not distributed water butts to households, but has to, community groups, schools and allotment groups the total for this year is 29.

The calculation for the water savings achieved in 2014/15 report year is as follows:

S=V*F*1*N

S= savings per butt, V=volume of waterbutt, F= fills per year I= instillation rate, N= number of Water butts Using the OFWAT Efficiency Report the volume is company based (NI Water supplied 29, 190l butts) the fills per year is estimated at 6 and the installation rate is 100%.

Calculation:
190*6*1*29 = 33060 l per year:
33060/365 days = 90.575342 l per day = 0.00009058 Ml/day

3. Household Water Audits

During 2014/15 the self-water audit for domestic households which can be accessed through the company's website, there have been 63 hits to the on line audit. An advantage of the website self-water audit is that as soon as the customer completes the form the information is emailed directly to WET and this data can then be collated in a spreadsheet to accumulate water usage across NI Water's customer base.

4. Domestic Self Water Audit Packs

Over the report year 2014/15 WET continued its conservation campaign "Spread the Word" to distribute self-audits to the parents of school children. For each school visited by the Team, the Principal was asked to distribute NI Water Domestic Water Audits to all families within their school. Every school that entered received Hippo Bags for their toilets. A school returning 75% completed audits received a water saving pack including a water butt, trigger hose and gel bag. The school with the highest percentage of returns will receive a cash prize. This initiative will run until the end of May 2015, for completed audits, 554 have been received to date.

To calculate the savings achieved through this initiative it is necessary to make assumptions on the savings achieved (Ofwat Water Efficiency Targets 2010-11 to 2014-15). The percentage acted upon is assumed to be 70%. It has been assumed that completed audit achieved savings of 10 litres per property per day.

D*A*S = Savings in litres

D = Number water audits carried out by company, A = Likelihood acted upon, S = Savings in litres per water audit.

The number of audits distributed was 554 through Spread the Word
Calculation:
554 * 0.70 *10 = 3878 l/per day = 0.00388 Ml/d

From the figures supplied by IT division of the Corporate Affairs Team, 63 hits have been recorded, for observations of, the on line water audit.

To calculate the savings achieved through this initiative it is necessary to make assumptions on the savings achieved (Ofwat Water Efficiency Targets 2010-11 to 2014-15). The percentage acted upon is assumed at 10% saving 10 litres per property per day:

Calculation: 63 * 0.10 * 10 = 63 l/per day = 0.000063 Ml/d

5. Shower Timers

Over the reporting year 3888 shower timers were distributed at schools, shows, events and presentations by NI Water staff. The installation rate of these can be assumed at 23% (Ofwat Water Efficiency Targets 2010-11 to 2014-15) a saving of 5 litres per property per day can also be assumed. The calculation for the savings achieved in 2014-15 report year is as follows:

D*I*S = Savings in litres

D = Number of shower timers distributed, I = Likelihood installed, S = Savings in litres per property per day.

Calculation: 3888* 0.23 * 5 = 4471.2 l/per day = 0.004471 Ml/d

6. Gel Bags

232 gel bags were distributed as part of the allotment group talks and shows. Using the Ofwat Water Efficiency Targets 2010-11 to 2014-15) a saving of 0.1 litres per property per day can also be assumed. Installation percentage would be 25% due to their distributed method

The calculation for the savings achieved in 2014/15 report year is as follows:

D*I *S= Savings in litres

D = Number of gel bags distributed, I = Likelihood installed, S = Savings in litres per property per day.

Calculation 232*0.25*0.1= 5.8 l/per day= 0.0000058 Ml/d

7. Trigger Guns

342 trigger guns were distributed through allotment talks and at staff water efficiency stands.

Using the Ofwat Water Efficiency Targets 2010-11 to 2014-15) a saving of 2 litres per property per day can also be assumed and 100% installation if requested i.e. at staff stands or through CRC.

The calculation for the savings achieved in 2014/15 report year is as follows:

D*I *S= Savings in litres

D = Number of trigger guns distributed, I = Likelihood installed, S = Savings in litres per property per day.

Calculation 342 *1* 2 = 684 l/per day= 0.000684 Ml/d

8. Shower Heads

The shower heads were distributed as requested with 12 in total.

Using the Ofwat Water Efficiency Targets 2010-11 to 2014-15) a saving of 29 litres per property per day can be assumed and 100% installation if requested.

The calculation for the savings achieved in 2014/15 report year is as follows:

D*I *S= Savings in litres

D = Number of trigger guns distributed, I = Likelihood installed, S = Savings in litres per property per day.

Calculation 12 *1* 2 = 24 l/per day= 0.000024 Ml/day

9. Water Audits Completed by Company

No audits were completed in the homes of customers 2014/15

Presently in Northern Ireland domestic customers do not pay for their water and wastewater services and customers are not metered. Therefore the only way to help foster change in attitude and behaviour is by demonstrating to the customer how they can financially benefit i.e. save money, for example by reducing the number of showers they have in a week or the number of times the washing machine and or dishwasher is used.

Non-household

NI Water operates a larger user discount scheme which is dependent on the commitment of the customer to water efficiency. The customer will have to be seen to be promoting water efficiency; this may be through changes in procedure, installing water saving devices, installation of recycling plants and the review of water efficiency by an independent industry expert. (www.niwater.com/largeusertariff.asp)

Work was carried out on NI Water's website; an area was developed to deal with promoting water efficiency within the commercial customer sector. The areas included are:

- Why Save Water?
- What is Normal Water Use?
- What is a Water Balance?
- Water Efficient Plumbing Appliances?

The website is accessible to all customers with internet access enabling them to source information to assist them in making decisions about water efficiency.

1. Water Audits

During 2014/15 554 Water Audits for Schools were distributed by WET through Teachers Packs.
To calculate the savings achieved through this initiative it is necessary to make assumptions on the savings achieved (Ofwat Water Efficiency Targets 2010-11 to 2014-15). The percentage acted upon is assumed at 20% saving 10 litres per property per day:

D*A*S = Savings in litres

D = Number water audits carried out by company, A = Likelihood acted upon,
S = Savings in litres per water audit.

Calculation: 554 *0.20*10 = 1108 l/per day = 0.001108 Ml/d

No Commercial Audits were distributed as the document is available on line as an advice leaflet for business customers during the year "Advice for Business Customers" with an additional document "Business Water Audit". Due to cost restrictions these leaflets have not been published but are available on the NI Water website.

Savings and Costs

These savings have been achieved by adding together

- Household-Water Efficiency Methods
- Non Household-Water Efficiency Methods
- Other Water Efficiency Methods

Leakage: No savings or costs are sustained by NI Water through supply pipes being repaired, as NI Water does not operate a free/subsidised repair/replacement scheme. If NI Water repairs any leaking supply pipes, this will only happen after a leakage notice has been issued and the customer has failed to carry out sufficient work to rectify the problem. NI Water will then repair the supply pipe and the cost will be charged to the customer.

Water Efficiency Methods

The majority of NI Water's other Water Efficiency Methods are education based. As already mentioned NI Water has a dedicated Water Education Team consisting of two full time employees. The Environmental Education Manager and the Outreach and Learning Officer, who deliver presentations to a variety of community and youth groups, organise/attend external events as well as attend educational establishments at all levels. Conservation classroom presentations are given on demand and we work with the Eco Schools Award scheme. The double decker Waterbus, a mobile education unit provides displays, quiz, demonstrations, DVD and computer facilities. This exhibition aims to make children aware of a range of water issues such as the water cycle, water for health, water sources, water /wastewater cleaning and water efficiency. The Waterbus programmes have been written for Key Stage 2 (P5-P7) and we work closely with the revised curriculum. The service is well received by Education and Library Boards and we have been in contact with over 16,067 pupils during 2014-15. NI Water has a Wastewater Heritage Centre sited at Duncrue in Belfast. This site provides an insight into the history of water supply and removal of waste and the importance and techniques of wastewater management. We consider contact with school children to be the vital link with parents, bringing news and promotional items home and encouraging them to become water efficient and to be aware of the value of water management. NI Water introduced a KS3 talk which has been widely taken up by teachers; this has mainly been through the Home Economics strand

During the reporting year 2013/14 NI Water updated the look of its existing website (www.niwater.com). It continues to support its educational microsite. "What are you doing about water" (http://www.niwater.com/education/index.html) for ages 6 to 14 years, builds upon the efficiency element. Sections include the Water Cycle and Save Water. The subsection "How much water" calculates a households daily use of water, "How do I save water" gives advice in the home and tips for water use in the garden and within schools. It has been well received by both teachers and pupils and is widely used for "investigation" in the revised curriculum and is a valuable tool to both schools, education establishments and the company. The Education Teachers Pack "Teachers Little Helper" has 6 Conservation Worksheets for pupils.

NI Water has dedicated website pages with advice on household and commercial water efficiency. Included in these pages is a domestic self- water audit, which allows domestic customers to calculate their average daily consumption per resident. This audit has the added benefit of doing calculations automatically and also provides NI Water with completed audits instantly once the customer has submitted it. The website also includes guidance on the types of appliances that could be fitted to houses and business, which would help them to be more efficient in the future.

"U-Tube" video on "Saving Water" (featuring the Education Department staff), was made by NI Water's Corporate Affairs Team and is available to view at http://www.youtube.com/northernirelandwater. It promotes water saving tips around the home and garden.

During 2013 we ran a pilot programme promoting water efficiency to the staff at the Head Office at the Westland site, this initiative continues. Staff are encouraged to select Hippo bags, shower timers, trigger guns along with the literature "Domestic Audit" and "How Waterwise are You?" Available for download within the business section of water efficiency is the "Top Ten Tips for Business Water Efficiency".

NI Water has highlighted throughout the year the issue of water efficiency and in particular the potential for frozen pipes as part of its "Winter Preparation Campaign". The tag line "Beat the Freeze" ran with the generic message of "Two-Step Pipe Check". This was accompanied by a leaflet drop to domestic and commercial customers. The campaign generated 105 articles between September 2014 and February 2015, generating £86,861 of PR value.

The specific message of 'Protecting Your Property by Protecting Your Pipes' resonated in 69 articles with a PR value of £63,880. References to the farming community continually contained references to protection of property.

The "Lag and Tag" message involved the distribution of a florescent "Stop Tap Valve tag" which helped customers to be aware of their stop valve and its location in the event of a burst. The 'Lag and Tag' initiative during the winter period generated £14,189 worth of publicity. It appeared with great prominence in the local press, aided by local schools in particular.

A large number of winter meetings were attended, targeting specifically ones aimed at the elderly in preparation for winter, council organised events and stakeholder events. Distribution was from school children, to estate agents and commercial businesses, each was told what to do to prevent frozen pipes and what to do if they got a burst it was positively received.

In support of this campaign several videos are downloadable from NI Water on U-Tube: “Protect your Pipes”; Insulation; Winter Proof Your Home; “How to locate your Stop Valve”; “If a pipe burst” and “Don’t Wait Insulate”.

Efficiency Method	**Total**	**Cost**	**Savings per Ml/ day**
Household			
Measurable Methods			
Cistern Devices (0.57p each)	1331	758.67	0.029116
Water butts (£38.16 each)	29	1106.64	0.000091
Self-audit (Spread the Word)(0.04p each)	554	22.16	0.003880
Self-audit (On Line)	101		0.000063
Total			**0.033150**
Other Measurable Methods			
Shower timers (£1.10 each)	3888	4276.80	0.004471
Gel Bags (£4.75 each)	232	1102.00	0.000006
Trigger Guns (£4.83 each)	342	1651.86	0.000684
Shower Heads (£27.90 each)	12	334.80	0.000024
Education Depart (UKWIR)		56,759.16	0.265000
Total			**0.270185**
2.Leaflets			
How water wise are you (0.10peach)	12041	1204.10	
Hippo Bag Leaflet (0.13p each)	1331	173.03	
Freezing Pipe (0.017p each)	17066	290.12	
Total leaflets		**1667.25**	
3.PR items			
Bookmark- “Flo” kids (0.07p each)	1294	90.58	
Game: Snakes and Ladders (0.18p each)	524	94.32	
Stop Tags (0.43p each)	16688	7175.84	
Tap cover (£4.66 each)	75	349.50	
Ice scraper (0.73p each)	564	411.72	
Thermometer (0.76p each)	3685	2800.60	
Total PR		**10922.56**	
Non Household			
School Audits(0.19p each)	554	105.26	0.001108
Total			0.304443

NI Water has a large range of leaflets that promote water efficiency, the distribution of these may also lead to increased water savings but at present these savings cannot be calculated but the costs for this year stand at £12589.81.

The calculation of costs due to staffing has been calculated using accepted methodology from the AIR12 return.

Assumed Savings

Household-Water Efficiency Methods	=	0.033150
Other Water Efficiency Methods	=	0.270185
Non Household-Water Efficiency Methods	=	0.001108
The total recorded savings are	**=**	**0.304443** Ml/d

The work of the Education Department has continued to significantly improve NI Water's water efficiency figure. This can be demonstrated through the behavioural chance activity has led to our customers becoming more efficient in their use of water and the UKWIR method is now being used to quantify the water saving benefits for "softer measures" (2010 Reporters recommendation 1, (document reference)T1niw.R10 P1 S2).

The UKWIR spreadsheet WR25 "Estimating water saving calculator for baseline water efficiency" has been used. These activities have been apportioned between Low, Medium and High Levels of engagement.
This is summarised in the following table:

Level of Engagement	**Ml/day**
High	0.229
Medium	0.033
Low	0.003
Totals	**0.265**

The increase in the contact with schools through the Waterbus to three days a week (high level engagement) has ensured the Ml/day has increased to 0.229 Ml/day from last year's figure of 0.189 Ml/day.

Using the UKWIR Methodology, which as previously mentioned was recommended by the Reporter, has resulted in a general improvement in water efficiency measurement for the company.

Year	**Assumed Savings**
2009/10	0.048 Ml/day
2010/11	0.216 Ml/day
2011/12	0.264 M/l day
2012/13	0.227 M/l day
2013/14	0.219 Ml/day
2014/15	0.304 Ml/day

NI Water concentrated on an increased activity in the Waterbus visits to twelve visits per month for the ten school months available for visits, which attributes to a higher level of engagement and so an overall higher level of savings for this element.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 2 KEY OUTPUTS
WATER SERVICE - 2 (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	DG2 PROPERTIES RECEIVING PRESSURE/FLOW BELOW REFERENCE LEVEL										
1	Total connected properties at year end	000	1	810.4	A2	818.0	A2	825.0	B2	828.1	A2
2	Properties below reference level at start of year	nr	0	2,020	B3	1,748	B3	1,420	B3	1,257	B3
3	Properties below reference level at end of year	nr	0	1,748	B3	1,420	B3	1,257	B3	1,082	B3
4	Properties receiving low pressure but excluded from DG2	nr	0	0	B3	0	B3	0	B3	0	B3
4a	DG2 Properties with pressure below a surrogate level of 7.5m at end of year	nr	0	171	B2	176	B2	169	B2	137	B2
4b	DG2 Properties at risk of low pressure removed from the risk register by company action	nr	0	262	B3	297	B3	132	B3	186	B3
4c	Average capex cost of permanent solutions to DG2 problems	£000/prop	1	3.0	C4	0.8	C4	9.1	C4	8.2	B2
B	DG3 PROPERTIES AFFECTED BY SUPPLY INTERRUPTIONS										
	(i) UNPLANNED INTERRUPTIONS										
5	More than 3 hours	nr	0	54,303	B3	53,458	B3	41,412	B3	112,653	B3
6	More than 6 hours	nr	0	7,023	B3	10,487	B3	6,742	B3	43,767	B3
7	More than 12 hours	nr	0	765	B3	2,607	B3	1,195	B3	25,693	B3
8	More than 24 hours	nr	0	18	B3	1,554	B3	12	B3	13,788	B3
	(ii) PLANNED AND WARNED INTERRUPTIONS										
9	More than 3 hours	nr	0	58,162	B3	50,096	B3	35,468	B3	47,216	B3
10	More than 6 hours	nr	0	31,808	B3	20,674	B3	18,454	B3	19,127	B3
11	More than 12 hours	nr	0	1250	B3	0	B3	0	B3	44	B3
12	More than 24 hours	nr	0	0	B3	0	B3	0	B3	0	B3
	(iii) INTERRUPTIONS CAUSED BY THIRD PARTIES										
13	More than 3 hours	nr	0	1,675	B3	1,778	B3	2,452	B3	4,710	B3
14	More than 6 hours	nr	0	70	B3	561	B3	121	B3	974	B3
15	More than 12 hours	nr	0	0	B3	1	B3	33	B3	1	B3
16	More than 24 hours	nr	0	0	B3	0	B3	0	B3	0	B3
	(iv) UNPLANNED INTERRUPTIONS (OVERRUNS OF PLANNED INTERRUPTIONS)										
17	More than 6 hours	nr	0	1,131	B3	311	B3	1,004	B3	2,521	B3
18	More than 12 hours	nr	0	288	B3	60	B3	20	B3	16	B3
19	More than 24 hours	nr	0	4	B3	0	B3	5	B3	0	B3
C	POPULATION										
20	Population (winter) (total)	000	2	1,823.89	C2	1,842.61	C2	1,850.54	C2	1,862.72	C2
D	DG4 RESTRICTIONS ON USE OF WATER										
21	% population - hosepipe restrictions	%	1	0.0	A1	0.0	A1	0.0	A1	0.0	A1
22	% population - drought orders	%	1	0.0	A1	0.0	A1	0.0	A1	0.0	A1
23	% population - sprinkler/unattended hosepipe restrictions	%	1	0.0	A1	0.0	A1	0.0	A1	0.0	A1

Table 2 – Key Outputs - Water Service - 2

Total Connected Properties at Year End

Northern Ireland Water's (NIW) property data is provided via a data download of the property database tables held within the RapidXtra billing system. The data is then manipulated within Microsoft SQL to produce the Rapid Property Summary Report.

In AIR12 we introduced an automated tool to populate the figures within Table 2 - (Rapid Property Summary as the input). Our methodology for AIR15 has remained consistent.

The difference between the AIR14 and the AIR15 figures is 3086. The breakdown can be explained as follows:

1) New Connections during the 2014/15 reporting year.
2) Added as a result of a customer contact. E.g. septic tank empty request, no water complaint, blocked sewer etc. Within this category there are 2 scenarios:
   a) The adding of properties NI Water allegedly didn't know about (A requirement has been written into the new CBC Contract, the Rapid/POINTER quarterly reconciliation will close the gap on such properties).
   b) The adding of duplicates as the customers address couldn't be found on Rapid. For example, Rapid may hold the site number but when the customer contacts NI Water they quote the verified postal address which is different, therefore creating a duplicate. Another scenario - The street name may have changed from the time of New Connection to that of customer contact – street names can change in the early stages of site development. (A requirement has been written into the new CBC Contract to check weekly (against POINTER) for address updates to New Connection properties)
3) Removal of duplicates/properties as a result of data quality initiatives
4) The increased number of properties within the no water/well water category (further detail provided within the Table 7 Commentary)

In addition to the above, numerous other data quality requirements have been built into the new CBC Contract. They cover all aspects of the property life cycle (creating, amending and demolishing properties) and data degradation will be monitored/measured throughout. The work on data validation has commenced, with some new validations 'live' as of mid-May. Identifying data primacy is key to ensuring the validations are effective.

Annex A details the Line Methodology followed for each of the figures calculated in Table 2.

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

The number of properties on the Register at the start of the year was 1257, as reported in line 3 of the AIR14 submission.

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

As per the 2015 regulatory guidance, as issued and directed by NIAUR, this line includes properties within a 10m height of service reservoirs, there are currently 87 DG2 properties located within 10m of the supplying SR.

It should be noted that NI Water will not be able to provide such properties with adequate pressure through normal hydraulics; however they will be included in the DG2 register. The final number of properties recognised as being below the reference level at year end is 1082.

The total number of removals for PC13 due to company action is 318; this is against the PC13 target of 288.

The year end figure is the direct result of removals due to Company Action and better information. Throughout this process a surrogate pressure of 15m head in the adjacent water main has been adopted as the reference level. All properties removed from the Register during the reporting period are supported by a report and appropriate logged data. The removals process is as per NI Water's methodology and is consistent with previous AIR submissions.

The reductions arising from capital schemes are captured within reports received following the completion of water main rehabilitation or infrastructure improvements. In total NI Water processed three Post Project Rehabilitation Appraisal (PPRA) reports and 1 DG2 investigation (DIR) report resulting in 186 properties being removed from the DG2 register due to company action in AIR15, see Table 1 and scheme summaries below.

Regular updates of DG2 properties continue to be uploaded onto the CARtoMAP system ensuring that this information is readily available throughout the company. This has proved to be of particular benefit to the Contact Centre to assist in the handling of low pressure complaints.

Table 1

Company Action Removal Scheme	**DG2 Properties Removed**
Dungonnell	27
Caffery Estate	31
Braniel	35
Altmore	93
Total	**186**

Dungonnell PPRA - This scheme covers an area of 141.6km^2 situated in a predominately rural area close to Ballymena. The work package supplies an estimated 5100 properties and contains 280km of water mains. As a result of work completed, 27 DG2 properties were removed from the register.

Caffery Estate DIR – The properties under investigation were identified within the Tullymore Estate DMA as properties receiving pressures below 15m head. The properties were logged and added to the DG2 register. These properties were previously not included on the DG2 register as they are newly built houses. Tullymore Estate DMA covers an area of 0.42 km^2 and is a mainly urban area part of West Belfast with water mains of length 7.72 km.

The installation of a pressure management scheme, in conjunction with network rezoning, facilitated the removal of 31 properties from the register.

Braniel PPRA –Braniel is located in East Belfast covering an area of 1.40km^2 and supplies 2,592 properties through 21.38km of mains from Purdysburn Service Reservoir. Following successful improvements to the infrastructure in the area a total of 35 properties were successfully removed from the register.

Altmore PPRA – The Altmore study boundary is located in and around the Dungannon and Coalisland areas of Mid-Ulster covering an area of 354.88 km^2 and supplying some

20,000 properties through 990km of mains. As a result of work completed, 93 DG2 properties were removed from the register.

As a result of the relogging of work package areas, a total of 21 properties were removed from the register due to better information and which could not attributed to Company Action infrastructure improvements. All removals were processed based on the provision of 7 day logged data. The existing Register maintains links to reports, supporting documentation and location maps, all of which are held electronically. These are identified in Table 2 below and aligned to their corresponding Work Package.

Table 2

Work Package Area	**DG2 Properties Removed**
Dungonnell	11
Braniel	2
Altmore	8
Total	**21**

The total DG2 movements during the year are summarised in Table 3 below. There have been 32 additions to the register due to better information, namely 31 in Tullymore Estate DMA and 1 in Hamilton's Folly DMA.

Table 3

Year Start	**1257**
Additions due to Better Information	32
Removals due to Company Action	186
Removals due to Better Information	21
DG2 Properties Remaining	**1082**

Line 4 – Properties receiving low pressure but excluded from DG2

As per NIAUR direction, properties within 10m are no longer excluded from the DG2 Register. Therefore there are currently zero properties that are justifiably covered by the exclusions as per the current guidance notes.
It should be noted that NI Water will not be able to provide such properties with adequate pressure through normal hydraulics.

Line 4a – DG2 properties with pressure below a surrogate level of 7.5m at end of year

A query of the DG2 register confirms that 137 properties experience a pressure below the 7.5 m surrogate level.

Line 4b – DG2 properties at risk of low pressure removed from the risk register by Company Action

Calculation of the total number of properties removed as a direct result of Company Action is generally achieved by adding the properties identified by removal reports resulting from both Rehabilitation schemes and Infrastructure improvements.

Table 4

Removals Due to Company Action	Number
Rehabilitation Schemes	155
Infrastructure Improvements	31
	186

The final number of properties removed due to Company Action is recorded in Table 4 above as 186. This has exceeded the annual target of 156 by 30.

Lag in Confirming Removal from Register

There is a time lag of approximately one year between the completion of the construction phase of a Work Package and confirmation that properties can be removed from the register, in general. There will be a longer lag in areas where there are multiple phases in a Work Package under construction, or a neighbouring Work Package has a significant effect on the normal operation of the system. In general, the PPRA report for a multi-phase Work Package will be completed one year after the final phase of the Work Package is constructed. This is consistent with the process included in the company PC13 Business Plan.

Work Packages awaiting PPRA

Documentation listing the Work Packages awaiting the completion of PPRA reports identifies the estimated number of DG2 properties to be removed during 2015/16 using predicted pressure from Hydraulic Modelling. The actual pressure will be confirmed by logging before formal removal of properties from the register. Table 5 below lists the Work Packages and the predicted number of properties identified for removal.

Table 5

Work Package Name	No. of Props to be Removed
Altmore	67
Lisburn	35
Omagh	33
Total	**135**

Removals Pending

It should be noted that there were 10 properties identified in Killylane (5nr) and Dunore East (5nr) for removal from the register in 14/15 due to planned operational work and the submission of PPRA Reports however these reports could not be fulfilled. This is a result of delays being incurred during rehabilitation work resulting in an indefinite completion date at present. The removal of these properties will by necessity be moved to a future date.
There are also two areas detailed in table 6 which have been brought from the 14/15 year to the 15/16 year, again as a result of delays during rehab work. Therefore the total number of properties planned for removal during the 15/16 year is 165.

Table 6

Work Packages Outstanding	No. of Props to be Removed
Ballintemple	10
The Glens	10
Killylane	5
Dunore East	5
Total	**30**

These removals however are subject to the completion of rehabilitation works, collation of pressure data and submission of completed reports. The AIR16 target for DG2 removals is 92.

Line 4c - Average Capex cost of permanent solutions to DG2 problems

The Utility Regulator issued guidance in April 2011 for AIR11 Table 2 which included additional reporting lines for average cost of removing DG2 properties from the Register as a result of Company Action.

This is the fourth year that the company has reported this figure and it will allow the benchmarking of NI Water costs. The UR Final Determination Document indicated an average cost per property removed, which appears to be based on historic figures from England and Wales, but the appropriateness of this comparison without a factor to account for the much longer length of main per property in Northern Ireland needs further discussion. The variability of cost per property removed as outlined in the table below is reflective of the current method of delivery of the Water Mains Rehabilitation Programme. Work packages have multiple drivers and assignment of costs to DG2 removal relies on the use of the Enhancement part of the CIDA allocation for the schemes below rather than directly attributable costs. (Rather than arising from individual projects designed solely to remove DG2 properties.) NIW will continue to develop these reporting lines to deliver a more robust process for attributing costs to DG2 properties.

The scheme costs and number of properties removed from the register are reported for each WP where a PPRA report was produced. The costs are for mains, with the primary justification for rehabilitation listed as “Hydraulic”, which were generally replaced with a larger size of main. These mains may have a secondary structural or water quality driver also but there was no cost reduction for asset maintenance or quality enhancement applied. This matches the approach used for CIDA allocation at CIP A1 stage.

PPRA reports covering part of Altmore Phases 2 and 3, Braniel and Dungonnell were produced during 2014-15 which removed a total of 186 properties from the register. These are detailed in the Table below.

Table 7

WP Title	**DG2 Properties Removed**	**Total Cost**
Altmore Phases 2 and 3 (Completed and verified Schemes)	93	£711,808.05
Braniel	35	£27,020.00
Dungonnell	27	£531,890.00
McCaffrey Glen (Leakage Scheme)	31	Through Leakage Budget
TOTAL Pro Active NIW DG2 Removals 2014-2015	**186 against 170 target**	**£1,270 718.05**
Remove Mc Caffreys Glen from the total removals for the final calculation	155	**£1,270 718.05**
Average Cost per DG2 Removal		**£8,198.18**

The hydraulic models were used to size the replacement mains with a future demand calculated using the 2010 WRS Report. Current practice would use the future model with the current mains to generate future level of service failures and then check that these were resolved by the replacement mains. This gives the modelled future Level of Service (LoS) failures that the mains resolve.

Therefore the average overall cost of removing a DG2 property from the register is obtained by dividing the total cost £1,783,530..00 by the total number of properties removed (155) utilising the EP Budget (McCaffrey Glen is left out as Leakage proactively removed these through their Budget ,therefore to include these in the total would give an incorrect average.. Average removal cost is therefore

Average cost per DG2 removal = £8,198.18

Workpackage Descriptions

WP 119 Altmore Phases 2 and 3
The Altmore study boundary is located in and around the Dungannon and Coalisland areas of mid-ulster and supplies some 20,000 properties through 990km of mains.

WP 119 Braniel
The Braniel study boundary is located in East Belfast and supplies 2,592 properties through 21.38km of mains from Purdysburn Service Reservoir (Top Water Level 96.0m) and Lisnabreeny Service Reservoir (Top Water Level 178.60m).

WP 06 Dungonnell
The Dungonnell zone is a predominantly rural area in the vicinity of Ballymena and Portglenone. The area supplies approximately 5,100 properties over 141.6km2 and contain 17 DMA`s which encompass 280km of mains.

Further Work Packages to be reviewed next year

A spreadsheet listing the Work Packages awaiting completion of PPRA reports was produced and it identifies the estimated number of DG2 properties to be removed during 2015/16 using predicted pressure from Hydraulic Modelling. The actual pressure will be confirmed by logging before formal removal of properties from the register. The table below lists the Work Packages and the predicted number of properties identified for removal.

Table 8

Work Package Name	No of properties to be removed
WP104 Altmore Phase 2and 3 (Completed and verified after reporting year 14-15)	67
The Glens	10
Lisburn	35
Ballintemple outstanding Schemes	10
Omagh	33
TOTAL	**155 against 108 target**

Removals Pending

It should be noted that there are currently 155 properties identified for removal from the register in 2014/15 to a target of 108 in the plan following the submission of PPRA Reports.

However a total of two reports could not be completely fulfilled during the 2014/15 year. This is a result of delays being incurred during rehabilitation work. The areas affected are part of Altmore and Ballintemple and their approximate removals (over and above those removed above) of 67 and 10 will by necessity be moved into the 2015/16year

Therefore the total possible number of properties planned for removal during the 2015/16 year could ultimately reach is 155. However these are subject to the completion of rehabilitation work, collation of pressure data and submission of completed reports.

Confidence Grade Line 4c

The confidence grade for this line has been upgraded to B2 from C4 as a top-down approach has been developed for AIR15, following a recommendation from the Reporter. EP, Asset Performance and the Reporter have worked together to improve the granularity of the returns and to improve the accuracy of the methodology and figures. This was done by making use of the scheme approval analysis that presents the contribution from each of the investment drivers (structural improvements, water quality, operational issues (leakage) and hydraulic drivers (DG2).

Individual scheme outputs are provided separately to show how each calculation was carried out

Lines 5-19 - DG3 Properties Affected by Supply Interruptions

The rules governing the recording and collation of data for the DG3 Register are explained in the Levels of Service Methodology. DG3 procedures were established and implemented by NI Water in April 2007.

Note: This commentary includes figures based on a Total Connected Properties at Year End figure of 828,060 as confirmed by Customer Systems in AIR15 Table 2 Line 1.

Significant year on year changes in reported figures including an explanation of any factors that may have influenced the figures

Unplanned and Unwarned Interruptions

AIR	DG3 Properties Affected	**2012/13** Inc. Adverse Weather	**2012/13** Exc. Adverse Weather	**2013/14**	**2014/15** Inc. Industrial Action	**2014/15** Exc. Industrial Action
Table 2: Line 5	More than 3 hours	53,458	51,588	41,412	**112,653**	**72,859**
Table 2: Line 6	More than 6 hours	10,487	8,731	6,742	**43,767**	**10,243**
Table 2: Line 7	More than 12 hours	2,607	1,019	1,195	**25,693**	**805**
Table 2: Line 8	More than 24 hours	1,554	62	12	**13,788**	**1**

In 2014/15, all four outturns for properties affected by unplanned and unwarned interruptions to supply were heavily influenced by the effects of industrial action from 22 December to 21 January. Regrettably, during this time, customers in some parts of the province experienced significant loss of supply and all three Company targets were missed. As in previous years when exceptional circumstances led to atypical performance, the Company has taken the decision to report its outturns including and excluding the impact of the industrial action.

Excluding atypical events, the Company's outturn of 72,859 properties affected by unplanned and unwarned interruptions lasting more than 3 hours was much higher than in

previous years. Although there was an increase in 2014/15 in the number of interruption events involving more than 2,000 properties, this still does not fully explain the increase in outturn.

On 4 July 2014, the Operations Management Information System (OMIS) was replaced by the Central Incident Management System (CIMS) for recording details relating to supply interruptions. As CIMS was only in operation for nine of the twelve months of 2014/15 and during two of the months, industrial action was responsible for atypical performance, it is not yet possible to fully assess the impact that CIMS has had on the accuracy of reported outturns. However, based on an assessment of data captured by the new system from July to November and February to March, early indications are that there has been an increase in the number of unplanned interruptions captured with durations of more than 3 hours.

The Company is confident of this claim and can rule out other possible factors which have been known in the past to account for a rise in the outturn.

It is not thought that CIMS has had an impact on the outturns for higher time bands since interruptions with longer durations have always been the subject of added scrutiny because of their impact on target performance and are therefore less likely to have gone unreported by the Company.

Excluding atypical events, the Company's outturn of 10,243 properties affected by unplanned, unwarned interruptions lasting more than 6 hours was still higher than in previous years. Incidents contributing to this underperformance include a non-visible burst main in Londonderry on 15 August, a burst main in Coleraine with limited rezoning opportunities on 20 November, and a delayed response by the repair contractor to a burst main in Gilford on 6 February. These and other incidents which had an impact on DG3 performance are discussed in the section on Major Incidents.

Excluding atypical events, the Company's outturn of 805 properties affected by unplanned, unwarned interruptions lasting more than 12 hours was the lowest it has been since 2011/12. And the Company's outturn of 1 property affected by an unplanned, unwarned interruption lasting more than 24 hours was the lowest it has been since the Company began making regulatory returns in 2007/08.

Planned and Warned Interruptions

AIR	DG3 Properties Affected	2012/13	2013/14	2014/15
Table 2: Line 9	More than 3 hours	50,096	35,468	**47,216**
Table 2: Line 10	More than 6 hours	20,674	18,454	**19,127**
Table 2: Line 11	More than 12 hours	0	0	**44**
Table 2: Line 12	More than 24 hours	0	0	**0**

The 2014/15 outturns point to an increase in properties affected by planned and warned interruptions lasting more than 3 hours and more than 6 hours. Last year, the Company confirmed that workpackages had commenced in the Belfast area where the density of housing is greater than elsewhere in the province and that this had resulted in an increase in the percentage of work carried out in urban areas.

The figures in the following table relate to interruptions associated with the Water Mains Rehabilitation Programme.

Planned and Warned Interruptions		2013/14	2014/15
More than 3 hours	Properties	21,163	28,049
	Events	647	389
	Properties per Event	33	72
More than 6 hours	Properties	12,072	14,061
	Events	512	275
	Properties per Event	24	51

These figures indicate that there has been an increase in the number of properties affected per interruption event and is again consistent with an increase in the percentage of work carried out in urban areas.

In 2014/15, only 44 properties experienced a planned and warned interruption lasting more than 12 hours. Whenever possible, NI Water tries to avoid planned and warned interruptions exceeding 12 hours.

No properties have been affected by a planned and warned interruption lasting more than 24 hours since the Company began making regulatory returns in 2007/08.

Interruptions caused by Third Parties

AIR	DG3 Properties Affected	2012/13	2013/14	2014/15
Table 2: Line 13	More than 3 hours	1,778	2,452	**4,710**
Table 2: Line 14	More than 6 hours	561	121	**974**
Table 2: Line 15	More than 12 hours	1	33	**1**
Table 2: Line 16	More than 24 hours	0	0	**0**

The outturn for properties affected by unplanned interruptions lasting more than 3 hours caused by third parties was higher in 2014/15 than in previous years. NI Water has no influence over the occurrence of such interruptions and a review of the events informing this measure, indicate that a burst main caused by a gas contractor in Lurgan on 1 February was largely responsible for the increase in this outturn.

In 2014/15, 974 properties experienced an unplanned interruption lasting more than 6 hours caused by a third party. The average for this measure is 359 properties, based on outturns from 2007/08 to 2014/15.

In 2014/15, only one property experienced an unplanned interruption lasting more than 12 hours caused by a third party.

And for the fourth year in succession, no properties experienced an unplanned interruption lasting more than 24 hours caused by a third party.

Unplanned Interruptions (Overruns of Planned Interruptions)

AIR	DG3 Properties Affected	2012/13	2013/14	2014/15
Table 2: Line 17	More than 6 hours	311	1,004	**2,521**
Table 2: Line 18	More than 12 hours	60	20	**16**
Table 2: Line 19	More than 24 hours	0	5	**0**

In 2014/15, 2,521 properties experienced an interruption where the warned time plus the overrun time was more than 6 hours. The total number of interruptions informing this measure continues to be low but in March 2015, 952 properties experienced an interruption of 9.5 hours when an 8 hour planned and warned interruption overran by 1.5 hours. The interruption commenced at 06:00 and supplies were restored to all properties by 15:30.

Only 16 properties experienced an overrun of a planned and warned interruption lasting more than 12 hours, the lowest this outturn has been since 2010/11.

And in 2014/15, no properties experienced an overrun of a planned and warned interruption lasting more than 24 hours.

The following table provides a summary of the numbers of planned and warned interruptions that overran in the last 3 years together with the corresponding numbers of affected properties.

	2012/13			2013/14			2014/15		
	Planned >6hrs	Planned Which Overran	%	Planned >6hrs	Planned Which Overran	%	Planned >6hrs	Planned Which Overran	%
Interruptions	506	9	1.78	551	20	3.63	314	16	5.10
Properties	20,985	311	1.48	19,458	1,004	5.16	21,648	2,521	11.65

Additional information on performance against alternative standards

NI Water has three Key Performance Indicators relating to Supply Interruptions (DG3):-

Number of properties experiencing unplanned and unwarned interruptions (expressed as a percentage of households) in excess of:
1a) 6 hours, 1b) 12 hours, 1c) 24 hours. KPIs 1a and 1c were first introduced in April 2007.

The following table provides details of the outturns for the last three years together with the corresponding yearend targets.

Interrupt Category	**12/13 Outturn Inc. Adverse Weather**		12/13 Outturn Exc. Adverse Weather		12/13 KPI Target		**13/14 Outturn**		13/14 KPI Target		**14/15 Outturn Inc. Industrial Action**		14/15 Outturn Exc. Industrial Action		14/15 KPI Target	
	(Props)	(%)	(Props)	(%)	(Props)	(%)	(Props)	(%)	(Props)	(%)	(Props)	(%)	(Props)	(%)	(Props)	(%)
>6 hrs	10,487	1.282	8,731	1.067	7,673	0.94	6,742	0.817	7,473	0.91	43,767	5.285	10,243	1.237	7,273	0.88
>12 hrs	2,607	0.319	1,019	0.125	1,650	0.20	1,195	0.145	1,600	0.19	25,693	3.103	805	0.097	1,550	0.19
>24 hrs	1,554	0.190	62	0.008	80	0.01	12	0.001	80	0.01	13,788	1.665	1	0.000	80	0.01

Note 1: Percentage outturns are based on total connected properties as follows: 817,960 (AIR13); 824,974 (AIR14); 828,060 (AIR15)

The yearend outturns for properties affected by unplanned and unwarned interruptions confirm that NI Water missed all three of its 2014/15 DG3 KPI targets. Target failure was largely attributed to the period of industrial action in December and January. Excluding the impact of industrial action, the Company would still have failed its >6hrs target because of a non-visible burst main in Londonderry on 15 August, a burst main in Coleraine with limited rezoning opportunities on 20 November, and a delayed response by the repair contractor to a burst main in Gilford on 6 February. These and other incidents which had an impact on DG3 performance are discussed in the section on Major Incidents.

In 2013/14, all three yearend outturns were better than the KPI targets. The outturns are thought to have benefited from a mild winter with fewer bursts.

In 2012/13, all three KPI targets were missed. The yearend outturns were heavily influenced by the snow storms and resultant power failures in March 2013. With the impact of the adverse weather removed, NI Water still failed its > 6 hours target because of an incident involving a burst on the 12 inch inlet to Greenhill Gauge Tank.

Properties which suffered an interruption to supply where NI Water considers that customers would not have noticed the loss of service, for example because it occurred at night

Assumption: For the purposes of reporting on this requirement of the commentary, NI Water has considered only those interruptions lasting longer than 3 hours and has assumed that 'night' falls between the hours of 12 midnight and 7am.

The following table provides a summary of those interruption records in 2014/15 whose Interruption Start Date/Time and Supply Restored Date/Time fell within the hours of 12 midnight and 7am.

Interrupt Type	Interrupt No.	Interruption Start		Supply Restored		Duration (Hours)	Properties Affected		
		Date	Time	Date	Time		>0hrs	>3hrs	>6hrs
Planned	EP001	05/06/14	01:00	05/06/14	06:00	5 hrs 0 mins	242	242	0
Planned	EP033	12/08/14	01:00	12/08/14	05:00	4 hrs 0 mins	12	12	0
Unplanned	Event 10631; DG3 556	26/08/14	00:30	26/08/14	05:00	4 hrs 30 mins	10	10	0
Planned	EP002	17/09/14	03:00	17/09/14	06:30	3 hrs 30 mins	74	74	0
Unplanned	Event 11657; DG3 1416	29/11/14	00:26	29/11/14	05:20	4 hrs 54 mins	23	23	0
Unplanned	Event 21942; DG3 11727	29/12/14	00:28	29/12/14	05:00	4 hrs 32 mins	2	2	0
Unplanned	Event 22093; DG3 11839	13/01/15	01:17	13/01/15	04:29	3 hrs 12 mins	71	71	0

Both Customer Field Services and the Leakage function are responsible for interruptions to supply that are of a relatively short duration. Interruptions lasting less than 1 hour are not, as a rule, recorded by NI Water. Routine step tests are carried out at night to reduce the impact of loss of supply to customers and normally last no longer than 3 hours.

4 unplanned interruption records and 3 planned and warned interruption records have been identified where customers would not have noticed the loss of service because it occurred at night. All 7 of the interruptions lasted 6 hours or less. The number of properties affected by unplanned interruptions was 106 representing 0.1% of the total number of properties that experienced an unplanned interruption lasting more than 3 hours in 2014/15 (excluding industrial action). The number of properties affected by planned and warned interruptions was 328 representing 0.7% of the total number of properties that experienced a planned and warned interruption lasting more than 3 hours in 2014/15.

Unplanned: (106 / 72,859) x 100 = **0.1%**
Planned and Warned: (328 / 47,216) x 100 = **0.7%**

NI Water reported in its AIR14 commentary that there were 6 unplanned interruptions and 0 planned and warned interruptions where customers would not have noticed the loss of service because it occurred at night. The number of properties affected by unplanned interruptions was 1,050, representing 2.5% of the total number of properties experiencing unplanned interruptions lasting more than 3 hours in 2013/14.

Number of overruns of planned and warned interruptions lasting between 3 and 6 hours

The following table provides a summary of the 21 overruns of planned and warned interruptions lasting between 3 and 6 hours in 2014/15.

	Interrupt. No.	Month	Duration (hrs)	Properties Affected		Duration Of Overrun (hrs)
				> 0 hrs	> 3 hrs	
1	24542	Apr 14	4 hrs 30 mins	78	78	2 hrs 30 mins
2	24597	Apr 14	5 hrs 0 mins	40	40	1 hr 45 mins
3	EP046	Jun 14	5 hrs 30 mins	39	39	0 hrs 30 mins
4	Event 10177; DG3 133	Jul 14	3 hrs 30 mins	7	7	0 hrs 15 mins
5	Event 71; DG3 58	Jul 14	4 hrs 0 mins	12	12	1 hr 0 mins
6	Event 10525; DG3 431	Aug 14	4 hrs 23 mins	21	21	0 hrs 30 mins
7	Event 10657; DG3 593	Aug 14	5 hrs 0 mins	117	117	3 hrs 0 mins
8	Event 10661; DG3 596	Aug 14	5 hrs 10 mins	36	36	0 hrs 30 mins
9	Event 10601; DG3 540	Aug 14	5 hrs 45 mins	9	9	0 hrs 15 mins
10	Event 10783; DG3 695	Sep 14	3 hrs 15 mins	4	4	1 hr 0 mins
11	Event 10780; DG3 676	Sep 14	5 hrs 25 mins	24	24	0 hrs 40 mins
12	EP050	Sep 14	3 hrs 30 mins	154	154	1 hr 30 mins
13	Event 11237; DG3 1066	Oct 14	4 hrs 4 mins	194	194	1 hr 15 mins
14	EP013	Oct 14	5 hrs 15 mins	34	34	3 hrs 15 mins
15	Event 11522; DG3 1305	Nov 14	3 hrs 10 mins	1	1	0 hrs 40 mins
16	Event 11398; DG3 1198	Nov 14	4 hrs 30 mins	1	1	0 hrs 45 mins
17	Event 11776; DG3 1546	Dec 14	4 hrs 15 mins	137	137	1 hr 15 mins
18	Event 22138; DG3 12040	Jan 15	6 hrs 0 Mins	40	40	4 hrs 30 mins
19	Event 23045; DG3 12665	Mar 15	3 hrs 55 Mins	15	15	0 hrs 20 mins
20	Event 22919; DG3 12554	Mar 15	4 hrs 30 Mins	22	22	0 hrs 30 mins
21	EP005	Mar 15	4 hrs 0 mins	5	5	2 hrs 0 mins

In 2014/15, there were 21 overruns of planned and warned interruptions lasting between 3 and 6 hours. The number of properties affected by these overruns was:

78 + 40 + 39 + 7 + 12 + 21 + 117 + 36 + 9 + 4 + 24 + 154 + 194 + 34 + 1 + 1 + 137 + 40 + 15 + 22 + 5 = **990**

This number is small compared to the number of properties that experienced a planned and warned interruption of between 3 and 6 hours (28,089).

T2: L9 = 47,216
T2: L10 = 19,127
47,216 - 19,127 = **28,089**

NI Water reported in its AIR14 commentary that there were 13 overruns of planned and warned interruptions lasting between 3 and 6 hours. The number of properties affected by these overruns was 1,088.

Number of properties affected by interruptions caused by loss of electrical supply

InterruptNo.	Date of Incident	Duration (Hours)	Properties Affected					Comments
			> 0 Hrs	> 3 Hrs	> 6 Hrs	> 12 Hrs	> 24 Hrs	
24532	04/04/14	3 hrs 15 mins	5	5	0	0	0	Glencull Pumps, Ballygawley (pumps off)
24717	13/05/14	4 hrs 15 mins	2	2	0	0	0	[redacted] Derrygonnelly
24817	14/05/14	4 hrs 45 mins	3	3	0	0	0	Killesher Pumps, Ballygawley (pump tripped)
24933	16/06/14	5 hrs 15 mins	7	7	0	0	0	Doon Pump, Derrylin Reservoir (electric off)
Event 10592; DG3 536	22/08/14	9 hrs 0 mins	23	23	23	0	0	Planned outage - [redacted] Pomeroy
Event 10834; DG3 716	12/09/14	7 hrs 0 mins	18	18	18	0	0	[redacted] Hilltown
Event 10845; DG3 727	14/09/14	4 hrs 19 mins	82	82	0	0	0	Tattykeel Water Pumping Station, [redacted] Omagh
Event 11592; DG3 1420	28/11/14	8 hrs 0 mins	32	32	32	0	0	Planned outage - [redacted], Killeter
Event 11595; DG3 1424	28/11/14	8 hrs 15 mins	5	5	5	0	0	Planned outage - [redacted] Castlederg
Event 11589; DG3 1418	28/11/14	8 hrs 30 mins	64	64	64	0	0	Planned outage - [redacted] Aghyaran
Event 11591; DG3 1423	28/11/14	8 hrs 30 mins	12	12	12	0	0	Planned outage - [redacted], Killeter
Event 11587; DG3 1421	28/11/14	11 hrs 20 mins	19	19	19	0	0	Planned outage - [redacted], Killeter
Event 22832; DG3 12474	26/02/15	5 hrs 39 mins	21	21	0	0	0	Belraugh Water Pumping Station, [redacted] Garvagh

Number of properties affected by interruptions caused by loss of electrical supply

The table on the previous page provides a summary of the 7 records in 2014/15 relating to unplanned unwarned water supply interruptions caused by electricity supply failures and lasting more than 3 hours. Also included are 6 records relating to planned electricity supply outages which resulted in planned unwarned water supply interruptions with durations of more than 3 hours.

No incidents were of particular significance this year in terms of numbers of properties affected or duration and the impact on reported outturns has been marginal. No properties experienced an interruption of more than 12 hours as a result of the incidents.

Percentage impact of electricity supply failures on annual outturns

	> 3 Hrs	> 6 Hrs	> 12 Hrs	> 24 Hrs
Number of Properties Affected by Electricity Supply Failures	138	18	0	0
Number of Properties Affected by Planned Electricity Supply Outages	155	155	0	0
Number of Properties Affected by Unplanned Interruptions (including Industrial Action)	112,653	43,767	25,693	13,788
Number of Properties Affected by Unplanned Interruptions (excluding Industrial Action)	72,859	10,243	805	1
Percentage Impact (including Industrial Action)	0.26%	0.40%	0.00%	0.00%
Percentage Impact (excluding Industrial Action)	0.40%	1.69%	0.00%	0.00%

The impact of the electricity supply failures and planned outages was greatest on the >6hr outturn, accounting for 1.69% of the total number of properties affected by unplanned interruptions, excluding industrial action.

Percentage impact of electricity supply failures on target compliance

	> 6 Hrs	> 12 Hrs	> 24 Hrs
Percentage of Connected Properties Affected by Electricity Supply Failures	0.021%	0.000%	0.000%
KPI Target	0.878%	0.187%	0.010%
Percentage of Annual Target	2.38%	0.00%	0.00%

The impact of the electricity supply failures and planned outages was greatest on >6hr KPI target compliance, amounting to 2.38% of the annual target.

Major incidents during the report year that NI Water believes adversely affected its DG3 performance

The following table provides a summary of the 43 supply interruption incidents during 2014/15 that lasted more than 3 hours and which were mentioned in the Company's Upward Reports. *For full details of these incidents, please refer to the Upward Reports.*

Ref	Interrupt No.	Date of Incident	Description of Incident	Duration	>0 hrs	>3 hrs	>6 hrs	>12 hrs	>24 hrs	Category
001	24587	04/05/14	Burst main, [redacted] Belfast	5 hrs 0 mins	72	72	0	0	0	3
002	24585	04/05/14	Burst main, [redacted], Carryduff	4 hrs 0 mins	5	5	0	0	0	3
003	24936	07/05/14	Third party caused a burst main in Eglinton DMA	6 hrs 0 mins	142	142	0	0	0	3
004	24971	20/05/14	Storage issues at Ballygowan SR, Ballygowan	10 hrs 0 mins	1	1	1	0	0	3
	24969			4 hrs 0 mins	301	301	0	0	0	
005	24756	21/05/14	Burst 900mm DI trunk main, McVeighs Well, Newtownabbey	12 hrs 0 mins	245	245	117	0	0	2
	24805			2 hrs 45 mins	24	0	0	0	0	
	24803			2 hrs 15 mins	24	0	0	0	0	
	24894	22/05/14		5 hrs 30 mins	12	12	0	0	0	
006	24879	24/05/14	Burst 12" CI trunk main, Whiteabbey	17 hrs 0 mins	413	413	203	58	0	3
007	24880	26/05/14	Hydrant abuse, [redacted] Belfast	3 hrs 30 mins	50	50	0	0	0	3
008	24977	04/06/14	Burst on outlet to Stang SR, Castlewellan	4 hrs 0 mins	2	2	0	0	0	3
	24976			2 hrs 0 mins	2	0	0	0	0	
009	24978	06/06/14	Telemetry failure, Tullyhappy SR	5 hrs 0 mins	7	7	0	0	0	3
010	24912	07/06/14	Burst on inlet to Lagavara SR, [redacted] Ballintoy	4 hrs 30 mins	204	204	0	0	0	3
011	24952	09/06/14	Burst in [redacted] of Ballygawley	16 hrs 0 mins	44	44	44	3	0	3
012	24989	11/06/14	Loss of supply during new mains tie-in, Drumaroad Distribution System, [redacted] Downpatrick	4 hrs 0 mins	227	227	0	0	0	3
013	24871	13/06/14	Burst main, [redacted] Brookeborough	9 hrs 0 mins	40	5	5	0	0	3
014	**24980**	**21/06/14**	**Burst main & faulty pumps,**	**18 hrs 15 mins**	**19**	**19**	**19**	**19**	**0**	**3**

Ref	Interrupt No.	Date of Incident	Description of Incident	Duration	>0 hrs	>3 hrs	>6 hrs	>12 hrs	>24 hrs	Category
	24979		**Dromore - Dromara Area (Ballykeel Drumlough DMA)**	**14 hrs 0 mins**	**78**	**78**	**78**	**78**	**0**	
	24984	**22/06/14**		**18 hrs 45 mins**	**13**	**13**	**13**	**13**	**0**	
	24981			**13 hrs 45 mins**	**12**	**12**	**12**	**12**	**0**	
	24982			**11 hrs 30 mins**	**12**	**12**	**12**	**0**	**0**	
	24983			**5 hrs 0 mins**	**18**	**18**	**0**	**0**	**0**	
015	24955	22/06/14	Burst main, [redacted] Killinchy	3 hrs 30 mins	14	14	0	0	0	3
	24956			3 hrs 0 mins	6	0	0	0	0	
016	24917	23/06/14	Burst main, [redacted] Ballymena	10 hrs 0 mins	56	56	56	0	0	3
017	24937	24/06/14	Human error led to issues at Moydamlaght SR, Draperstown	7 hrs 30 mins	10	10	2	0	0	3
018	25004	24/06/14	Third party caused a burst trunk main at [redacted] Ballynure	11 hrs 0 mins	311	311	311	0	0	3
019	Event 10665; DG3 597	17/07/14	Burst main, [redacted] Downpatrick *Note: Only the maximum duration is listed for DG3 597 & 598.	10 hrs 32 mins*	382	265	152	0	0	3
	Event 10704; DG3 598			4 Hrs 44 Mins*	362	256	0	0	0	
	Event 124; DG3 588			3 hrs 0 mins	359	0	0	0	0	
020	Event 10212; DG3 170	25/07/14	Burst main, Rehaghy DMA, Aughnacloy	4 hrs 31 mins	417	417	0	0	0	3
021	**Event 10507; DG3 409**	**15/08/14**	**Burst main, [redacted], Londonderry**	**9 hrs 15 mins**	**742**	**742**	**742**	**0**	**0**	**3**
022	Event 10897; DG3 762	06/09/14	Interruption to supply in Magherally to Drumnavaddy DMA	11 hrs 50 mins	67	67	67	0	0	3
023	Event 10878; DG3 849	18/09/14	Burst on pumping main from Mullaghdrin SR, Dromara	10 hrs 30 mins	13	13	13	0	0	3
024	Event 10907; DG3 773	19/09/14	Burst main, [redacted] Ballycastle	3 hrs 50 mins	436	436	0	0	0	3

Ref	Interrupt No.	Date of Incident	Description of Incident	Duration	>0 hrs	>3 hrs	>6 hrs	>12 hrs	>24 hrs	Category
025	Event 10964; DG3 883	24/09/14	Burst main, Bishopsmills DMA, Portaferry	6 hrs 42 mins	7	7	7	0	0	4
026	Event 11188; DG3 1009	17/10/14	Burst main, [redacted] Glenarm	5 hrs 7 mins	47	47	0	0	0	3
				1 hr 50 mins	353	0	0	0	0	
027	Event 11280; DG3 ID 1094	24/10/14	Burst main, Carrowdore Road, Greyabbey	11 hrs 1 min	34	34	34	0	0	3
				5 hrs 40 mins	553	553	0	0	0	
				1 hr 15 mins	18	0	0	0	0	
028	Event 11294; DG3 ID 1087	25/10/14	Burst main, [redacted] Newtownabbey	4 hrs 17 mins	30	30	0	0	0	3
029	Event 11370; DG3 ID 1163	30/10/14	Intermittent loss of supply to properties served by Calone DMA	5 hrs 20 mins	121	121	0	0	0	3
	Event 11380; DG3 ID 1628	01/11/14		5 hrs 56 mins	139	139	0	0	0	
030	EP042	11/11/14	Overrun of planned interruption, [redacted] Portglenone	10 hrs 43 mins	434	434	434	0	0	3
031	Event 11490; DG3 ID 1275	15/11/14	Burst main, [redacted] Londonderry	4 hrs 35 mins	1,605	1,605	0	0	0	3
032	Event 11493; DG3 ID 1274	15/11/14	Burst main, Burnpipe Lane, Burren, Ballynahinch	17 hrs 52 mins	7	7	7	7	0	3
033	**Event 11527; DG3 ID 1316**	**20/11/14**	**Burst main, McCracken's DMA, Coleraine**	**12 hrs 55 mins**	**18**	**18**	**18**	**18**	**0**	**3**
				12 hrs 20 mins	**17**	**17**	**17**	**17**	**0**	
				11 hrs 45 mins	**99**	**99**	**99**	**0**	**0**	
				11 hrs 15 mins	**149**	**149**	**149**	**0**	**0**	
				11 hrs 0 mins	**12**	**12**	**12**	**0**	**0**	
				11 hrs 0 mins	**37**	**37**	**37**	**0**	**0**	
				10 hrs 45 mins	**23**	**23**	**23**	**0**	**0**	
				10 hrs 30 mins	**14**	**14**	**14**	**0**	**0**	
				10 hrs 30 mins	**32**	**32**	**32**	**0**	**0**	
				10 hrs 20 mins	**2**	**2**	**2**	**0**	**0**	
				10 hrs 10 mins	**13**	**13**	**13**	**0**	**0**	

Ref	Interrupt No.	Date of Incident	Description of Incident	Duration	>0 hrs	>3 hrs	>6 hrs	>12 hrs	>24 hrs	Category
				10 hrs 0 mins	**35**	**35**	**35**	**0**	**0**	
				9 hrs 40 mins	**91**	**91**	**91**	**0**	**0**	
				9 hrs 30 mins	**306**	**306**	**306**	**0**	**0**	
				9 hrs 0 mins	**22**	**22**	**22**	**0**	**0**	
				9 hrs 0 mins	**52**	**52**	**52**	**0**	**0**	
034	Event 11802; DG3 ID 1548	10/12/14	Overrun of a planned and warned interruption to repair a burst main at [redacted] Comber	10 hrs 15 mins	571	571	571	0	0	3
The following table entry represents all incidents that occurred during a period of industrial action from 22 December to 21 January. Incidents were managed under a Category 1 incident regime. During this time, upward reports covered multiple incidents.										
035	**Numerous**	**22/12/14 to 21/01/15**	**Industrial Action**	**Numerous**	**45,859**	**39,794**	**33,524**	**24,888**	**13,787**	**1**
The following incidents occurred after the suspension of industrial action										
036	Event 22398; DG3 ID 12122	29/01/15	Burst main, Cargan DMA, Ballymena	3 hrs 30 mins	16	16	0	0	0	3
037	Event 22428; DG3 ID 12143	01/02/15	Third party caused a burst trunk main at [redacted] Lurgan	11 hrs 42 mins	3	3	3	0	0	3
				4 hrs 57 mins	2,681	2,681	0	0	0	
038	Event 22560; DG3 ID 12241	06/02/15	Burst trunk main, [redacted], Maghera	3 hrs 30 mins	6	6	0	0	0	3
039	Event 22616; DG3 ID 12775	11/02/15	Burst on outlet at Crawfordsburn SR, Bangor	7 hrs 20 mins	172	172	172	0	0	3
	Event 22633; DG3 ID 12299			3 hrs 50 mins	6	6	0	0	0	
040	Event 22639; DG3 ID 12313	12/02/15	Burst main, [redacted] Newry	10 hrs 52 mins	141	141	141	0	0	3
041	Event 22684; DG3 ID 12521	17/02/15	Burst main, [redacted] Coalisland	7 hrs 0 mins	13	13	13	0	0	3

Ref	Interrupt No.	Date of Incident	Description of Incident	Duration	>0 hrs	>3 hrs	>6 hrs	>12 hrs	>24 hrs	Category
042	Event 23018; DG3 ID 12661	20/03/15	Burst main and resultant airlocks, [redacted], Antrim	14 hrs 57 mins	18	18	18	18	0	3
				3 hrs 57 mins	8	8	0	0	0	
	Event 23059; DG3 ID 12719			1 hr 15 mins	13	0	0	0	0	
043	Event 23093; DG3 ID 12728	25/03/15	Burst main, [redacted] South Belfast	3 hrs 26 mins	2,681	2,681	0	0	0	3

NI Water assumes a monthly target allowance of one seventeenth of the yearend target from April to October and a monthly target allowance of two seventeenths of the yearend target from November to March. The allowance is doubled from November to March to account for freeze-thaw conditions and an associated rise in the numbers of bursts.

The KPI targets as percentages and numbers of total connected properties are listed below, together with the corresponding monthly target allowances.

KPI	2014/15 Target		Monthly Target Allowance			
			Apr to Oct		Nov to Mar	
	%	Properties	%	Properties	%	Properties
>6hrs	0.878	7,273	0.052	428	0.103	856
>12hrs	0.187	1,550	0.011	91	0.022	182
>24hrs	0.010	80	0.001	5	0.001	9

In order to determine the unplanned interruption events which had the greatest negative impact on performance in 2014/15, the Company compared the monthly actuals with the three KPI target profiles and identified **14** instances where a target was exceeded. These instances are highlighted in bold text in the table below.

		Jun	Jul	Aug	Sep	Nov	Dec	Jan	Feb	Mar
>6 hour	Actual	**652**	414	**1250**	**653**	**1,526**	**1,827**	**33,745**	**2,458**	587
	Target	428	428	428	428	856	856	856	856	856
>12 hour	Actual	**125**	**108**	27	56	127	**283**	**24,683**	2	**220**
	Target	91	91	91	91	182	182	182	182	182
>24 hour	Actual	0	0	0	0	0	**21**	**13,766**	1	0
	Target	5	5	5	5	9	9	9	9	9

The Company then reviewed its DG3 Register and identified the 9 incidents responsible for the underperformance. The incidents are summarised below, starting with the incidents that occurred before and after the period of industrial action.

Major Incidents

Burst 12" trunk main, [redacted], Downpatrick *(Ref: Interrupt No. 24990)*
On 12 June, 264 properties in Downpatrick experienced an unplanned interruption of 6 hours 15 minutes as a result of a burst 12" trunk main. The impact of this incident in terms of percentages of connected properties affected was 0.032% >6hrs.

Supply Failure, [redacted] [redacted] Hillsborough (Ballykeel Drumlough DMA) *(Ref: Interrupt Nos. 24979 to 24984)*
On 21 and 22 June, 134 properties in the Dromore/Dromara area experienced an unplanned interruption because of a burst main and faulty pumps. This incident was the subject of Upward Report 014. The impact of this incident in terms of percentages of connected properties affected was 0.016% >6hrs and 0.015% >12hrs.

Burst main, [redacted], Londonderry *(Ref: Event ID 84 / DG3 ID 64)*
On 10 July, 52 properties in the [redacted] of Londonderry experienced an unplanned interruption of 14 hours 5 minutes as a result of a burst distribution main. The impact of this incident in terms of percentages of connected properties affected was 0.006% >6hrs and 0.006% >12hrs.

Burst main, [redacted] Londonderry *(Ref: Event ID 10507; DG3 ID 409)*
On 15 August, 742 properties served by [redacted] in Londonderry experienced an overnight loss of supply caused by a non-visible burst main at Bay Road. This incident was the subject of Upward Report 021. The impact of this incident in terms of percentages of connected properties affected was 0.090% >6hrs.

Burst main, [redacted], Portadown *(Ref: Event ID 10999; DG3 ID 860)*
On 29 September, 174 properties in Portadown experienced an unplanned interruption of 9 hours 37 minutes because of a burst distribution main. The impact of this incident in terms of percentages of connected properties affected was 0.021% >6hrs.

Burst main, [redacted], Coleraine *(Ref: Event ID 11527; DG3 ID 1316)*
On 20 November, 922 properties served by McCracken's DMA in Coleraine experienced an unplanned interruption of more than 6 hours because of a burst distribution main. 35 of the properties did not have their supplies restored for almost 13 hours. Rezoning opportunities were limited. This incident was the subject of Upward Report 033. The impact of this incident in terms of percentages of connected properties affected was 0.111% >6hrs and 0.004% >12hrs.

Burst main, [redacted], Portadown *(Ref: Event ID 22555; DG3 ID 12228)*
On 6 February, 931 properties served by Moyallen Gilford DMA in Portadown experienced an unplanned interruption of 7.5 hours because of a burst distribution main. The response time was delayed as other bursts in the same area were being repaired. The impact of this incident in terms of percentages of connected properties affected was 0.112% >6hrs.

Burst main, [redacted] Ballinamallard *(Ref: Event ID 23066; DG3 ID 12672)*
On 22 March, 126 properties in Ballinamallard experienced an unplanned interruption of almost 15 hours because of a burst in a distribution main that was difficult to locate. As the interruption occurred at 23:07, the decision was taken to postpone the repair until the following morning. The impact of this incident in terms of percentages of connected properties affected was 0.015% >6hrs and 0.015% >12hrs.

Industrial Action – 22 December to 21 January

During the period of industrial action, issues were managed under either a BAU protocol (if an issue could be dealt with within working hours) or an MIP protocol (if an issue was unable to be dealt with within working hours).

During the period of industrial action, supply interruptions occurred for a variety of reasons. The majority of issues related to water treatment works and the impact this had on the ability to keep service reservoirs from running low. 11 of NI Water's 23 water treatment works experienced operational issues and around 40 of NI Water's 346 service reservoirs were affected by drain-down. Other issues included airlocks in mains and pump equipment failures.

As well as the impact of issues at water treatment works, the Company also dealt with 120 burst mains, 78 under the BAU protocol and 42 under the MIP protocol. Although a TU Protocol was in place from 22 December to 4 January and contractors were used to valve

off bursts, no rezoning was carried out and the numbers of affected properties were higher than usual.

When calculating the numbers of properties affected by each incident, the following criterion was applied:

- The properties affected by an interruption caused by a burst main included those properties between the valves used to isolate the main plus those additional properties corresponding to the customer call data
- The properties affected by service reservoir drain-down were based on only those properties corresponding to the customer call data

Based on an assessment of interruption events i.e. interruptions that occurred more than one hour apart and were therefore classed as two separate incidents, a total of 45,859 properties experienced an interruption to supply during the period of industrial action.

The number of properties that experienced an unplanned interruption lasting more than 6 hours was four and a half times the Company's full year target and the number of properties that experienced an unplanned interruption lasting more than 12 hours was sixteen times the Company's full year target.

The following table provides a summary of the numbers of issues dealt with during the period of industrial action under either the BAU protocol or the MIP protocol.

Cause of Interruption	**Number of Interruption Events**
BAU Protocol	
Airlock in Main	1
Burst Main/Main Repair	78
Electricity Supply Failure	1
Replacement Fitting (e.g. SV, FH)	6
Service Pipe Repair	2
MIP Protocol	
Airlock in Main	1
Burst Main/Main Repair	42
Low service Reservoir	55
Other	1
Pump Equipment Failure	14
Replacement Fitting (e.g. SV, FH)	2
TOTAL	**203**

The following table provides a summary of the various issues encountered during the period of industrial action and the associated numbers of properties affected by each issue for 6 different time bands.

Justification of the assigned confidence grades including an explanation for any changes in confidence grades from previous years

The AIR09 Reporter recommended the use of consistent accuracy bands. This year, the Company has assigned a '**B3**' confidence grade to all DG3 outturns, the same confidence grade as previous years.

DG3 ID	BAU/ MIP	Cause of Interruption	Number of Properties Affected					
			>0hrs	>3hrs	>6hrs	>12hrs	>24hrs	>48hrs
		Camlough Derry Beg WTW						
11863	MIP	Low Service Reservoir	33	33	0	0	0	0
		Carran Hill WTW						
1698	MIP	Low Service Reservoir	32	31	31	11	0	0
		Castor Bay WTW						
12082	MIP	Pump Equipment Failure	357	36	0	0	0	0
		Caugh Hill WTW						
(8 no.)	MIP	Low Service Reservoir	2,926	2,926	2,926	2,828	2,450	553
		Derg WTW						
11864, 11874	MIP	Low Service Reservoir	246	246	246	246	49	49
		Killyhevlin WTW						
(5 no.)	MIP	Low Service Reservoir	6,079	6,079	6,079	4,617	1,749	0
11867, 11890	MIP	Pump Equipment Failure	381	381	102	102	0	0
		Killylane WTW						
11700, 11701	MIP	Pump Equipment Failure	43	11	11	0	0	0
		Lough Bradan WTW						
(19 no.)	MIP	Low Service Reservoir	12,540	12,530	11,628	7,532	6,523	1,996
		Lough Fea WTW						
11879	MIP	Airlock in Main	344	344	344	344	0	0
(9 no.)	MIP	Low Service Reservoir	6,943	6,943	6,943	4,815	1,349	0
11878, 12473	MIP	Pump Equipment Failure	230	230	230	230	230	230
		Lough Macrory WTW						
(7 no.)	MIP	Low Service Reservoir	2,772	2,766	2,694	2,554	1,418	1,229
		Seagahan WTW						
11727, 11730	MIP	Low Service Reservoir	127	117	95	41	0	0
		Other Issues						
11778	BAU	Airlock in Main	71	71	0	0	0	0
(73 no.)	BAU	Burst Main/Main Repair	6,727	2,644	180	0	0	0
11707	BAU	Electricity Supply Failure	39	0	0	0	0	0
(6 no.)	BAU	Replacement Fitting	442	269	69	69	0	0
11725	BAU	Service Pipe Repair	155	0	0	0	0	0
(42 no.)	MIP	Burst Main/Main Repair	3,209	2,048	648	204	2	0
11715	MIP	Low Service Reservoir	757	757	0	0	0	0
11750	MIP	Other	12	0	0	0	0	0
(6 no.)	MIP	Pump Equipment Failures	84	69	35	32	17	0
11742, 11765	MIP	Replacement Fitting	1,310	1,263	1,263	1,263	0	0
		GRAND TOTAL	**45,859**	**39,794**	**33,524**	**24,888**	**13,787**	**4,057**

Justification of Reliability Band 'B'

- There was no reliance on unconfirmed verbal reports, cursory inspections or analysis. Every record in the DG3 Register represented an interruption to supply

where the cause was identified and the details were recorded by experienced field staff or contractors.
- There was no reliance on extrapolation from a limited sample for which Grade A or B data was available. Every outturn reported in Table 2 Lines 5 to 19 was derived from the interruption records in the DG3 Register. Every interruption record included the category, cause, key dates and times, address details, and property counts necessary to meet the regulatory reporting requirements of a DG3 Register.
- Although the Company considers its records, procedures, investigations and analysis to be properly documented, its assessment was not recognised as the best method during the earlier half of 2014/15.
- There were minor shortcomings relating to the earlier half of 2014/15. There may have been some missing documentation in the form of missing address details and some short duration interruptions may not have been captured.

Justification of Accuracy Band '3'

Whilst there is a possibility that some interruptions may have been overlooked when compiling the DG3 Register, NI Water does not believe their exclusion would account for more than 10% of either the total numbers of properties reported or the total number of incidents.

There is also a possibility that the start and end times of some interruptions may have been subject to inaccuracies, resulting in property counts being assigned to the wrong time bands. Again, NI Water does not believe that these inaccuracies would exceed 10%.

Central Incident Management System (CIMS)

The assessment above is based on the fact that for the first three months of 2014/15, the Company's processes and procedures for capturing and recording the details of supply interruptions remained unchanged from previous years. However, on 4 July 2014 the Operations Management Information System (OMIS) was replaced by the Central Incident Management System (CIMS). The aim of CIMS was to improve the reliability and accuracy of reported outturns by addressing all previously identified issues associated with OMIS data capture and reporting.

Benefits of the new system include the following:
- Improved customer response times
- Improved consistency of methodology across all work streams
- Improved accuracy of information through:
    - the recording of start times by Work Controllers/Telemetry Operators
    - the recording of individual start and restoration times for each property as opposed to each event
    - the recording of times to the nearest minute
- Improved utilisation of other key systems e.g. the GIS as a source of address information
- Improved auditability of information through query, change and approval status tracking
- Better management of approval chains through the automatic generation of e-mailed reminders
- Improved report generation
- Improved accessibility and sharing of information across the business
- Enhanced effectiveness of the DG3 Register through the capture of additional information such as pipe material and diameter and the GIS co-ordinates of bursts

Based on an assessment of data captured by CIMS since its implementation in July and excluding the months of December and January when the numbers of unplanned interruptions were atypical due to the impact of industrial action, there has been an increase in the number of unplanned interruptions captured with a duration of more than 3 hours. The Company appreciates that until the new system has been in operation for a complete year, it will not be possible to fully assess the associated benefits.

This year has seen a steep learning curve for all users of the new system which, for the first time, includes Work Controllers, Telemetry Operators, Duty Officers as well as all levels of staff within Operations.

The Company feels that it would be inappropriate to assign an improved confidence grade for 2014/15, particularly as OMIS continued to be used for the first three months of the year and during the July/August transition period, the quality of information captured via the new system was comparable to the quality of information captured via OMIS. For these reasons, the Company has assigned the same '**B3**' confidence grade as previous years.

Audit Checks

NI Water carries out a number of audit checks aimed at ensuring that the data in its Annual Information Return is both reliable and accurate and that the confidence grade is justified.

During the year, Networks Water generated a total of 1,550 records of interruptions lasting more than 3 hours (some relating to the same events). All records were checked for accuracy and completeness by the Customer Field Managers. Following the extraction of data to spreadsheets, checks were carried out by Customer Systems to ensure that the data remained consistent with OMIS/CIMS and that no records had been inadvertently deleted or duplicated during migration between worksheets.

During the year, EP generated a total of 413 records of interruptions lasting more than 3 hours. A random sample of 48 records, 4 per month, was checked against the corresponding Interruption Record Sheets to ensure that the details had been accurately transcribed. This represents 11.6% of records.

During the year, all interruption records were checked by Customer Systems to ensure that:

- Customers experiencing planned and warned interruptions were provided with adequate advanced notification,
- Interruptions caused by companies working for, or on behalf of NI Water were correctly classed as 'unplanned',
- Interruptions caused by electricity supply failures were correctly classed as 'unplanned',
- Planned interruptions that started before the Planned Start Time were correctly classed as 'unplanned',
- Planned interruptions that finished after the Planned Finish Time were correctly classed as overruns,
- Property counts were not omitted or added in error, and
- All calculations involving the summation of property counts were correct.

'No Water' Complaint Comparisons

Throughout 2014/15, the Company has continued to review the records of 'no water' complaints and to amend the DG3 records where appropriate.

Upward Report Comparisons

Excluding the period of industrial action, 103 upward reports were circulated within NI Water during the year relating to water supply/distribution issues of which, 43 related to an unplanned loss of supply to properties lasting more than 3 hours. The DG3 Register was periodically checked to ensure that there was at least one interruption record to represent the properties affected by each of the 43 incidents identified. As incidents necessitating the circulation of upward reports involve the greatest durations and numbers of affected properties, NI Water is confident that there are no major omissions from the unplanned, unwarned and third party interruption outturns.

Planned and Warned Interruptions – Refinement of Warned Duration

The average difference between the warned duration and actual duration of EP planned and warned interruptions, continues to reduce. In 2014/15, there were 390 EP planned and warned interruptions lasting more than 3 hours. The average difference between the warned duration and actual duration was 55 minutes. In 2013/14, there were 647 EP planned and warned interruptions lasting more than 3 hours. The average difference between the warned duration and actual duration of these interruptions was 1 hour 15 minutes. This illustrates NI Water's commitment to improving customer satisfaction.

Line 20 - Population (winter)

Note: All calculations relating to Line 20 were originally performed with the aid of a spreadsheet. For the purposes of the commentary, figures have been rounded and may give rise to rounding errors if used.

The following table provides a summary of the monthly numbers of bed-spaces sold for hotel, guesthouse and B&B establishments in Northern Ireland in 2014. The information was derived from Table 1.3 of the NISRA publication *'Hotel, Guesthouse, Bed and Breakfast and Guest Accommodation Occupancy Statistics 2011-2014'*, available as a download from the Department of Enterprise, Trade and Investment *(DETINI)* website. NI Water has used the information to calculate the percentage of annual bed-spaces sold each month.

MONTH	HOTEL BED-SPACES SOLD	GUESTHOUSE & B&B BED-SPACES SOLD	TOTAL BED-SPACES SOLD	PERCENTAGE OF ANNUAL BED-SPACES SOLD
Jan-14	163,356	19,278	182,634	5.26%
Feb-14	176,690	19,100	195,790	5.64%
Mar-14	220,035	28,585	248,621	7.16%
Apr-14	240,852	36,394	277,246	7.98%
May-14	269,857	55,381	325,238	9.36%
Jun-14	283,832	57,681	341,513	9.83%
Jul-14	295,188	72,955	368,143	10.60%
Aug-14	329,836	87,542	417,378	12.02%
Sep-14	273,197	58,784	331,981	9.56%
Oct-14	256,094	40,897	296,990	8.55%
Nov-14	228,139	30,785	258,924	7.46%
Dec-14	202,407	26,169	228,576	6.58%
Total	**2,939,483**	**533,552**	**3,473,035**	**100.00%**

The following statistic was derived from Table 1.4 of the NISRA publication *'Northern Ireland Annual Tourism Statistics 2014 Additional Tables'*, available as a download from the DETNI website.

	Date Range	Overall Nights
All Visitors (exc. NI Residents)	Jan 14 – Dec 14	10,016,208

Estimated non-resident visitor nights from Jan 14 to Dec 14 = 10,016,208.

Using the statistics on the previous page and the estimated number of non-resident visitor nights above, the number of non-resident winter visitor nights was estimated as follows:

Assumption: The regulatory guidance for AIR Table 2 Line 20 does not define the meaning of *'winter'*. For the purposes of this calculation, the winter months are deemed to be the six months in the year with the lowest percentage bed-spaces sold i.e. January, February, March, April, November and December. The percentage bed-spaces sold during the winter is the summation of the percentages for these six months.

Percentage bed-spaces sold during winter =
5.26 + 5.64 + 7.16 + 7.98 + 7.46 + 6.58 = 40.07%

Estimated non-resident winter visitor nights =
= (10,016,208 / 100) x 40.07 = 4,013,917

According to AIR15: Table 7: Line 17, the baseline resident population was 1,840.54 x 10^3.

Using the baseline resident population and the estimated number of non-resident winter visitor nights above, the winter population was estimated as follows:

Estimated average non-resident winter visitors per night =
4,013,917 / (31 + 28 + 31 + 30 + 30 + 31) = 22,176

Population (winter) = 1,840,540 + 22,176 = **1,862,716**.

Changes in Methodology

Tourism publications have undergone a number of changes in recent years. As well as changes to the consistency and scope of publications, the tourism estimates have been subject to a series of revisions due to improvements to the survey / analysis methodology or the inclusion of data returned after the publication date. Each year, NI Water reviews all of the latest publications and adopts a methodology which best utilises the information available at the time.

Last year, NI Water stated in its commentary that a new NISRA publication *'Northern Ireland Tourism Statistics October 2012 to September 2013'* had replaced the earlier style of tourism report and as such, the Company had revised its methodology in line with the availability of more reliable information on overseas plus RoI tourists combined. The Company also explained that when the AIR13 outturn was recalculated using the AIR14 methodology, the outturn changed from 1,842,612 to 1,841,390, a change of 0.07%.

This year, the Company has used the NISRA publication *'Northern Ireland Annual Tourism Statistics 2014 Additional Tables'* which lists the estimated annual number of non-resident visitor nights and has removed the need to calculate this figure using available data for the first nine months only. For the purposes of calculating the non-resident winter visitor

nights, the methodology is still based on the assumption that there is a relationship between the occupancy of hotels and guesthouses/B&Bs and visitor nights. As year-on-year differences in the outturns for this measure continue to be small and the estimates involved make trends difficult to identify, the Company has recalculated the AIR14 outturn using data now available for overseas plus RoI tourists combined for the entire twelve-month period of 2013 and confirms a change from 1,850,543 to 1,850,251 (0.02%).

Significant year on year changes in reported figures including an explanation of any factors that may have influenced the figures

AIR13	Confidence Grade	AIR14	Confidence Grade	AIR15	Confidence Grade
$1,842.61 \times 10^3$	C2	$1,850.54 \times 10^3$	C2	**$1,862.72 \times 10^3$**	**C2**

The revised estimated winter population has increased from $1,850.25 \times 10^3$ in AIR14 to $1,862.72 \times 10^3$ in AIR15, an increase of 12.47×10^3 (0.67%). This slight increase can be attributed to changes in the component figures that make up this figure.

The estimated number of hotel bed-spaces sold in 2014 (2,939,483) was higher than the revised estimate for 2013 (2,896,193). The estimated number of non-resident visitor nights in 2014 (10,016,208) was also higher than the revised estimate for 2013 (9,909,892). The NISRA publication 'Northern Ireland Tourism Statistics 2014' points towards growth in local tourism.

Confidence Grade

Population (winter) is an estimate based on several sources of information:

1. The NISRA publication '*Hotel, Guesthouse, Bed and Breakfast and Guest Accommodation Occupancy Statistics 2011-2014*' provides only an estimate of the monthly numbers of bed-spaces sold, based on the extrapolation of data for a representative sample group of establishments.
2. The NISRA publication *'Northern Ireland Annual Tourism Statistics 2014 Additional Tables'* provides only an estimate of the annual number of non-resident visitor nights, based on sample surveys. The estimate therefore has an associated degree of sampling error, determined both by the sample design and by the sample size. Sample surveys include the Northern Ireland Passenger Survey (NIPS) conducted by the Northern Ireland Statistics and Research Agency (NISRA), the Survey of Overseas Travellers (SOT) conducted on behalf of Fáilte Ireland and the Household Travel Survey (HTS) conducted by Central Statistics Office (CSO).

NI Water has assigned a confidence grade of **C2** to account for known deficiencies in the reliability and accuracy of the reported figure. Although there have been changes in the methodology, data confidence is still believed to be comparable to previous years.

The "2" has been assigned because even if all visits occurred in the winter, the difference in the calculated winter population would only be 33,162 (+1.78%). *(see calculation below)*

10,016,208 / (31 + 28 + 31 + 30 + 30 + 31) = 55,338 non-resident visitors
1,840,540 + 55,338 = 1,895,878 residents + non-resident visitors
1,895,878 - 1,862,716 = 33,162
(33,162 / 1,862,716) x 100 = 1.78%

Annex A – Line Methodology for Table 2

A) Properties Receiving Pressure/Flow Below Reference Level

Line 1 – Total Connected Properties at Year End

The total number of properties (domestic and non-domestic) connected to the distribution system at the end of the 2014/2015 reporting year. This includes properties which are connected but not billed (for example, temporarily unoccupied) but excludes properties which have been permanently disconnected (for example logical demolitions).

This figure is calculated from the Rapid Property Summary for AIR14 (dated 31st March, 2015) as attached.

Rapid Property Summary - Mar 2015.

Total Connected properties at Year End	AIR15
Extant Property Total	863999
less	
Domestic no water / well water	15088
Domestic sewerage only	6
Non-domestic no water / well water	5247
Non-domestic sewerage only	19
Non-domestic measured – not charged (test meters)	976
Non-domestic site meters	13901
Non-domestic trade effluent	85
Non-domestic unmeasured – not charged	604
Invalid Classification	13
Total Connected Properties at Year End	**828060**

NORTHERN IRELAND WATER LIMITED -ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 3 KEY OUTPUTS
SEWERAGE SERVICE - INTERNAL FLOODING (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**DG5 ANNUAL FLOODING SUMMARY**										
1	Number of domestic properties connected to sewerage system	000	1	618.5	A2	623.3	A2	628.3	B2	630.0	A2
	(I) OVERLOADED SEWERS										
2	Properties flooded in the year (overloaded sewers)	nr	0	10	B3	189	B3	6	B2	28	B2
3	Flooding incidents in the year (overloaded sewers)	nr	0	15	B3	189	B3	6	B2	29	B2
4	Flooding incidents (overloaded sewers attributed to severe weather)	nr	0	1	B3	181	B3	5	B2	3	B2
4a	Properties flooded in the year attributed to severe weather	nr	0	1	B3	181	B3	5	B2	3	B2
5	Props. where flooding limited to uninhabited cellars only (o/loaded sewers)	nr	0	0	B3	0	B3	0	B2	0	B2
	(ii) OTHER CAUSES										
6	Properties flooded in the year (other causes)	nr	0	23	B3	41	B3	55	B2	52	B2
7	Properties which have flooded more than once in the last ten years (other causes)	nr	0	6	B3	15	B3	26	B2	8	B2
8	Flooding incidents (other causes - equipment failures)	nr	0	4	B3	15	B3	14	B2	2	B2
9	Flooding incidents (other causes - blockages)	nr	0	17	B3	22	B3	36	B2	38	B2
10	Flooding incidents (other causes - collapses)	nr	0	2	B3	4	B3	5	B2	12	B2
11	Props. where flooding limited to uninhabited cellars only (other causes)	nr	0	0	B3	0	B3	0	B2	0	B2
B	**DG5 PROPERTIES ON THE AT RISK REGISTER**										
	(i) SUMMARY										
12	2 in 10 register at end of year	nr	0	17	B3	30	B3	62	B2	48	B2
13	1 in 10 register at end of year	nr	0	10	B3	10	B3	8	B2	8	B2
14	Total 1 in 10 and 2 in 10 properties on the register at end of year	nr	0	27	B3	40	B3	70	B2	56	B2
15	1 in 20 register at end of year	nr	0	189	B4	153	B3	120	B3	123	B2
15a	Potential risk of property flooding identified requiring further investigation to assess at risk category.	nr	0	0	B2	0	B2	0	B2	0	B2
16	Props. on the register which have not flooded in the past 10 yrs (excl. severe weather)	nr	0	1	B2	32	B3	33	B3	23	B2
17	Properties which have not flooded internally but suffer restricted toilet use (RTU)	nr	0	0	B2	0	B2	0	B2	0	B2
	(iii) ANNUAL CHANGES TO 2 IN 10 & 1 IN 10 REGISTERS										
22	Removed by company action	nr	0	0	B3	1	B3	3	B2	18	B2
23	Removed because of better information	nr	0	0	B3	2	B3	0	B2	0	B2
24	Added because of better information (actually flooded)	nr	0	18	B3	16	B3	33	B2	0	B2
25	Added because of better information (modelled)	nr	0	0	A1	0	A1	0	B2	4	B2
26	Average capex cost of permanent solutions to 1 in 10 & 2 in 10 DG5 problems	£000/prop	1	0.0	B3	168.8	B3	233.7	B2	68.5	B2
	(v) ANNUAL CHANGES TO THE 1 IN 20 REGISTER										
30	Removed by company action (1 in 20)	nr	0	14	B3	65	B3	8	B2	10	B2
31	Removed because of better information (1 in 20)	nr	0	11	B3	24	B3	45	B2	16	B2
32	Added because of better information (actually flooded - 1 in 20)	nr	0	3	B3	53	B3	3	B2	25	B2
33	Added because of better information (modelled - 1 in 20)	nr	0	0	A1	0	A1	17	B3	4	B2
34	Average capex cost of permanent solutions to 1 in 20 DG5 problems	£000/prop	1	148.9	B3	45.1	B3	143.6	B2	80.9	B2

Table 3 - Key Outputs – Sewerage Service – Internal Flooding

Line 1 – Number of Domestic Properties Connected to the Sewerage System
Northern Ireland Water's (NIW) property data is provided via a data download of the property database tables held within the RapidXtra billing system. The data is then manipulated within Microsoft SQL to produce the Rapid Property Summary Report.

In AIR12 we introduced an automated tool to populate the figures within Table 3. (Rapid Property Summary as the input). Our methodology for AIR15 has remained consistent.

The difference between the AIR14 and the AIR15 figure is 1748. The breakdown can be explained as follows;

1) New Connections during the 2014/15 reporting year. As detailed in the associated Line Methodology and as per Annex A, an issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connections Team.
2) As a result of a customer contact. E.g. septic tank empty request, no water complaint, blocked sewer, updating of standing data e.g. removal of services etc. Within this category there are 2 scenarios:
   a) The adding of properties NI Water allegedly didn't know about (A requirement has been written into the new CBC Contract, the Rapid/POINTER quarterly reconciliation will close the gap on such properties)
   b) The adding of duplicates as the customers address couldn't be found on Rapid. For example, Rapid may hold the site number but when the customer contacts NI Water they quote the verified postal address which is different, therefore creating a duplicate. Another scenario - The street name may have changed from the time of New Connection to that of customer contact – street names can change in the early stages of site development. (A requirement has been written into the new CBC Contract to check weekly (against POINTER) for address updates to New Connection properties)
3) Removal of duplicates/properties as a result of data quality initiatives
4) The increased number of properties within the no water/well water category. Further detail provided within the Table 7 commentary.

Numerous other data quality requirements have been built into the new CBC Contract. They cover all aspects of the property life cycle (creating, amending and demolishing properties) and data degradation will be monitored/measured throughout. The work on data validation has commenced, with some new validations 'live' as of mid-May. Identifying data primacy is key to ensuring the validations are effective.

Annex A details the methodology followed for the figure calculated in Table 3 Line 1.

Internal sewer flooding

Objective/Aim

To maintain a verifiable DG5 register with the aim to provide an auditable method for identifying the specific properties which are affected by flooding or are at risk of flooding and the cause of flooding.

Internal Flooding Process

In line with the regulators instructions, an end to end review of the internal flooding process has been carried out. This process went live in April 2012. This process ensures a robust investigation is carried out for all internal flooding reports. An expert panel (the DG5 Panel) examines the evidence for each incident and governs the addition of properties to and removal of properties from the register.

The register is held on an Oracle database represented on the Corporate Asset Register as GIS layer on CARtomap. Although the Internal Flooding process is now in place, the process itself continues to be refined.

Problems as yet Undiscovered

A process has been established to allow problems as yet unreported to be included in the register through field managers flooding incident reports (FIR). In addition flooding incident field investigations now include concentric circle surveys to pick up unreported flooding and modeling provided by Drainage Area Plan consultant.

Assumptions

For the purpose of AIR15, NIW has assumed that a single incident includes recorded complaints from the same property on the same day or within three days. '3 days' was chosen on the basis that a noticeable volume of repeat calls tend to be received within three days of an incident occurring. There is then a much longer passing of time before calls are again received from the same locality, suggesting that the original incident has passed and that the calls relate to a different incident.

An incident of internal flooding is assumed to be where a property has been flooded internally. If two adjacent properties are flooded at the same time they are classed as two properties and two incidents.

Where a single property floods internally on two separate occasions then this is recorded as one property and two incidents.

Calculation Process - Lines 2 to 11,15a & 17

Data gathering and calculation is as described below.

Sources/Primary Process

Lines 2 – 11, 15a & 17 Properties and flooding incidents

A download of internal flooding records was obtained from the Ellipse system for the period April 2014 to March 2015 on a month by month basis. Investigations were carried out for each reported incident and those properties found not to be flooded after investigation, using information from the Sewer Maintenance Contractor, Flood Incident Report (FIR) Forms, Field Manager reports, Customer Field Manager reports, modelling provided by Drainage Area Plan consultant and contacting the Customers directly, were removed. The remaining properties were recorded as Flooding Incidents.

Sources/Secondary Process

1. Wastewater Business Unit (WWBU) carries out further investigations to determine the cause of every internal flooding incident.
2. WWBU assess the information held on customer report, Flood Incident Report (FIR), along with photographic evidence, closure details provided by the contractor and modelling provided by Drainage Area Plan consultant.
3. WWBU determines if the cause of the flooding incident was hydraulic incapacity or flooding other cause, i.e. Blocked Sewer, Equipment Failure, Collapsed Sewer or Severe Weather. This is done by a number of methods including site visits, concentric circle surveys, Customer Field Manager reports, customer interviews, field manager interviews and review of existing incident information.
4. If hydraulic incapacity is confirmed a Met Office Weather report is used to determine if the incident is as a result of severe weather (Line 4).
5. These properties were then recorded on a spreadsheet under the appropriate categories for lines 2, 3, 4, 4a, 5, 6, 8, 9, 10 and 11 using the information gathered from, the Sewer Maintenance Contractor, Flooding Report Forms, Field Manager reports, Drainage Area Plan consultant and contacting the Customers directly. All incidents of internal flooding attributed to severe weather are included in the total in Table 3 Line 3. A folder of evidence was created for all confirmed cases and this was brought to the monthly DG5 Panel for approval and addition to the appropriate section of the register. At the end of the reporting year this was the data used for AIR 15 returns.
6. The figure for line 7 was obtained by getting a report ran in the DG5 Oracle Database which holds the information as a DG5 layer in the GIS system.
7. Line 15a relates to properties which have not been fully investigated and categorized i.e. 2 for 2014/15.
8. The required information to populate Line 17 is extracted directly from the monthly spreadsheet completed by the contractor.

Changes in Methodology over the Previous Year

During this reporting period as per the Reporters recommendation WWBU now records the no. of inaccurate referrals (10) from the Flood Incident Line (FIL) with a view to consider providing separate training to FIL staff on the DG5 indicator.

NIW are now being more proactive in their approach to repeat blockages. NIW Customer Field Managers (CFM) now have the resource of designated field technicians who are carrying out CCTV investigations on sewers which have repeat blockage complaints and any faults found are being remedied this has helped reduce the number of repeat sewer blockage complaints.

The FIR has been amended (Aug 14) slightly after the delivery of a training day for all MUL contractors and NIW Field Managers and a completed copy is included (see appendix A). The Business Unit is proactively ensuring that the FIR is fully completed by continual liaison between the MUL Contracts Manager and the Customer and Regulation Manager (NIW) where queries/ problems are discussed and then resolved/ rectified by MUL. NIW has set up formal quarterly meetings with the Head of Function, the Business Unit Manager and the Customer and Regulation Manager (all NIW) and the MUL Contracts Manager which ensures all parties are fully aware of what is happening. On any alleged internal flooding incident where there is ambiguity the Customer Field Manager attends to resolve the issue. WWBU also complete a monthly quality report to OCMC (Operations Contract Management Centre) which is used to assess if the contractor is penalised for not providing accurate data.

At the meeting with the reporter 15/6/2015 it was agreed that any actual incident of Internal Flooding that does not fall within the Flooding Other Causes or Severe Weather category is to be automatically defaulted into the 1:20 capacity category for further investigation and categorisation. As result of this the figures entered in lines 2 & 3 have been increased to 28 and 29 respectively and the figure for line 15a has decreased to 2.

Confidence Grading for Table 3 lines 2 - 11, 15a and 17

Every reported incident of internal flooding is thoroughly investigated and cross checked with the returned Flooding Incident Report Forms, Operations Staff, Customer Field Managers and Customer where appropriate, therefore the confidence grade on the figures reported for lines 2, 3, 4,4a, 5, 6, 7, 8, 9, 10, 11, 15A and 17 is now deemed to be B2.

Lines 12 - 34 DG5 Properties on the at Risk Register and Annual Changes

PC13 Outputs

The PC13 Business Plan included a target for removal of properties from the DG5 Internal Flooding Register by company action, which was as follows:

Year	13/14	14/15	Total
Nr	23	44	67

The number of removals achieved in 13/14 was 11.

The number of removals achieved in 14/15 was 28 giving a total of 39 for PC13 falling short of the target of 67.

It should be noted 16 properties were also removed due to better information, giving a total of 55 properties being removed from the DG5 Register.

Reasons

Main reasons for the shortfall in delivery:

- land issues
- road restrictions
- very complex modelling required
- restrictions imposed by Rivers Agency. (Greenfield runoff) e.g. DG5 Scheme complete but unable to fully implement due to restrictions in Rivers Agency completing their work ([redacted] East Belfast)

Additions to the Register

In year 14/15, 10 no. properties were added to the flooding register. These may be divided into the following categories:

I. Eight properties added due to modelling of ongoing schemes:
   - 4 properties at [redacted], Lambeg (1 in 20)
   - 1 property at [redacted] Belfast (2 in 10)
   - 1 property at [redacted], Londonderry (2 in 10)
   - 2 properties at [redacted], Carrickfergus (2 in 10)

II. Two properties added due to completed studies of the network, due to hydraulic incapacity.
   - 2 properties at [redacted], Ballymena (1 in 20) Significant networks.

Confidence grades

Confidence grades for lines 12–15, 22–24 and 30–32 have improved from B3 to B2 due to improvements with the modelling process and a better understanding of the CIDA breakdown in the costing of projects.

Annex A – Line Methodology for Table 3

Line 1 – Number of Domestic Properties Connected to the Sewerage System

The total number of domestic properties (including voids) connected to the sewerage system at the end of the reporting year (31st March 2015).

This figure is based on the 31st March 2015 Rapid Property Summary for AIR15, as attached.

Rapid Property Summary - Mar 2015.

The figure is the total domestic properties (gross) connected for sewerage (including site meters as these are not being billed)

Domestic Properties Connected to the Sewerage System	End March 2015
Total Gross Household Sewerage Properties	**630,030**

APPENDIX A – Incident Report Form Contractor

Northern Ireland Water – Flooding Incident Report

Work Order Ref No: 04301711 Name: Glenvale Waste

Location: [redacted] PORTADOWN [redacted]

Date: 12/04/2015 Arrival time: 15:39:00

1) Internal Flooding: ☒

Main Sewer	☒	Lateral Sewer	☐
Adjacent properties flooded	☐	Attached garages flooded	☒
Basements/Cellar flooded	☐	Restricted Toilet use	☐
Kitchen	☐	Hallway	☐
Living room	☐	Dining room	☐
Shop/integral store	☐	Downstairs bathroom	☐

2) External Flooding: ☐

Main Sewer	☐	Lateral Sewer	☐
Public road/footpath	☐	Public area	☐
Agricultural land	☐	Curtilage	☐
Detached garage flooded	☐	Detached shed or store flooded	☐

3) Comments on cause of reported incident: (Select only one category below)

Blockage	☒	Collapsed sewer	☐
Defective road gulley	☐	Defective private drain	☐
M&E equipment failure	☐	Other:	

4) Clean up operations:

Not Required ☐ Further Action Required ☐ Completed ☒

5) Previous History:

Yes ☐ No ☒ Not Aware ☐

6) Weather Conditions:

Dry ☐ OR Wet ☒: Heavy ☐ Medium ☐ Light ☒

Comments: Especially for Flooded jobs or Follow on jobs

MAIN LINE NEEDS DESILTED KEITH ON SITE was contacted

PHOTO FOR FLOODED JOBS:

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 3A KEY OUTPUTS
SEWERAGE SERVICE - EXTERNAL FLOODING (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**ANNUAL FLOODING SUMMARY**										
	(I) OVERLOADED SEWERS										
1	Areas flooded externally in the year (overloaded sewers)	nr	0	313	D6	225	D6	92	D6	117	D6
2	Curtilege flooding incidents in the year (overloaded sewers)	nr	0	137	D6	97	D6	70	D6	86	D6
3	Highway flooding incidents (overloaded sewers)	nr	0	108	D6	32	D6	23	D6	26	D6
4	Other flooding incidents (overloaded sewers)	nr	0	94	D6	96	D6	22	D6	20	D6
5	Total flooding incidents (overloaded sewers)	nr	0	339	D6	225	D6	115	D6	132	D6
6	External flooding incidents (overloaded sewers attributed to severe weather)	nr	0	2	D6	29	D6	1	D6	14	D6
6a	Areas flooded externally attributed to severe weather	nr	0	2	D6	29	D6	1	D6	14	D6
	(ii) OTHER CAUSES										
7	Areas flooded externally in the year (other causes)	nr	0	N/C		3,212	D6	3,348	D6	4,379	D6
8	Areas which have flooded more than once in the last 10 years (other causes)	nr	0	N/C		N/C		N/C	0	N/C	
9	Flooding incidents (other causes - equipment failure)	nr	0	12	D6	19	D6	23	D6	25	D6
10	Flooding incidents (other causes - blockages)	nr	0	2,693	D6	3,526	D6	3,293	D6	4,269	D6
11	Flooding incidents (other causes - collapses)	nr	0	10	D6	31	D6	73	D6	85	D6
B	**AREAS ON THE 1:10, 2:10, 1:20 AT RISK REGISTER**										
	(I) SUMMARY										
12	2 in 10 register at end of year	nr	0	N/C		0	D6	190	D6	212	D6
13	1 in 10 register at end of year	nr	0	N/C		213	D6	7	D6	20	D6
14	1 in 20 register at end of year	nr	0	N/C		0	D6	16	D6	84	D6
15	Total on the 1:10, 2:10, 1:20 register at end of year	nr	0	N/C		213	D6	213	D6	316	D6
15a	Potential risk of property flooding identified requiring further investigation to assess at risk category	nr	0	N/C		N/C		0	D6	N/C	
	(iii) ANNUAL CHANGES TO 1:10, 2:10, 1:20 REGISTER										
20	Removed by company action (external only)	nr	0	N/C		0	A1	0	A1	0	A1
21	Removed by company action (external linked)	nr	0	N/C		0	A1	0	A1	0	A1
22	Removed because of better information	nr	0	N/C		0	A1	113	A1	0	A1
23	Added because of better information (actually flooded)	nr	0	N/C		213	A1	113	A1	103	A1
24	Added because of better information (modelled)	nr	0	N/C		0	A1	0	A1	0	A1
25	Transferred from external to internal register	nr	0	N/C		0	A1	0	A1	0	A1

Table 3a - Key Outputs – Sewerage Service – External Flooding

Introduction

The processing of external flooding incidents has continued as it did in year 2013-14. The in-house resource devoted to this processing and analysis continues to be extremely limited. As a consequence, the process continues to be heavily dependent upon the accuracy of the information provided by the external maintenance contractor. Throughout the year, analysis of external flooding incidents is based upon monthly spreadsheets and Flooding Incident Report sheets, submitted by the external maintenance contractor. Each incident which is classified by the contractor as potentially 'hydraulic' – i.e. which does not have an 'other cause' identified - is subject to an investigation by the Asset Performance section. The investigation will either recommend that the incident is confirmed as hydraulic, or recommend that the incident is excluded.

Each incident is classified by the contractor as affecting one of curtilage, highways or 'other'. An analysis is carried out to define the total number of areas affected.

Those incidents classified by the contractor as 'other causes' are defined, (by the contractor), as due to one of 'equipment failure', blockage or collapse.

Lines 1-11 - Annual Flooding Summary

The analysis of external flooding incidents is summarised in the spreadsheet 'Reported External Flooding for 2014-15'; the figures within Table 3a have been transferred from that spreadsheet.

The total number of 'overloaded sewers' incidents for the year 2014-15 was 132.

The total number of 'other causes' incidents has increased from 3716 in 2013/2014 to 4379, in 2014/2015.

As there is reliance upon the information supplied by the external contractor, a low confidence grade, of D6, continues to be attached.

Line 8 – Areas which have flooded more than once in the last 10 years (other causes)

This line cannot be populated as the processing of external incidents has only been properly executed for two years.

Lines 12-25 - At Risk Register

The total number of areas, on the Register at the start of year 2014/15 was 213.

The processing of external flooding incidents has continued as it did in year 2013/14, resulting in 103 areas being added to the Register, in the assigned categories (2 in 10, 1 in 10, 1 in 20). This brings the total number of areas on the Register to 316.

Capital schemes which address external flooding only, are in general, not funded – hence the zero entry for removals by company action.

As the primary input to the register is the processing of annual flooding incidents, the same confidence grade (D6) is assigned.

NORTHERN IRELAND WATER - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 4 KEY OUTPUTS
CUSTOMER SERVICE - 1 (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2011-12	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**DG6 RESPONSE TO BILLING CONTACTS - GENERAL**										
1	Total billing contacts	nr	0	92,832	B2	77,051	B2	78,463	B2	75,545	B2
2	Number dealt with within 5 working days	nr	0	92,808	B2	77,118	B2	78,398	B2	75,520	B2
3	Number dealt with in more than 10 working days	nr	0	15	B2	26	B2	30	B2	9	B2
4	DG6 Percentage dealt with within 5 working days	%	2	99.97	B2	100.09	B2	99.92	B2	99.97	B2
5	Percentage dealt with in more than 10 working days	%	2	0.02	B2	0.03	B2	0.04	B2	0.01	B2
B	**CONNECTED PROPERTIES**										
6	Number of properties connected for water supply only	nr	0	149,579	A2	152,771	A2	155,064	B2	157,260	A2
7	Number of properties connected for water and sewerage services	nr	0	660,788	A2	665,189	A2	669,910	B2	670,800	A2
8	Number of properties connected for sewerage services only	nr	0	25	A2	25	A2	24	B2	25	A2

Table 4 – Customer Service 1

DG6 – Response to Billing Contacts

This was the eighth year of non-domestic billing by Northern Ireland Water (NIW). Following decision of the Executive, domestic charges continued to be deferred for 2014/15 charging year.

No changes, other than tariff changes, were made to billing in 2014/15.

Chart 1 below shows the monthly profile of DG6 contacts received during 2014/15.

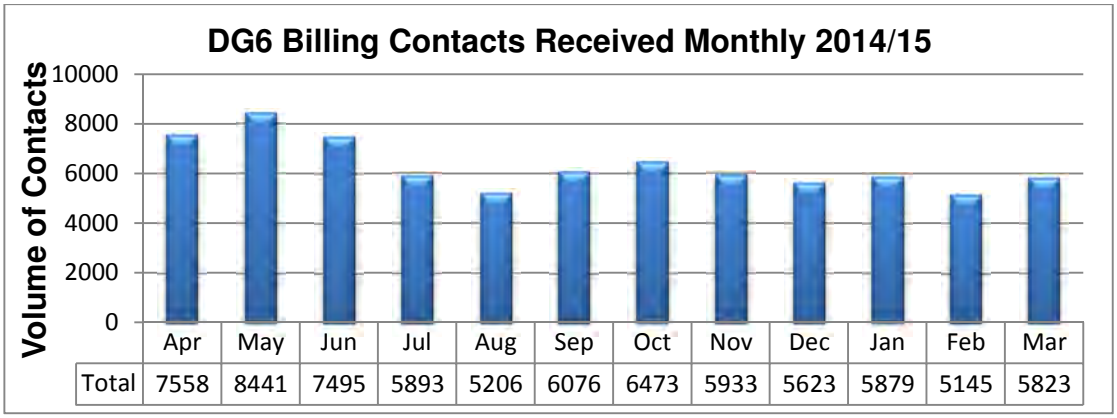


Chart 1 – DG6 Billing Contacts Received in 2014/15

The increased volume during quarter one was due to the annual bill run whereby unmeasured bills were issued for the start of April with recovery notices being issued 28 days later where bills remained unpaid.

Top Reasons for Customer Contact

Table 1 below shows the top 5 reasons for billing contacts in 2014/15

Debit /Credit Card Payment	20%
Promise Of Payment	10%
Checking Payment Received	5%
High Consumption	4%
Disputed Liability for Supply	4%

Table 1 – Top 5 DG6 contact types 2014/15

Debit/credit card payments and promises to pay remain the top reasons for billing contacts due to continued focus on debt collection activities during the year. These would be seen as “wanted” contacts.

Reporting Method

The source data for DG6 Table 4 (lines 1 to 5) is reported using the submitted methodology stated for DG6.

Monthly reports for DG6 (received and closed) are run by Echo and independently validated by the NIW MI & Data Team. On the first working day of each month, the DG6 reports are run for both the current and previous months to accurately update received and

closed figures on a retrospective basis to support the annual reconciliation. Variances are queried with NIW Account Services and Echo and resolved as they arise.

Responses
For DG6 reporting purposes, the date of resolution of the item or date of the substantive response/holding response is used as the closure date. If a customer has a billing-related query which leads to a recalculated bill, the date of the response (verbal or written) explaining the reason for the bill is used as date and timestamp of the response. The recalculated bill is generated overnight and issued under separate cover.

Re-categorisation between Regulatory Categories
NIW has procedures in place for instances where written contacts are changed from one DG category to another e.g. DG6 to DG7. The process document, "Account Services - Re-categorisation of written contacts", is embedded as Document 1 for reference purposes.

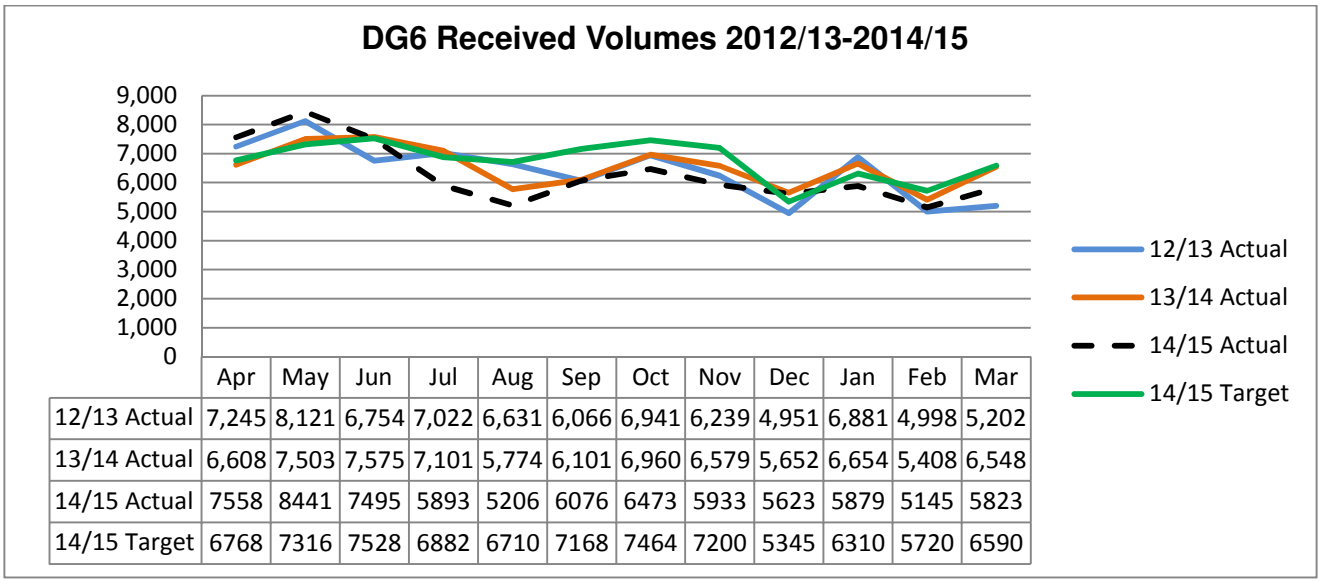
NIW_ACS_Re-categ
orisation of written cc

Document 1 - Re-categorisation of written contacts

Email and Faxes
Systems remained in place to ensure that the receipt date of email/fax contacts is recorded as the date it is delivered to the company with the following working day being recorded as Day 1.

Payment Cards
NIW does not issue payment cards to non-domestic customers.

DG6 Volumes Year-on-year
Chart 2 shows the DG6 received volumes from 2012/13 to 2014/15.



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
12/13 Actual	7,245	8,121	6,754	7,022	6,631	6,066	6,941	6,239	4,951	6,881	4,998	5,202
13/14 Actual	6,608	7,503	7,575	7,101	5,774	6,101	6,960	6,579	5,652	6,654	5,408	6,548
14/15 Actual	7558	8441	7495	5893	5206	6076	6473	5933	5623	5879	5145	5823
14/15 Target	6768	7316	7528	6882	6710	7168	7464	7200	5345	6310	5720	6590

Chart 2 - DG6 received 2012/13 to 2014/15

The overall received volume for the year 2014/15 marks a reduction in DG6 contacts when compared with the previous year; the final reported total also being less than set as the volumetric target for 2014/15.

End of Year (Contacts not dealt with at end of year)
Based on data extracted on 5th May 2015:

- 294 DG6 contacts received during 14/15 were open;
- the oldest open DG6 contact received during 14/15 was 225 working days old;
- 294 DG6 contacts received during 14/15 were open for more than 5 working days, each pending completion of agreed actions as outlined in substantive holding responses; and
- the average age of the open DG6 contacts received during 14/15 was 54 working days.

Self Service Platform
On 9th February 2015, NIW announced the provision of additional web-based services for customers. The services are aimed predominantly at non-domestic customers who have an account with NIW and make it easier for them to pay bills online and check their accounts. The service also allows domestic customers with septic tanks to order their tank to be 'de-sludged'.

Once registered, customers are able to:

- view their account balance;
- view the payment plan of individual schedules;
- view bill and payment history;
- view desludging request history;
- process a new desludging request;
- pay a bill; and
- manage their account details.

Northern Ireland Water's (NIW) property data is taken from the RapidXtra billing system and manipulated within Microsoft SQL to produce the Rapid Property Summary Report.

Line 6 – Number of Properties Connected for Water Supply Only
AIR14 figure – 155064
AIR15 figure - 157260

The nett increase of circa 2200 properties during the 14/15 year which are connected only for water can be attributed to 1600 newly connected domestic dwellings, mostly in rural areas, which have a septic tank and 600 due to customer contact/data validation activities.

As with Table 2, Table 3, Table 7 & Table 13 we have identified that properties can be added to/removed from the billing system via the methods below:-

1. New Connections during the 2014/15 reporting year. As detailed in the associated Line Methodology and as per Annex A, an issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connections Team.
2. As a result of a customer contact. E.g. septic tank empty request, no water complaint, blocked sewer, updating of standing data e.g. removal of services etc. Within this category there are 2 scenarios:
    (a) The adding of properties NI Water allegedly didn't know about (A requirement has been written into the new CBC Contract, the Rapid/POINTER quarterly reconciliation will close the gap on such properties).

(b) The adding of duplicates as the customers address couldn't be found on Rapid. For example, Rapid may hold the site number but when the customer contacts NI Water they quote the verified postal address which is different, therefore creating a duplicate. Another scenario - The street name may have changed from the time of New Connection to that of customer contact – street names can change in the early stages of site development. (A requirement has been written into the new CBC Contract to check weekly (against POINTER) for address updates to New Connection properties).

3. Removal of duplicates/properties as a result of data quality initiatives
4. The increased number of properties within the no water/well water category. Further detail provided within the Table 7 commentary.

Numerous other data quality requirements have been built into the new CBC Contract. They cover all aspects of the property life cycle (creating, amending and demolishing properties) and data degradation will be monitored/measured throughout. The work on data validation has commenced, with some new validations 'live' as of mid-May. Identifying data primacy is key to ensuring the validations are effective.

Line 7 – Number of Properties Connected for Water and Sewerage Services

AIR14 figure – 669910
AIR15 figure – 670800

There has been a net increase of circa 900 properties connected for water and sewerage services during the 14/15 year – refer to Line 6 commentary for further detail.

Line 8 - Number of Properties Connected for Sewerage Services Only

AIR14 figure – 24
AIR15 figure – 25

The number of properties connected for sewerage only has increased by 1 property during the 14/15 reporting year.

Annex A details the methodology followed for the figures calculated in Table 4 Lines 6-8.

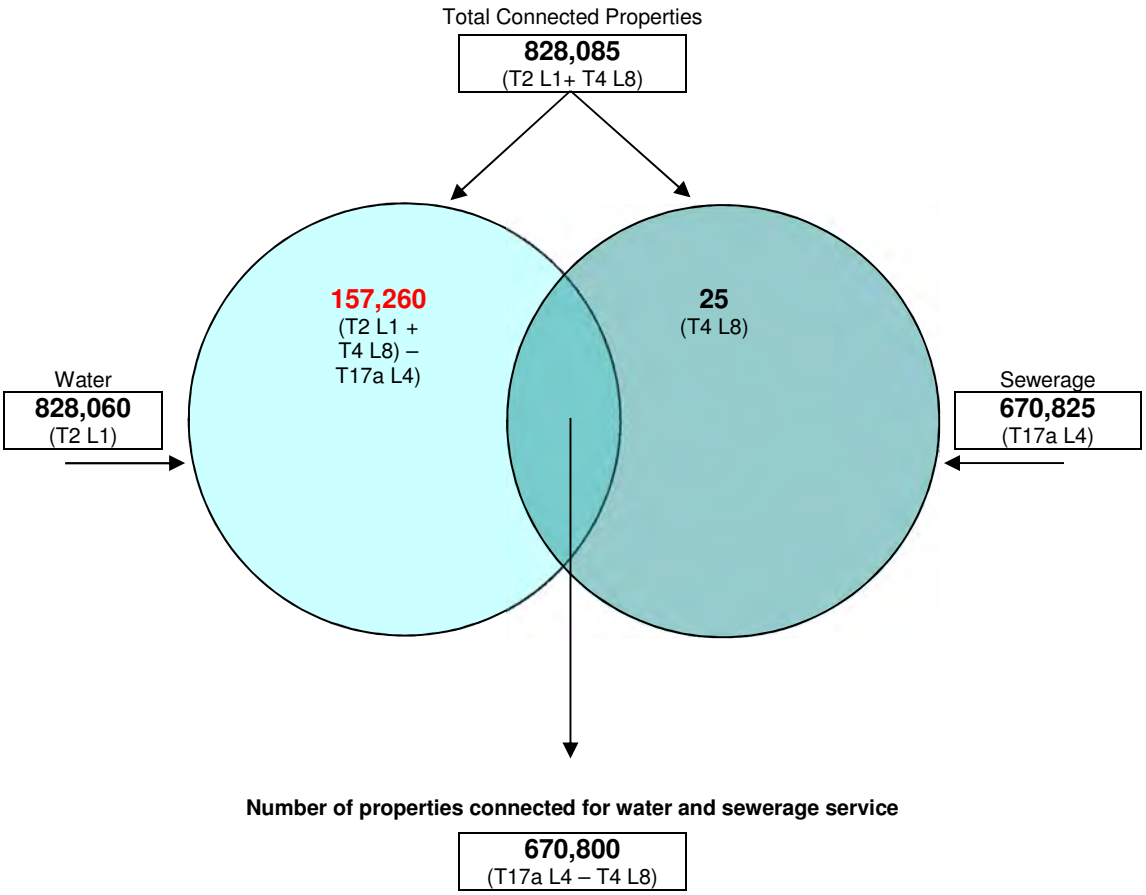
Annex A – Line Methodology for Table 4

B Connected Properties

Line 6 - Number of Properties Connected for Water Supply Only

The total number of household and non-household properties connected to the water distribution system for water supply only, at the end of the AIR15 reporting year. This includes properties which are connected but not billed (e.g. temporarily unoccupied) but excludes properties which have been permanently disconnected.

This figure is taken from the Rapid Property Summary for AIR15 and is displayed in the diagram below:



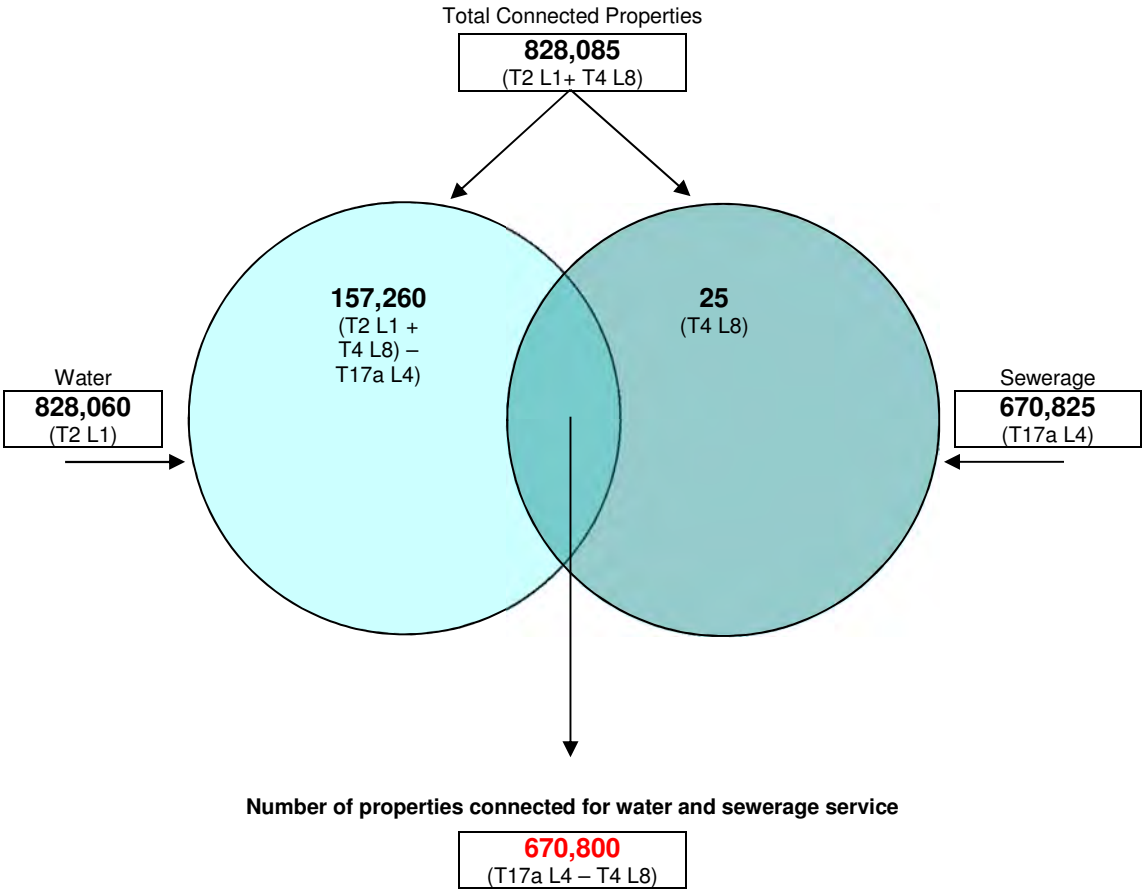
Therefore:-

	End March 2015
Total Connected Properties (T2 L1 + T4 L8)	828085
less	
Total Connected Properties for Sewerage (T17a L4)	670825
Total Connected for Water Only	**157,260**

Line 7 - Number of Properties Connected for Water and Sewerage Services

The total number of household and non-household properties connected for both water and sewerage services at the end of the reporting year. This includes properties which are connected but not billed (e.g. temporarily unoccupied) but excludes properties which have been permanently disconnected.

This figure is taken from the Rapid Property Summary for AIR15 and is displayed in the diagram below:



Line 8 - Number of Properties Connected for Sewerage Services Only

The total number of household and non-household properties connected for sewerage services only at the end of the reporting year. This includes properties which are connected but not billed (e.g. temporarily unoccupied) but excludes properties which have been permanently disconnected.

This figure is taken from the Rapid Property Summary for AIR15.

	End March 2015
Domestic sewerage only	6
plus	
Non-domestic sewerage only	19
Total Properties Connected for Sewerage Only	**25**

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

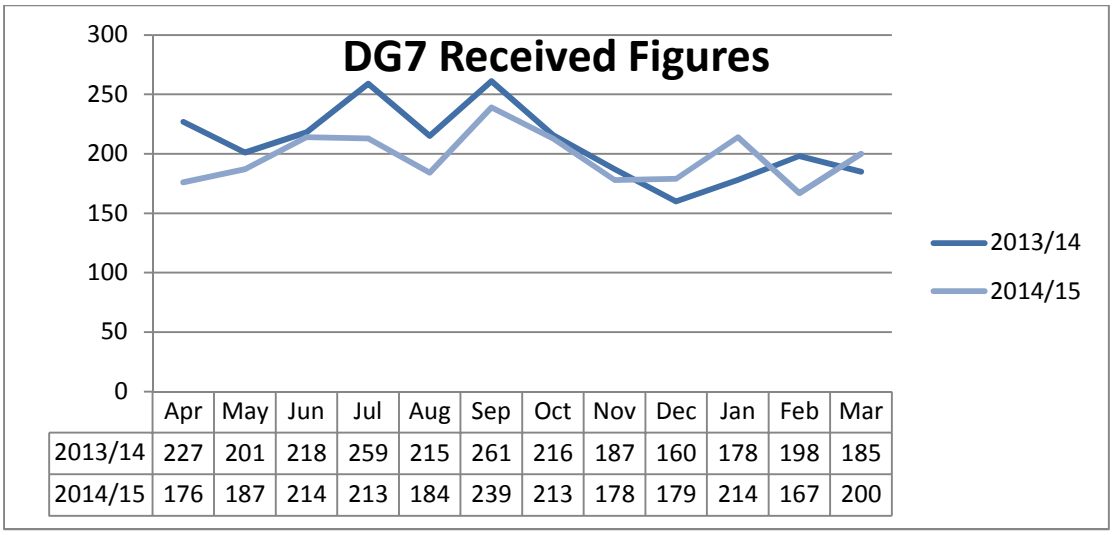
ANNUAL INFORMATION RETURN - TABLE 5 KEY OUTPUTS
CUSTOMER SERVICE - 2 (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**DG7 RESPONSE TO WRITTEN COMPLAINTS**										
1	Total written complaints	nr	0	2,340	B2	3,173	B2	2,505	B2	2,364	B2
2	Number dealt with within 10 working days	nr	0	2,323	B2	3,166	B2	2,498	B2	2,363	B2
3	Percentage dealt with within 10 working days	%	2	99.27	A1	99.78	A1	99.72	A1	99.96	A1
4	Number dealt with in more than 20 working days	nr	0	0	B2	1	B2	2	B2	0	B2
5	Percentage dealt with in more than 20 working days	%	2	0.00	A1	0.03	A1	0.08	A1	0.00	A1
B	**DG8 BILLS FOR METERED CUSTOMERS**										
6	Total metered accounts	nr	0	103,876	A1	110,164	A1	115,227	A1	118,732	A1
7	Metered accounts excluded from indicator	nr	0	36,388	A1	42,688	A1	47,784	A1	51,214	A1
	(I) NO. OF CUSTOMERS WITH METERED ACCOUNTS RECEIVING AT LEAST ONE BILL DURING YEAR BASED ON METER READING:										
8	Company readings	nr	0	65,928	A1	66,557	A1	66,775	A1	66,855	A1
9	Company or customer readings (or both)	nr	0	66,057	A1	66,622	A1	66,840	A1	66,916	A1
	(ii) NUMBER OF CUSTOMERS WITH METERED ACCOUNTS RECEIVING:										
10	Estimated bills only	nr	0	1,076	A1	550	A1	433	A1	548	A1
11	No bills received during the report year	nr	0	355	A1	304	A1	170	A1	54	A1
12	Unread by company for 2 years	nr	0	470	A1	310	A1	186	A1	164	A1
C	**DG9 TELEPHONE CONTACT**										
13	Total calls received on customer contact lines	nr	0	231,245	A2	219,399	A2	226,881	A2	230,847	A2
14	All lines busy	nr	0	0	A2	0	A2	0	A2	32	A2
15	Total of calls not abandoned	nr	0	229,270	A2	216,006	A2	223,256	A2	226,204	A2
16	Call handling satisfaction	nr	2	4.57	A1	4.54	A1	4.63	A1	4.65	A1
17	Total telephone complaints	nr	0	51,680	A2	73,158	A2	74,316	A2	76,536	A2
D	**SPECIAL ASSISTANCE REGISTER**										
18	Customers on the special assistance register	nr	0	1,990	A2	2,675	A2	2,903	A2	3,084	A2

Table 5 – Customer Service 2

Lines 1-5 - DG7 Response to written complaints

The chart below shows the DG7 received volumes during 13/14 and 14/15.



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2013/14	227	201	218	259	215	261	216	187	160	178	198	185
2014/15	176	187	214	213	184	239	213	178	179	214	167	200

The chart shows a decrease in the overall volume of written complaints received in 14/15 compared to the previous year.

The increased volume in September can, in part, be attributed to the Water Services and Sewerage Services complaints received during those months being higher than average in other months throughout the year.

Between 22/12/14 and 27/01/15, we received 41 email complaints relating to the impact of the Industrial Action undertaken by NI Water employees over the Christmas and New Year period. These varied in nature from complaints about supply interruptions/restoration times, complaints about the impact of the Industrial Action in general and complaints about alternative water supplies.

As in previous years, the number of written complaints in the “Charges & Bills” category was highest. These were for a variety of reasons, some of which are summarised below:

- Over four hundred complaints were recorded as being from customers disputing liability for their bills for a variety of reasons.
- Over one hundred and fifty complaints were recorded as being about leak allowances or high consumption.

End of Year (Contacts not dealt with at end of year)

Based on data extracted on 21th April 2015:

- 3 DG7 contacts received during 14/15 complaints were open;
- the oldest open DG7 complaint received during 14/15 was 17 working days old;
- 3 DG7 contacts received during 14/15 were open for more than 10 working days, each pending completion of agreed actions as outlined in substantive holding responses; and
- the average age of the open DG7 contacts received during 14/15 was 14 working days.

Petitions

No DG7 contacts were received which could be described as petitions.

CCNI Annual Complaints Assessment

The 3rd formal assessment was held on 26 March 2014. Recommendations and associated actions have been agreed as follows:

- *Recommendation 1* - Where possible and where it will not be detrimental to the quality of the response, responses should be sent within ten working days not on the tenth working day.
    - *Action* - NI Water has developed a list of complaint categories which should be given priority focus due to the critical or sensitive nature of the reported issue.

- *Recommendation 2* - Responses must be tailored to the consumer's individual circumstances, recognise the historic aspects of the complaint and respond to all questions and issues raised by the consumer.
    - *Action* - Re-briefing of the recommendations and agreed actions from the previous written complaints assessment for the Complaints & Exec Mail Team. This includes tailoring responses/recognition of historical aspects of the complaint and ensuring that all issues are addressed.

      NI Water continues to reinforce the importance of tailoring responses and making reference to historical issues. Regular complaint handling assessments are undertaken as part of performance management – part of the focus will continue to be ensuring that these aspects are covered.

- *Recommendation 3* - Consumers contesting or unhappy with the original response, or consumers raising delicate or contentious issues should be advised of NI Water's complaints procedure and CCNI.
    - *Action* - NI Water will seek to produce a summary Complaints Process insert to be included in responses to the first written complaints. This will be based upon the revised Complaints Code of Practice due for release in 2015/16.

E-mail and Faxes

Systems remained in place to ensure that the receipt date of email/fax contacts is recorded as the date it is delivered to the company with the following working day being recorded as Day 1. 1536 or 64.97% of the total DG7 received volume were e-mails.

Complaints about Contractors

The process which supports the recording of written complaints received directly by PPP concessionaires (or other contractors working on NI Water's behalf) remained in place throughout 14/15. No complaints of this nature were recorded via this process during the reporting period.

Complaints about HVCA

There was 1 written complaint recorded as being related to the High Volume Call Answering system.

Exclusions

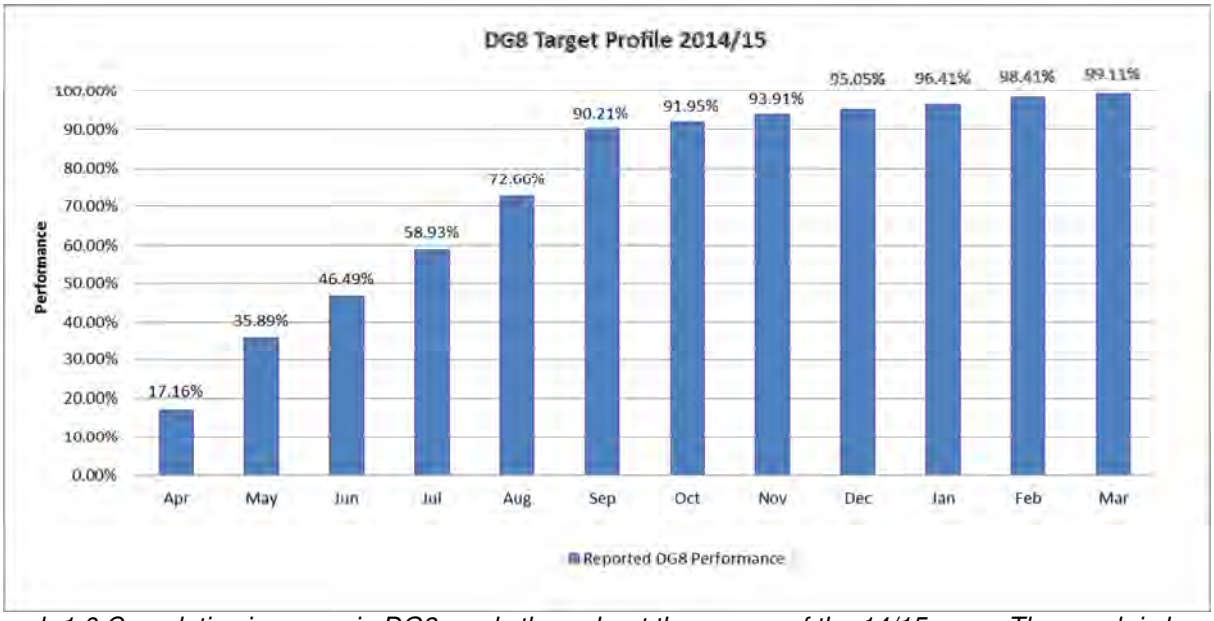
A total of 15 written customer complaints have been excluded from DG7 reporting during 14/15 for a variety of exclusion reasons as per the Level of Service Methodology.

	YTD	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Total calls received on customer contact lines	**230847**	19172	21858	20585	20024	18172	19522	18928	17804	16557	22851	17217	18157
Total calls received (Call Media-switchboard exclusions)	**225781**	18741	20997	19823	19445	17872	19145	18720	17548	16292	22694	16835	17669
Total calls received (HVCA)	**4903**	431	861	762	579	261	252	208	256	265	158	382	488
% calls received via HVCA	**2.12%**	2.25%	3.94%	3.70%	2.89%	1.44%	1.29%	1.10%	1.44%	1.60%	0.69%	2.22%	2.69%
Total calls answered on customer contact lines	**226195**	18778	21258	20041	19458	17552	18950	18746	17617	16327	22622	17043	17803
Total calls answered (Call Media)	**241744**	20007	22417	21303	20605	18962	20551	20437	18991	17375	23985	18201	18910
Total calls answered (HVCA)	**3306**	292	531	479	387	194	182	144	196	179	112	291	319
% calls answered via HVCA	**1.35%**	1.44%	2.34%	2.22%	1.84%	1.00%	0.87%	0.70%	1.03%	1.02%	0.46%	1.59%	1.67%
Total calls abandoned on customer contact lines	**4643**	394	600	544	566	581	592	182	187	230	229	196	342
Total of Abandoned Calls (Call Media)	**3025**	255	270	261	374	514	511	118	127	144	183	83	185
Total of Abandoned Calls (HVCA)	**1618**	139	330	283	192	67	81	64	60	86	46	113	157
% of calls abandoned overall	**2.01%**	2.06%	2.74%	2.64%	2.83%	3.20%	3.03%	0.96%	1.05%	1.39%	1.00%	1.14%	1.88%
% of calls abandoned via CallMedia/Received	**1.31%**	1.33%	1.24%	1.27%	1.87%	2.83%	2.62%	0.62%	0.71%	0.87%	0.80%	0.48%	1.02%
% of calls abandoned via HVCA/Received	**0.70%**	0.73%	1.51%	1.37%	0.96%	0.37%	0.41%	0.34%	0.34%	0.52%	0.20%	0.66%	0.86%
% of calls abandoned via HVCA/HVCA Received	**33.00%**	32.25%	38.33%	37.14%	33.16%	25.67%	32.14%	30.77%	23.44%	32.45%	29.11%	29.58%	32.17%

Lines 6-12 DG8 – Bills for metered customers

The 14/15 outturn for DG8 was 99.11% of meters read and billed. This was against a target of 99%. This target was achieved against a backdrop of the new meter management system being introduced midyear, the ongoing resource issues, an increasing meter stock and the competing demands to continue to supplement data quality work. The target for 15/16 remains fixed at 99%.

Graph 1: DG8 Meters Read and Billed Performance (%)



Graph 1.0 Cumulative increase in DG8 reads throughout the course of the 14/15 year. The graph is based on actual meter reads out of the total meter stock base.

As can be seen from graph 1.0, within the first read cycle, 90.21% of the meters contributing to the DG8 target were read, against an internal company target of 90.00%. Within the second half of the year the continuing targeted approach and skip management has resulted in an improved number of skips in 2014/15 of 2600, from 3278 in 2013/14. Further management of skips in the coming year should improve on this figure again.

In conjunction with the BAU processes, further data integrity work was continued that will improve the information associated with NIW's meter stock, thus improving the capacity for greater numbers and accuracy of DG8 reads, whilst further reducing the number of skips.

Billing Policy

Frequency of Bill Issue:

- Household properties – the Company do not bill household meters at present.
- Non-household – the Company aim to read twice a year and bill twice yearly.
- Large non-household users – the Company aim to read and bill monthly.

Customer Reads

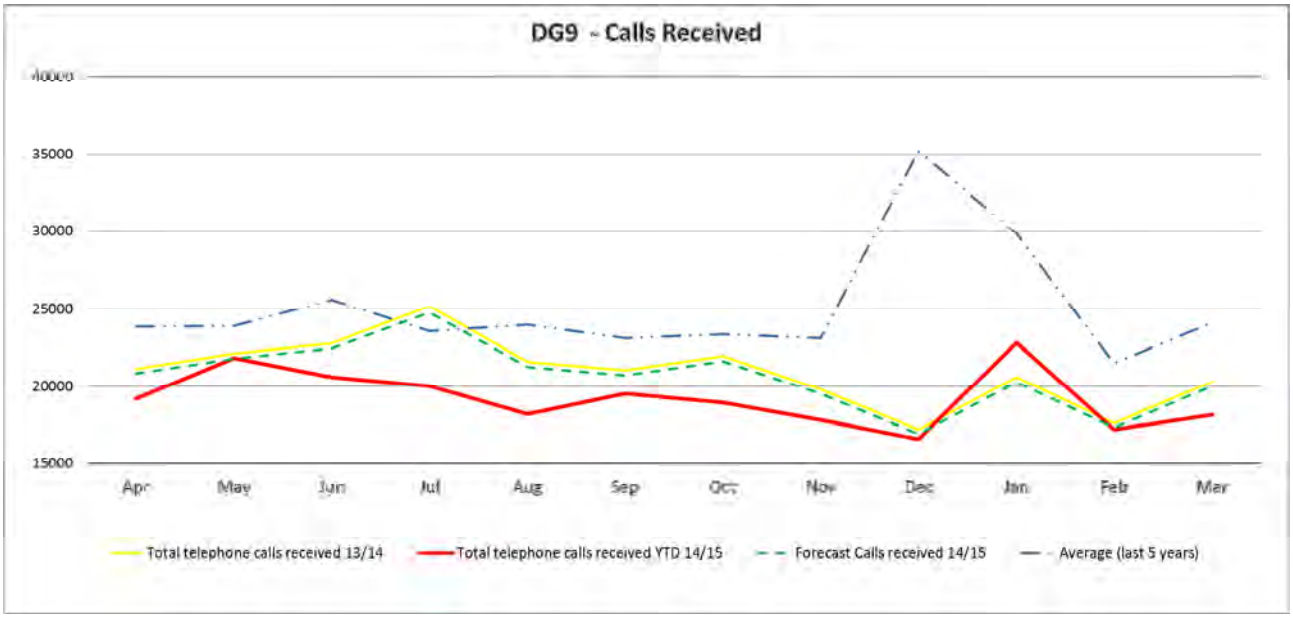
The Company encourages our customers to take readings themselves so that they are aware of their usage. The company continues to but a message on bill and recovery envelopes to highlight the importance of customers ensuring they check and read their own meter where possible. Customer reads can be registered for billing purposes by using the On-line facility available on our website, email or by calling our billing line.

The Confidence grade of A1 has been applied for lines 6-12.

Lines 13 – 17 - DG9 Telephone Contact

DG9 Introduction

During the reporting year a total of 230,847 calls were made to the advertised Company telephone numbers.
The graph below shows a comparison against the previous year (2013/14) and against our target level of calls for the year and the 5 year average.



The deployment of an High Volume Call Answering (HVCA) solution in NI Water is unique in the water industry, providing an enhanced customer experience and improved incident management when compared to other water companies in UK and on a par with other

utilities in Northern Ireland i.e. Power NI. HVCA was available to handle overflow calls for customers reporting faults on the Waterline and this was the first full year of use. A background on HVCA is included later in this commentary with further detail in Annex A.

The peak in calls received in January 15 was a result of Industrial Action by NI Water leading to an increased volume of calls primarily concerning low water and no water between 22nd December and 23rd January.

All Lines Busy

There were 32 instances of all lines busy during the reporting period. 31 of these instances were during July. Between the 19th and 20th July, the telephony server shut down after overheating for a short period as a result of the air conditioning unit serving the room failing and not restarting. This failure led to 31 calls not routing correctly to PACC numbers.

Calls Abandoned

4,643 calls were abandoned during the reporting year, which included calls abandoned on both CallMedia and HVCA system. The Company's performance of 97.99% of 'calls not abandoned' failed to meet the 99% target set for the year.

Failure of this measure is largely due to the implementation of HVCA and the associated reporting methodology.

The Company sought guidance from the Utility Regulator on how calls abandoned via HVCA should be reported, given the impact these calls were having on the performance against regulated target of 99% and recognising that consistency of approach with similar measures in E&W is key to benchmarking and comparison.

All calls handled by HVCA can be classified as either answered or abandoned using the agreed hang up location methodology. NI Water is able to classify each hang up location as 'answered' if the caller has reached a point in the call flow at which they can hear a salient message or 'abandoned' as HVCA has 226 distinct hang up locations allowing for detailed analysis of where the customer call ended and what messages the customer was presented with.

Since implementation, it is apparent that customer behaviour was driving an increase in abandoned calls as they have historically always spoken to an agent, on being transferred to HVCA, they were more likely to hang-up and redial, in the hope of getting an agent on their repeat contact. The system operates on an agent first basis and takes overflow calls only.

This is clearly demonstrated in the graph below where, prior to the implementation of HVCA, NI Water was generally reporting over-performance on '% calls not abandoned' against the target of 99%; the only exceptions to this being events such as June 2012 flooding and 2010/11 Freeze/Thaw as mentioned earlier. (Note: the upturn in the graph for October 14 was due to lower overall customer contacts resulting in less calls transferring to HVCA. The slight downturn in the graph in January 15 was due to a higher number of contacts during the Industrial Action and more calls being transferred to HVCA).

In May, June, July, August and September the number of calls abandoned in Waterline Overflow to HVCA was significantly higher than previous and proceeding months and the same period in 13-14, contributing to an inflated Total Abandoned Calls rate.

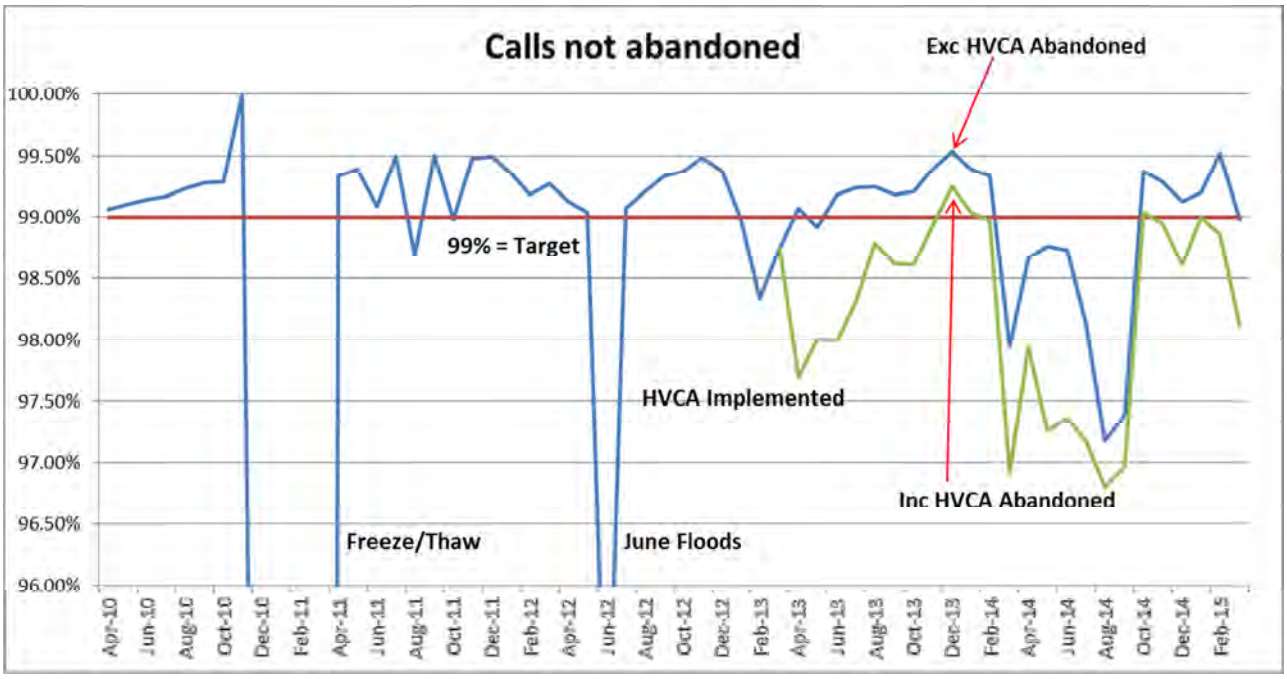
On the 7th May CallMedia was unavailable between 3pm and 5.30pm leading to a shutdown in normal call routing. The Evacuation/Disaster Recover IVR message was also implemented in error on this date, leading to an increase in abandoned calls. There was another CallMedia outage on the 21st May between 10am and 4pm which coincided with the Major Incident at McVeigh's Well, resulting in a further increase.

On the 18th June, the CallMedia application was 'freezing' on CRC agents between 9am and 5pm, resulting in a disruption to normal call routing. BT carried out investigative work on the 18th and 19th, during which time HVCA was completely unavailable. On the 19th CallMedia testing downtime again impacted the abandoned calls where test calls were possibly counted as abandoned.

On 19th-20th July, a telephony server shutdown as a result of an air conditioning failure led to an increase in abandoned calls on the Waterline Overflow to HVCA queue.

On the 8th August an issue with the main Waterline IVR menu resulted in customers choosing options 1-3 being routed to the Evacuation/Disaster Recover IVR which again led to an increase in abandoned calls at this point.

In September, a range of issues including inflated call volumes on 24th-25th and a BCP exercise on the 25th contributed to the abandoned call rate.



If calls handled by HVCA calls had all been reported as answered, then the Company would have recorded a performance of 98.69% for 'calls not abandoned' for 2014/15.

Calls Rejected

Rejected calls are calls received on advertised lines outside of published working hours, such as on the billing line after 8:00pm on a weekday. There were 2,109 (versus 1,928 in 13-14 and 2,382 in 12-13) rejected calls made outside of published working hours

recorded during the 14-15 reporting period. The customer received the appropriate out of hours message.

Call Handling Satisfaction

Customer's satisfaction with regards call handling is assessed independently by McCallum Layton, a market research company who has also undertaken similar call satisfaction assessments in England and Wales.

McCallum Layton carry out quarterly customer survey of 100 customers who have called the Company for any reason. The Company achieved an overall score of 4.65/5.0 for the reporting year, up from 4.63/5.0 in 13/14.

The graphs below show the quarterly scores for the year and the overall average for each year since 2008/9. The company analyses this research to determine areas of customer dissatisfaction, identifying root causes and proposing plans for corrective action and increased customer satisfaction.

The Company has also commenced qualitative surveys using the SIM methodology, which is based on a survey of 800 resolved contacts per annum. The Company is engaged with the Utility Regulator and other key stakeholders in developing a new Customer Satisfaction measure for the PC15 period.

Sampling Methods

Samples of calls are listened to on a monthly basis and any issue feed back to our outsource partners Echo through the monthly operational reporting mechanism.

In addition to this and in line with all other UK water companies NI Water employs McCallum Layton to survey 100 and 200 customers who have called the Company each quarter for OPA and SIM CSAT qualitative reporting.

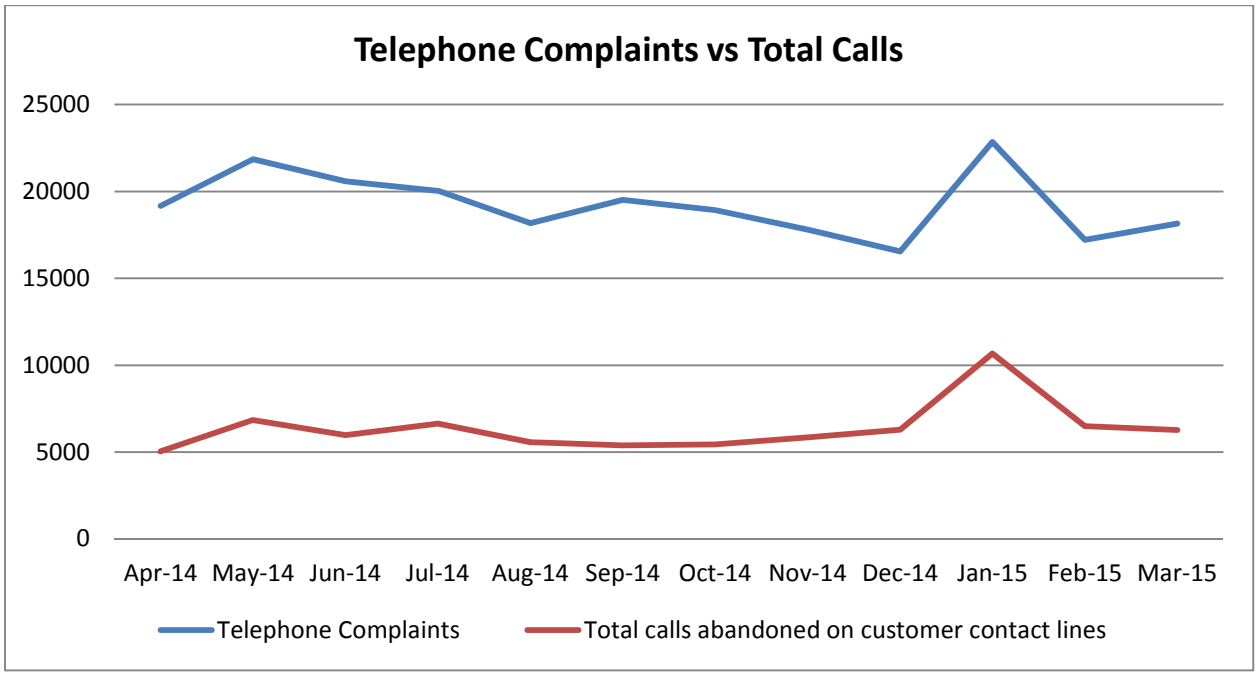
Telephone Complaints

Telephone complaints cover any telephone call from a customer or a customer's representative (e.g. Citizens Advice Bureau, solicitor) alleging that an action or inaction of the Company, or a service or lack of service provided by NI Water or agent/contractor has fallen below his/her expectation.

General statements of complaint are also counted. Customers may complain unfairly or unjustifiably; nevertheless, such calls are classed as complaints. Some complaints may be frivolous or vexatious, nevertheless these are reported.

As a general policy, the Company records telephone calls about the following water service issues as complaints: no water, lack of pressure, leaks, taste and odour, discoloration and hard water (except for simple enquires e.g. dishwater settings). Telephone calls about the following wastewater services are also recorded as complaints: sewer flooding other than those received through NI Direct/blockages, collapsed sewers/manholes, smells from sewage treatment works/pumping stations and flies from sewage treatment works.

Telephone complaint volumes have risen to 76,536, an increase of 2.99% compared with the 74,316 received during the 2013/14 reporting period. This increase can be attributed to the inflated number of telephone complaints received in December/January during the Industrial Action situation.



NI Direct Flood Line

NI Direct Floodline (FIL) was launched on 30 January 2009, as a single contact telephone number for customers in the event of a flooding incident. This telephone number is not one of NIW's advertised PACC numbers and is provided through a separate Call Centre managed by NI Direct.

NI Direct operate as a 'triage' service, taking the details of the incident from the customer and directing their issue to the relevant Agency for appropriate action. Following a change in supplier within NI Direct during 2012/13, the integrated interface between FIL and NI Water systems was severed creating a gap in the process which NI Water were forced to bridge. This resulted in FIL contacts being received by e-mail and manually logged onto the NI Water CRC system by agents.

The new FIL contract went live on 1st December 2012, and following some initial manual logging the automated connection went live on 9th July 2013 between the FIL CRM and Rapid, in order to ensure that customer contacts relevant to NIW are logged on Rapid and work orders processed via Ellipse where necessary.

During the reporting period circa 243 work orders were received by the Company from FIL.

HVCA

The High Volume Call Answering (HVCA) system was driven from the events in winter 2010-11, where prolonged sub-zero temperatures during December 2010, followed by a sudden thaw on 26th December 2010, caused extensive disruption of supplies (due mainly to bursts on customer supply pipes) and huge increase in customer contacts to the NI Water Customer Relations Centre.

Between 20 December and 7 January, there were approximately 800,000 attempted telephone contacts by customers; of which 48,000 were answered (i.e. more calls in one day than in an average year). For the five days from 27 December, the 210 lines into the Contact Centre were not enough to handle all call attempts. This 'all lines busy' situation led to a significant numbers of calls receiving engaged tones.

From a customer contact perspective, the effectiveness of incident management and quality of customer experience is restricted due to the use of call handlers, supplemented by Interactive Voice Response (IVR) to handle large call volumes to provide only 'blanket' status updates.

As a result of the above event, NI Water identified a number of performance improvement initiatives where performance could be improved and the customer communication issues avoided; this included the implementation of an HVCA system to deal with increased customer contacts during incidents, which would be limited to the 'Waterline' only. All calls are logged and customers given specific information resulting in higher levels of customer satisfaction during service interruptions. The HVCA system will recognise customers using the telephone number we hold on their customer record or it can use voice recognition to allow customers to speak their post code.

In December 2012, NI Water commissioned HVCA to ensure that the system was available for use, if required, over the Christmas/New Year period.

As part of implementation of the system, NI Water sought the views of those customers who had experienced the system. They received a call-back and asked to participate in a short survey; feedback from these customers indicated that although have a preference for speaking to an agent; nevertheless they rated the system as being good or very good when compared to other automated systems they have experienced.

Since the 5th March 2013 the HVCA system has been deployed in Agent First Mode, which means all calls to the Waterline are still diverted to the Cable and Wireless Network IVR system. The caller is presented with the menu selection and depending on the option selected and if a CRC agent available, passed to a CRC call Agent. If no Agents are available then the caller will enter into the HVCA call routing plan to have their issue logged.

One small issue occurred with HVCA during the reporting year whereby calls were received directly to HVCA (bypassing our Call Media system) from Wonga's auto-dialler system. Also TFCC the HVCA supplier makes a small number of test calls each month directly to the system. Both of these types of calls are identifiable on HVCA reports and we have excluded them from our DG9 reporting. Wonga have been instructed to remove our number from their auto-dialler system and we will continue to monitor this monthly.

Confidence Grades

Call volume data is derived using a combination of telephony systems, the HVCA system for automated calls and Call Media that draws information from the Avaya system for agent handled calls.

In March 2014, the Telephony supplier changed from Cable & Wireless to BT. This switch was relatively seamless, with only a minor impact on lines busy due to the technical handover and these calls were excluded for reporting purposes

As per methodology, the process of reconciliation between the telephony systems is largely manual, as calls transferring from CallMedia are deemed to be received in HVCA; however the confidence grade assigned to the data remains at 'A2', as per the AIR guidance.

Call Handling Satisfaction retains the confidence grade of 'A2' as it is conducted independently and the results are provided to NI Water by McCallum Layton.

Table 1: HVCA (2014/15)

Annex A

Calls received/answered to HVCA

Details	**YTD**	**Apr-14**	**May-14**	**Jun-14**	**Jul-14**	**Aug-14**	**Sep-14**	**Oct-14**	**Nov-14**	**Dec-14**	**Jan-15**	**Feb-15**	**Mar-15**
Total calls received (HVCA)	**4,903**	431	861	762	579	261	252	208	256	265	158	382	488
Total calls answered (HVCA)	**3,306**	292	531	479	387	194	182	144	196	179	112	291	319
% Calls transferring to HVCA based on total calls received	**2.12%**	2.25%	3.94%	3.70%	2.89%	1.44%	1.29%	1.10%	1.44%	1.60%	0.69%	2.22%	2.69%

Abandoned on HVCA

Total of Abandoned Calls (Call Media – non-HVCA)	**3,025**	255	270	261	374	514	511	118	127	144	183	83	185
Total of Abandoned Calls (HVCA)	**1,618**	139	330	283	192	67	81	64	60	86	46	113	157
Total of Abandoned Calls	**4,643**	394	600	544	566	581	592	182	187	230	229	196	342
% calls abandoned (overall)	**2.01%**	2.06%	2.74%	2.64%	2.83%	3.20%	3.03%	0.96%	1.05%	1.39%	1.00%	1.14%	1.88%
% calls abandoned (CallMedia – non-HVCA)	**1.31%**	1.33%	1.24%	1.27%	1.87%	2.83%	2.62%	0.62%	0.71%	0.87%	0.80%	0.48%	1.02%
% calls abandoned (HVCA)	**33.00 %**	32.25 %	38.33 %	37.14 %	33.16 %	25.67 %	32.14 %	30.77 %	23.44 %	32.45 %	29.11 %	29.58 %	32.17 %

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 5A KEY OUTPUTS

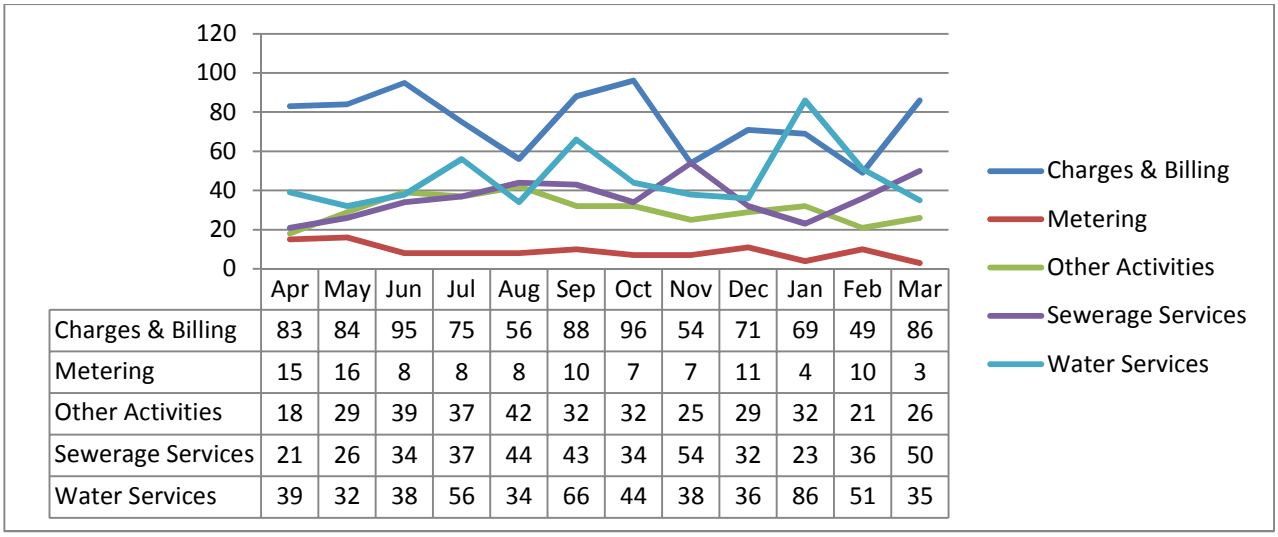
Customer complaints data for Consumer Council for Northern Ireland (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**TOTAL WRITTEN COMPLAINTS**										
1	Total written complaints	nr	0	2,340	B2	3,173	B2	2,505	B2	2,364	B2
2	Number dealt with within 10 working days	nr	0	2,323	B2	3,166	B2	2,498	B2	2,363	B2
3	Number dealt with in more than 20 working days	nr	0	0	B2	1	B2	2	B2	0	A1
B	**CATEGORY OF WRITTEN COMPLAINTS**										
	(i) Charges and Bills										
4	Total written complaints about charging and billing issues	nr	0	1,081	B2	1,567	B2	839	B2	906	B2
5	Total written complaints about charging and billing issues escalated to second stage review	nr	0	221	B2	381	B2	149	B2	124	B2
	(ii) Water Service										
6	Total written complaints about water service issues	nr	0	408	B2	448	B2	552	B2	555	B2
7	Total written complaints about water service issues escalated to second stage review	nr	0	77	B2	71	B2	52	B2	52	B2
	(iii) Sewerage Service										
8	Total written complaints about sewerage service issues	nr	0	329	B2	689	B2	493	B2	434	B2
9	Total written complaints about sewerage service issues escalated to second stage review	nr	0	57	B2	82	B2	42	B2	31	B2
	(iv) Metering										
10	Total written complaints about metering issues	nr	0	86	B2	123	B2	133	B2	107	B2
11	Total written complaints about metering issues escalated to second stage review	nr	0	23	B2	25	B2	28	B2	11	B2
	(v) Other activities										
12	Total written complaints about other service issues or activities	nr	0	436	B2	346	B2	488	B2	362	B2
13	Total written complaints about other service issues or activities escalated to second stage review	nr	0	113	B2	82	B2	124	B2	51	B2
C	**OTHER CUSTOMER RESPONSE MEASURES**										
14	Number of holding responses issued	nr	0	n/a		695	B4	351	B4	294	B4
15	Consumer Council investigations	nr	0	52	B2	27	B2	40	B2	28	B2

Table 5a – Customer complaints data for Consumer Council Northern Ireland (Total)

DG7 Received Annual Profile & Explanation

The volume of DG7 complaints received each month during 14/15 by type is shown in the chart below.



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Charges & Billing	83	84	95	75	56	88	96	54	71	69	49	86
Metering	15	16	8	8	8	10	7	7	11	4	10	3
Other Activities	18	29	39	37	42	32	32	25	29	32	21	26
Sewerage Services	21	26	34	37	44	43	34	54	32	23	36	50
Water Services	39	32	38	56	34	66	44	38	36	86	51	35

In line with previous years, those falling into the Charges & Billing category remain the predominant written complaint type.

The first three months of the year, as in 13/14, saw above average volumes of Charges & Billing complaints, dropping off from July. However the volume increased again in August through to September to above average volumes for this type once more. The spike in volume cannot be directly attributed to any specific billing-related issue.

The impact of Industrial Action taken by some NI Water staff in December and January resulted in a notable increase in the volume of Water Services complaints received in January.

Second Stage Complaints

Systems remained in place to enable the reporting of complaints escalated to second stage review throughout 14/15.

It should be noted that the associated data does not highlight instances of the same customers sending further complaints on the same issue following a second stage complaint. Second stage complaints have not been analysed to determine whether they would be deemed upheld or unjustified by the Company.

Sampling audits were performed throughout the year to ensure accuracy of categorisation.

Other Customer Measures

Within the PC10 Final Determination, stakeholders agreed to introduce monitoring systems to allow reporting of:

- the number and frequency of repeat complaints; and
- the number and frequency of holding responses.

Whilst there is no data line to report on repeat complaints, those complaints reported as having been escalated to second stage review could be interpreted as representing the number of repeat written complaints.

Monitoring systems have been in place throughout the reporting period to support reporting on the number holding responses issued throughout 14/15. From April 2014, the data was collated using the manually-recorded, off-system process used in the previous reporting year. System-based reporting capturing use of a new “Holding Response” header linked to CMS memos on Rapid was introduced in Q2 (August 2014).Whilst using this new header with immediate effect when issuing a holding response, the Complaints & Exec Mail Team continued to manually record the details of the holding responses to support parallel tracking and validation of the new report. This continued until the end of November 2014.The first of the new holding response reports was issued at the start of October 2014 and captured the details of all new instances of the new header being added since it became operational on 19/08/14.The report data was then compared against the manually-collated data. This occurred on a weekly basis with feedback provided for any discrepancies discovered. The data from August 2014 onwards was also used to retrospectively check against the items manually-added to the tracker during August & September 14. Once confident that the new header was being used appropriately and that the report was fit for purpose, manual tracking stopped.

The data for the volume of holding responses issued between 01/04/14 and 31/08/14 was collated using the manually-recorded, off-system process. The new report data has been used to derive the number of holding responses issued between 01/09/14 and 31/03/15.The figure reported in Line 14 is the total recorded number of holding responses issued to customers during year 14/15 owing to pending investigations linked to open DG7 contacts which were received in year 14/15.

In cases where the investigations were on-going by the expiry date of the initial holding response, a further holding response will be been issued. As such, the reported figure does not represent the number of unique DG7 contacts for which one or more holding response was issued. It does not include holding responses issued within 14/15 to DG7 contacts received in the previous reporting year.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 6A BAD DEBT
OUTSTANDING REVENUE AND BREAKDOWN OF CUSTOMER SERVICES OPERATING EXPENDITURE (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**REVENUE OUTSTANDING - MEASURED HOUSEHOLDS**										
	Lines 1 to 14 not used										
B	**REVENUE OUTSTANDING - UNMEASURED HOUSEHOLDS**										
	Lines 15 to 28 not used										
C	**REVENUE OUTSTANDING - MEASURED NON HOUSEHOLDS**										
29	Total revenue outstanding < 48 months (measured non households)	£m	3	7.348	A2	7.972	A2	8.260	A2	8.739	A2
30	Number of measured non households with outstanding revenue < 48 months	nr	0	14,284	A2	15,348	A2	14,570	A2	14,645	A2
31	Revenue outstanding < 3 months (measured non households)	£m	3	6.179	A2	6.891	A2	7.189	A2	7.525	A2
32	Number of measured non households with outstanding revenue < 3 months	nr	0	10,951	A2	10,588	A2	10,053	A2	10,415	A2
33	Revenue outstanding 3 - 12 months (measured non households)	£m	3	1.169	A2	0.952	A2	0.928	A2	0.960	A2
34	Number of measured non households with outstanding revenue 3 - 12 months	nr	0	3,333	A2	2,925	A2	3,108	A2	2,815	A2
35	Revenue outstanding 12 - 24 months (measured non households)	£m	3			0.012	A2	0.039	A2	0.088	A2
36	Number of measured non households with outstanding revenue 12 - 24 months	nr	0			1,049	A2	911	A2	992	A2
37	Revenue outstanding 24 - 36 months (measured non households)	£m	3			0.117	A2	0.104	A2	0.166	A2
38	Number of measured non households with outstanding revenue 24 - 36 months	nr	0			786	A2	498	A2	423	A2
39	Revenue outstanding 36 - 48 months (measured non households)	£m	3					0.000		0.000	
40	Number of measured non households with outstanding revenue 36 - 48 months	nr	0					0		0	
41	Revenue outstanding > 48 months (measured non households)	£m	3					0.000		0.000	
42	Number of measured non households with outstanding revenue > 48 months	nr	0					0		0	
D	**REVENUE OUTSTANDING - UNMEASURED NON HOUSEHOLDS**										
43	Total revenue outstanding < 48 months (unmeasured non households)	£m	3	3.083	A2	0.402	A2	2.627	A2	2.566	A2
44	Number of unmeasured non households with outstanding revenue < 48 months	nr	0	10,805	A2	1,542	A2	10,114	A2	9,302	A2
45	Revenue outstanding <3 months (unmeasured non households)	£m	3	2.812	A2	0.111	A2	2.349	A2	2.350	A2
46	Number of unmeasured non households with outstanding revenue < 3 months	nr	0	9,836	A2	155	A2	8,826	A2	8,591	A2
47	Revenue outstanding 3 -12 months (unmeasured non households)	£m	3	0.271	A2	0.025	A2	0.165	A2	0.070	A2
48	Number of unmeasured non households with outstanding revenue 3 - 12 months	nr	0	969	A2	256	A2	697	A2	195	A2
49	Revenue outstanding 12-24 months (unmeasured non households)	£m	3			0.241	A2	0.005	A2	0.116	A2
50	Number unmeasured non households with outstanding revenue 12 - 24 months	nr	0			894	A2	184	A2	448	A2
51	Revenue outstanding 24-36 months (unmeasured non households)	£m	3			0.025	A2	0.108	A2	0.030	A2
52	Number of unmeasured non households with outstanding revenue 24 - 36 month	nr	0			237	A2	407	A2	68	A2
53	Revenue outstanding 36 -48 months (unmeasured non households)	£m	3					0.000		0.000	
54	Number of unmeasured non households with outstanding revenue 36 - 48 month	nr	0					0		0	
55	Revenue outstanding >48 months (unmeasured non households)	£m	3					0.000		0.000	
56	Number of unmeasured non households with outstanding revenue > 48 months	nr	0					0		0	
E	**REVENUE WRITTEN OFF**										
57	Amount of revenue written off from measured households	£m	3								
57a	Amount of revenue written off from measured non-households	£m	3	0.957	A2	1.094	A2	0.844	A2	0.666	A2
58	Amount of revenue written off from unmeasured households	£m	3								
58a	Amount of revenue written off from unmeasured non-households	£m	3	0.057	A2	0.173	A2	0.094	A2	0.110	A2
F	**CUSTOMER SERVICES OPERATING EXPENDITURE**										
59	General customer services operating expenditure Total	£m	3	6.745	A2	6.418	A2	6.767	A2	6.284	A2
i	Employment costs	£m	3	3.862	A2	3.673	A2	3.408	A2	3.188	A2
ii	Hired and contracted costs	£m	3	3.129	A2	3.139	A2	3.392	A2	3.188	A2
iii	Other	£m	3	0.686	A2	0.611	A2	0.739	A2	0.819	A2
iv	Adjustments	£m	3	-0.932	B3	-1.005	B3	-0.772	B3	-0.911	B3
60	Outstanding revenue collection operating expenditure (households)	£m	3								
60a	Outstanding revenue collection operating expenditure (non households)	£m	3	2.009	DX	2.118	DX	2.269	DX	2.242	DX
61	Donations to charitable trusts assisting customers in debt (households)	£m	3								
62	Operating expenditure due to vulnerable household customers	£m	3								
63	Total customer services operating expenditure	£m	3	8.754	A2	8.536	A2	9.036	A2	8.526	A2

Table 6a – Bad Debt

Overview

The company operates a partnership with an external service provider (Echo) for customer contact and billing. Customer Services Delivery Directorate works closely with the supplier on all billing matters including debt recovery, designations of customers for write off of debt and estimation of the level of bad debt provisioning to be put in place for potential future write-offs.

The service provider furnishes monthly information for non-domestic measured water and trade effluent income, cash, write-offs, VAT and closing debtor balances to the company from the billing system (RapidXtra). This information is used to produce the monthly management accounts. The figures in Table 6a are derived from this information.

The figures contained within the table are clarified below:

Box A – Revenue Outstanding – Measured Households

For the year ended 31 March 2015 NI Water had no actual revenue from households as this is received by way of a subsidy from Department for Regional Development ("DRD"). There was £1.03m due to NIW from DRD for subsidy at 31 March 2015. This figure varies to the Statutory Accounts as Septic Tank subsidy is not reported in AIR as it is classified as non-appointed income under UKGAAP.

Box B – Revenue Outstanding – Unmeasured Households

As above, income is received by way of a subsidy from DRD.

Box C – Revenue Outstanding – Measured Non-Households

Revenue outstanding from non-households is the amount of revenue relating to measured water, measured sewerage and trade effluent charges that had been billed in the year but not collected at 31 March 2015.

At 31 March 2015 the closing trade debtor balance was £8.739m. Trade Debtors increased this year largely due to back-billing and increased consumption for a number of larger customers.

The debtor balance reported figure is made up of various GL codes and is calculated as measured water and sewerage debtors (including Trade Effluent debtors) less unreconciled receipts, bad debt provision and provision for discount. The bad debt provision is £4.3m and is made up of the following:

- £0.7m for debt over 4 years
- £0.4m for debt 3 - 4 years
- £0.8m for debt 2 – 3 years
- £1.2m for debt 1 – 2 years
- £1.0m for debt 90 – 365 days
- £0.2m for debt less than 90 days

There is one GL code for measured water and sewerage debtors. At year end the GL debtor balance (gross of credit balances) was approx. £1.9m more than the detailed debtors listing provided by Echo. This was due to the following:

- Future system adjustments (£1.6m)
- Referred Bills (£0.3m)

Summary of all relevant rows for Section C

Row 29 – Total Revenue Outstanding < 48 months - Measured Non Households

The total amount of revenue at the end of 2014/15 outstanding from measured non households for less than 48 months. Balance as at 31 March 2015 was £8.739m.

Row 30 – Number of Measured Non-Households with Outstanding Revenue < 48 months

The number of measured non households with revenue outstanding for less than 48 months at 31 March 2015 was 14,645. The number of households has been adjusted in line with the decrease in debtors taking account of anticipated future system adjustments and other adjustments of £1.9m. The £1.9m is approximately 11% of total outstanding debtors at 31 March 2015 of £17.6m. An assumption was made to apply an 11% reduction across all measured revenue age groups up to 36 months.

Row 31 – Revenue Outstanding < 3 months (Measured Non Households)

The total amount of revenue at the end of 2014/15 that has been outstanding from measured non households for less than 3 months. Balance as at 31 March 2015 was £7.525m.

Row 32 – Number of Measured Non-Households with Outstanding Revenue < 3 months

The number of measured non households at end of 2014/15, with revenue outstanding for less than 3 months. As at 31 March 2015 this totalled 10,415.

Row 33 – Revenue Outstanding 3-12 months (Measured Non Households)

The total amount of revenue at the end of 2014/15 that has been outstanding from measured non households for at least 3 months but less than 12 months. Balance as at 31 March 2015 was £0.960m.

Row 34 – Number of Measured Non-Households with Outstanding Revenue 3-12 months

The number of measured non households at end of 2014/15 with revenue that has been outstanding for at least 3 months but less than 12 months. At 31 March 2015 this totalled 2,815.

Row 35 – Total Revenue Outstanding 12-24 months (Measured Non Households)

The total amount of revenue at the end of 2014/15 outstanding from measured non households for at least 12 months but less than 24 months. At 31 March 2015 this totalled £0.088m.

Row 36 – Number of Measured Non-Households with Outstanding Revenue 12-24 months

The number of measured non households at end of 2014/15 with revenue that has been outstanding for at least 12 months but less than 24 months. At 31 March 2015 this totalled 992.

Row 37 – Total Revenue Outstanding 24-36 months (Measured Non Households)

The total amount of revenue at the end of 2014/15 outstanding from measured non households for at least 24 months but less than 36 months. At 31 March 2015 this totalled £0.166m.

Row 38 – Number of Measured Non-Households with Outstanding Revenue 24-36 months

The number of measured non households at end of 2014/15 with revenue that has been outstanding for at least 24 months but less than 36 months. At 31 March 2015 this totalled 423.

Row 39 – Number of Measured Non-Households with Outstanding Revenue 36-48 months

The number of measured non households at end of 2014/15 with revenue that has been outstanding for at least 36 months but less than 48 months.

Once the bad debt provision is applied there are no debtors greater than 36 months. Therefore at 31 March 2015 this row and all remaining rows in box C are zero.

Box D – Revenue Outstanding – Unmeasured Non-Households

Revenue outstanding from non-households is the amount of revenue relating to unmeasured water and sewerage charges that had been billed in the year but not collected at 31 March 2015.

- At 31 March 2015 the closing trade debtor balance was £2.566m (31 March 2014, £2.627m).

The debtor balance reported figure is made up of unmeasured water and sewerage debtors less bad debt provision. The bad debt provision is £0.114m and is made up of the following:

- £0.018m for debt over 4 years
- £0.011m for debt 3 - 4 years
- £0.020m for debt 2 – 3 years
- £0.033m for debt 1 – 2 years
- £0.027m for debt 90 – 365 days
- £0.005m for debt less than 90 days

Summary of all relevant rows for Section D

Row 43 – Total Revenue Outstanding < 48 months - Unmeasured Non Households

The total amount of revenue at the end of 2014/15 outstanding from unmeasured non households for less than 48 months. Balance at 31 March 2015 was £2.566m.

Row 44 – Numbers of Unmeasured Non-Households with Outstanding Revenue < 48 months

The number of unmeasured non households at the end of 2014/15 with revenue that has been outstanding for less than 48 months. Total at 31 March 2015 was 9,302.

Row 45 – Revenue Outstanding < 3 months - Unmeasured Non Households

The total amount of revenue at the end of 2014/15 outstanding from unmeasured non households for less than 3 months. Balance at 31 March 2015 was £2.350m.

Row 46 – Numbers of Unmeasured Non-Households with Outstanding Revenue < 3 months

The number of unmeasured non households at the end of 2014/15 with revenue outstanding for less than 3 months. Total at 31 March 2015 was 8,591.

Row 47 – Revenue Outstanding 3-12 months - Unmeasured Non Households

The total amount of revenue at the end of 2014/15 outstanding from unmeasured non households for at least 3 months but less than 12 months. Balance at 31 March 2015 was £0.070m.

Row 48 – Numbers of Unmeasured Non-Households with Outstanding Revenue 3-12 months

The number of unmeasured non households at end of 2014/15 with revenue outstanding for at least 3 months but less than 12 months. Total at 31 March 2015 was 195.

Row 49 – Revenue Outstanding 12-24 months - Unmeasured Non Households

The total amount of revenue at the end of 2014/15 outstanding from unmeasured non households for at least 12 months but less than 24 months. Balance at 31 March 2015 was £0.116m.

Row 50 – Numbers of Unmeasured Non-Households with Outstanding Revenue 12-24 months

The number of unmeasured non households at end of 2014/15 with revenue outstanding for at least 12 months but less than 24 months. Total at 31 March 2015 was 448.

Row 51 – Revenue Outstanding 24-36 months - Unmeasured Non Households

The total amount of revenue at the end of 2014/15 outstanding from unmeasured non households for at least 24 months but less than 36 months. Balance at 31 March 2015 was £0.030m.

Row 52 – Numbers of Unmeasured Non-Households with Outstanding Revenue 24-36 months

The number of unmeasured non households at end of 2014/15 with revenue outstanding for at least 24 months but less than 36 months. Total at 31 March 2015 was 68.

Row 53 – Revenue Outstanding 36-48 months - Unmeasured Non Households

The total amount of revenue at the end of 2014/15 outstanding from unmeasured non households for at least 36 months but less than 48 months.

Once the bad debt provision is applied there are no debtors greater than 36 months. Therefore at 31 March 2015 this row and all remaining rows in box D are zero.

Box E – Revenue Written Off

Bad debt write-offs

The bad debt write off policy is detailed below. As with all other customer data the company receives monthly figures for bad debt write-offs. The figure for the year is £0.776m (2013/14, £0.939m). The decrease is a result of improved income collection in 2014/15.

Authorisation of bad debt write-off

With regard to writing off bad debts the service provider has authorisation to write off only terminated accounts. No write off for ongoing debt will be made unless expressly authorised by NI Water.

Authorisation approval levels are as follows:

Delegation Limits [By Item]	Recommendation from (External service provider)	Approval required Grade (Internal)	DFP/DRD * (External)
Value			N/A
Up to £100	Agent	Billing & Collection L4.	
>£100 to £1,000	Senior Agent / Team Manager		
>£1,000 to £5,000	Service Delivery Manager		
>£5,000 to £10,000	Head of Service Delivery	Head of Billing & Collections L3	
>£10,000 to £50,000		Director of Customer Service Delivery L2	
>£50,000		Chief Executive	
> £250,000	N/A	Board	>£500k

* All submissions for external approval must be submitted through F&R to the DRD SU.

Revenue written off is revenue relating to non-household water and sewerage charges along with any trade effluent charges that have been written off in the year.

Revenue written off only includes water, sewerage and trade effluent charges and does not include court costs or other items included.

NI Water uses a third party contractor to manage their debtors and a Debt Management Strategy was drawn up for Echo use to guide their actions and decisions.

Summary of all relevant rows for Section E

Row 57 – Measured Households

As NI Water receives no revenue from households, there was no revenue written off from measured households.

Row 57a – Measured Non-Households

Bad debts written off are calculated on a monthly basis and include trade effluent. The total for 2014/15 was £0.666m (2014/15, £0.844). The decrease is a result of improved income collection in 2014/15.

Row 58 – Unmeasured Households

As NI Water receives no revenue from households, there was no revenue written off from unmeasured households.

Row 58a – Unmeasured Non-Households

Bad debts written off are calculated on a monthly basis. The total for 2014/15 was £0.110m (marginally higher than the 2013/14 figure of £0.094m).

Bad Debt provisioning

The methodology for calculating the bad debt provision is based on an analysis of industry specific bad debt which banded specific industry types as high, medium or low risk in terms of collectability of debt. Percentages were then applied in terms of bad debt provision. Percentages for 'high risk' were set at an increased level and percentages for 'low risk' at a reduced level. The company view this methodology as providing an

appropriate estimate of the provisioning required and reflects the current economic climate. NI Water's bad debt provision is calculated as follows:

Provision	0-30 days	31-60 days	61-90 days	91-120 days	121-150 days	151-180 days	180-365 days	1 - 2 years	2 - 3 years	3 - 4 years	4+ years
High	5%	5%	10%	10%	35%	65%	80%	100%	100%	100%	100%
Medium	2%	2%	2%	2%	20%	35%	65%	100%	100%	100%	100%
Low	1%	1%	1%	1%	10%	20%	30%	50%	75%	100%	100%
Test meters	75%	75%	75%	75%	75%	75%	75%	100%	100%	100%	100%

Allocation of High, Medium and Low

The total debtors (debit balances) are reviewed on a quarterly basis, taking into account the outstanding balance and the age of the debt. The last review was carried out at the end of February 2015. The following steps were taken:

- The top 100 customers were individually reviewed;
- Large commercial entities were reviewed; e.g. [redacted]
- All public sector accounts e.g. Health Trusts, Education Boards, Schools, were reviewed:
- The agricultural customers were grouped and reviewed;
- Food processors were grouped and reviewed;
- The retail customers were grouped and reviewed;
- The hotel, bar and restaurant customers were reviewed;
- The charity, voluntary sector, housing association and church customers were grouped and reviewed;
- The construction and quarry customers were grouped and reviewed;
- Accounts with a STD VAT code were reviewed individually;
- The manufacturing customers were grouped and reviewed by name and by activity;
- The food processor customers were grouped and reviewed;
- Sports clubs were grouped and reviewed;
- Management agencies were grouped and reviewed.

Adopting the experienced judgement of the Billing, Revenue and Collections Lead person, customers were designated a risk of payment default as High, Medium and Low. Test meters were separately identified.

Reduction in Provision

NIW provides against aged debt through the bad debt provision, applying a methodology based on age profile and industry. It is recognised that a proportion of the old debt will not in fact be written off as bad debt but will be eliminated via negative system adjustments and thus be a reduction in income rather than a bad debt expense.

Using the monthly analysis of system adjustments carried out, an estimate of the future system adjustments was made for measured water and measured sewerage only. This was done on the basis of the adjustments in previous months, resulting in an estimate of £1.6m of future system adjustments.

Debtors were reduced by £1.9m in March 2015 and the bad debt provision calculated on the reduced debt was decreased by £0.01m.

Bad Debt Provision Summary

The following is a summary of the bad debt provision at 31 March 2015 and 31 March 2014:

	2015	**2014**
	£m	**£m**
Measured water & sewerage	3.887	3.913
Unmeasured water & sewerage	0.114	0.138
Trade effluent	0.387	0.353
Total	**4.388**	**4.404**

Subsidy

NI Water received £262.4m subsidy in relation to household customers in 2014/15 with nothing outstanding from DRD at 31 March 2015.

NI Water received £13.73m subsidy in relation to non-household customers and at 31 March 2015 an amount of £1.03m was outstanding from DRD. The total subsidy for non-households for the year ended 31 March 2015 was £14.76m. This figure varies to the Statutory Accounts as Septic Tank subsidy is not reported in AIR as it is classified as non-appointed income under UKGAAP.

Lines 59 to 63 – Customer Services Operating Expenditure

Line 59 – General customer services operating expenditure

The line 59 total of £6.284m in AIR15 is a £0.5m decrease (7%) against the costs of £6.767m in AIR14. This arises for the following reasons:

- Employment costs (decrease of 0.2m (6%)).
- Hired and contracted costs (decrease of 0.2m (6%)).
- Other costs (increase of 0.1m (11%)).
- Adjustments (decrease of 0.1m (18%)).

None of the variances are material, as per the definition (i.e. +/- 30%).

Line 60 – Outstanding revenue collection operating expenditure (households)

As NI Water has no actual revenue from households, there is no revenue outstanding from households and therefore no operating expenditure for outstanding revenue collection.

Line 60a – Outstanding revenue collection operating expenditure (non-households)

The calculation of this figure was based on a high-level estimate from Echo of the split of their monthly service charge relating to collection activity. In addition, an estimate of some internal NIW collection costs was included. There is a confidence grading of DX, as there was no formal system in place to gather these costs.

Line 61 – Donations to charitable trusts assisting customers in debt (households)

There were no donations to charitable trusts assisting customers in debt in the year.

Line 62 – Operating expenditure due to vulnerable household customers

Household customers in Northern Ireland currently do not pay for water and sewerage services; therefore, NI Water issues no bills to 'vulnerable household customers'.

Line 63 – Total customer services operating expenditure

This agrees to the total of table 21, line 13 and table 22, line 12.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 7 NON FINANCIAL MEASURES
WATER PROPERTIES & POPULATION (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG	5 CURRENT YEAR 2015-16	CG
A	**PROPERTIES**												
1	Household properties connected during the year	000	3	3.838	B2	4.154	B2	3.611	B2	4.224	B2		
2	Non-household properties connected during the year	000	3	0.329	B2	0.195	B2	0.204	B2	0.260	B2		
B	**BILLING**												
3	Households billed unmeasured water	000	3	672.816	A2	681.095	A2	688.832	B2	694.934	A2	699.341	A2
4	Households billed measured water (external meter)	000	3	0.000	A1	0.000	A1	0.000	A1	0.000	A1	0.000	A1
5	Households billed measured water (not external meter	000	3	0.000	A1	0.000	A1	0.000	A1	0.000	A1	0.000	A1
6	Households billed water	000	3	672.816	A2	681.095	A2	688.832	B2	694.934	A2	699.341	A2
7	Household properties (water supply area)	000	3	713.341	A2	721.698	A2	729.182	B2	734.976	A2	738.948	A2
8	Non-households billed unmeasured water	000	3	11.943	A2	10.896	A2	10.271	A2	9.589	A2	8.861	A2
9	Non-households billed measured water	000	3	68.674	A2	69.158	A2	69.567	A2	69.645	A2	70.145	A2
10	Non-households billed water	000	3	80.617	A2	80.054	A2	79.838	A2	79.234	A2	79.006	A2
11	Non-household properties (water supply area)	000	3	93.072	A2	92.466	A2	92.286	A2	91.541	A2	91.562	A2
12	Void properties	000	3	52.981	A2	53.015	A2	52.798	B2	52.350	A2	53.892	A2
C	**POPULATION**												
13	Population - households billed unmeasured water	000	2	1698.55	B2	1709.66	B2	1718.73	B2	1731.65	B2		
14	Population - households billed measured water	000	2	0.00	A1	0.00	A1	0.00	A1	0.00	A1		
15	Population - non-households billed unmeasured water	000	2	7.61	B3	7.11	B3	6.78	B3	6.49	B3		
16	Population - non-households billed measured water	000	2	102.66	B3	102.7	B3	102.28	B3	102.40	B3		
17	Population - total	000	2	1808.82	B2	1819.47	B2	1827.79	B2	1840.54	B2		

Table 7 – Water Properties and Population

Introduction

Table 7 focuses on the number of properties and population connected to the public water supply system. It extends to 17 lines, set out in three blocks:

Block A Properties (Lines 1 & 2)	Reports properties connected during the year
Block B Billing (Lines 3-12)	Includes a breakdown of all measured and unmeasured household and non-household properties billed by the company. The property numbers should be the average for the report year.
Block C Population (Lines 13-17)	This records the population within each of the measured and unmeasured household and non-household categories. The population numbers should be the average for the report year.

In keeping with the Utility Regulator guidance, lines 6, 10 and 17 are calculated lines, being the sum of their equivalent lines within the table. Blocks A and B are completed by the Customer Systems team and Block C by the Leakage team.

The information in this table is used in a number of core corporate calculations such as the water balance calculation and also in tariff, charging analysis and determination (water delivered unit cost).

Definition of 'Billed' Properties

Domestic customers were originally due to be charged for water and sewerage charges from April 2007. However this was deferred in April 2007 and has not been implemented since. There are no apparent plans for charges to be implemented during 2015/16. NI Water is subsidised for these domestic customers by Department for Regional Development (DRD).

In April 2008, NI Water extended the charging in the non-domestic sector to include unmeasured non-households in addition to the measured non-household customer base. These charges are based on the NAV of the non-household property, derived from annual information provided by Land and Property Services (LPS).

As per previous AIR submissions, for clarity, where reference is made in Table 7 to 'billed' household and 'billed' non-household, this is taken as the provision of water services to customers whether they are billed directly (non-domestic customers) or payment is made through subsidy by DRD (domestic customers).

Classification of Farms

As per Utility Regulator guidelines, farms were reclassified as billed non-households for AIR09 – this has remained for AIR15. Previously, in AIR08, farms had been classified and reported as 'billed' households on the principle of their status and allocation of 'domestic allowance'.

Data Sources, Data Validation and Data Quality Projects

The key source of information for the new connections and property data in Table 7 is the customer billing database, RapidXtra.

Customer/Property information is updated through;

- 'business as usual' customer contacts, such as new connection requests, move in/move outs, or
- through Data Quality initiatives/Projects and/or
- Metering workstreams e.g. UNHH, Optants, Proactive Meter Exchange etc.

Under the Water & Sewerage Services (2006) Order, NI Water is required to install meters on all new household connections since April 2007. As domestic customers are not charged on a measured basis, the property is reported as unmeasured. Some domestic properties were initially reported as measured in AIR10 but this was rectified as per the erratum to AIR10. Depending on the basis for charging when domestic billing is introduced, these customers can be activated as measured household if required.

Data on property counts and classifications continue to be reported monthly from Rapid. The Rapid Property Summary provides us with a snapshot at the end of each month in terms of gross movements; it doesn't support us in the explanation of net movements within the data.

Data on population continues to be obtained from Northern Ireland Statistics and Research Agency (NISRA), adjusted for the winter months based on information published by the Department of Enterprise, Trade and Investment (DETINI) and the Central Statistics Office (CSO), Ireland

From the Rapid Property Summary there are deemed to be 625 (gross) 'unmeasured – not charged' properties which (based on sample taken) are mostly NI Water properties. NI Water are currently investigating any 'unmeasured – not charged' properties outside of NI Water ownership to ensure they are classified correctly.

Background

As Table 7 is based on averages, please find summary table below for End March 2014, 1st December 2014 and End March 15.

Property Numbers	March 2014	1st Dec 2014	March 2015
Unmeasured Water Household	692444	695594	697424
Unmeasured Water Non-Household	10016	9327	9161
Measured Water Non-Household	69678	69651	69612
Voids	52836	52155	51863

The variances in our property numbers from AIR14 to AIR15 can be explained by the following:

1. New Connections during the 2014/15 reporting year. As detailed in the associated Line Methodology and as per Annex A, an issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connections Team.

2. As a result of a customer contact. E.g. septic tank empty request, no water complaint, blocked sewer, updating of standing data e.g. removal of services etc. Within this category there are 2 scenarios:
    a. The adding of properties NI Water allegedly didn't know about (A requirement has been written into the new CBC Contract, the Rapid/POINTER quarterly reconciliation will close the gap on such properties).
    b. The adding of duplicates as the customers address couldn't be found on Rapid. For example, Rapid may hold the site number but when the customer contacts NI Water they quote the verified postal address which is different, therefore creating a duplicate. Another scenario - The street name may have changed from the time of New Connection to that of customer contact – street names can change in the early stages of site development. (A requirement has been written into the new CBC Contract to check weekly (against POINTER) for address updates to New Connection properties).
3. Removal of duplicates/properties as a result of data quality initiatives.
4. The increased number of properties within the no water/well water category. NI Water have sampled new properties added to this category and have found:-
    a. 482 have been added to No Water/Well Water as a result of in year categorisation changes – as detailed below.

Category (2014)	Category (2015)	Count
Measured		109369
	Measured	108998
	No Supply / Well Water	220
	Site Meters	40
	Unmeasured	57
	Unmeasured - Not Charged	2
	#N/A	52
	#N/A	24
Unmeasured		714620
	Measured	2329
	No Supply / Well Water	262
	Sewerage Only	2
	Site Meters	235
	Test Meters	1
	Unmeasured	711266
	Unmeasured - Not Charged	27
	#N/A	498

    b. Approximately 900 of the 2014/15 New Connections are currently within the No Water/Well Water category (However we know from recent analysis the connection has been made and the water status will be updated in due course).
    c. The remaining increase is as a result of the change in the processes within the Customer Connections Team. They have moved from an offline New Connection database to using Rapid (in year), and as a result new properties are created at the time a new connection application form is received – not when the customer connection has been approved, paid and requested. During 2014/15 we received over 7500 new application forms. This has been further checked by sampling the property reference numbers of the

properties within this category – the majority are new property references created during the 2014/15 year. A number of these may not proceed beyond the application stage.

Numerous other data quality requirements have been built into the new CBC Contract. They cover all aspects of the property life cycle (creating, amending and demolishing properties) and data degradation will be monitored/measured throughout. The work on data validation has commenced, with some new validations 'live' as of mid-May. Identifying data primacy is key to ensuring the validations are effective.

Test Meters

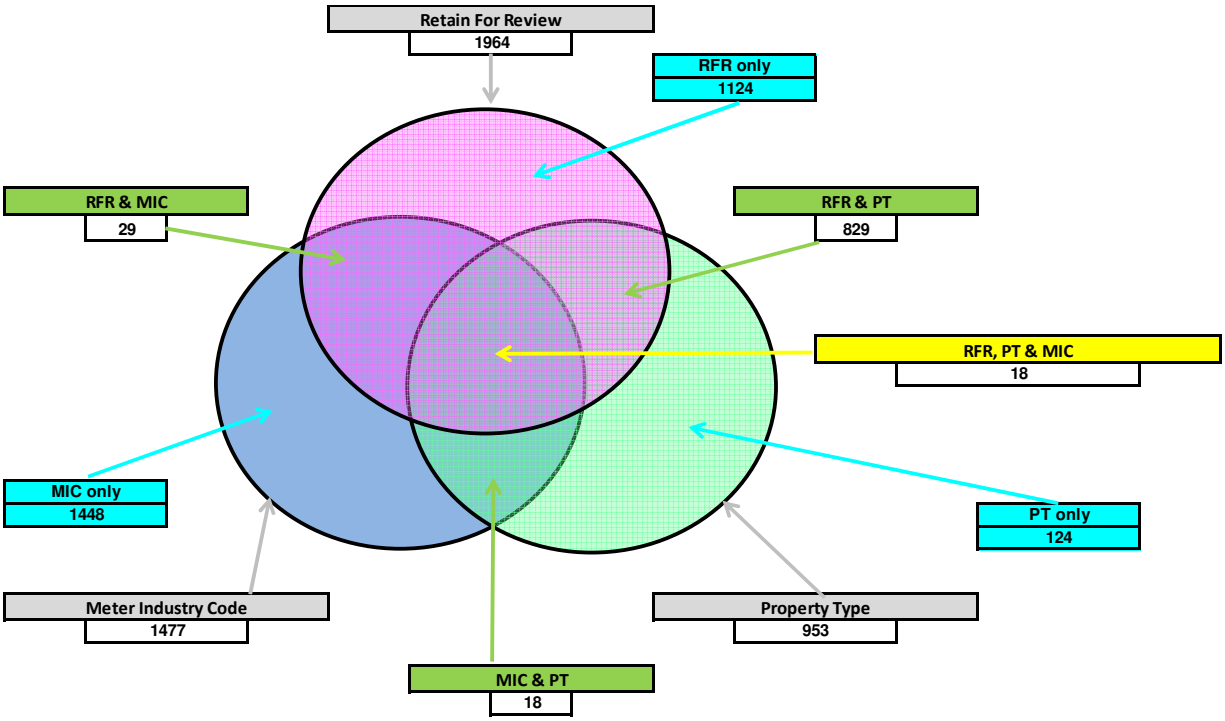
The remaining test/retain for review meters were to be reviewed over a period of time to help determine the correct status of these test meters. Test/retain for review meters have been raised with relevant Heads of Function (Metering and Billing & Revenue) to confirm what is being planned in this area.

The movement within the Test Meter category of the RPS is shown below.

Category (2014) – move from	Category (2015) – move to	Count
Test Meters		1399
	Measured	21
	No Supply / Well Water	9
	Test Meters	1364
	Unmeasured	3
	Demolished property	2

No Water / Well Water and demolished properties aren't included in the Table 7 property counts.

As previously discussed with the Reporter as part of the Principal Statement process NI Water highlighted areas of potential data misalignment within historic records in terms of Property Water Status, Property Type and Meter Industry Code and as such all 3 have to be considered when extracting test meters. See diagram below:



Site Metered Properties

As part of the ongoing data checks, NIW has been confirming the number of site metered properties (multiple properties being charged through a single meter, such as business parks and industrial estates).

To ensure that these properties are not double counted, they are not included in Table 7 non-domestic property counts (although NIW still retain this information for customer record and charging purposes). There are 610 domestic properties classified as site meters and there will be further investigation and analysis to be completed during 2015/16 to ensure these are classified correctly.

Overall, the number of non-domestic site meters has increased by circa 200 during 2014/15. This has resulted from categorisation movements in year such as measured water to site meter and unmeasured water to site meter.

Unmeasured Household Property Movement

The table below provides a reconciliation of the reporting year property movements and resulting property numbers. It sets out how the properties have changed over the reporting year.

Category (March 2014) – move from	Category (March 2015) – move to	714620
	Measured	2329
	No Supply / Well Water	262
	Sewerage Only	2
	Site Meters	235
	Test Meters	1
	Unmeasured	711266
	Unmeasured - Not Charged	27
	#N/A	498

Property Numbers	March 14	March 15
	Actual	Actual
Start of Year	685219	692444
New/Metered (plus)	(+) 3611	(+) 4224
Data Cleanse/BAU Activity	(+) 3357	(+) 1615
Test Meters	(-) 7	(-) 6
Site Meters	(+) 10	(+) 17
Voids	(+) 254	(-) 870
End	**692444**	**697424**

Property Numbers	March 2014	1st Dec 2014	March 2015
Unmeasured Water Gross Household (L7 year end sub calc)	732921	735510	737031
Unmeasured Water Occupied Household (L3 year end sub calc)	692444	695594	697424
Unmeasured Water Voids Household	40477	39916	39607

Household Voids	Voids	Difference (in-year)
March 2015	39607	(-) 870
March 2014	40477	(+) 254
March 2013	40223	

Measured Household Property Movement

Due to the deferral of domestic charging Due to the deferral of domestic charging, NI Water does not bill households for unmeasured or measured water, therefore we don't report figures for measured household property movements (they are included in the unmeasured line as they are not billed)

Unmeasured Non-Household Property Movement

Property Numbers	March 2014	1st Dec 2014	March 2015
Unmeasured Water Gross Non-Household	17692	16918	16648
Unmeasured Water Occupied Non-Household (L8 year end sub calc)	10016	9327	9161
Unmeasured Water Voids Non-Household	7676	7591	7487

Measured Non-Household Property Movement

Property Numbers	March 2014	1st Dec 2014	March 2015
Measured Water Gross Non-Household	74361	74299	74381
Measured Water Occupied Non-Household (L9 year end sub calc)	69678	69651	69612
Measured Water Voids Non-Household	4683	4648	4769

Non Household Voids

Non-Household Voids	Voids	Difference (in-year)
March 2015	12256	(-) 103
March 2014	12359	(-) 178
March 2013	12537	

Annex A details the Line Methodology followed for the figures calculated in Table 7 Lines 1-12.

Confidence Grades

We have kept the confidence grades consistent with those of AIR14. During the reviews mentioned in the company commentary above, we will retain evidence to support any change in confidence grades.

Whilst the quality of data will improve, the method of extraction and reporting will remain consistent. The automated tool (developed during AIR12) to populate the base property tables has remained in place for AIR15.

Annex A – Line Methodology for Table 7

A) Properties

Line 1 - Household Properties Connected during the Year

This line represents the number of new household (domestic) properties added within the area of supply during the reporting year (previously not connected for water supply).

An issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connection Team (CCT), as per embedded document. It is NIW policy to install meters on all New Connections.

AIR15_NCs_1415_4484.xlsx

Therefore, the number of new household connections for the year is 4224.

Household properties connected during the year	4224

Line 2 - Non-Household Properties Connected during the Year

This line represents the number of new non-household (non-domestic) properties added within the area of supply during the reporting year (previously not connected for water supply).

An issue with the system report has resulted in a change of methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connection Team (CCT), as per embedded document above. It is NIW policy to install meters on all New Connections.

Therefore, the number of new non-household connections for the year is 260.

Non-Household properties connected during the year	260

B) Billing

Line 3 - Households Billed Unmeasured water

Due to the deferral of domestic charging, NI Water does not bill households for unmeasured or measured water.

Void properties have been excluded, so occupied numbers only used.

This is calculated from the monthly Rapid Property Summary for AIR15 (dated 31st March 2015) as attached below.

Rapid Property Summary - Mar 2015.

Households Billed Unmeasured Water	End March 2014	End March 2015
Household - Unmeasured	660415	662225
Household - Measured – Not Charged (test meters)	390	384
Household - Measured	31139	34278
Household - Site Meters	500	517
Unmeasured - Not Charged	0	20
Total	692444	697424
Average (Apr14/Apr15)	**694934**	

The figure represents the number of unmeasured domestic properties that would have been billed had charging been introduced.

Line 4 - Households Billed Measured Water (external meter)

Due to the deferral of domestic charging, NI Water does not bill households for measured water. Therefore, any domestic properties that would have been included in line 4 are now included in line 3, as per AIR10 erratum, Reporters Recommendations and Undertaking A Agreement.

Households Billed Measured Water (external meter)	End March 2014	End March 2015
	0	0
Average Apr 14/Apr15	**0**	

Line 5 - Households Billed Measured Water (not external meter)

Due to the deferral of domestic charging, NI Water does not bill households for measured water.

Average number of billed metered households (not externally metered).

An internal meter is one located inside the customer's property or attached to the property at above ground level in a box or cabinet. All other meters should be classed as external with void properties excluded.

Households Billed Measured Water (internal meter)	End March 2014	End March 2015
	0	0
Average (Apr14/Apr15)	**0**	

Line 6 - Households Billed Water

Average number of households billed for water within the water supply area.

Calculated by adding AIR14 Table 7 lines 3, 4 and 5

Households Billed Water	Average 14/15
Households billed unmeasured water (Line 3)	694934
Households billed measured water (external meter) (Line 4)	0
Households billed measured water (not external meter) (Line 5)	0
Total	**694934**

The figure represents the number of domestic properties that would have been billed had charging been introduced.

Line 7 - Household Properties (water supply area)

This is the number of connected household properties within the water supply area, including void properties.

This is calculated from the monthly Rapid Property Summary for AIR15 (dated 31st March 2015)

Household Properties (Water Supply Area)	End March 2014	End March 2015
Unmeasured	696928	697838
Measured – Not Charged (Test)	397	389
Measured	35008	38173
Site Meters	588	610
Unmeasured - Not Charged	0	21
Total	732921	737031
Average (Apr14/Apr15)	**734976**	

Line 8 - Non-Household Billed Unmeasured Water

This is the average number of non-households billed for unmeasured water within the supply area, calculated from the Rapid Property Summary.

Figures are based on the average of End March 2014 and End March 2015 non-domestic unmeasured properties.

Non-Households Billed Unmeasured Water	End March 2014	End March 2015
	10016	9161
Average (Apr14/Apr15)	**9589**	

Line 9 - Non-Household Billed Measured Water

This figure represents the average number of non-households billed for measured water within the supply area, calculated from the Rapid Property Summary.

Figures are based on the average of End March 2014 and End March 2015 non-domestic measured properties.

Non-Households Billed Measured Water	End March 2014	End March 2015
	69678	69612
Average (Apr14/Apr15)	**69645**	

Site metered properties are a subset of the overall non-domestic billed measured water customer base, therefore not included in the figure above to avoid duplication. Where many customers are served through one site meter, only the landlord or business park management are considered as the customer, the other business are tenants.

Line 10 - Non-Household Billed Water

This figure represents the average number of non-households billed for water within the supply area.

This is calculated from the Rapid Property Summary for AIR15, excluding voids.

The sum of AIR15 Table 7 lines 8 & 9

Non-Households Billed Water	Average 14/15
Non-Households Billed Unmeasured Water (Line 8)	9589
Non-Households Billed Measured Water (Line 9)	69645
Total	**79234**

Line 11 - Non-Household Properties (water supply area)

This is the average number of connected non-household properties within the water supply area, including void properties, calculated from the Rapid Property Summary.

Non-Household Properties (Water Supply Area)	End March 2014	End March 2015
Unmeasured	17692	16648
Measured	74361	74381
Total	92053	91029
Average (Apr14/Apr15)	**91541**	

Line 12 - Void Properties

This is the average number of properties, within the supply area, which are connected to the distribution system but do not receive a charge, as there are no occupants – (voids).

This is calculated from the Rapid Property Summary.

Void Properties (Water Supply Area)	End March 2014	End March 2015
Non-Household - Unmeasured	7676	7487
Non-Household - Measured	4683	4769
Household - Unmeasured	36513	35613
Household - Measured	3869	3895
Household – Measured - Not Charged (Test)	7	5
Household – Site Meters	88	93
Household - Not Charged	0	1
Total	52836	51863
Average	**52350**	

AIR15 -Calculation of Table 7 Current Year Figures (Lines 3-12)

B BILLING

3 **Households Billed Unmeasured Water**

T7 L3 End March 15 sub calc = 697424
plus
Half the number of Household New Connections projected for 2015/16 reporting year
3834 / 2 = 1917

Households Billed Unmeasured Water	Sub calc from T7 L3 (End March 15 figure)	Half the projected Household New Connections for the 2015/16 reporting year
Sub calc from T7 L3 (End March 15 figure) + half the projected Household New Connections for the 2015/16 reporting year	697424	1917
		699341

4 **Households Billed Measured Water (external meter)**

NIW do not bill Households therefore this figure is **0**

5 **Households Billed Measured Water (not external meter)**

NIW do not bill Households therefore this figure is **0**

6 **Households Billed Water**

Households Billed Water	
The sum of Line 3+4+5	**699341**

7 **Household Properties (water supply area)**

T7 L7 End March 15 sub calc = 737031
plus
Half the number of Household New Connections projected for 2015/16 reporting year
3834 / 2 = 1917

Household Properties (water supply area)	Sub calc from T7 L7 (End March 15 figure)	Half the projected Household New Connections for the 2015/16 reporting year
Sub calc from T7 L7 (End March 15 figure) + half the projected Household New Connections for the 2015/16 reporting year	737031	1917
		738948

8 **Non-Households Billed Unmeasured Water**

T7 L8 End March 15 sub calc = 9161
minus
Half of the projected decrease for UNHH properties during the 2015/16 reporting year 600 / 2 = 300

Non-Households Billed Unmeasured Water	Sub calc from T7 L8 (End March 15 figure)	Half of projected decrease for UNHH properties
Sub calc from T7 L8 (End March 15 figure) *minus* half the projected decrease in UNHH properties	9161	300
		8861

9 **Non-Households Billed Measured Water**

T7 L9 End March 15 sub calc = 69612
plus
Half the projected growth for New Connections & UNHH conversions for the 2015/16 reporting year 466 + 600 = 1066 / 2 = 533

Non-Households Billed Measured Water	Sub calc from T7 L9 (End March 15 figure)	Half the projected growth - New Connections & UNHH conversions
Sub calc from T7 L9 (End March 15 figure) plus half the projected growth (UNHH unmeasured to measured conversions and New Connections) for the 2015/16 reporting year	69612	533
		70145

10 **Non-Households Billed Water**

Non-Households Billed Water	
The sum of lines 8+9	**79006**

11 **Non-Household Properties (water supply area)**

T7 L11 End March 15 sub calc = 91029
plus
Half the projected growth for New Connections & UNHH conversions for the 2015/16 reporting year 466 + 600 = 1066 / 2 = 533

	Non-Household Properties (water supply area)	Sub calc from T7 L11 (End March 15 figure)	Half the projected growth - New Connections & UNHH conversions
	Sub calc from T7 L11 (End March figure) plus half the half the projected growth (UNHH unmeasured to measured conversions and New Connections) for the 2015/16 reporting year	91029	533
			91562

12

Void Properties

Use the End March 15 sub calcs to calculate the current year voids.

= (Line 7 + Line 11) – (Line 6 + Line 10)
= (828060) – (774168)
= 53892

Void Properties	Sub calc from T7 L7	Sub calc from T7 L11	T7 L6	T7 L10
Use the sub calcs from T7 (End March figures) to calculate the current year figure - (Line 7 + Line 11) *minus* (Line 6 + Line 10)	737031	91029	694934	79234
	828060		774168	
		53892		

Lines 13 – 17 Population

The population data used by NIW has been derived from 2012 based Population Projections obtained from NISRA (Northern Ireland Statistics & Research Agency) website at http://www.nisra.gov.uk/archive/demography/population/projections/wni12cc.xls

NISRA Population Projections figures are based on births, deaths and migration information gathered by NISRA between 1st July and 30th June for each year. Net migration is the overall difference between the in-migration and out-migration for Northern Ireland and is calculated using health card registration and deregistration data for Northern Ireland.

The population for unconnected properties has been calculated from two sources:

- The gross number of unconnected household properties is provided by Customer Services. In AIR14 this figure was reported as the average of the year start and end values of “no water/well water”. In 2014/15 however the figure for “no water/well water” increased from 7,981 to 15,088. NI Water understands that new connections and some other in-year property movements have been misrecorded as”not supplied”. As a result, NI Water will investigate this issue in 2015/16 however we consider it appropriate for the AIR15 calculation of the total water connected population (Lines 13 - 17) to use the reported year start figure of 7,981.
- The unconnected occupancy is sourced from the NIHE Housing Condition Survey 2011 (statistical annex – Table 5.6)

http://www.nihe.gov.uk/2011_house_condition_survey_annex_tables__published_october_2012_.pdf

The number of unconnected properties is 7,981 and an occupancy rate is calculated at 0.474 (rounded) to determine a total population for unconnected properties of 3,783. The total supplied population for all connected properties is calculated as 1840.54 (x1000), (Line 17).

Non-household population has been calculated by adding the population in communal residence http://www.nisra.gov.uk/archive/demography/population/household/NI08_House_Projs.pdf#6 to the population of farms. The number of farms has been determined from the company's Rapid system and the occupancy rate is obtained from NISRA http://www.nisra.gov.uk/archive/demography/population/household/NI08_House_Projs.pdf#6 (Note: As of start of June 2015, NISRA have not yet made available an update to the 2008 household projection data.)

The communal population for 2014/15 is 32,612 compared to 32,024 as used in AIR14. The farm population is 31,084 x 2.45 = 76,278. Therefore the non-household population is 108.89 (x1000).

The connected household population is the difference between the non-household population and the overall connected population. This gives the household population a figure of 1,731.65 (x1000) (Line 13). The confidence grade for this line is a B2. This line remains the dominant figure within Section C of Table 7.

The population for non-household measured/unmeasured was derived from the percentage split between measured (not including farms) and unmeasured non-household properties and applied against the NHH communal population. The total farm population (76,278) has been classed as measured. The communal population (32,612) is split based on 9,589 unmeasured customers (19.9%) and 38,561 measured customers which excludes farms (80.1%). This therefore provides a population for measured NHH of 102.40 (x1000) (Line 16) and an unmeasured NHH population of 6.49 (x1000) (Line 15).

Line 17 is calculated by summing Line 13 + Line 14 + Line 15 + Line 16. This gives a figure if 1840.54 (x1000) which is the total connected population.

It is recognised that the primary means of determining population numbers is from data published by NISRA. Bearing this in mind NI Water, as in previous years, has endeavoured to populate a confidence grade against the various lines. The Reporter has previously stated that in doing so the company has made a reasonable effort to assign appropriate confidence grades and accepts that NI Water has no influence over the methodology adopted by NISRA.

NORTHERN IRELAND WATER LIMITED -ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 8 NON FINANCIAL MEASURES
WATER METERING (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**HOUSEHOLD METER INSTALLATION**										
1	Selective meters - installed	nr	0	3,458	B2	3,078	B3	3,030	B3	3,787	B3
2	Meter optants installed	nr	0	0	A1	0	A1	0	A1	0	A1
3	Meters installed - external meter with existing or new boundary box	nr	0	3,458	B2	3,078	B3	3,031	B3	3,787	B3
4	Meters installed - external meter without boundary box	nr	0	0	A1	0	A1	0	A1	0	A1
5	Meters installed - internal meter	nr	0	0	A1	0	A1	0	A1	0	A1
6	No. of meter installation requests outstanding for greater than three months	nr	0	0	A1	0	A1	0	A1	0	A1
B	**NON HOUSEHOLD METER INSTALLATION**										
7	Selective meters - installed	nr	0	747	B2	692	B2	458	B2	509	B2
7a	Number of non household meters renewed	nr	0	6,722	B2	4,653	B2	6,772	B2	6,044	B2
8	Meter optants installed	nr	0	67	B2	45	B2	23	B2	18	B2
9	Meters installed - external meter with existing or new boundary box	nr	0	578	B2	638	B2	396	B2	472	B2
10	Meters installed - external meter without boundary box	nr	0	35	B2	17	B2	22	B2	37	B2
11	Meters installed - internal meter	nr	0	201	B2	82	B2	62	B2	18	B2
12	No. of meter installation requests outstanding for greater than three months	nr	0	23	B2	10	B2	8	B2	1	B2
C	**WATER DEMAND AT RECENTLY METERED NON-HOUSEDHOLD PROPERTIES**										
13	Average water billed - selective metered properties	l/prop/d	2	625.61	B3	363.53	B3	520.74	B3	449.68	B3

Table 8 – Non Financial Measures – Water Metering

Water Metering Activities

Lines 1-6 - Household meter installation

NIW installs meters on newly connected domestic properties as per the obligation associated with Article 81 of The Water and Sewerage Services (Northern Ireland) Order 2006. The company does not install meters in existing domestic premises or at the request of domestic customers (including those over 60 years of age) given the deferral of charging by the Northern Ireland Assembly (NIA) in March 2007. The company does not exercise its power to meter domestic properties upon change in occupancy or ownership for the same reasons as stated above. For these reasons the company has entered zero in lines 2, 4, 5 and 6 of section A table 8. Information is however provided in lines 1 and 3.

Line - 1 Selective meter's installed

NIW seeks to selectively meter all newly connected domestic properties in accordance with Article 81 of the 2006 Order. A total of 3787 water meters were installed at new domestic properties during the reporting period.

NIW issues new connection meter installations jobs in batches and these are usually forwarded to the meter installation contractor on a weekly basis

The vast majority of NMF's are attributable to boundary boxes being damaged, buried or altered by third parties between the date the connection is completed and the date the meter installation contractor visits the premises. The damage and alterations are such that meter installations cannot be completed in a workmanlike manner or would be prone to physical or climatic damage if completed. NIW is considering options to have damaged boundary boxes replaced and the customer/developer charged for the cost of the replacement boundary box and installation. NIW is also considering incentives to change behaviours and encourage customers to full comply with the companies new connection conditions and guidance.

In total NIW attempted to fit 4453 domestic and non-domestic meters resulting in 3994 successful installations and 459 No Meter Fits (NMF's).

Line 3 - Meters Installed – external meter with existing boundary box

All newly connected domestic properties are provided with a boundary box at or as close to the boundary as possible when connected to the water main. As such all new domestic properties have a water meter fitted within the boundary box several weeks after the connection is completed. A total of 3392 water meters were installed in existing boundary boxes at new domestic properties during the reporting period.

NIW issues new connection meter installations jobs in batches and these are usually forwarded to the meter installation contractor on a weekly basis

In total NIW attempted to fit 4451 domestic meters resulting in 3992 successful installations and 459 No Meter Fits (NMF's).

The vast majority of NMF's are attributable to boundary boxes being damaged, buried or altered by third parties between the date the connection is completed and the date the meter installation contractor visits the premises. The damage and alterations are such that meter installations cannot be completed in a workmanlike manner or would be prone to

physical or frost damage if completed. NIW is considering options to have damaged boundary boxes replaced and the customer/developer charged for the cost of this work. NIW is also considering incentives to change behaviours and encourage customers to fully comply with the new connection guidance notes.

Lines 7-12 - Non household meter installation

NIW installs water meters at newly connected non domestic premises as per the obligation associated with Article 81 of The Water and Sewerage Services (Northern Ireland) Order 2006.

The company in an attempt to increase its meter penetration is continuing to install meters across its non-domestic revenue generating customer base, providing it is technically possible to do so.

Line 7 - Selective meters installed

Meters installed at the behest of NI Water include those properties selected because they are new non-domestic connections or form part of the Unmeasured Non-Household (UNHH) metering programme. The UNHH programme is used by NIW to change as many unmeasured premises over to measured status by the installation of a water meter when technically possible. In year the NIW metering contactor carried out 3598 premises surveys which resulted in 197 meter installs. In the case of 3401 surveys where meters could not be fitted, the most common reason was due to shared supplies, existing meter discoveries, refused access, void premises, incorrect property classification, access problems, engineering difficulties and other. Other can include shallow supply, no external or internal stopcock or partial supply. The total selective meter installs for the year was 509 which includes 197 UNHH properties. The additional 312 selective meters installations were as a result of the metering of 37 large and 207 small diameter non-domestic connections and 68 other installations performed by metering section staff.

Line 7a - Number of non-household meters renewed

NIW has a reactive meter maintenance section within the metering team and reactively replaces meters and street furniture associated with meters. The maintenance activities are driven by reports generated by the meter readers, meter query technicians and project teams. All Meter Maintenance Requests (MMR's) are logged on a local database and channelled through a maintenance process. The MMR's are forwarded to the maintenance contractor who has a maximum of 28 days to complete the replacement or remedial work and return the associated data. The returned data is processed by the metering team and any meter exchanges are notified to the individual who requested the job, the CRC (for billing purposes) and the Corporate Asset Register (for asset management reasons). The meter maintenance process is an end to end process managed by the metering section using an in house database. During the reporting year NIW meter maintenance section replaced 2447 meters through the MMR process.

NIW also has a Proactive Meter Exchange (PME) programme which is designed to target approximately 1500-2000 small diameter meters each year. The meters selected for exchange are those deemed to be 17 years or more. With legacy data and data quality issues the company is targeting those meters installed prior to 1998 and where possible those meters with a whole life consumption reading >8000m3. During the reporting year NIW exchanged 2257 meters under the PME programme.

An additional 339 meters were replaced through an Engineering and Procurement contract for water mains rehabilitation. A further 1001 meters were replaced by meters readers in the course of their daily reading activities.

The total number of meters replaced by NIW in the reporting year combining all of the above work streams was 6044 meters.

Line 8 - Meter optants installed

NIW will install meters at existing non-domestic premises when a customer requests a meter and providing it is technically possible to do so. An optants process is in operation and has been communicated across the company to include the Customer Relations Centre (CRC). If an unmeasured customer contacts the company and requests the option to have their premises billed as a measured (metered) property and it is determined following a survey to be possible, a meter will be installed. It is the company preference to install meters externally in boundary boxes or in chambers however if this is not technically possible an internal meter will be considered. The total number of non-domestic meter optants for the reporting year was 18.

Line 9 - Meters installed – external meter with existing boundary box

NI Water continues to actively install external meters across a number of metering work streams which include the Unmeasured Non Household (UNHH) programme, optants and other selective non-domestic customer properties. While the majority of these are fitted in existing boundary boxes which essentially entails screwing in a meter, other installations can only be completed with the replacement of the boundary box. This involves replacing legacy stop tap boxes often referred to as 'Toby' boxes and replacing them with modern proprietary boundary box units. The total number of non-domestic meters installed within this category was 472.

Line 10 - Meters installed – external meter without boundary box

NI Water Developer Services Co-ordination Team (DSCT) is responsible for coordinating new non-domestic water connections and meter installations >32mm diameter. These large connections by the nature of their size require a chamber constructed to facilitate the meter and valves installations, these totalled 37 in the reporting year.

Line 11- Meters installed – internal meters

NI Water's preference is to install meters externally when possible. Internal installations are only considered and undertaken when the possibility of an external installation has been discounted because of engineering difficulties, shared supplies or an inability to capture the total volume of water entering a property. Internal meters have been installed across the UNHH, selectives and optants metering programmes. The total number of internal non-domestic meter installations completed this reporting year was 18.

Line 12 - No. of meter installation requests outstanding for greater than three months

The number of non-household optant meter installation requests that took longer than 3 months to complete was 1.

Line 13 – Average Water Billed - Selective Metered Properties

The meters uploaded to Rapid during the previous reporting year (2013/14) are the focus for this line, along with the consumption usage throughout the 2014/15 reporting year.

The Trimmean function was applied to the consumption to ensure the result was a true average. There were some very high and very low consumptions which would have skewed the results.

The figure reported for Line 13 is **449.68 l/prop/day,** a decrease of 71.06 l/prop/day from AIR14. To demonstrate the range of consumption for AIR14 and AIR15, please see table below:

Consumption Band (m^3)	**AIR14**	**AIR15**
1-1000	707	686
> 1000	88	74
Total (excl. zeros)	795	760

The embedded document below details the meter industry codes of the meters included in this calculation. This will help to explain/justify the decrease in the l/prop/day volume.

AIR14_AIR15
Comparison per MIC..:

NORTHERN IRELAND WATER LIMITED COMPANY - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 9 NON FINANCIAL MEASURES
WATER QUALITY (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	WATER TREATMENT AND DISTRIBUTION										
	Lines 1 to 5 not used										
B	DISTRIBUTION INPUT COVERED BY WORK PROGRAMMES AGREED WITH DWI										
6	Raw water deterioration	Ml/d	3	0.000	A1	23.100	A2	3.654	A2	3.559	A2
7	Conditioning water supplies to reduce plumbosolvency	Ml/d	3	601.801	A2	563.648	A2	562.851	A2	560.429	A2
8	Reducing the risk from Cryptosporidium	Ml/d	3	0.000	A1	0.000	A1	0.000	A1	0.000	A1
9	Other	Ml/d	3	26.802	A2	22.952	A2	0.000	A1	106.441	A2

Table 9 – Water Quality

Background – Year on Year

The perceived quality of water supplied by NI Water to customers has plateaued between 2013 and 2014:

- Mean Zonal Compliance has decreased slightly from 99.85% in 2013 to 99.84% in 2014 (figure assessed by NI Water - waiting for confirmation from DWI).
    - The small decrease in water quality is due to the new PCV for lead in place from the 26th December 2013, dropping from 25ug/l to 10ug/l.
- The Operational Performance Index (for NI Water based on turbidity, iron and manganese as agreed with DWI) increased from 99.30% in 2013 to 99.52% in 2014 (NIW assessment on Turbidity, Iron and Manganese).
- The percentage compliance measured at Water Treatment Works (WTWs) increased slightly from 99.93% in 2013 to 99.98% in 2014.
- The percentage compliance measured at Service Reservoir (SR) increased from 99.91% in 2013 to 99.93% in 2014.
- Overall out of 102,037 consented measurements (directive standards, national standards, indicator parameters and additional monitoring requirements) made at customer tap, WTWs, SRs and Authorised Supply Points, 99.86% met the standards.

Please note a total re-zoning exercise was carried out for 2009 based on more accurate DMA data. The new 2009 and 2010 Water Supply Zones were not contiguous with the previous zones, and as such were given new codes and names, with the codes reflecting the leakage supply areas, and the names reflecting the supplying WTW / SR and the major conurbation in the zonal area. Following some small WTWs being taken out of service in 2010, some further zones were created for 2011 with new codes and names as before. For 2014 some zonal boundaries were moved to more closely match leakage operational boundaries.

From 2015 onwards, Mean Zonal Compliance is being abandoned as the primary means of assessing compliance. Instead NIW is moving to match the rest of the Water Industry and DWI by using %age overall compliance against all regulatory consented parameters.

Line 6 – Raw water deterioration

The data used for the estimation of average flow at WTWs in Table 9 lines 6-9 was supplied from operations leakage metering. For this return the Distribution Input was calculated as the average daily flow from the various individual sites or amalgamation of associated readings obtained from leakage metering. In accordance with the guidance, sites which were out of service at the end of the reporting period (the calendar year) will have been excluded and would be listed here.

During the reporting period, no WTWs were removed from service.

During 2010 - 2014 exceedances of MCPA were detected at Killyhevlin, Derg, Ballinrees, Belleek, Clay Lake, Seagahan, Dorisland and Carran Hill WTWs. A programme of enhanced monitoring for MCPA has been setup for these sites.

Site Name	Ml/d Raw Water Deterioration	Comment
Ballinrees	30.129	Enhanced sampling programme
Belleek	1.629	Enhanced sampling programme
Carran Hill	5.330	Enhanced sampling programme
Derg	15.387	Enhanced sampling programme
Dorisland	22.966	Enhanced sampling programme
Killyhevlin	22.562	Enhanced sampling programme
Seagahan	10.320	Enhanced sampling programme
Total:	108.323	

DWI is content with the above enhanced programme and the sites have not been included in the calculations.

Authorised Departures are no longer likely to be used as regulatory instruments against NIW by DWI. Enforcement Orders (including “Consideration of Provisional Enforcement Orders”, “Provisional Enforcement Orders” and “Regulation Notices”) are now the methodology by which NIW is regulated by DWI.

During 2014 one CPEO for Clay Lake WTW (CPEO/13/03) was closed due to pesticide exceedances requiring the installation of GAC at the site.

During 2014 one CPEO for Camlough WTW (CPEO/14/02) was issued due to deterioration in raw water manganese levels.

Including this 1 site, the volume for Raw Water deterioration is therefore 3.559 Ml/d.

Line 7 – Conditioning water supplies to reduce Plumbosolvency

NI Water, as required by DWI following discussion with the Health Authorities, has put in place orthophosphoric acid dosing to control plumbosolvency in the distribution system. The average initial dose rate was approximately 1 mg/l following propensity testing. The level of dosing is reviewed annually against compliance with existing and future lead standards, with DWI being informed as to the proposed dosing rates. DWI has the opportunity to query the proposed dose rates. Following the annual review, some of the dose rates for 2014 were reduced with most however remaining at the same levels.

Site Name	Average Dosed Water (ML/d)
Altnahinch	8.529
Ballinrees	30.129
Belleek	1.629
Camlough	3.559
Carmoney	17.859
Carran Hill	5.330
Castor Bay	78.211
Caugh Hill	15.322
Clay Lake	3.404
Derg	15.387
Dorisland	22.966
Drumaroad	106.354

Site Name	Average Dosed Water (ML/d)
Dungonnell	8.634
Dunore Point	95.908
Fofanny	35.659
Forked Bridge	21.167
Glenhordial	3.813
Killyhevlin	22.562
Killylane	10.346
Lough Bradan	6.581
Lough Fea	11.827
Lough Macrory	10.518
Moyola	14.417
Seagahan	10.320
Total:	560.429

Line 8 – Reducing the risk from Cryptosporidium

DWI approved Cryptosporidium risk assessments were previously carried out on all sources annually and showed effective barriers existed at all NI Water's treatment works. These risk assessments are now incorporated into annual revisions of the treatment works and supply systems Drinking Water Safety Plans (DWSP) which are submitted to DWI under regulation 26.

Under the current guidance, which requires that this should be assessed against sites with "legally binding instruments", NI Water has no sites which fall into this category. The return for this line is therefore 0 Ml/d.

Line 9 – Other

During 2014 one PEO for Drumaroad WTW (PEO/14/01) was issued with reference to disinfection of final water before distribution.

During 2014 one regulatory notice for Rathlin WTW (Reg28 Notice/14/01) was issued with reference to the verification of the disinfection processes.

Including these 2 sites, the volume for other distribution inputs is therefore 106.441 Ml/d.

Confidence Grades

Confidence grades used in returns are based on OFWAT guidance documentation.

Appendix - Line 9

Regulatory enforcement	Issue Date	Location	Parameter	Date Closed
CPEO/13/03	Issued 29/08/2013	Clay Lake WTWS	Contravention of the Regulatory Standard for MCPA (0.1 □g/l)	29/04/2014

Regulatory enforcement	Issue Date	Location	Parameter	Date Closed
CPEO/14/02	Issued 15/08/2014	Camlough WTWs	Contravention of the Regulatory Standard for Manganese	
PEO/14/01	issued 12/12/2014	Drumaroad WTWs Water Supply Area	Contravention of Regulation 26(1)(a) – Before Supplying Water For Regulation 4(1) Purposes NI Water Shall Disinfect the Water	
Reg28 Notice/14/01	Issued 26/09/2014	Rathlin Island WTWs	Verification of disinfection process required.	

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 10 NON FINANCIAL MEASURES
WATER DELIVERED (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG	5 CURRENT YEAR 2015-16
A	**WATER DELIVERED - VOLUMES**											
1	Billed measured household	Ml/d	2	0.00		0.00		0.00		0.00		0.00
2	Billed measured non-household	Ml/d	2	129.67		121.44		125.79		120.17		
3	Billed measured	Ml/d	2	129.67		121.44		125.79		120.17		
4	Billed unmeasured household	Ml/d	2	301.44		297.41		285.52		292.36		293.15
5	Billed unmeasured non-household	Ml/d	2	7.29		6.87		6.07		5.82		
6	Billed unmeasured	Ml/d	2	308.73		304.28		291.59		298.18		
B	**WATER DELIVERED - COMPONENTS**											
7	Estimated water delivered per unmeasured non-household	l/prop/d	2	610.40	C4	630.51	C4	591.01	B4	606.98	B4	
7a	Estimated water delivered per unmeasured household	l/prop/d	2	448.03	B3	436.66	B3	414.50	B3	420.70	B3	
8	Per capita consumption (unmeas'd h'hold - excl s/pipe leakage)	l/h/d	2	152.90	B3	149.98	B3	145.53	B3	148.42	B3	
9	Per capita consumption (meas'd h'hold - excl s/pipe leakage)	l/h/d	2	0.00		0.00		0.00		0.00		
10	Underground supply pipe leakage (unmeas'd households)	l/prop/d	2	62.03		60.20		51.22		50.87		
11	Underground supply pipe leakage (ext. metered households)	l/prop/d	2	31.01		30.10		25.61		25.44		
12	Underground supply pipe leakage (other metered h'holds)	l/prop/d	2	62.03		60.20		51.22		50.87		
13	Underground supply pipe leakage (void properties)	l/prop/d	2	62.03		60.20		51.22		50.87		
14	Meter under-registration (measured households)	Ml/d	2	0.00		0.00		0.00		0.00		
15	Meter under-registration (measured non-households)	Ml/d	2	9.87		9.29		9.70		9.21		
16	Distribution system operational use	Ml/d	2	2.97		2.36		2.39		2.51		
17	Water taken legally unbilled	Ml/d	2	19.44		14.79		15.16		17.10		
18	Water taken illegally unbilled	Ml/d	2	1.08		0.51		0.48		0.43		
19	Water taken unbilled	Ml/d	2	20.52		15.30		15.64		17.53		
20	Water delivered (potable)	Ml/d	2	458.92		441.02		433.02		435.88		
21	Water delivered (non-potable)	Ml/d	2	0.00		0.00		0.00		0.00		
22	Water delivered (non-standard rates: potable)	Ml/d	2	0.00		0.00		0.00		0.00		
23	Water delivered (non-standard rates: non-potable)	Ml/d	2	0.00		0.00		0.00		0.00		
24	Distribution losses	Ml/d	2	122.02		115.44		127.31		126.08		
25	Total leakage	Ml/d	2	168.32	B4	161.75	B4	167.21	B3	165.99	B3	
26	Distribution input	Ml/d	2	583.91	B2	558.82	B2	562.72	B2	564.47	B2	
27	Bulk supply imports	Ml/d	2	0.00		0.00		0.00		0.00		
28	Bulk supply exports	Ml/d	2	0.81		0.85		1.09		0.80		
29	Water treated at own works to own customers	Ml/d	2	583.10		557.97		561.63		563.67		
30	Overall water balance	CG			B2		B2		A1		A1	
C	**SECURITY OF SUPPLY**											
31	Security of supply index - company's planned levels of service	nr	0	100		100		100		100		
32	Not used											

Table 10 – Non Financial Measures - Water Delivered

Introduction

NI Water continues to follow the methodology as described in Chapter 10 of the Northern Ireland Authority for Utility Regulation (NIAUR) AIR15 Reporting Requirements and Definitions document March 2015. In doing so it has adhered to the methodologies for estimating the water balance set out in the Demand Forecasting Methodology report produced by NERA on behalf of UKWIR.

Since the adoption of the Sustainable Economic Level of Leakage (SELL) process in PC10 as the method of deriving company leakage targets, NI Water have continued to challenge themselves with the setting of a 5.73 Ml/d target reduction over the two year period of PC13, namely, 170.73 Ml/d to 165 Ml/d.

Although NI Water has reduced reconciled leakage during the two years of PC13 by 4.74 Ml/d, the SELL target of 165 Ml/d was not achieved. For AIR15, NI Water reports a reconciled leakage figure of 165.99 Ml/d.

It should be noted that the reconciled leakage imbalance was -0.56% in AIR14 and is 0.79% in AIR15. This swing from a negative to positive imbalance has the effect of reducing the perceived leakage detection effort. For comparison, the pre MLE bottom up leakage figures are 171.77Ml/d (rebased AIR13), 167.84 Ml/d (AIR14) and 165.12 Ml/d (AIR15), which represents reductions of 3.93 Ml/d and 2.72 Ml/d for each of the two years of the PC13 reporting period.

As highlighted in the AIR14 commentary, it was considered appropriate to update the HDF from 22.8 to 23.2 as a result of the preparations for the PC15 determinations which used 2012/13 as its base year. This in effect increased the reconciled leakage target by 2.12 Ml/d.

In summary, the outputs of this water balance are that the Integrated Flow Method of leakage assessment has given a figure of 169.61 Ml/d for total leakage and the Minimum Night Flow Method has provided a figure of 165.12 Ml/d. When the resulting imbalance between the two methods of 4.49 Ml/d is compared to the Distribution Input figure of 564.92 Ml/d (pre-MLE), it provides a percentage discrepancy of 0.79%. This remains within the 5% tolerance set to enable a Maximum Likelihood Estimation method to be applied, using the squares method, and produces a reconciled leakage figure of 165.99 Ml/d.

Demand Analysis

There has been a marginal increase in the distribution input of 0.45% from a pre MLE value of 562.40 Ml/d in AIR14 to 564.92 Ml/d in AIR15.

The graph in Fig 1 below illustrates the monthly change in distribution input from AIR14 to AIR15 and highlights a similar demand profile in the first quarter which is supported by Fig 2, showing similar rainfall, and Fig 4, showing the subsequent increase in household consumption in June 2014. In the second quarter however, increased rainfall lead to a reduction in household demand and, although the DI did recover, DMA night flows remained high. The resultant imbalance highlighted the increase in bottom up leakage and as a consequence proactive leak detection activities became reactive in nature.

The outcome of this imbalance also suggests that normal non-household demand reduced unpredictably during the summer season and may be as a result of reduced agricultural consumption during a period of increased rainfall.

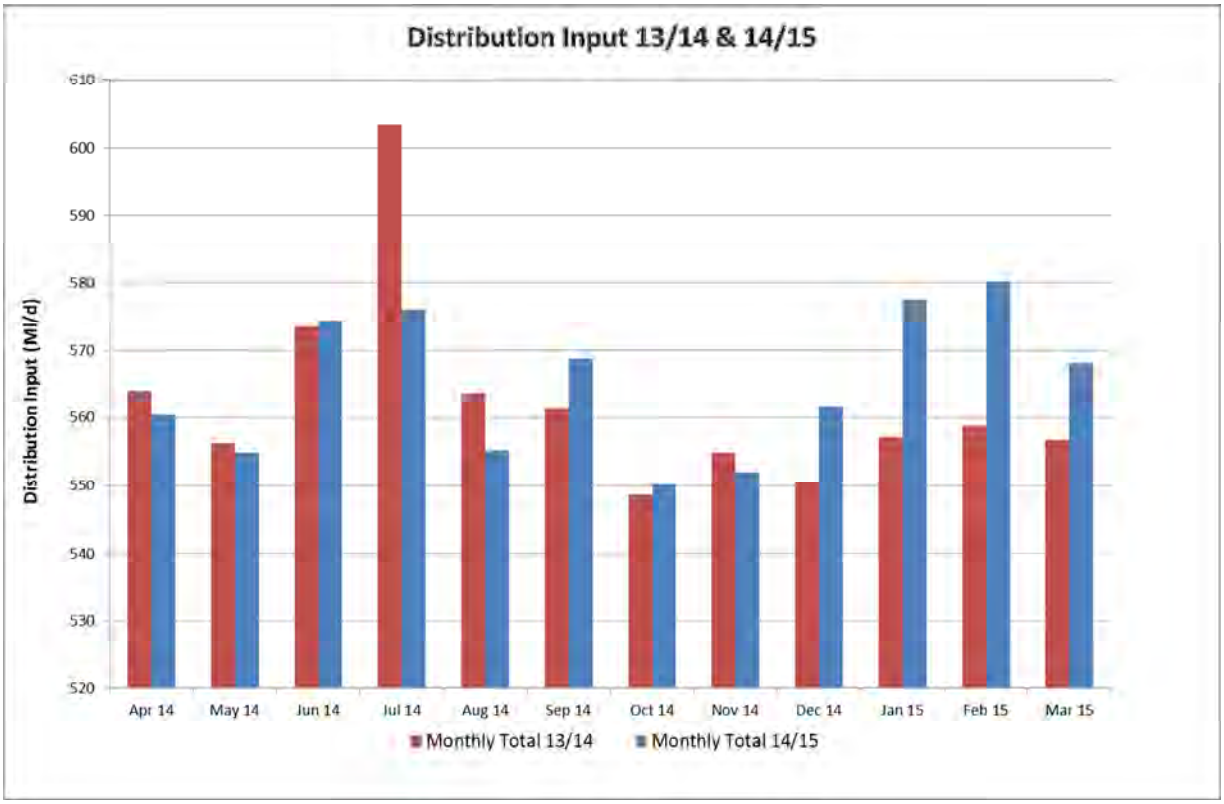


Fig 1

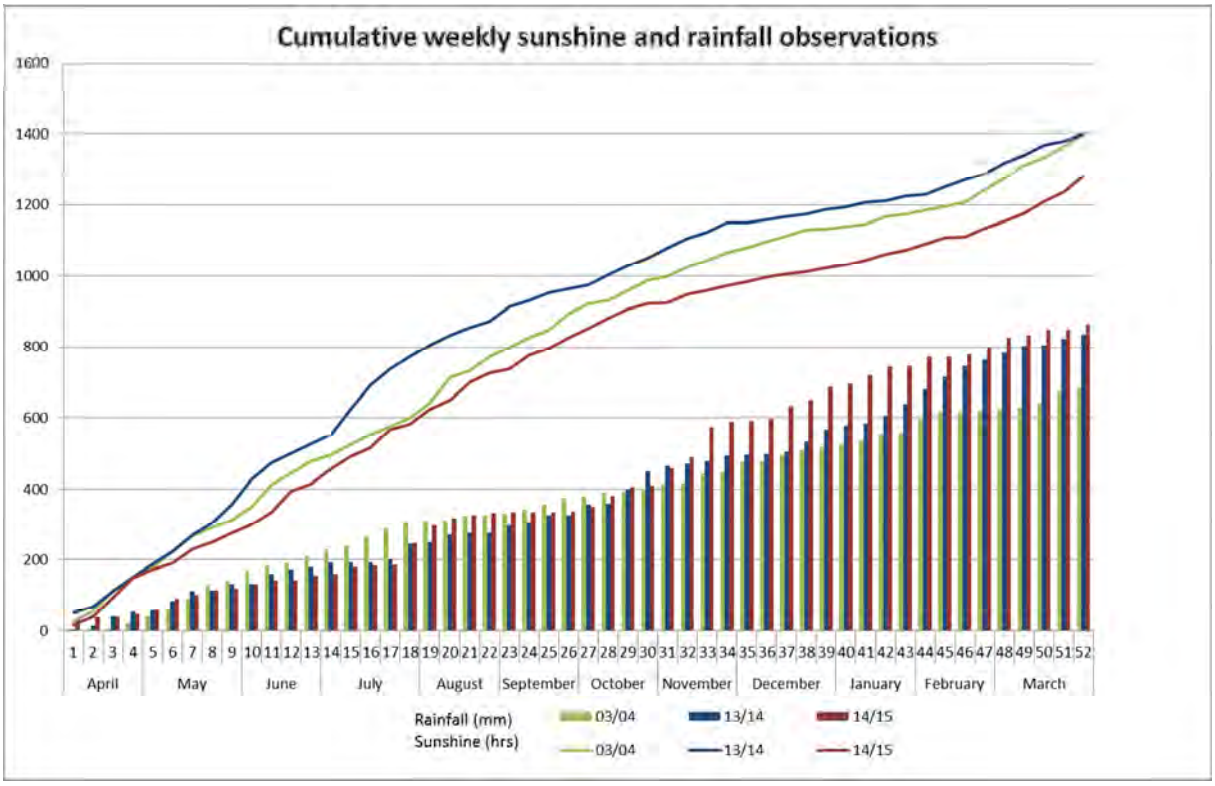


Fig 2

The impact of the weather pattern described above brought about the implementation of a Leakage Reduction Action Plan which increased the leak detection resource in both numbers and hours worked.

November also showed a significant increase in rainfall (Fig 2) and the beginning of a period of negative average weekly ground temperatures (Fig 3) until March 2015. This is supported by a commissioned NRR analysis of DMA night lines and reported/unreported network defects for 2014/15 which concludes that NRR increased by 6 Ml/d (12 Ml/d unreported) from AIR14. The analysis also concludes that the average defect leak flow rate increased significantly above previous years and is similar to that of the 2009/10 freeze/thaw reporting year for Q4.

In addition, NI Water experienced an unprecedented period of industrial action in December 2014 and January 2015. During this period, operational activities were significantly reduced affecting leak detection, network response to reported leaks and defect repair times.

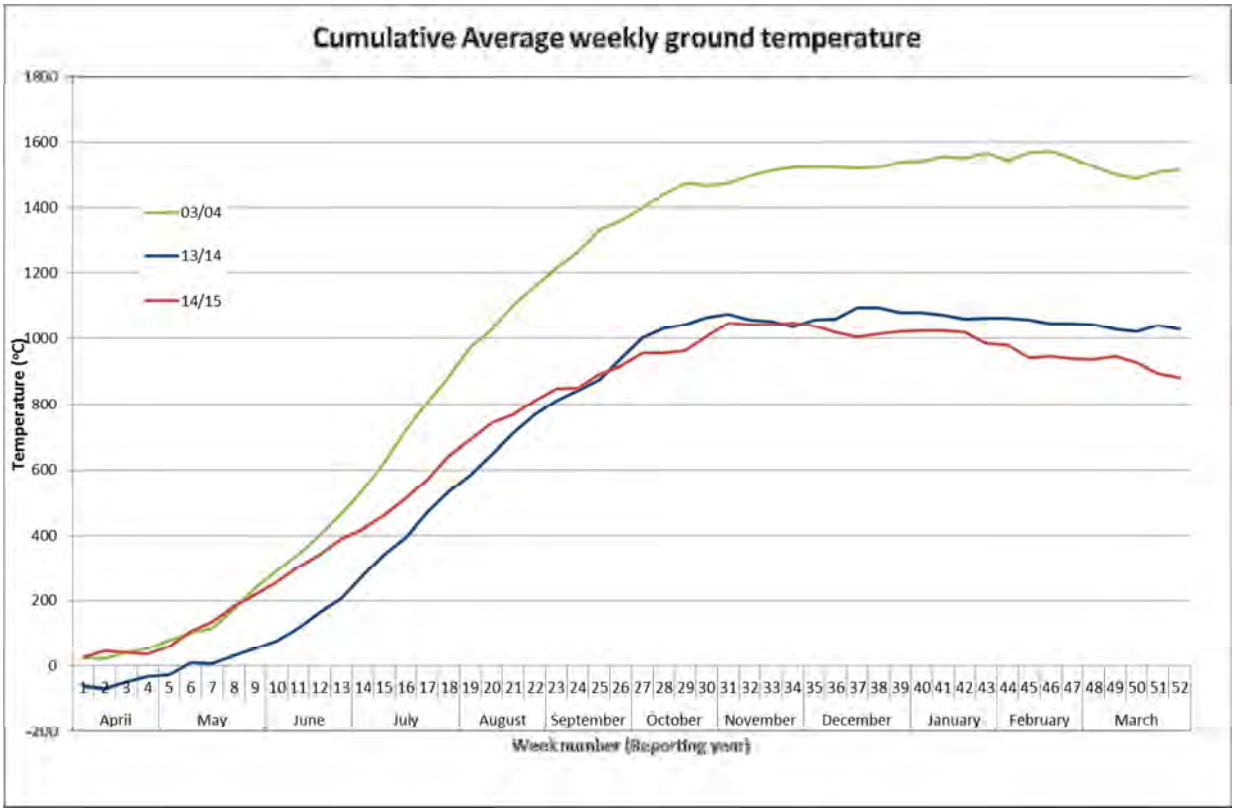


Fig 3

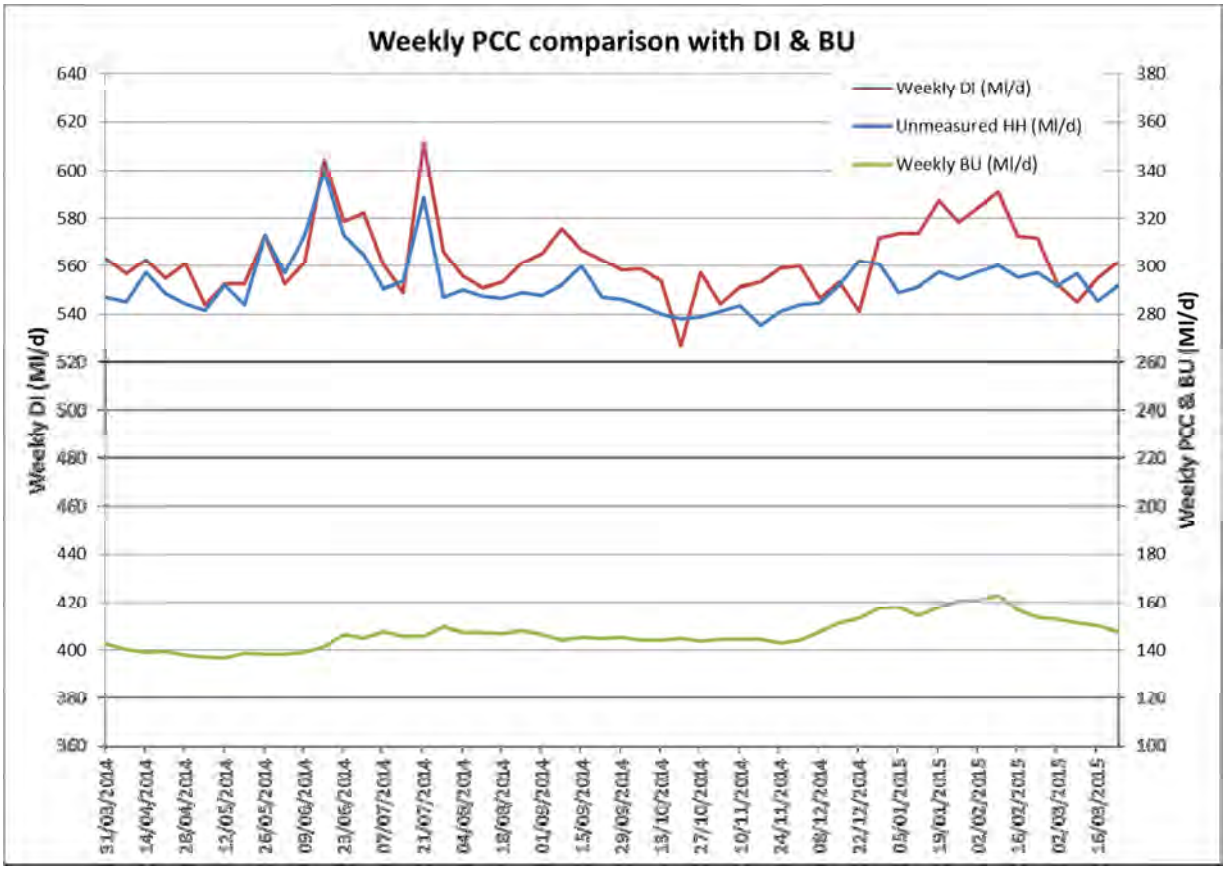


Fig 4

Data Quality

NI Water has remained committed to improve data quality throughout the PC10 and PC13 periods and will continue this commitment into PC15.

With Netbase now embedded as NI Water's leakage reporting tool, the UKWIR 20th Percentile calculation of Bottom Up leakage remains as reported in AIR14 commentary, DMA operability continues to compare favourably with company figures in England and Wales, currently 78%, and in keeping with the Reporter's recommendations the Bottom Up error estimation is 10%.

Trunk Mains & Service Reservoirs

With an aspiration towards the use of company specific calculations for all key aspects of the water balance, NI Water continue to build on their trunk main and service reservoir leakage calculation through the primary use of flow balance assessments.

NI Water have completed the assessment of trunk main and service reservoir leakage based on flow meter balances, it was found that 50% of the trunk main flow balance calculated leakage occurs within 10% of the trunk main flow balance audits. Although NI Water accepts that there may be leakage within these audits, the company is undertaking a number of proactive steps to identify and resolve issues. However, NI Water consider it prudent to fully investigate the audits with perceived leakage to understand the resource economics and uncertainty associated with flow balances for trunk mains and service reservoirs.

Gross Measured Consumption

As part of the annual tariff submission to the Utility Regulator, NI Water is required to submit the Principle Statement Information Capture System. One of the consistency

checks in this submission is to compare the billed measured non-household volume (Table 10 Line 2) with the Principle Statement. As a result of this check, it was noted that the variance between the billed measured non-household consumption and the principle statement had increased to 6.8%. Whilst accepting that some variance is expected, NIAUR requires that the difference in the two methods of calculated consumption should close to within 1%.

After a full review, it was established that although the initial variance in AIR09 was within 1%, changes in data handling and the evolution of the metering and property company datasets resulted in amendments to both the Gross Measured Consumption Report (GMCR) and the Principle Statement calculation. The findings of the review were audited by the Reporter, in February 2015, and the variance can be shown to close to 0% when both GMCR and the Principle Statement calculations are compared when using 2014/15 RAPID metering data. For AIR15 the amended GMCR has been utilised to derive the billed measured non-household consumption as stated in Table 10 Line 2.

HDF

In preparation for the PC15 submission, NI Water commissioned an SELL assessment to determine company leakage targets for submission years AIR16 to AIR21. As part of this review, HDF was assessed based on 2012/13 data and, as a result, it was deemed appropriate to update the HDF for AIR14 to 23.2.

As part of continuing data enhancements, NI Water have commenced work on the development of a pressure model utilising Netbase, the comprehensive pressure managed area study (2500+ PMAs) and permanent pressure monitoring points (1500+ pressure points). This model will allow NI Water to calculate HDF on a monthly basis and it is envisaged that the reported HDF will be introduced during the PC15 period.

Meter Under Registration

It should be noted that the NIAUR has determined that, during the PC15 period, the non-household meter under registration (NHH MUR) figure shall reduce from 8.33%, which was derived for AIR10 by WRc utilising the NI Water meter age profile and meter sample tests, to 5.5% which is understood to be the current NHH MUR average for E&W companies. This reduction in NHH MUR is proposed to be implemented linearly over the six years of the PC15 period; however it is proposed that a company specific MUR study will be commissioned during PC15.

NI Water has acknowledged a risk to the water balance calculation in applying an unsubstantiated MUR figure which is moving the company away from the excellent work undertaken over recent years in terms of developing company specific data. For AIR15, NHH MUR remains at 8.33%.

Leakage Capital Investment

The PC13 leakage business plan clearly identified a number of key areas of capital investment to replace and improve our network/assets as well as the ongoing improvement in data availability and quality.

The upgrade of DMA meters from GSM logger technology to telemetry status remains a high priority project thus providing access to continuous data to assist leakage management, NI Water and the customer. A total of 31 sites were upgraded during the year and at present 87% of all DMA sites are now monitored directly through telemetry with the remaining returning data via GSM loggers. This work is proposed to continue in

the PC15 period. This has increased data availability and quality to enhance leakage monitoring, targeting and reporting as well as being available during major incidents.

During 2014/15 projects were carried out to replace existing PRV stock that are operational across the network and to design, install and commission new PRV sites to optimise leakage reduction. This has resulted in 25 PRV replacements and 31 new PRV installations during the year.

DMA optimisation continues to play an important role within the success of the function. In 2014/15 the resolution of High Volume DMAs has played a key part in this. The underlying objective has been initially to investigate the unique factors that cause these DMAs to behave in such a manner and subsequently to provide an engineering solution where possible to reduce leakage.

As work has continued in regards to High Volume DMA studies, DMA optimisation and data quality improvements this has resulted in excess of 250 infrastructure improvement schemes being identified and installed as part of the overall capital improvement programme.

For reference, the table below states the variables/parameters which may impact upon the variance in individual water balance component calculations.

	AIR15	**AIR14**
HDF (hrs)	23.2	23.2
UNHH consumption (m3/yr)	190.80	186.27
PCC MUR (%)	7.39	7.39
HH occupancy (nr)	2.44	2.45
NHH MUR (%)	8.33	8.33
SPL (Ml/d)	39.91	39.91
HH night use allowance (l/p/hr)	2.42	2.42
NHH night use allowance (l/p/hr)	dynamic	dynamic
Per Capita Consumption (l/hd/d)	135.69	135.38

Lines 1 to 3 – Billed Measured Household and Non-Household Volumes

Line 1 – Billed Measured Household

There are no billed measured households and the value is therefore zero.

Line 2 – Billed Measured Non-Household

The reported value for water delivered to non-households has decreased from 125.79 Ml/d in AIR14 to 120.17 Ml/d in AIR15.

As discussed in the Data Quality section above, it was noted that the variance between the billed measured non-household consumption and the principle statement had increased to 6.8%. For AIR15 the amended GMCR has been utilised to derive the billed measured non-household consumption as stated in Table 10 Line 2.

Similar to the GMCR in AIR14, the amended report utilises metering data from the RAPID billing system. This volume does not include test meters that are not billed, trade effluent volumes, free supplies or NI Water supplies which are included under water taken unbilled.

In accordance with the Utility Regulators reporting requirements a volume of 0.41 Ml/d (pre MUR and pre MLE) is included and accounts for water delivered which is associated with customer rebates.

A non-household meter under-registration (MUR) value of 8.33% has been added to billed measured non-household use. The company specific MUR figure of 8.33% was determined by WRc and is consistent with the figure used in AIR14.

No allowance for underground supply pipe leakage has been added to this value as the measured non-households are all externally metered and therefore the billed consumption already includes underground supply pipe leakage (however, the figure for underground supply pipe leakage for measured non-households has been estimated and is part of total leakage in other lines of the table).

The confidence limit of 10% on this component has not been changed and is still considered to be appropriate.

Line 3 – Billed Measured

This is the summation of lines 1 and 2.

Lines 4 to 6 – Billed Unmeasured Household and Non-Household Volumes

Line 4 – Billed Unmeasured Household

The reported value for Billed Unmeasured Household volume for AIR15 is 292.36 Ml/d. This figure represents an increase of 6.84 Ml/d (2.4%) from the AIR14 value of 285.52 Ml/d.

This difference has been exaggerated due to the application of MLE on a negative imbalance in AIR14 of -0.56% and a positive imbalance of 0.79% in AIR15. The pre MLE assessments of billed unmeasured households are 287.34 Ml/d for AIR14 and 289.71 Ml/d in AIR15, a difference of 2.37 Ml/d.

The Billed Unmeasured Household volumes have been calculated by multiplying the average PCC figure for NI Water by the unmeasured household population. The method and sources of information are consistent with previous AIR returns. Similarly the source of the PCC figure is generated from the NI Water domestic consumption monitor. The household population figure is sourced from the Northern Ireland Statistics and Research Agency (NISRA) 2012. Adjustments are made to this household population figure to account for:

- Non-Household Population – Sourced from the most recent NISRA 2008 based population projections in alignment with Table 7.
- Unconnected Properties Population – The number of unconnected properties has been provided within NI Water by Rapid. The population of unconnected properties is determined by multiplying the assessed average occupancy from the NIHE Housing Condition Survey report by the number of unconnected properties.
- Farm Population – The population of farms is included as non-household use. The population is calculated as the number of farms multiplied by the average occupancy rate from NISRA. The number of farms is sourced from RAPID (NI Water's Billing System). The assessment takes into consideration farm properties that became void during 2014/15 but will have billed consumption associated with them.
- PCC Night Use Allowance Assessment

Underground Supply Pipe leakage has been applied to the billed unmeasured household volume component of this calculation.

A meter under registration factor of 7.39% has been applied to this total volume. This percentage was assessed by WRc for AIR10 and is specific to NI Water's domestic consumption monitor meters and has remained constant.

During the reporting year work has continued to maintain the reliability of this value:

- A comprehensive door to door survey of approximately 20% of the Domestic Consumption Monitor Areas. The data from the 2014/15 survey has been input into the AIR15 consumption monitor assessment. The overall occupancy rate is 2.42 for AIR15 compared to an occupancy rate for AIR14 of 2.44. The NISRA occupancy rate for Northern Ireland is 2.45 for 2014/15.
- A figure of 1.5% continues to be applied to allow for the 'Hawthorne Effect' and is consistent with previous AIR submissions.
- Use of company specific MUR value as determined by WRc.

The confidence limit of 10% on this component has not been changed and is considered to be appropriate.

Line 5 – Billed Unmeasured Non-Household

The reported value for Billed Unmeasured Non-Household for AIR15 is 5.82 Ml/d. The value reported in AIR14 was 6.07 Ml/d. NI Water has continued with a programme of meter installation of unmeasured non-household properties.

The assessed unmeasured non-household figure for AIR15 is 190.80 m^3/prop/yr, which is an increase compared to a figure of 186.27 m^3/prop/yr for AIR13. This year's figure has been reassessed by Customer Services based on the amended 2014/15 measured consumption data as discussed in Line 2. The methodology is consistent with AIR14 and as discussed with the Regulator.

As these unmeasured non-households have an allowance that has been estimated from metered non-households then underground supply pipe leakage has not been included in this figure. A non-household company specific MUR value of 8.33% is applied for AIR15.

The confidence limit of 15% on this component has not been changed and is considered to be appropriate.

Line 6 – Billed Unmeasured

This is the summation of lines 4 and 5.

Lines 7 to 30 – Water Delivered Components

Line 7 – Estimated Water Delivered Per Unmeasured Non–Household

The post MLE figure for estimated water delivered per unmeasured non-household for AIR15 is 606.98 l/prop/d. The figure reported for AIR14 was 591.01 l/prop/d.

The allowance for unmeasured non-household properties for AIR15 is 190.80 m^3/prop/yr. The calculated figure for AIR14 was 186.27 m^3/prop/yr.

Line 7a – Estimated Water Delivered Per Unmeasured Household

The post MLE figure for estimated water delivered per unmeasured household for AIR15 is 420.70 l/prop/d. The figure reported for AIR14 was 414.50 l/prop/d.

Line 8 – Per Capita Consumption (Unmeasured Household – Excluding Supply Pipe Leakage)

The post MLE PCC figure for AIR15 is 148.42 l/hd/d. The figure reported for AIR14 was 145.53 l/hd/d.

NI Water continues to employ domestic consumption monitors set up specifically to monitor unmeasured household consumption. These sites are small (average size of 47 properties), permanently bounded, monitored for leakage, and flows into them are recorded by meters.

The average (pre MLE) PCC figure has been calculated as 135.69 l/hd/d. This assessment is based on 12 months consumption data from 1 April 2014 to 31 March 2015. This compares to a pre MLE figure of 135.38 l/hd/d for AIR14.

A company specific MUR value of 7.39% has been used for unmeasured PCC. This figure has been provided by WRc as a result of a project commissioned by NI Water and is specific to NI Water's domestic consumption monitor meters.

Line 9 – Per Capita Consumption (Measured Household - Excluding Supply Pipe Leakage)

There are no measured household supplies in NI Water; therefore no value has been input against this line.

Lines 10 to 13 – Underground Supply Pipe Leakage

For PC13, NI Water engaged their Leakage Management Services consultant, RPS, to review the underground supply pipe assessment which has resulted in the reduction of total supply pipe leakage to 39.91 Ml/d from 46.31 Ml/d during PC10. This accounts for approximately 24% of total leakage.

The total volume of Underground Supply Pipe Leakage has been assessed using the recommended methodology contained in the UKWIR report 'Towards Best Practice for the Assessment of Supply Pipe Leakage' and based on 2012/13 company data.

As SPL has remained constant at 39.91 Ml/d throughout the PC13 period, it is required to adjust the 'per property' assessed underground supply pipe unit values on an annual basis due to increasing property numbers. Therefore, the assessed SPL unit values of 52.49 & 26.25 l/prop/d, for unmeasured and measured properties respectively, require adjustment as they have been calculated using 2012/13 base year data resulting in a total SPL of 39.91 Ml/d. The SPL assessment will remain unchanged for the duration of the PC13 period, therefore the adjusted AIR15 unit values are 50.87 l/prop/d for unmeasured, other households and void properties, with a value of 25.44 l/prop/d being calculated for externally measured non-households.

Work previously undertaken, utilising Ofwat published data, indicated that the majority of the water companies in England and Wales estimate the underground supply pipe leakage on externally measured properties to be approximately half that of internally measured and other properties. NI Water has continued to adopt this assumption. In NI Water, the unmeasured non-household use is based on the measured non-household use. Therefore this assumption will also be applied to the unmeasured non-household.

The SPL calculation for NI Water is detailed in the NI Water Assessment of Leakage from Customer Supply Pipes (carried out by RPS).

Lines 14 to 15 – Meter Under-Registration

The company specific MUR figures provided by WRC for AIR10 have been adopted for AIR15. For non-household consumption the MUR figure remains at 8.33%. Furthermore the MUR value applied to the unmeasured household consumption remains at 7.39%.

It should be noted that the NIAUR has determined that, during the PC15 period, the non-household meter under registration (NHH MUR) figure shall reduce from 8.33%, which was derived for AIR10 by WRc utilising the NI Water meter age profile and meter sample tests, to 5.5% which is understood to be the current NHH MUR average for E&W companies. This reduction in NHH MUR is proposed to be implemented linearly over the six years of the PC15 period; however it is proposed that a company specific MUR study will be commissioned during PC15.

NI Water has acknowledged a risk to the water balance calculation in applying an unsubstantiated MUR figure which is moving the company away from the excellent work undertaken over recent years in terms of developing company specific data. For AIR15, NHH MUR remains at 8.33%.

Line 16 – Distribution System Operational Use

The reported value of Distribution System Operational Use (DSOU) for AIR15 is 2.51 Ml/d. The value reported for AIR14 was 2.39 Ml/d. The confidence limit of 25% on this component has not been changed and is considered to be appropriate.

Lines 17 to 19 – Water Taken Unbilled

The reported Water Taken Unbilled figure of 17.53 Ml/d in AIR15 is an increase to the value of 15.64 Ml/d in AIR14.

As a result of the findings and subsequent amendments to the gross measured consumption report, as discussed within the Data Quality section of this commentary, an element of billed measured NHH consumption reported in AIR14 has been transferred into the water taken unbilled component of the water balance.

The methodology used to estimate each category within Water Taken Unbilled remains consistent with AIR14, however the 1.9 Ml/d increase in the AIR15 reported figure is primarily as a result of 'DRD Supplies (other)' with an increase of 1.42 Ml/d and is contributed to the amended GMCR.

Line 20 – Water Delivered (Potable)

All potable water supplied by NI Water is calculated as the sum of lines 3, 6 and 19.

Line 21 – Water Delivered (Non-Potable)

There are no non-potable supplies to NI Water customers.

Line 22 – Water Delivered (Non-Standard Rates: Potable)

There are no non-standard rates for potable supplies to NI Water customers.

Line 23 – Water Delivered (Non-Standard Rates: Non-Potable)

There are no non-standard rates for non-potable supplies to NI Water customers.

Line 24 – Distribution Losses

Distribution Losses for NI Water are calculated by subtracting Lines 16 (DSOU) and 20 (Water Delivered) from Line 26 (Distribution Input). Distribution Losses for AIR15 are estimated to be 126.08 Ml/d. This is a decrease on the AIR14 figure of 127.31 Ml/d.

Line 25 – Total Leakage

Total leakage is the sum of distribution losses and underground supply pipe leakage. The reported figure for total leakage for AIR15 is 165.99 Ml/d. The reported figure for AIR14 was 167.21 Ml/d.

Total leakage is also calculated using an MNF methodology. For AIR15 the reported pre MLE MNF method leakage is 165.12 Ml/d. The figure reported for AIR14 was 167.84 Ml/d and equates to a reduction in BU leakage of 2.72 Ml/d. In addition, and as highlighted in the AIR14 commentary, it was considered appropriate to update the HDF from 22.8 to 23.2 as a result of the preparations for the PC15 determinations which used 2012/13 as its base year. This in effect increased the reconciled leakage target by 2.12 Ml/d.

NI Water has an extensive DMA network (approx. 1080 DMAs) covering 98% of all properties in Northern Ireland. Approximately 87% of these DMAs are now monitored with electromagnetic meters with a direct link to the company telemetry system. The remaining DMAs are monitored through mechanical meters using GSM flow loggers. Whilst GSM loggers have an automatic link to the company's telemetry system they do not have the facility to provide real-time data but provide a 24 hour daily download.

DMA minimum night flow (MNF) continues to be determined using a 20th percentile method. Minimum night flows are recorded on a daily basis. The company specific night use allowance for households remains at 2.42 l/prop/hr as calculated by Crowder Consulting for AIR10.

The measured non-household night use allowance figure for AIR13 was 8 l/prop/hr as documented in 'Managing Leakage', however as stated in the AIR14 commentary, Netbase has become the leakage reporting tool for AIR14 onwards which utilises an integrated night use model embedded within Netbase which was developed based on the best practice as outlined in the UKWIR Report 'Estimating Legitimate Non-Household Night Use Allowances' for AIR10. This model was calibrated using approximately 1000 customer datasets and dynamically assesses night use based on consumption and consumer industry type. The equivalent industry weighted measured non-household night use figure throughout PC13 is approximately 18 l/prop/hr.

According to the guidance provided the reporting requirements for this line calculates total leakage by adding Distribution Losses (line 24) to the various calculated SPL components for MHH, UHH, MNHH, UNHH & voids. The SPL figure has been reassessed for the PC13 period as 39.91 Ml/d. It is proposed that this SPL assessment will remain unchanged for the duration of the PC13 period.

Similarly, as agreed with NIAUR for the inclusion of stable data, NI Water's service reservoir leakage and trunk main leakage remain constant at 4.53 Ml/d and 13.66 Ml/d respectively.

NI Water has continued to develop a company specific assessment for both trunk main and service reservoir leakage based on a flow balance methodology. This is consistent with the recommendations of the Reporter and Utility Regulator.

As commented in AIR14, Tynemarch Systems undertook a peer review of the trunk main analysis and concluded that "the use of flow balances to estimate trunk main leakage is appropriate" however, the issue of uncertainty in regards to meter error was still to be addressed as part of the UKWIR study "working towards best practice trunk main leakage allowances". Having reviewed the publication, NI Water concludes that clarification in regards to the application of meter error remains vague.

Although NI Water have completed the assessment of trunk main and service reservoir leakage based on flow meter balances, it was found that 50% of the trunk main flow balance calculated leakage occurs within 10% of the trunk main flow balance audits. Although NI Water accepts that there may be leakage within these audits, the company is undertaking a number of proactive steps to identify and resolve leakage issues. However, NI Water consider it prudent to fully investigate the audits with perceived leakage to understand the resource economics and uncertainty associated with flow balances for trunk mains and service reservoirs. Further work is required to refine NI Water's estimate and methodology particularly in relation to meter uncertainty. NI Water have engaged with other England & Wales water companies along with Scottish Water with a view of undertaking a joint research project into large diameter meter uncertainties.

In preparation for the PC15 submission, NI Water commissioned an SELL assessment to determine company leakage targets for submission years AIR16 to AIR21. As part of this review, HDF was assessed based on 2012/13 data and, as a result, it was deemed appropriate to update the HDF for AIR14 to 23.2.

As part of continuing data enhancements, NI Water propose to develop a pressure model utilising Netbase, the comprehensive pressure managed area (PMA) study and permanent pressure monitoring points. This model will allow NI Water to calculate HDF on a daily basis and it is envisaged that the reported HDF will be calculated dynamically and introduced during the PC15 period.

A 10% error estimate has been applied to BU Leakage in the MLE calculation following the implementation of Netbase for PC13. This reflects the continued improvement in data quality resulting in the reduction in error estimate from 15% reported in AIR13.

Line 26 – Distribution Input

The distribution input figure for AIR15 has been calculated as a post MLE figure of 564.47 Ml/d. The distribution figure for AIR14 was 562.72 ML/d. The company specific confidence interval for distribution input for AIR15 remains at 2.1% and is unchanged from AIR14.

The method of reporting and calculating the company distribution input figure remains consistent in that it is based on a definitive number of input meters. As in previous years, NI Water has continued with an annual programme of calibration of DI meters.

In line with the guidance provided, details of the distribution input for each of the PPP Water Treatment Works site is as follows

	pre-MLE (Ml/d)	post-MLE (Ml/d)
Ballinrees	30.43	30.41
Castor Bay	101.01	100.93
Dunore Point	99.31	99.23
Moyola	14.69	14.68
Total	**245.44**	**245.25**

Line 27 to 28 – Bulk Supply Imports / Exports

There are no bulk imports of water to NI Water. There is one small import from the Republic of Ireland which supplies 3 properties.

There are 72 small exports to the Republic of Ireland. These exports are predominately individually metered customers and these meters are read and billed through RAPID in a category known as cross border supplies. This figure is included in the metered non-household consumption category.

The post MLE volume amounts to 0.80 Ml/d and includes an MUR adjustment of 8.33%.

Line 29 – Water Treated At Own Works to Own Customers

With the exception of the 72 small exports above, all water treated at its own works is used by NI Water's own customers. The post MLE distribution input volume amounts to 564.47 Ml/d and deducting the cross border exports the volume of water treated at own works to own customers is 563.67 Ml/d.

Overall Water Balance

Water Balance March 2015 - FINAL						
NIW	**Pre MLE** (mld)	**Error estimate** (%)	**Confidence Range** (mld)	**% of total**	**MLE Adjustment** (mld)	**Post MLE** (mld)
Billed Measured HH	0.00	10%	0.00	0.0%	0.00	0.00
Billed Measured NHH	119.72	10%	143.33	10.1%	0.45	120.17
Billed Unmeasured HH	289.71	10%	839.32	59.1%	2.65	292.36
Billed Unmeasured NHH	5.82	15%	0.76	0.1%	0.00	5.82
SPL	39.91					39.91
DSOU	2.51	25%	0.39	0.0%	0.00	2.51
Water Taken Unbilled	17.47	25%	19.07	1.3%	0.06	17.53
Sum of components	560.44					564.47
Distribution Input	564.92	2%	144.79	10.2%	0.46	564.47
Top Down Leakage	**169.61**					
BU Leakage	**165.12**	10%	272.66	19.2%	0.86	**165.99**
Imbalance (mld)	**4.49**			100.0%		
% Imbalance	**0.79%**					**438.39**

Table 1: Water Balance

The Water Balance produces an overall imbalance of 4.49 Ml/d, (0.79%). The imbalance reported for AIR14 was 3.15 Ml/d, (-0.56%).

It is considered that in applying the confidence grade in accordance with the guidance notes contained in Table 10 of the NIAUR Annual Information Return Reporting Requirements and Definitions Manual 2014, the confidence grade applied to the NI Water's water balance for AIR15 is A1. The confidence level for the overall water balance for AIR14 was A1.

Confidence Grades

All components in the water balance are subject to errors to a greater or lesser extent, and as a method of comparing the accuracy and robustness of water balance components, NIAUR use an Alpha-numeric confidence grading system consisting of reliability bands (A to D) and Accuracy Bands (1 to 6).

NI Water adopted this approach a number of years ago and the current confidence grading for the water balance are shown in Table 2 below.

Line 7 - The Unmeasured Non-household Water Delivered confidence grade remains a B4 for AIR15. An error estimate of 15% has been applied to this component in the MLE calculations.

Line 7a - Unmeasured Household Water delivered has been assigned a B3 confidence grade.

Line 8 - Unmeasured Household Per Capita Consumption has a confidence grade of B3. This component has been calculated using the company's own consumption monitor data. An error estimate of 10% has been applied to this component in the MLE calculations.

Line 25 - Total Leakage has a confidence grade of B3 for AIR15 and is consistent with AIR14. A 10% error estimate has been applied to BU Leakage in the MLE calculation following the implementation of Netbase for PC13. This reflects the continued improvement in data quality resulting in the reduction in error estimate from 15% reported in AIR13.

Line 26 - Distribution Input has a confidence grade of B2. The sum of components and the distribution input balance to less than 5%. A 2.1% error estimate has been applied to DI in the MLE calculation.

Line 30 - In accordance with the definition provided by NIAUR the Overall Water Balance had a confidence grade of A1 in AIR14.

It is considered appropriate that the confidence grade remains A1 for AIR14, as the water balance components reconcile with measured distribution input to less than 1%, Bottom Up leakage is estimated with over 80% of properties continually monitored through night line analysis (recorded more than 20 times per year) and sample flow balance audits have been undertaken on service reservoirs and trunk mains.

Table 2 Water Delivered Components Confidence Grades

Component	Reliability Bands				Accuracy Bands						
	A	B	C	D	1 <1%	2 1-5%	3 5-10%	4 10-25%	5 25-50%	6 50-100%	X
Unmeasured Non-Household Water Delivered (l/prop/d)		■						■			
Unmeasured Household Water Delivered (l/prop/d)		■					■				
Unmeasured Household Per Capita Consumption (l/head/d)		■					■				
Total Leakage (Ml/d)		■					■				
Distribution Input (Ml/d)		■				■					
Overall Water Balance	■				■						

Lines 31 - Security of Supply

Security of Supply is discussed in Table 10a.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 10A NON FINANCIAL MEASURES

Security of Supply Index - Planned level of service (Total)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Water resource zone	**WAFU (EA definition) (Ml/d)**	**Bulk imports (Ml/d)**	**Bulk exports (Ml/d)**	**Dry year distribution input (Ml/d)**	**Reporting year distribution input (Ml/d)**	**Dry year available headroom (Ml/d)**	**Target headroom (Ml/d)**	**Surplus/ deficit (Ml/d)**	**Percentage surplus/ deficit (Ml/d)**	**Zonal population**	**Percentage of total population with headroom deficit**	**Zonal index (%age deficit^2 x % population affected x 100)**	**Security of supply index**
North	55.08	50.00	0.00	77.65	72.55	27.42	4.79	22.63	27.45	253.185	0.00	0.000	
West	75.07	0.00	0.00	65.30	61.00	9.77	4.89	4.87	6.94	164.396	0.00	0.000	
Central	11.86	19.00	0.00	28.39	26.53	2.46	2.00	0.47	1.54	72.139	0.00	0.000	
East	146.51	207.00	0.00	285.42	266.73	68.09	19.55	48.54	15.92	929.369	0.00	0.000	
South	70.17	127.00	0.00	147.57	137.66	49.60	13.13	36.47	22.69	421.451	0.00	0.000	
Total	358.68	403.00	0.00	604.34	564.47					1840.540		0.000	100

Table 10a (i) – Non Financial Measures - Security of Supply Index – Planned level of service

NI Water published its Water Resource Management Plan (WRMP) in 2012 which covers the period 2010-2035. The Security of Supply Index (SoSI) calculated for AIR15 is based on Ofwat's letter RD 03/02, and is formulated from the information presented in the WRMP.

The WRMP has adopted the latest methodology for producing water resource management plans. There has been no change in the reported SOSI from 2013/14. For 2014/15 the SOSI remains 100. This is mainly due to the following reasons;

The Water Available for Use has remained unchanged and Distribution Input (DI) has remained relatively constant from last year. In 2013/14 the total average DI was 562.40 Ml/d and this has risen by 0.37% to 564.47 Ml/day in 2014/15.

It is worth noting that both 2013/14 and 2014/15 were deemed as normal year meteorologically as they fell within the limits of the 25th and 75th percentiles (based on analysis carried out on historical rainfall and temperature data from 1988 to 2015).

There are also a number of other factors that influence the AIR15 SOSI calculation. These include;

- There is a significant interaction between South and East water resource zones (WRZs). The WRMP indicates it is likely that circa 20Ml/d from Castor Bay is actually used within the East WRZ. This reallocation of Water Available for Use (WAFU) between East and South is believed to be a more accurate reflection of the actual situation on the ground.
- The Water Available for Use (WAFU) across Northern Ireland remains at 358.69Ml/d. Once complete, the Strule River abstraction will likely increase the WAFU in West WRZ.
- Outage allowance for NI Water WTWs remains at 2% as indicated in the WRMP for the period 2010-2035.
- For this calculation it has been assumed that the bulk imports from the PPP WTWs are available at the contracted volumes as set out in the WRMP.

The calculation for AIR15 is believed to be an accurate reflection of the current NI Water SOSI. NI Water has begun the process of reviewing its water resources planning and it is possible that this review through 2015 may result in some minor changes to the balance of deployable outputs available to the individual WRZs.

The total population figure used within the SOSI calculation has been confirmed to correspond with the population figure used in AIR 15 Table 7.

Table 10a (iii) – Non Financial Measures - Security of Supply Index – Critical Period (TOTAL)

As indicated in AIR15 NI Water has developed a Water Resource Management Plan, which is now company policy. The security of supply index has been calculated based on Water Resource Management Plan 2012.

In accordance with best practice guidance for water resource planning, companies generally consider their supply demand balances under different planning scenarios. For each planning scenario a baseline forecast of supply and demand is produced.

Some companies might need to derive critical period scenarios, where their supply demand balance is sensitive to these because there are sustained periods when demands are significantly higher than average; this is a peak demand condition. Supply-side characteristics may also influence whether or not critical period analysis is required, for instance, where WRZs are supplied predominantly by groundwater, or by run of river abstractions with limited storage.

The supplies available to NI Water are dominated by abstractions from Lough Neagh, which can be considered an infinite hydrological storage resource. In addition, recent demand data does not suggest that there is a strong peak demand driver in Northern Ireland. For these reasons, it is not appropriate or necessary to consider the critical period scenario for Northern Ireland, because this is not the primary driver for investment to maintain the supply demand balance.

On this basis there has been no need for NI Water to develop a SOSI calculation for a critical period.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 11 NON FINANCIAL MEASURES
WATER SERVICE ACTIVITIES (NI Water Only)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**ASSET BALANCE AT APRIL 1**										
1	Total length of mains	km	2	26,441.81	B3	26,499.03	B3	26,700.79	B3	26,710.55	B3
B	**CHANGES DURING REPORT YEAR**										
2	Mains renewed	km	2	445.82	A2	285.42	A2	202.31	A2	164.91	A2
3	Mains relined	km	2	0.00	A1	0.00	A1	0.00	A1	0.00	A1
4	Mains cleaned (total)	km	2	839.75	B3	683.75	B3	1096.52	B2	1189.50	B2
6	New mains	km	2	118.16	B2	89.05	B2	50.40	B2	118.24	B2
6a	Total length of new, renewed or relined mains	km	2	563.98		374.47		252.72	A2	283.15	A2
6b	Length of new, renewed or relined mains delivered under the watermain rehabilitation programme	km	2	510.26		326.41		226.13	A2	222.66	A2
7	Mains abandoned and other changes	km	2	476.63	A2	357.29	A2	214.62	A2	208.09	A2
8a	Lead communication pipes replaced as a consequence of water quality sample failures	nr	0					20	B2	15	B2
8b	Lead communication pipes replaced as a consequence of customers notifying NI Water that they are replacing their lead supply pipe	nr	0					617	B2	566	B2
8c	Opportunistic lead communication pipes replacement undertaken under the watermain rehabilitation programme or during burst service pipe repairs	nr	0					1239	A2	2747	A2
8d	Lead communication pipes replaced under the proactive lead replacement programme	nr	0					0	A1	401	B2
9	Lead communication pipes replaced - maintenance or other	nr	0	2,119	B3	1,271	B3	1,856	B3	3729	B2
10	Communication pipes replaced - other	nr	0	10,253	B3	8,566	B3	8,790	B3	7469	B3
11	Mains bursts per 1000km	nr	0	101	B3	93	B3	86	B3	85	B3
C	**ASSET BALANCE AT MARCH 31**										
12	Total length of mains	km	2	26,499.03	B3	26,700.79	B3	26,710.55	B3	26,712.44	B3
D	**DISTRIBUTION STUDIES**										
13	Cumulative number of distribution zone studies completed	nr	0	64	A1	71	A1	71	A1	71	A1
14	Distribution zone studies ongoing	nr	0	7	A1	0	A1	0	A1	0	A1
15	Total distribution zones identified for study	nr	0	71	A1	71	A1	71	A1	71	A1
16	Cumulative % distribution zone studies completed	%	1	90.1	A1	100	A1	100	A1	100.00	A1
17	Percentage population/properties - completed studies	%	1	87.0	A1	100.0	A1	100.0	A1	100.0	A1
F	**WATER QUALITY COMPLIANCE MEASURES**										
18	% mean zonal compliance with drinking water regulations	%	2	99.83		99.8		99.85	A2	99.84	A2
19	% Service Reservoirs with coliforms in >5% samples	%	2	0.00		0.00		0.00	A1	0.00	A1
G	**NOMINATED WATER SERVICE OUTPUTS**										
20	Completion of nominated trunk main schemes to improve security of supply	nr	0	0	A1	2	A1	0	A1	1	A1
21	Completion of nominated water treatment works schemes to improve water quality	nr	0	0	A1	0	A1	0	A1	3	A1
22	Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks	nr	0	3	A1	1	A1	0	A1	1	A1
23	Completion of nominated Major Incident Mitigation schemes	nr	0					3	B2	2	A1

Table 11– Water Service Activities

Line 1 – Total length of mains at 1st April 2014

This value has been extracted from AIR14 return.

Lines 2 – 11 - Changes during the reporting year

This document provides the commentary on the following table and lines for NIW which record the amount of capital and maintenance activity carried out in the report year 14/15 on water mains and communication pipes.

NIW has an on-going programme of mains rehabilitation and has replaced/rehabilitated 495km during the 2 year period of 13/14 and 14/15. This includes 445km through the water mains rehabilitation programme. We exceeded the PC13 Monitoring Plan target of 445km delivered through the Water Mains Rehabilitation Programme (WMRP) delivering 448.79km.

One of the main drivers for the WMRP is water quality. The WMRP is driven by a priority scoring. The coarse information used at the outset to define Zonal study priority was further refined to determine exact construction priority. These work packages were then further split into high and low priority areas. At each stage more information has been gathered to ensure that the most accurate and up to date information is utilised.

Activity Description	PC13						
	2013-2014 (km)			2014-2015 (km)			PC13 Total (km)
	EP	Ops	Total	EP	Ops	Total	
New Mains (WMRP)	23.81	0.00	23.81	60.89	0.00	60.89	84.70
Renewed Mains (WMRP)	202.31	0.00	202.31	161.77	0.00	161.77	364.08
Relined Mains (WMRP)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total WMRP Activity	226.13	0.00	226.13	222.66	0.00	222.66	448.79
Nominated Trunk Mains – New	0.18	0.00	0.18	28.09	0.00	28.09	28.27
Nominated Trunk Mains – Renewed	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Nominated Trunk Mains Activity	0.18	0.00	0.18	28.09	0.00	28.09	28.27
New Mains – New Development	0.00	26.41	26.41	0.00	27.85	27.85	54.26
Total New Development Activity	0.00	26.41	26.41	0.00	27.85	27.85	54.26
1st Time Services – New	0.00	0.00	0.00	1.41	0.00	1.41	1.41
1st Time Services – Renewed	0.00	0.00	0.00	0.67	0.00	0.67	0.67
Total 1st Time Services	0.00	0.00	0.00	2.08	0.00	2.08	2.08
Mains Development/Diversions	0.00	0.00	0.00	0.00	2.47	2.47	2.47
Total Mains Development/Diversions	0.00	0.00	0.00	0.00	2.47	2.47	2.47
Total Mains Activity in the Period	**226.31**	**26.41**	**26.41**	**252.83**	**30.32**	**283.15**	**535.87**

NB. Some figures may not add due to rounding differences.

Nominated Trunk Mains Activity	2013-14	2014-15	PC13 Total
Nominated Trunk Mains - New			
- JG035 Ballydougan to Newry Main - Link Reinforcement	0.18	0.00	0.18
- JR342 Castor Bay to Belfast TM	0.00	23.44	23.44
- JG035 Ballydougan to Newry Main TM - Phase 2B	0.00	0.11	0.11
-JR 460 Gravity 11, McVeighs Well to Oldpark SR	0.00	4.54	4.54
Total Nominated Trunk Mains -New	0.18	28.09	28.27
Total Nominated Trunk Mains - Renewed	0.00	0.00	0.00
Total Nominated Trunk Mains Activity	**0.18**	**28.09**	**28.27**

NB. Some figures may not add due to rounding differences.

General Commentary: EP Input to Lines 2, 3, 6, 7, 9, 10 & 11

All EP information is compiled from EP contract management information monthly returns. This is an accurate measurement of the actual lengths of water mains laid, renovated or replaced, compiled from contractor's on-site records. The information is collated from each individual contract on a monthly basis and aggregated into an overall annual figure. The EP data is assessed as confidence grade A2 on the basis of the competency of our long term contracting partners' understanding of their reporting requirements, the quality and robustness of their on-site measurements and NI Water's Captrax management system which stores the information and is used to populate the AIR table.

Line 2 - Mains renewed (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
2	Mains renewed	km	2	162.44	A2	2.47	**B3**	164.91	**A2**

- Engineering Procurement (EP) has continued its method of reporting on renewed mains in line 2 to comply with the Regulator's Annual Information Return reporting requirements and definitions manual.
- Engineering Procurement is the primary contributor to this information but Networks Water has taken some ownership of smaller schemes, in particular social housing redevelopments and minor mains diversions.
- The figure 162.44km from EP includes 0.67km of 1st time services.
- **The confidence grade overall is A2**

Line 3 - Mains relined (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
3	Mains relined	km	2	0.00	**A1**	0.00	**A1**	0.00	**A1**

- At present this operation is not carried out either by Networks Water or by EP
- **Confidence Grade: A1 as the total is zero**

Line 4 - Mains cleaned (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
4	Mains cleaned (total)	km	2	0.00	A1	1,189.5	**B2**	1,189.5	**B2**

- This work is carried out by the Networks Water Team. EP have no involvement in this activity.
- Detailed data for the reporting period was collated by the Water Business Unit using MWM system reports. As directed by the Regulator repeat flushing of the same length of main has been discounted.

- Work Orders are automatically generated at various frequencies and sent to the Field Operators. This information is captured on the MWM system.
- The recorded units are the total number of reactive fire hydrant flushing jobs plus the count of flushing MST's active on the Ellipse system, minus those flushing MST's which have not been performed for various reasons. This is then converted from units to km using the previously agreed factor of 0.156km per flushing.
- 2015 information return is: 7,625no. flushings x 0.156km per flush = 1,189.5km. This comprises a total count of 6,847 no. flushing MST's in Ellipse, minus 6no. flushing MST's identified as not having been carried out, plus 784no. reactive flushing jobs completed.
- For AIR15 an additional flushing programme using Maintenance Scheduled Tasks (MST's) has been added, primarily for dead end hydrants on iron mains. This accounts for the increase in the total length of main flushed.
- **Confidence Grade: B2 as all returns are from Ops**

Although the total no. of reactive flushing jobs (784no.) may contain some repeat flushings at the same location these are considered to be minimal and the Company considers the data collated for this line to be continually improving. There is also a notable reduction in the completed no. of reactive flushings which may be due to the continuing improvement in water quality standards through the on-going mains rehabilitation schemes. As per previous audit recommendations the number of flushings has been converted to km. The number of flushings has been captured for April 14 – March 15 year using base information from MWM and then converted to km using the factor of 0.156. This year there is an on-going sampling process to try and establish the veracity of this factor.

Future Reporting

For AIR16 Networks Water will continue to use the established process for monthly reporting using MWM as a source for base information.

The MST flushing programme is under continuous review with the addition and removal of MST's on an on-going basis.

Line 6 - New mains (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
6	New mains	km	2	90.39	A2	27.85	B2	118.24	B2

- Data for the period April 14 – March 15 was collated by Field Managers using system reports which when checked and confirmed were transferred onto a spread sheet managed by the Water Business Unit. This figure primarily includes data for new mains laid in new housing developments throughout the year.
- Networks Water is the sole contributor for new main laid in new housing developments. Engineering Procurement is the primary contributor for new mains (replacement upsizing).
- All EP information is compiled from EP contract management information monthly returns. This is an accurate measurement of the actual lengths of water mains laid, renovated or replaced, compiled from contractor's on-site records. The information is collated from each individual contract on a monthly basis and aggregated into an overall annual figure. The figure of 90.39 km is made up of 60.89 km of New Mains WMRP plus 28.09 km of Trunk Mains and 1.41 km of first time services.

EP - Confidence grade: A2

This figure is obtained from Monthly Reports in Captrax and aggregated into an annual return

Combined NIW confidence grade: B2

This figure is arrived at by considering that there is a 70:30 split between the contribution of EP and Networks Water .It is reasonable therefore to state that the NW assessment of B2 (Minor Shortcomings and a possible 5% inaccuracy should be used for this line).

Future Reporting

For AIR16 Networks Water will continue to use the established process monthly reporting using MWM as a source for base information.

Line 6a - Total Length of new, renewed or relined Mains (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
6	New renewed or relined mains	Km	2	252.83	A2	30.32	B2	283.15	A2

NB. Some figures may not add due to rounding differences.

- This is the calculated sum of Lines 2, 3 & 6.
- **Confidence Grade: A2** as the output is the sum of other lines with similar confidence grades from the same sources

Line 6b - Length of new, renewed or relined mains delivered under the Watermain rehabilitation programme (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
6b	New renewed or relined mains under WMRP	Km	2	222.66	A2	0.00	A1	222.66	**A2**

- EP has continued its method of reporting on new mains in line 6 to comply with the Regulator's Annual Information Return reporting requirements and definitions manual.
- **The confidence grade remains A2 as reporting is from CPMR .**

Line 7 - Mains abandoned and other changes (km)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
7	Mains abandoned and Other Changes	Km	2	205.62	A2	2.47	B3	208.09	**A2**

- This data is collated by the Business Unit from EP and Ops.
- **Confidence Grade is stated as A2** as both returns are considered to be A2.

Future Reporting

For AIR16 Networks Water will continue to use the established process for monthly reporting using MWM as a source for base information.

Line 8a - Lead Communication pipes replaced – as a consequence of water quality sample failures (no.)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG

8a	Lead Comms Pipes repl as conseq of WQ Sample Failures	Nr	2	0	A1	15	B2	15	B2

- This Data is supplied by Networks Water Only.
- Data for the reporting period April 14 – March 15 was collated by Business to Customer Field Managers using system reports which, when checked and confirmed, was input onto a spread sheet managed by the Water Business Unit who collate the data for the annual reporting period.

Confidence Grade: B2

Previously large nos. of replacements, not necessarily due to sample failures but due to quality concerns, would have been included here. These have now been moved to line 8b.

Future Reporting

For AIR16 Networks Water will continue to use the refined definitions for Lead Communication Pipe replacements for monthly reporting using MWM as a source for base information.

Line 8b - Lead Communication pipes replaced – as a consequence of customers replacing their lead supply pipe (no.)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
8b	Lead Comms Pipes repl as consequence of Customers notifying of supply pipe change	Nr	2	0	A1	566	B2	566	B2

- This data is supplied by Networks Water Only
- Data for the reporting period April 14 – March 15 was collated by Business to Customer Field Managers using system reports which, when checked and confirmed, was input onto a spread sheet managed by the Water Business Unit who collate the data for the annual reporting period.
- **Confidence Grade: B2**

Future Reporting

For AIR16 Networks Water will continue to use the refined definitions for Lead Communication Pipe replacements for monthly reporting using MWM as a source for base information.

Line 8c - Lead communication pipes replaced – Opportunistic (no.)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
8c	Lead Comms Pipes repl as consequence of	Nr	2	2,670	A2	77	**B3**	2,747	A2

Data for the reporting period April 14 – March 15 was collated by the Water Business Unit using MWM system reports run on a monthly basis by Field Manager area for selected Standard Jobs. When checked and confirmed the data was input onto a spreadsheet managed by the Business Unit.

The increase against line 8c and corresponding decrease against line 10 are unrelated between reporting periods. The increase in opportunistic replacements is linked to the watermain rehabilitation programme delivering more works packages in networks which are prone to higher incidence of lead communication pipes; typically the Greater Belfast Area (as recently verified by the Lead Pipe Replacement Programme). The process used to capture the information across reporting years is consistent.

Confidence Grade: A2

The confidence score reflects the more detailed analysis of MWM reports and quality of information provided on Work Orders. It remains problematic when analysing some Work Orders to ascertain if a full communication pipe replacement has taken place and if lead was a factor. EP have done the vast majority of this work (>95%) and therefore their Confidence Grade of A2 will dominate here rather than the B3 figure reported by Networks Water

Future Reporting

For AIR16 Networks Water will continue to use the established process for monthly reporting using MWM as a source for base information.

Line 8d - Lead Communication pipes replaced – Proactive lead replacement programme (no.)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
8d	Lead Comms Pipes repl under proactive repl programme	Nr	2	401	B2	0	A1	401	**B2**

Confidence Grade: B2 the number was re analysed and checked by AP on request by the AP Networks Manager.

2014-2015 proactive Lead schemes were carried out by EP.

Future Reporting

This Line is exclusively EP work. A comprehensive programme of Lead replacements have been identified for each year of PC 15 by the AP Networks Team and therefore this workload and completed schemes should be easier to report on from now on with increased accuracy.

Line 9 - Total Lead Communication Pipes Replaced – Sum of 8a, 8b, 8c and 8d (no.)

Line	Description	Units	DP	EP	EP CG	Networks Ops	Networks Ops CG	Total	Overall CG
9	TOTAL Lead Comms Pipes repl	Nr	2	3,071	B2	658	B2	3,729	**B2**

Future Reporting

For AIR16 Networks Water will continue to use the established process for monthly reporting using MWM as a source for base information.

Line 10 - Communication pipes replaced – other (no.)

Line	Description	Units	DP	EP	EP CG	Networks	Networks	Total	Overall

						Ops	Ops CG		CG
10	Lead Comms Pipes repl	Nr	2	6312	B3	1,157	**B3**	7,469	B3

- Data for the reporting period April 14 – March 15 was collated by the Water Business Unit using MWM system reports run on a monthly basis by Field Manager area for selected Standard Jobs. When checked and confirmed the data was input onto a spreadsheet managed by the Business Unit.
- EP has reported this figure utilising Captrax and the related procedures.
- The Confidence Grade reported by Networks Water is B3. The confidence grade from EP is B3. Networks Water B3 figure is approx. 20% of this return.
- **Confidence grade is B3**

This Networks water figure shows an increase from last year and may be attributable to more detailed analysis of MWM reports and quality of information provided on Work Orders. It remains problematic when analysing some Work Orders whether or not a full communication pipe replacement has been carried out or only a localised burst service repair completed.

Future Reporting

For AIR16 Networks Water will continue to use the established process for monthly reporting using MWM as a source for base information.

Line 11 - Mains bursts per 1,000km

The specified unit for Line 11 is Mains Bursts per 1,000km. NIW do not currently record Mains Bursts per 1000km but record the actual number of Mains Bursts Repairs carried out. Detailed data for the reporting period April 14 – March 15 was collated using MWM system reports which when checked and confirmed were transferred onto a summary spread sheet. A number of repairs attributable to third party damage have also been extracted from the final total. The total no. of mains bursts repairs for Networks Water was then converted to bursts per 1,000km.

Calculation of Mains Bursts per 1,000km

Total Burst Mains divided by Total length of mains multiplied by 1,000

2,348 – 82 (rechargeables) / 26,712.44km = 0.0848 x 1,000 = 84.8

Total Bursts per 1,000km = 84.8

2012 information return was 2,746 (Inc. 81no. rechargeables)
2013 information return was 2,535 (Inc. 61no. rechargeables)
2014 information return was 2,382 (Inc. 83no. rechargeables)

Proportion of bursts within line 11 detected by proactive methods

The total number of Mains Repairs carried out by NIW was 2,348 (including 82 no. due to third party damage).

The number of mains repairs carried out by Networks Water function due to non-proactive leakage detection methods was 1,352.

The number of mains repairs carried out due to proactive leakage detection methods was 996.

Confidence Grade B3

The number of bursts for Networks Water has been captured for the complete year using base information on a monthly basis from MWM reporting systems. Individual Work Orders have been analysed and duplicates and non mains repairs extracted. There is a continued reduction from 2014 figures primarily for the following reasons:

- Mains rehabilitation schemes continue to have a positive impact in reducing the no. of defects;
- Continuing detail has been paid to the classification of mains repairs as opposed to communication pipe repairs or replacements; and
- There has been a relatively mild winter again with no freeze / thaw periods through Nov / Dec 14 and Jan / Feb 15.

Future Reporting

For AIR16 Networks Water will continue to use the established process for monthly reporting using MWM as a source for base information.

Line 12 - Total length of mains

This figure has been extracted from the Corporate Asset Register. There has been no change to the structure of the data reported on this year from the previous years that would directly affect the total provided. The confidence grade of the data will remain the same as the previous year. There have been no significant improvements in data quality since the AIR14 reports. Any new data will have adhered to the NIW Code of Practice for the submission of asset data ensuring that data quality levels have been maintained throughout the year.

As per the reporters recommendation during the AIR14 audit this figure includes trunk mains that are marked as “Out of Service” on the Corporate Asset Register. This recommendation was made as although these mains are currently out of service they are not abandoned and could potentially come back into service in the future.

Lines 13 to 17- Distribution studies

Lines 13 to 17 reflect the reporting requirements for the Zonal Study Methodology that has traditionally been employed by NIW to highlight and prioritise investment in the Water Network.

This methodology involved, identifying Zones which were then: intensively examined, hydraulically modelled, site checked and discussed in detail with NIW Managers.

The output of this exercise was a prioritised list of Network Rehabilitation and Rationalisation schemes

There were 71 models created and completed over the past 13 years or so, which were combined into 56 Zonal studies which were completed in the AIR12 year and are therefore all complete as shown in the table

The Confidence Grade therefore of this return is A1.

Line 13 – Cumulative number of distribution zone studies completed

Zonal Studies Start & Completion Dates (31 March 2013)				1st Update of Initial Study	
Zone	AIR13 Population	Start Date	Completion Date	Start Date	Completion Date
Craigavon West	21846	11/11/99	Aug-01	Jun-13	Nov-13
B'mena Borough	28556	20/04/00	Dec-02	Jun-13	Nov-13
Silent Valley	3507	16/07/01	Jan-Mar 2004		
Fofanny Newry	52045	16/07/01	Jan-Mar 2004		
Camlough	14817	10/10/01	Jan-Mar 2004		
Ballinrees West	17042	07/01/02	Apr-Jun 2003		
Breda South	38505	20/03/01	Oct-02	Jun-13	Nov-13
Cityside	58451	09/08/00	Oct-04		
Castor Bay/Armagh	16316	18/12/02	Feb-06		
Seagahan	32194	18/12/02	Feb-06		
Clay Lake	6792	18/12/02	Feb-06		
Ards North	28219	24/06/03	Nov-05		
Lough Cowey	9665	24/06/03	Nov-05		
Bangor Outer	44505	24/06/03	Nov-05		
Castor Bay/M'liskmisk	16760	19/11/03	Nov-05	Jun-13	Nov-13
Altnahinch	31441	04/06/01	Feb-03		
Drumabest	13465	05/06/01	Feb-03		
Ballinrees East	23269	07/01/02	Apr-Jun 2003		
Ballinrees Central	26032	07/01/02	Apr-Jun 2003		
Dungonnell	37576	30/05/01	Jan-05	Jun-13	Nov-13
North Tyrone	30143	10/05/01	May-Jun 2006		
South West	13682	10/05/01	May-Jun 2006		
Tardree	10655	04/09/03	Mar-09		
Dunore West	44515	04/09/03	Mar-09		
Lough Fea	30138	23/04/01	Dec-07		
Castlereagh	26103	19/05/02	Nov-07		
Purdysburn East	32159	19/05/02	Nov-07		
Castor Bay Shanmoy	22278	12/11/02	Dec-09		
Altmore/Gortlenaghan	11639	12/11/02	Dec-09		
Newtownards Town	32722	02/11/04	Dec-07		
Ballintemple	15670	02/07/02	Apr-09		
Lough Ross	10568	02/07/02	Apr-09		

Zone	AIR13 Population	Start Date	Completion Date	Start Date	Completion Date
Fofanny B'bridge	19348	05/04/01	Dec-07	Jun-13	Nov-13
Castor Bay/Banbridge	30596	05/04/01	Dec-07	Jun-13	Nov-13
Carmoney East	16730	04/07/01	Mar-08		
Waterside	25698	04/07/01	Mar-08		
Moyola	40982	01/10/01	Aug-09		
Lisburn Town	41397	29/04/03	Jan-08		
Lisburn Rural	10417	29/04/03	Jan-08		
Mid Down	29651	02/11/04	Feb-09		
Ballygowan	6473	02/11/04	Feb-09		
Comber	13139	02/11/04	Feb-09		
Craigavon North	35794	19/11/03	Feb-08	Jun-13	Nov-13
Craigavon South	21221	19/11/03	Feb-08	Jun-13	Nov-13
Limavady	31204	19/05/04	Sep-08		
North East	4249	19/05/04	Sep-08		
Zone	**AIR13 Population**	**Start Date**	**Completion Date**	**Start Date**	**Completion Date**
South	20995	06/01/08	Mar-13		
South East	14339	06/01/08	Mar-13		
N Down/Bangor	31951	01/04/06	Jan-08		
South Down	15886	15/06/07	Mar-09		
Downpatrick	8433	15/06/07	Mar-09		
Newcastle	10263	15/06/07	Mar-09		
Mourne Coastal	12574	15/06/07	Mar-09		
Breda North	54099	22/02/08	Oct-09		
Belfast East	37673	22/02/08	Oct-09		
Holywood	8444	22/02/08	Oct-09		
Dunmurry	35299	Jul-08	Feb-12		
Lisburn South Rural	20560	Jul-08	Feb-12		
Ballywonard/Dunanney	39462	Jun-08	Jun-10		
Ballysillan/Ballyaghagan	34176	Jun-08	Jun-10		
West Belfast rural	10338	Jun-08	Jun-10		
Omagh	39559	Jul-08	Mar-13		
Dunore East	21011	Jun-09	Mar-12		
Killylane	32895	Jun-09	Mar-12		
Lough Mourne	7681	05/02/09	Sep-10		
Carrickfergus	38463	05/02/09	Sep-10		
Newtownabbey	35197	05/02/09	Sep-10		
Whiterock	33109	Jun-09	Jun-12		
B'gomartin/P'burn West	34055	Jun-09	Jun-12		
Oldpark	65046	Jun-09	Jun-12		
Ballygomartin North	29788	Jun-09	Jun-12		

KEY	
Started/finished	71
Started/ongoing	0
Programmed to start	0
Remaining zones to start	0

Studies completed population	1819470
N Ireland population	1819470
Percentage Complete	100.0%

This method has now been superseded by the Water mains Infrastructure Investment Model (WIIM) Methodology. This methodology relies on current Corporate asset data to build up a picture of prioritised needs which is then checked hydraulically against a model and the output reviewed by NIW Managers and Field Staff.

The implications for Lines 13 to 17 are that, the specific question in relation to Zonal Study completion should probably be changed for next year to reflect progress in the new methodology.

The WIIM (Water Infrastructure Investment Model) methodology involves taking all appropriate asset datasets which reflect the performance of the network (also including Customer data) and applying a scoring matrix to reflect these datasets for all distribution pipelines in NIW. These scores are then applied to each pipeline .The highest scoring model areas are then examined for prioritised and appropriate intervention depending on the drivers for each pipeline

The 71 Model areas have now been reduced to 56 model areas reflecting the current Water Resource areas.

During this period approx. £22m of prioritised interventions were identified with the Budget for £14m being progressed through CIP as of June 2015

- Foffany North and Lisburn South (**PROPERTIES OR POP EQUIVALENT)**
- Killylane North and South,
- Ballymena Phase 1 and
- Ballymena Phase 2

There are also a significant number of PC13 legacy schemes being progressed by June 2015.

Further Packages which could come on line if Budget is available include:

- Forked Bridge Dunmurray,
- Dungonnell,
- Carrickfergus,
- Breda South,
- Dunore Ballygomartin South,
- Dunore Belfast North and Oldpark

If these packages do not go ahead in this upcoming financial year then they may be superseded by higher priority schemes following an update of asset data to the WIIM prioritisation methodology in August 2015

Hydraulic Model rebuilds are now identified by looking forward into the following years WIIM priority areas and making a judgement as to whether the model in this area is adequate to allow accurate Verification of the WIIM Desktop priority schemes.

Line 18 - MZC with drinking water regulations

NI Water is currently assessed for its overall performance by a calculation referred to as Mean Zonal Compliance (MZC). Under this measurement method, there has been a steady upward trend in compliance over the last number of years.

Reporting Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mean Zonal Compliance* (%)	99.02	99.34	99.32	99.50	99.76	99.82	99.83	99.80	99.85	99.84

*average water quality at customer tap at parameter level

This is the last assessment under this method of measurement.

After the PC13 control period, the means of assessment will move to overall %age compliance across all potable water analysed sites and not just at customer tap/supply point.

Line 19 - % Service reservoirs with coliforms in >5% samples

NI Water has continued to report 0 for this metric, having had 0 service reservoirs with >5% exceedances over the last number of years. There is an ongoing service reservoir cleaning programme to maintain this.

Line 20 - Completion of nominated trunk main schemes to improve security of supply

There are three trunk mains schemes identified in the PC13 Programme one of which delivered in Year 2 (2014/15) of the programme. Details are provided below.

JR460	Gravity 2 – McVeigh's Well to Oldpark SR	Achieved beneficial use in 2014/15
JG035	Ballydougan to Newry TM – Phase 2B	AIR 14 had projected achievement of beneficial use during 2014/15 but procurement process had longer duration than anticipated in order to achieve Value for Money. Beneficial use anticipated within 2015/16.
JR342	Castor Bay to Belfast TM	Although the pumping main element of this scheme was delivered on schedule, Industrial Action delayed final stages of testing at Magheraliskmisk Service Reservoir. Beneficial use will occur April 2015.

The confidence for this line was assessed as A1: one scheme achieved beneficial use within PC13, one will achieve it in April 2015 and a third within 2015/16. This is based on review of CPMR approvals and financial details contained within CPMR.

Line 21 - Completion of nominated water treatment works schemes to improve water quality

JP669 Killyhelvin WTW – GAC was identified at the outset of PC13 as a nominated output whilst Dorisland WTW - GAC was added to Sub-programme 4 under Change Protocol following enforcement direct from DWI.
Both projects achieved beneficial use in 2014/15.

Killylane WTW was an element of Sub-Programme 1 – Base Maintenance Water. Although schemes within base maintenance sub-programmes are not normally listed separately, this scheme was identified as a distinct nominated output and has been listed as such.
Details are presented below.

JP669	Killyhelvin WTW – GAC	Achieved beneficial use in 2014/15
JR463	Dorisland WTW - GAC	Achieved beneficial use in 2014/15
JA271	Killylane WTW	Achieved beneficial use in 2014/15

The confidence grade for this line was determined using the reporting guidance and was assessed as A1 following review of CPMR approvals and financial details contained within CPMR.

Line 22 - Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks

There is a single project referenced as within the PC13 nominated outputs to address capacity issues at Service Reservoirs and Clear Water Tanks. The project JV830 Crieve SR achieved a beneficial use date in Year 2 of PC13.

JV830	Crieve SR	Achieved beneficial use in 2014/15

The confidence was assessed as A1 following review of CPMR approvals and financial details contained within CPMR.

Line 23 - Completion of nominated Major Incident Mitigation schemes

Five Major Incident Mitigation schemes (MIMPS) were identified as nominated outputs in the PC13 Final Determination, 3 of which delivered in year 1 of the programme with the remaining 2 in year 2. Completing details are as contained in the following Table.

		Beneficial Use	
JI024	MIMP West Freeze Thaw Improvements	14/02/14	Achieved beneficial use in 2013/14
JI025	MIMP South Freeze Thaw Improvements	24/01/14	Achieved beneficial use in 2013/14
JI026	MIMP North Freeze Thaw Improvements	18/08/14	Achieved beneficial use in 2014/15
JI027	MIMP Central Freeze Thaw Improvements	28/03/14	Achieved beneficial use in 2013/14
JI028	MIMP East Freeze Thaw Improvements	09/02/15	Achieved beneficial use in 2014/15

The confidence was assessed as A1 following review of CPMR approvals and financial details contained within CPMR.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 12 NON FINANCIAL MEASURES
WATER EXPLANATORY FACTORS - (NIW Only)

				1	2	3	4	
	DESCRIPTION	**UNITS**	**DP**	**NR OF SOURCES**	**PROP'N DIST INPUT**	**BULK PROP'N OF D.I.**	**REPORT YEAR**	**CG**
				UNITS / **DP**	**UNITS** / **DP**	**UNITS** / **DP**		
				nr / 0	Prop'n (0-1) / 3	Prop'n (0-1) / 3		
A	**SOURCE TYPES AND PUMPING**							
1	Impounding reservoirs			21	0.733	0.000		B2
2	River abstractions			10	0.266	0.000		B2
3	Boreholes			1	0.000	0.000		B2
4	Source types and pumping; total			32	1.000	0.000		B2
5	Average pumping head - total	m.hd	1				85.3	B4

				TOTAL PROP'N OF D.I.	**TOTAL NR OF WORKS**
				UNITS / **DP**	**UNITS** / **DP**
				Prop'n (0-1) / 3	nr / 0
B	**TREATMENT TYPE**				
6	Proportion of distribution input - simple disinfection			0.000	1
7	Proportion of distribution input - W1			0.000	0
8	Proportion of distribution input - W2			0.000	0
9	Proportion of distribution input - W3			0.587	9
10	Proportion of distribution input - W4			0.413	10
11	Proportion of distribution input - total			1.000	
12	Total numbers of works				20

				BAND 1 <= 165mm	**BAND 2 166 - 320mm**	**BAND 3 321 - 625mm**	**BAND 4 > 625mm**
C	**POTABLE MAINS**						
13	Potable mains (nominal bore)	km	2	21028.49	4075.16	1344.95	263.84

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 12 NON FINANCIAL MEASURES
WATER EXPLANATORY FACTORS (PPP Only)

				1	2	3	4	
	DESCRIPTION	**UNITS**	**DP**	**NR OF SOURCES**	**ROP'N DIST IN**	**ULK PROP'N OF**	**REPORT YEAR**	**CG**
				UNITS / **DP**	**UNITS** / **DP**	**UNITS** / **DP**		
				nr / 0	Prop'n (0-1) / 3	Prop'n (0-1) / 3		
A	**SOURCE TYPES AND PUMPING**							
1	Impounding reservoirs			2	0.054	0.000		B2
2	River abstractions			4	0.946	0.000		B2
3	Boreholes			0	0.000	0.000		B2
4	Source types and pumping; total			6	1.000	0.000		B2
5	Average pumping head - total	m.hd	1				153.5	B2

				TOTAL PROP'N OF D.I.	**TOTAL NR OF WORKS**
				UNITS / **DP**	**UNITS** / **DP**
				Prop'n (0-1) / 3	nr / 0
B	**TREATMENT TYPE**				
6	Proportion of distribution input - simple disinfection			0.000	0
7	Proportion of distribution input - W1			0.000	0
8	Proportion of distribution input - W2			0.000	0
9	Proportion of distribution input - W3			0.000	0
10	Proportion of distribution input - W4			1.000	4
11	Proportion of distribution input - total			1.000	
12	Total numbers of works				4

				BAND 1 <= 165mm	**BAND 2** 166 - 320mm	**BAND 3** 321 - 625mm	**BAND 4** > 625mm
C	**POTABLE MAINS**						
13	Potable mains (nominal bore)	km	2	0.00	0.00	16.42	0.00

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 12 NON FINANCIAL MEASURES
WATER EXPLANATORY FACTORS - (Total)

				1		2		3		4	
	DESCRIPTION	**UNITS**	**DP**	**NR OF SOURCES**		**ROP'N DIST IN**		**ULK PROP'N OF**		**REPORT YEAR**	**CG**
				UNITS	**DP**	**UNITS**	**DP**	**UNITS**	**DP**		
A	**SOURCE TYPES AND PUMPING**			nr	0	Prop'n (0-1)	3	Prop'n (0-1)	3		
1	Impounding reservoirs			23		0.438		0.000			B2
2	River abstractions			14		0.561		0.000			B2
3	Boreholes			1		0.000		0.000			B2
4	Source types and pumping; total			38		1.000		0.000			B2
5	Average pumping head - total	m.hd	1							114.6	B4

				TOTAL PROP'N OF D.I.		**TOTAL NR OF WORKS**	
				UNITS	**DP**	**UNITS**	**DP**
B	**TREATMENT TYPE**			Prop'n (0-1)	3	nr	0
6	Proportion of distribution input - simple disinfection			0.000		1	
7	Proportion of distribution input - W1			0.000		0	
8	Proportion of distribution input - W2			0.000		0	
9	Proportion of distribution input - W3			0.332		9	
10	Proportion of distribution input - W4			0.668		14	
11	Proportion of distribution input - total			1.000			
12	Total numbers of works					24	

				BAND 1 <= 165mm	**BAND 2 166 - 320mm**	**BAND 3 321 - 625mm**	**BAND 4 > 625mm**
C	**POTABLE MAINS**						
13	Potable mains (nominal bore)	km	2	21028.49	4075.16	1361.37	263.84

Table 12 – Water Explanatory Factors

Water sources & treatment types – NIW only

On 31st March 2012 NIW had 20 NR Sources in-Service consisting of 13 NR Impounding Res., 6 NR River/Lough Abstraction & 1NR BH Source.

However during the course of the year, in preparation for the AIR13 returns, WTWs Plant Managers were requested to provide sketches on their AIR13 Detail Certification (Supply) sheets, to clearly portray the sources pertinent to each WTW. Following review of these certification sheets it was realised, that a number of updates were required to some WTWs regarding their sources. In addition NI Water applied the 'cascade' rule (i.e. where a reservoir receives water in part from an upstream reservoir and in part from its own catchment then this reservoir has been included as a source) to enable inclusion of the additional impounding reservoirs as sources.

These updates were reported on for AIR13 and were not as a as a result of interventions on the ground but due to reporting back to Asset Management regarding the actual sources associated with the WTWs.

There have been no further changes since AIR13 and the following table shows what was reported on prior to the changes on 31st March 2014 and what is currently being reported on for AIR15.

Location	AIR15 Source Type	Treatment Type	In Service during AIR 13	In Service at 31st Mar 2014	In Service at 31st Mar 2015
Gortlenaghan	Borehole	SD	No	No	No
Shanmoy BHs	Borehole	SD	No	No	No
Lenamore Spring	Borehole	SD	No	No	No
Rathlin	Borehole	SD	Yes	Yes	Yes
Killylane	Imp. Reservoir	W3	Yes	Yes	Yes
Dungonnell	Imp. Reservoir	W3	Yes	Yes	Yes
Altnahinch	Imp. Reservoir	W3	Yes	Yes	Yes
Lough Fea	Lough (previously indicated as an Impounding Reservoir)	W3	Yes	Yes	Yes
Drumaroad	2No Imp. Reservoirs (Ben Crom IR & Silent Valley IR)	W3	Yes	Yes - Now viewed as 2No. sources	Yes - Now viewed as 2No. sources
Caugh Hill	Imp. Reservoir - Altnaheglish IR & River (Glenedra)	W3	Yes	Yes – Now viewed as 2No. sources	Yes – Now viewed as 2No. sources
Glenhordial	Imp. Reservoir	W3	Yes	Yes	Yes
Lough Bradan	2 No Lough Bradan Imp. Reservoir, and Lough Lee	W4	Yes	Yes Now viewed as 2No sources	Yes Now viewed as 2No sources

Location	AIR15 Source Type	Treatment Type	In Service during AIR 13	In Service at 31st Mar 2014	In Service at 31st Mar 2015
Altmore	Imp. Reservoir	W3	No	No	No
Dorisland	7No Imp. Reservoirs – (Dorisland IR, Lough Mourne IR, Copeland IR, Lower South Woodburn IR, Upper South Woodburn IR, Middle South Woodburn IR and North Woodburn IR)	W3	Yes	Yes Now viewed as 7No. sources	Yes Now viewed as 7No. sources
Lough Macrory	1No Imp. Reservoir & 1No Lough (Lough Fingrean IR & Lough Macrory-Lough (previously indicated as an Impounding Reservoir))	W4	Yes	Yes Now viewed as 2No. sources	Yes Now viewed as 2No. sources
Clay Lake	Imp. Reservoir	W4	Yes	Yes	Yes
Fofanny	3No Imp. Reservoir (Lough Island Reavey, Fofanny, Spelga)	W4	Yes	Yes – Now viewed as 3No. sources	Yes – Now viewed as 3No. sources
Seagahan	Imp. Reservoir	W4	Yes	Yes	Yes
Camlough	Lough	W4	Yes	Yes	Yes
Killyhevlin	Lough	W4	Yes	Yes	Yes
Carran Hill	Lough	W4	Yes	Yes	Yes
Belleek	Lough	W3	Yes	Yes	Yes
Carmoney	River	W4	Yes	Yes	Yes
Derg	River	W4	Yes	Yes	Yes
Glarryford	Borehole	W2	No	No	No
Cabragh	Borehole	SD	No	No	No
		Total	**20**	**32**	**32**

Further details on the changes to source type adopted for AIR13 can be seen below:

1. Caugh Hill WTW

Caugh Hill WTWs is fed directly and independently by 2 sources Altnaheglish IR and Glenadra River. The works can also be fed by Cairnsburn River, but this has only been used in drought events and has not been used since 1995. Telemetry information for 14/15 indicates that 18% of the raw water into the WTWs came from Glenedra River during the

AIR15 period, and this is an increase of 2% as to what was reported in AIR14. The Distribution Input for Caugh Hill has therefore been split in the ratio of 82:18 between the IR and the River, for the computation of the proportional distribution input for Lines 1 to 3.

The draw off from Glenedra River is based on quantity & quality available. When the river is in normal condition the inlet valve is open fully to take as much water as possible from this source. However when there is a flood or a period of inclement weather & the water quality takes a turn for the worse the inlet valve is throttled back to reduce the inlet from this source. The normal percentage draw off is difficult to estimate as the raw water quality changes frequently and the NI Water throughput has been reduced significantly over the years with the introduction of the Balinrees source. With water quality issues of two years ago Glenedra intake was reduced as the colour instrument on which the valve control was based proved unreliable and the percentage draw off would be down on normal. Based on the figures over the years the Glenedra flow could be as high as 10-30 % of the plant throughput.

NIW is listing Altnaheglish IR and Glenadra River as two sources for Caugh Hill WTWs, for AIR15.

2. Fofanny WTWs

Fofanny WTWs is fed directly and independently by 3 sources Lough Island Reavey IR, Spelga IR and Fofanny IR. NIW is listing these three sources for Fofanny WTWs, for AIR15.

3. Lough Bradan WTWs

Lough Bradan WTWs is fed directly by Lough Lee (lough) and Lough Bradan Impounding Reservoir. Lough Lee is therefore being reported as a source. Approximately 2Ml/D is taken from Lough Lee which enters into the pipework between Lough Braden IR and the WTWs. Any extra coming from Lough Lee would backup into Lough Bradan IR and would vary depending on rain fall amounts.

4. Camlough WTWs

It is noted that although the source of raw water to Camlough WTWs is Camlough Lake, it is not classed as an impounding reservoir within this AIR table as the impounding structure or the lake is not owned or maintained by NI Water. Hence it is classed as a lough for Table12.

5. Lough Fea WTWs

Lough Fea WTWs is fed by Lough Fea, which is a lough.

6. Lough Macrory WTWs

Lough Macrory WTWs is fed directly by Lough Macrory (lough). Lough Fingrean IR overflows naturally into Lough Macrory, with the water being pumped on to the WTWs. Approximately 90% of the water in Lough Macrory originates from Fingrean IR. NIW is listing Lough Macrory and Fingrean IR as two sources for Lough Macrory WTWs, for AIR15.

7. Belleek & Killyhevlin WTWs

Although both Belleek WTWs and Killyhevlin WTWs are supplied by the same source i.e. Lough Erne, NI Water is counting Lough Erne as a source for each of the works, due to its size, in line with the approach to Lough Neagh as depicted in the NIAUR AIR13 Chapter 12 guidance.

8. Drumaroad WTW

Drumaroad WTWs is fed directly by Silent Valley IR. It can receive occasional supply from Lough Island Reavey IR, to compensate Silent Valley water during operational maintenance. However this IR is not being reported against Drumaroad as it is reported against Fofanny WTWs. Silent Valley is supplied by Ben Crom IR. Silent Valley IR and Ben Crom IR collect raw water from the Mourne Mountains' catchment area. NIW is listing Silent Valley IR and Ben Crom IR as two sources for Drumaroad WTWs, for AIR15.

9. Dorisland WTWs

Dorisland WTWs is fed directly by Dorisland IR. However Dorisland IR is fed through a system of 6 IRs namely, Lough Mourne IR, Copeland IR, Lower South Woodburn IR, Upper South Woodburn IR, Middle South Woodburn IR and North Woodburn IR.

The above consists of six man made dams and one natural lake (Lough Mourne). Raw water from all dams can be mixed in many different combinations depending on storage and water quality. NI Water tries to maintain the top water level in each IR by controlling inlet and outlet valves. The Woodburn IRs can be used all year round. However Lough Mourne and Copeland IRs are used only in winter months due to problems with algae. These IRs are important to NI Water from the point of view that they can be individually isolated and water diverted to waste, in the event of a pollution incident.

Capacities of NIW's impounding reservoirs (21No)

The table below depicts the capacities of the 21 NIW Only Impounding Reservoirs which were in service during the AIR15 period. Ballinrees IR and Altikeeragh IR which are operated by PPP are not included in the table.

Raw Water Source – IRs	Total Capacity(ML)	Head WTWs
Altnahinch IR	1250	ALTNAHINCH WTW
Altnaheglish IR	2227	CAUGH HILL WTW
Clay Lake IR	1468	CLAY LAKE WTW
Lough Mourne IR	2261	DORISLAND WTW
Copeland IR	607	DORISLAND WTW
Lower South Woodburn IR	487	DORISLAND WTW
Upper South Woodburn IR	1669	DORISLAND WTW
Middle South Woodburn IR	2153	DORISLAND WTW
North Woodburn IR	372	DORISLAND WTW
Dorisland IR	302	DORISLAND WTW
Ben Crom IR	7718	DRUMAROAD WTW
Silent Valley IR	13276	DRUMAROAD WTW
Dungonnel IR	942	DUNGONNEL WTW
Lough Island Reavy IR	9092	FOFANNY WTW
Spelga IR	3559	FOFANNY WTW
Fofany IR	376	FOFANNY WTW

Raw Water Source – IRs	Total Capacity(ML)	Head WTWs
Glenhordial IR	92	GLENHORDIAL WTW
Killylane IR	1327	KILLYLANE WTW
Lough Bradan IR	950	LOUGH BRADEN WTW
Lough Fingrean IR	1078	LOUGHMACRORY WTW
Seagahan IR	2453	SEAGAHAN

The source type's totals in service for part or all of AIR15 include in total: - boreholes (1nr), impounding reservoirs (21 nr), and rivers & loughs (10 nr). The treatment type totals in service for part or all of AR15 include - simple disinfection (1 nr), W1 (0 nr), W2 (0 nr), W3 (9 nr) & W4 (10 nr).

The Water Supply Business Unit continues to keep the status of WTWs and Boreholes up to date and liaises with NIW's Asset Information Centre to ensure that this information is aligned with GIS. Any anomalies with information held on GIS, compared to that held by the Water Supply Business Unit are identified steps are taken to realign the data.

More understanding is required regarding the proportion of raw water from impounding reservoirs and loughs received at works such as Lough Macrory WTWs and Lough Braden WTWs.

The following table summarises NIW's position, at 31st March 2015, regarding mothballed boreholes, (i.e. boreholes which are not capable of being brought into service at reasonable notice), emergency boreholes, (i.e. boreholes capable of being brought into service at reasonable notice), and abandoned WTWs, compared to the status on 31st March 2011, 2012, 2013 & 2014.

Status as at:	'Mothballed' Boreholes	'Emergency' Boreholes	Abandoned WTWs
31st March 2011	34	2	22
31st March 2012	38	1	23
31st March 2013	39	0	23
31st March 2014	39	0	23
31st March 2015	39	0	23

There have been no changes since AIR14.

Lines 1 - 4 and 6 - 11 - Distribution Input

Leakage has provided the AIR15 Distribution Input figure of 564.92 Ml/d Distribution. It has been assigned a Confidence Grade of B2, which has not changed since AIR10.

The DI figure is the average amount of potable water entering the distribution system and supplied to customers within the company's area of supply. All distribution input meters are on telemetry and these report via the Serck Telemetry system to TDMS and this discrete list of sites forms the templates on which calculations are based.

The reporting process produces a DI total on a daily basis using a single spreadsheet with the minimum amount of data input and a maximum amount of spreadsheet calculation.

The data is extracted from TDMS using automated functionality within that system to transfer to an Excel spreadsheet with all information calculated in Ml/day. Conditional formatting is employed to enable comparison with previous days, weeks and months. All files are password protected with access only to those involved in the data capture and audit process. The M&E Function undertake a calibration programme of all DI meters on an annual basis.

It should be noted that this figure may be affected by the Water Balance Calculation, whereby adjustments are applied to all components including Distribution Input, creating a post Maximum Likelihood Estimate leakage DI value.

Proportional Distribution Input (DI) - for 'NIW only', 'PPP' and 'Total' Tables

The proportional distributional input has been calculated using the spreadsheet provided by Leakage, depicting the 564.92 Ml/d Distribution Input, with sources (NIW and PPP) as listed below, with associated DIs.

Company Total DI

Supply Source	Average DI (ML/d)
Altnahinch	8.61
Ballinrees	30.43
Belleek	1.63
Camlough	3.79
Carmoney	17.95
Carran Hill WTW 2	5.32
Castor Bay	79.47
Caugh Hill	15.52
Clay Lake	3.46
Derg	16.04
Dorisland	24.23
Drumaroad Draper Hill	103.21
Dungonnell	8.86
Dunore Point	99.31
Fofanny WTW	35.57
Forked Bridge	21.54
Glenhordial	3.84
Killyhevlin	22.62
Killylane	9.82
Lough Bradan	6.45
Lough Fea	11.86
Lough Macrory 2	10.46
Moyola	14.69
Rathlin Island	0.10
Seagahan WTW	10.16
Company Total AIR 15 DI	564.94

NIW Only DI

Supply Source	Average DI (ML/d)
Altnahinch	8.61
Belleek	1.63
Camlough	3.79
Carmoney	17.95
Carran Hill WTW 2	5.32
Caugh Hill	15.52
Clay Lake	3.46
Derg	16.04
Dorisland	24.23
Drumaroad Draper Hill	103.21
Dungonnell	8.86
Fofanny WTW	35.57
Glenhordial	3.84
Killyhevlin	22.62
Killylane	9.82
Lough Bradan	6.45
Lough Fea	11.86
Lough Macrory 2	10.46
Rathlin Island	0.10
Seagahan WTW	10.16
NIW Only AIR 13 DI	**319.5**

PPP only DI

Supply Source	Average DI (ML/d)
Ballinrees	30.43
Castor Bay	101.01
Dunore Point	99.31
Moyola	14.69
PPP Only AIR 13 DI	**245.44**

Line 5 - Average pumping head – NIW only / PPP only / Total company

The NIW 'Total' AIR15 Average Pumping Head is 114.60m.hd with a confidence grade of B4, a reduction of 19.13m.hd from AIR14 (133.73m.hd).

Introduction

In previous returns the Average Pumping Head (APH) calculation has centred on using completed Detailed Zonal Study (DZS) area data. With the completion of the DZS Project, this has now become redundant as an information source. Thus NIW have been investigating alternative data sources, principally Telemetry, for updating and improved confidence. Data sourced from NIW telemetry system, Telemweb, had been included in the APH calculation from AIR12. For AIR15 the use of data from telemetry has continued

to be used and has been expanded with approximately 68% of pumpset returns based fully or in part on telemetry data.
For AIR15, NIW had 375 pumpsets in service. Of these 214 are based on flow and/or lift data from telemetry. 61 of the 375 have no / incomplete data, no return has been made for these pumpsets.

Reporter recommendations for previous returns stated pumpsets with a significant contribution to the overall calculation be targeted (say flow x lift >50m.h). There are 100 pumpsets with an individual contribution greater than or equal to 50m.h. Of these 93 are based on flow and / or lift data from telemetry.
The daily flow total for individual pumpsets is 1434.3Ml/d. Of this 1400.39Ml/d is based on telemetry data. Thus 97.6% of flow is based on data relative to the reporting year. Similarly the total lift for individual pumpsets is 17628.84m, of which 3564.16m is based on telemetry data, equating to 20% of lift based on data relative to the reporting year.
The Average Pumping Head figure has reduced by 19.13m.hd from AIR14. Distribution pumpsets have contributed a fall of 15.1m/hd to the overall figure, with Supply a reduction of 4.8.and PPP an increase of0.76m.hd, respectively. The reduction can be attributed mainly to the introduction of telemetry data. The table below lists pumpsets whose contribution to the overall AIR15 APH figure has changed by 0.5m.hd or greater from its corresponding contribution in AIR14. These 10 pumpsets represents 17.76m.hd of the 19.1m.hd reduction. The changes are explained in more detail further on in the commentary.

Name	**AIR14 Individual APH**	**Contribution to Overall AIR14 APH Figure**	**AIR15 Individual APH**	**Contribution to Overall AIR15 APH Figure**	**Contributing difference from AIR14/AIR15**
Dunore WTW HL (Hydepark & Ballyrobin)	10316.9	18.34	10711.16	18.96	0.62
Ballywonard WPS	421.19	0.75	75.5	0.13	-0.62
Ballywonard 2 WPS	2334.06	4.15	87.37	0.15	-4.00
Boghill Newtownabbey WPS	927.78	1.65	44.25	0.08	-1.57
Westland WPS	3192.01	5.68	154.84	0.27	-5.4
Ballysillan Lower WPS	1630.77	2.9	75.59	0.13	-2.77
Ballyhanwood Tullycarnet WPS	390	0.69	87.5	0.15	-0.54
Carland WPS	Not reported	Not reported	365.95	0.65	0.65
Drumaroad - Dunmore WPS	6052.14	10.76	5616.86	9.94	-0.82
Lough Island Reavy Fofanny RWPS	3520.00	6.26	1664.00	2.95	-3.31

Pumpsets whose contribution to the overall AIR15 APH figure has changed by 0.5m.hd or greater from AIR14

Distribution pump data in master pump table

As mentioned above, the use of telemetry as a source has continued to be used and expanded, with approximately 62% of pumpsets returns now based on part or full

telemetry data. This is in keeping with the Reporters view that given the good progress made in recent returns with data from Telemetry being obtained, the rollout programme should continue. The report created to provide data from Telemweb only produces information from the date pumpsets are added. Some telemetry data for pumpsets may not be data based on the full reporting year but will be based on a minimum of 3 months. For future returns, the report will provide data for the whole reporting period.
For pumpsets with no telemetry data currently available, calibrated network models (Current Average Daily Demand Models) constructed by a framework of Consultants performing Detailed Zonal Studies (DZS) in various study areas across Northern Ireland continues to be the data source.

Field Managers have identified installations where operational status has changed from AIR14. These are:-

- Lisnahunshin WPS (out of service during AIR15) and has been removed from the calculation.

No data was available for previous returns for the following pumpsets. Telemetry data is now available to allow a return to be made against them for AIR15.

- Killylane Ardymagh WPS
- Feystown WPS
- Carntall Rd WPS
- Carntall Rea Hill WPS
- Carland WPS
- Irwin Place WPS
- Ballynagilly Rd WPS
- Carrickgallogly Rd WPS.

Where mean lift and average ADD flow cannot be obtained from a suitable calibrated network model / or telemetry, no estimation of these parameters has been included for distribution pumps in the Master Pump Table.

Changes to distribution pumpsets have contributed 15.1m.hd to the overall reduction from AIR14. The main contributors are listed in the table below:-

Name	**AIR14 Individual APH**	**Contribution to Overall AIR14 APH Figure**	**AIR15 Individual APH**	**Contribution to Overall AIR15 APH Figure**	**Contributing difference from AIR14/AIR15**
Ballywonard WPS	421.19	0.75	75.5	0.13	-0.62
Ballywonard 2 WPS	2334.06	4.15	87.37	0.15	-4.00
Boghill Newtownabbey WPS	927.78	1.65	44.25	0.08	-1.57
Westland WPS	3192.01	5.68	154.84	0.27	-5.4
Ballysillan Lower WPS	1630.77	2.9	75.59	0.13	-2.77
Ballyhanwood Tullycarnet WPS	390	0.69	87.5	0.15	-0.54
Carland WPS	Not reported	Not reported	365.95	0.65	0.65

The changes have occurred with the introduction of telemetry flow data. The flow data from Telemweb was presented to the relevant Field Managers who were content with the figures provided and queried the flow data provided by the Zonal Study models.
Carland WPS was a facility installed to pump Castor Bay water when Altmore WTW was decommissioned. This is the first time data has been available to allow a return to be made.

Supply pump data in master pump table

Abstraction pumps, treatment process pumps and WTW outlet pumps have not generally been included in the DZS network models. Therefore, local NI Water supply personnel have provided data from a variety of sources, listed below, for the determination of mean lift and average current flow for each pump supplying the distribution zones.

- Telemetry (Telemweb),
- Direct readings of dials from pump sites,
- Record Drawings for pump lift, and
- NIW Total Flow Calculations for WTW in NI.

As with distribution pumpsets, the use of telemetry data has been sought for Supply pumpsets, with all but 2 of the 37 Supply pumpsets based on flow and / or lift data obtained from Telemweb.

Changes to Supply pumpsets have contributed 4.8m.hd to the overall reduction from AIR14. The main contributors are listed in the table below:-

Name	AIR14 Individual APH	Contribution to Overall AIR14 APH Figure	AIR15 Individual APH	Contribution to Overall AIR15 APH Figure	Contributing difference from AIR14/AIR15
Drumaroad - Dunmore WPS	6052.14	10.76	5616.86	9.94	-0.82
Lough Island Reavy Fofanny RWPS	3520.00	6.26	1664.00	2.95	-3.31

Drumaroad-Dunmore WPS reduction can be attributed to the reduction in output at Drumaroad WTW over the reporting period from AIR14 (poor water quality and the industrial action)
The reduction at Lough Island Reavy Fofanny RWPS has occurred with the introduction of telemetry flow data. The flow data from Telemweb was presented to the relevant Field Manager who was content with the figure provided and queried the flow data provided previously.

Distribution Input (DI)

The Company DI (564.92Ml/d)has been provided by the Company's leakage Section. The PPP Only DI (242.73Ml/d) has been provided Contracts Management Section. The NIW Only DI (322.19Ml/d) was obtained by subtracting the PPP DI from the Company DI.

PPP pump data in master pump table

Flow and lift information has been provided by the PPP Concessionaire through Contracts Management Section and have provided the following commentary:
The Average pumping head – total (Line 5) has been calculated in accordance with the calculation described in the Guidance.

Dalriada installed pressure gauges for manual readings at each of the Delivery Points (with the obvious exception of the 2 gravity feed points at Ballinrees) as listed below:

- Moyola HLP
- Ballinrees HLP (Moys)
- Magheraliskmisk HLP (CB1)
- Ballydougan HLP (CB2)
- Forked Bridge (FB)
- Crewe Hill HLP (FB2)
- Dunore Point HLP (DP1 & DP2)

In conjunction with the updated average flows has produced an updated average pumping head calculation when applied to the agreed formula for Average Pumping Head.

Lift (m)

The marginally differing figures supplied for the current reporting period (2014/15) from the last submission (2013/14) is due to the fact that these Lift figures continue to be derived from the pressure gauges on High Lift and for Interstage or Low Lift taken from the quoted values that are physically stamped on each pump. This procedure has enabled these figures to be consistent with last year's approach. This has demonstrated a slight Increase in overall calculated Average Pumping Head.

Average to Supply (Ml/d)

Note that the average flows represent updated figures for the 2014/15 year. These have been derived from dispatch records over the past year which record - via a series of frequently calibrated flowmeters at each Delivery Point on site - the volumes dispatched to NIW in accordance with the dispatch requests received and also from on-site records and SCADA trends of interstage volumes. Also the Lift has been shown for each interstage process at each site. Therefore, in conjunction with the updated average flows this has produced an average pumping head calculation when applied to the agreed formula for Average Pumping Head.

The Confidence Grade is B1 as per the Reporter recommendations from the AIR14 submissions.

Changes to PPP pumpsets have contributed 0.76m.hd increase to the overall figure from AIR14. The main contributor to the change is Dunore WTW HL, with an increase of 0.62m.hd resulting from an increase in output from Dunore WTW.

PPP only and NIW only 'Average Pumping Head' calculations

Average Pumping Head is by definition the amount of pumping required to transport an average ML of water from abstraction at source to supply the customer through the Distribution Network.

The NIAUR AIR14 Guidance for Table 12 has requested an 'Average Pumping Head' to be calculated for NIW only and PPP only. It should be noted that it is NIW's interpretation that the true definition (as stated above) of Average Pumping Head is not being reflected through the splitting up of the overall NIW Average Pumping Head value.

The NIW only and PPP only 'Average Pumping Heads' are 85.34m.hd and 153.46m.hd respectively. The PPP only value is in relation to the Pumping Head within the works. PPP WTWs do not have specific Distribution Networks, and therefore the water is extracted, treated and then exits the works into the NIW Distribution Network. Within the Distribution Network, PPP water then mixes with NIW water, therefore making it impossible for NIW

and PPP flows to be truly separated for use in PPP only and NIW only average pumping head calculations. Hence the value of 155.58m.hd calculated for PPP only is more in relation to the Pumping Head within the works.

However the NIAUR AIR14 guidance document for Table 12 states 'Average Pumping Head should be calculated for 'NI Water only', 'PPP only' and the 'total company'. Different denominators should be used to calculate the average pumping head for each table (i.e. 'NI Water only', 'PPP' and 'Total') reflecting the amount of water entering supply from NI Water treatment works, PPP treatment works and in total, respectively. There is no requirement for the sum of the NI Water and PPP pumping head figures to equal the total company APH. The numerator for the 'NI Water only' calculation should reflect pumping from NI Water treatment works and all NI Water distribution system pumping. The numerator for the 'PPP' calculation should reflect only pumping associated with the PPP concession.'

NIW has complied with this request and has provided separate Average Pumping Head values for NIW only, PPP only and the Company 'total'. The respective distribution input values, associated with NIW only, PPP only and Company 'total' sources have been used as denominators to calculate the respective Average Pumping Head values.

The issue, outlined above, as posed by NIW in previous returns regarding the proportioning of the Average Pumping Head between NIW Only and PPP Only, is further exacerbated through the AIR15 approach, as requested by NIAUR. The use of the PPP source related DI, as a denominator to calculate the PPP Average Pumping Head, indicates the amount of pumping required to transport an average ML of water from abstraction at source to the 'exit' gate of the WTWs. However the use of the NIW Only source related DI, as a denominator for the NIW Only Average Pumping Head, indicates the amount of pumping required to transport an average ML of NIW Only water from abstraction at source to supply the customer through the Distribution Network, in addition to the pumping required to transport an average ML of PPP Only water from the 'exit' gate of the PPP WTWs through the NIW Distribution Network.

A confidence grade of B4 has been allocated to the figure of 85.34m.hd and B2 to the figure of 153.46m.hd which are the 'Average Pumping Head' for NIW only and PPP only respectively.

With ref to the NIAUR's Guidance, regarding the 'proportion of water taken from Lough Neagh that is included within Block A of each table and identify which source type'. – the PPP sources Castor Bay, Moyola and Dunore extract from Lough Neagh, with no extraction by NIW sources.

Data shortcomings

Calibrated hydraulic network models used in the data collection of pump lift and head have been built by a framework of DZSC's over a period of more than five years. Thus, models used have various calibration days.

Leakage reduction and changes to the system subsequent to the field test and model construction have not been taken into account. New pumps or pumps not field tested / modelled will also have no data available from DZSC's.

NI Water distribution input for WTW's/sources in NI are current 2014/15 figures which may not absolutely match pump data available from the older network models but this represents the best combination available.

The report set up to provide telemetry data from Telemweb has been available since November 2012. The report created to provide data from Telemweb only produces information from the date telemetry points are added. Some telemetry data for pumpsets may not be based on the full reporting year but will be based on a minimum of 3 months. For future returns, the report will provide data for the whole reporting period.

Data relating to lift from telemetry is limited. Where flow data only is available from telemetry, lift data from the DZS model has been used. These may not be an absolute match but represents the best combination available.

61 of the 375 as having an 'in service' operational status during AIR15 period have no or incomplete data, no return has been made for these pumpsets. As the majority of these pumpsets are distribution booster sets, it is anticipated, if full data were available, it would have minimal impact on the overall figure.

Confidence grade

The Confidence Grade is B4 as per the Reporter recommendations from AIR14 submission.

Improvements from AIR14

Shortcomings highlighted in previous returns included the age of data from network models and as such subsequent leakage reduction and network changes would not have been taken into account. This is being addressed with the increasing use of Telemetry data. Telemetry data is relevant to the current reporting year with flow data more in line with the DI figure. With over 97% of flow and 20% of lift now based on data relevant to the reporting period, data quality has greatly increased.

Future improvements

Continue the interrogation of Telemweb for relevant data.

Average Pumping Head result comparison from 2008 to 2015

	DI Ml/d	**Sum (flow x lift)**	**Average Pumping Head**
2008 Assessment	284.459	31655.54	111.28
2009 Assessment	420.93	47845.27	113.67
2010 Assessment	609.62	84470.31	138.57
2011 Assessment	627.5	100446.95	161.82
2012 Assessment	585.09	91225.01	155.90
2013 Assessment	559.37	78170.54	139.7
2014 Assessment	562.4	75211.22	133.73
2015 Assessment	564.92	64740.9	114.6

PPP

Lines 1- 4 Column 1 only – Number of sources (PPP)

The PPP Water sources have remained consistent over the reporting period for AIR15 as they were with AIR14. In accordance with AIR14, NI Water has included the River Bann intake as an additional source to Ballinrees WTW. The reasoning used is, that there exists the potential to source the WTW directly from the River Bann rather than purely directing this source to the Ballinrees Impounding Reservoir. NI Water has also included the Altikeeragh IR as a source for Ballinrees WTW as it supplied a proportion of the water for Ballinrees WTW during the period 2014-15.

Line 5 Column 4 only – Average pumping head (PPP)

The reported data is solely due to the average flows called by the Company from its PPP sites, it has varied from last years average flows.

Line 13 - Potable mains

This figure has been extracted from the Corporate Asset Register. There has been no change to the structure of the data reported on this year from the previous years that would directly affect the total provided. The confidence grade of the data will remain the same as the previous year. There have been no significant improvements in data quality since the AIR14 reports. Any new data will have adhered to the NIW Code of Practice for the submission of asset data ensuring that data quality levels have been maintained throughout the year.

As per the reporters recommendation during the AIR14 audit this figure includes trunk mains that are marked as “Out of Service” on the Corporate Asset Register. This recommendation was made as although these mains are currently out of service they are not abandoned and could potentially come back into service in the future.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 13 NON FINANCIAL MEASURES
SEWERAGE PROPERTIES & POPULATION (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**PROPERTIES**										
1	Households properties connected during the year	000	3	3.001	B2	3.455	B2	3.108	B2	2.627	B2
2	Non-households properties connected during the yea	000	3	0.236	B2	0.123	B2	0.106	B2	0.130	B2
B	**BILLING**										
3	Households billed unmeasured sewage	000	3	580.815	A2	586.127	A2	591.043	B2	594.525	A2
4	Households billed measured sewage	000	3	0.000	A1	0.000	A1	0.000	A1	0.000	A1
5	Households billed sewage	000	3	580.815	A2	586.127	A2	591.043	B2	594.525	A2
6	Non-households billed unmeasured sewage	000	3	10.109	A2	9.250	A2	8.706	A2	8.132	A2
7	Non-households billed measured sewage	000	3	22.622	A2	23.014	A2	23.347	A2	23.560	A2
8	Non-households billed sewage	000	3	32.731	A2	32.250	A2	32.053	A2	31.692	A2
9	Void properties	000	3	44.605	A2	44.637	A2	44.479	B2	44.164	A2
C	**POPULATION**										
10	Total connected population	000	3	1476.185	B3	1512.024	B3	1514.925	B3	1521.776	B3

Table 13 – Sewerage Properties and Population (Non-financial measures)

Introduction

Table 13 focuses on the number of properties and population connected to the public sewerage supply system. It extends to 10 lines, set out in three blocks:

Block A Properties (Lines 1 & 2)	Reports properties connected during the year
Block B Billing (Lines 3-9)	Includes a breakdown of all measured and unmeasured household and non-household properties billed by the company. The property numbers should be the average for the report year.
Block C Population (Lines 10)	This records the population within each of the measured and unmeasured household and non-household categories. The population numbers should be the average for the report year.

The information in this table is used for the water balance calculation and also in tariff and charging analysis and determination (water delivered unit cost).

Definition of 'Billed' Properties

Domestic customers were originally due to be charged for water and sewerage charges from April 2007. However this was deferred in April 2007 and has not been implemented since. There are no apparent plans for charges to be implemented during 2014/15. NI Water is subsidised for these domestic customers by Department for Regional Development (DRD).

In April 2008, NI Water extended the charging in the non-domestic sector to include unmeasured non-households in addition to the measured non-household customer base. These charges are based on the NAV of the non-household property, derived from annual information provided by Land and Property Services (LPS).

Northern Ireland Water introduced sewerage charging to include non-households, phased in at 50%. Volumes returned to sewer are assumed to be 95%, based on standard industry figures, unless the customer challenges this assumption, whereupon they can apply for a non-return to sewer allowance which will be investigated and determined by NIW.

For clarity, where reference is made in Table 13 to 'billed' household and 'billed' non-household, this is taken as the provision of water services to customers whether they are billed directly (non-domestic customers) or payment is made through subsidy by DRD (domestic customers).

Classification of Farms

As with Table 7 (Water) - per Utility Regulator guidelines, farms were reclassified as billed non-households for AIR09 – this has remained for AIR15. Previously, in AIR08, farms had been classified and reported as 'billed' households on the principle of their status and allocation of 'domestic allowance'.

Data Sources, Data Validation and Data Quality Projects
As with Table 7 (Water), the key source of information for the new connections and property data is the customer billing database, RapidXtra.

Customer information is updated through;

- 'business as usual' customer contacts, such as new connection requests, move in/move outs, or
- through Data Quality initiatives/Projects and/or
- Metering workstreams e.g. UNHH, Optants, Proactive Meter Exchange etc.

Under the Water & Sewerage Services (2006) Order, NI Water is required to install meters on all new household connections since April 2007. As domestic customers are not charged on a measured basis, the property is reported as unmeasured. Some domestic properties were initially reported as measured in AIR10 but this was rectified as per the erratum to AIR10. Depending on the basis for charging when domestic billing is introduced, these customers can be activated as measured household if required.

Data on property counts and classifications continue to be reported monthly from Rapid. The Rapid Property Summary provides us with a snapshot at the end of each month in terms of gross movements; it doesn't support us in the explanation of nett movements within the data.

Data on population continues to be obtained from Northern Ireland Statistics and Research Agency (NISRA), adjusted for the winter months based on information published by the Department of Enterprise, Trade and Investment (DETINI) and the Central Statistics Office (CSO), Ireland

From the Rapid Property Summary there are deemed to be 617 (gross) 'unmeasured – not charged' properties which (based on sample taken) are mostly NI Water properties. NI Water are currently investigating any 'unmeasured – not charged' properties outside of NI Water ownership to ensure they are classified correctly.

Background
As Table 13 is based on averages, please find summary table below for End March 2014, 1st December 2014 and End March 15.

Property Numbers	March 2014	1st Dec 2014	March 2015
Unmeasured Sewerage Household	593323	594953	595727
Unmeasured Sewerage Non-Household	8495	7873	7741
Measured Sewerage Non-Household	23543	23529	23576
Voids	44565	44021	43776

The variances in our property numbers from AIR14 to AIR15 can be explained by the following:

1. New Connections during the 2014/15 reporting year. As detailed in the associated Line Methodology and as per Annex A, an issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connections Team.

2. As a result of a customer contact. E.g. septic tank empty request, no water complaint, blocked sewer, updating of standing data e.g. removal of services etc. Within this category there are 2 scenarios:
    a. The adding of properties NI Water allegedly didn't know about (A requirement has been written into the new CBC Contract, the Rapid/POINTER quarterly reconciliation will close the gap on such properties)
    b. The adding of duplicates as the customers address couldn't be found on Rapid. For example, Rapid may hold the site number but when the customer contacts NI Water they quote the verified postal address which is different, therefore creating a duplicate. Another scenario - The street name may have changed from the time of New Connection to that of customer contact – street names can change in the early stages of site development. (A requirement has been written into the new CBC Contract to check weekly (against POINTER) for address updates to New Connection properties)
3. Removal of duplicates/properties as a result of data quality initiatives
4. The increased number of properties within the no water/well water category. Further detail is provided within the Table 7 commentary.

Numerous other data quality requirements have been built into the new CBC Contract. They cover all aspects of the property life cycle (creating, amending and demolishing properties) and data degradation will be monitored/measured throughout. The work on data validation has commenced, with some new validations 'live' as of mid-May. Identifying data primacy is key to ensuring the validations are effective.

Test Meters

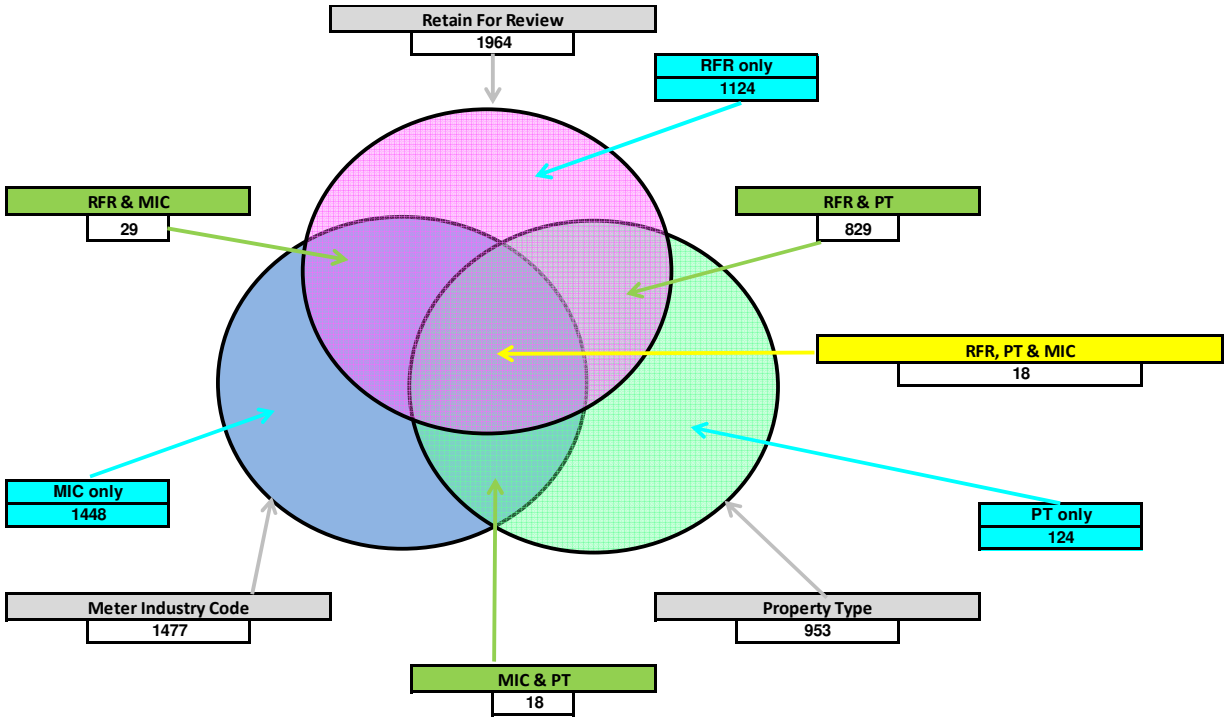
The remaining test/retain for review meters were to be reviewed over a period of time to help determine the correct status of these test meters. Test/retain for review meters have been raised with relevant Heads of Function (Metering and Billing & Revenue) to confirm what is being planned in this area.

The movement within the Test Meter category of the RPS is shown below.

Category (2014) – move from	Category (2015) – move to	Count
Test Meters		1399
	Measured	21
	No Supply / Well Water	9
	Test Meters	1364
	Unmeasured	3
	Demolished property	2

1079 of the 1364 test meters are connected for sewerage services.

As previously discussed with the Reporter as part of the Principal Statement process NI Water highlighted areas of potential data misalignment within historic records in terms of Property Water Status, Property Type and Meter Industry Code and as such all 3 have to be considered when extracting test meters. See diagram below:



Site Metered Properties

As part of the ongoing data checks, NIW has been confirming the number of site metered properties (multiple properties being charged through a single meter, such as business parks and industrial estates).

To ensure that these meters are not double counted, as with Table 7, the non-domestic site meters are not included in Table 13 non-domestic property counts (although NIW still retain this information for customer record and charging purposes). There are 544 domestic properties classified as site meters and these will require further investigation and analysis to be completed during 2015/16 to ensure these are classified correctly.

The number of non-domestic site meters has increased by 222 during 2014/15.

Unmeasured Household Property Movement

The table below provides a reconciliation of the reporting year property movements and resulting property numbers. It sets out how the property numbers have evolved over the reporting year.

Property Numbers	March 14	March 15
	Actual	Actual
Start of Year	588763	593323
New/Metered (plus)	(+) 3108	(+) 2757
Data Cleanse/BAU Activity	(+) 1008	(+) 561
Test Meters	(-) 6	(-) 30
Site Meters	(+) 6	(-) 228
Voids	(+) 444	(-) 656
End	**593323**	**595727**

Property Numbers	March 2014	Dec 2014	March 2015
Unmeasured Sewerage Gross Household (L9 year end sub calc)	628282	629491	630030
Unmeasured Sewerage Occupied Household (L3 year end sub calc)	593323	594953	595727
Unmeasured Sewerage Voids Household	34959	34538	34303

Household Voids	Voids	Difference (in-year)
March 2015	34303	(-) 656
March 2014	34959	(+) 444
March 2013	34515	

Measured Household Property Movement

Due to the deferral of domestic charging Due to the deferral of domestic charging, NI Water does not bill households for unmeasured or measured water, therefore we don't report figures for measured household property movements (they are included in the unmeasured line as they are not billed)

Unmeasured Non-Household Property Movement

Property Numbers	March 2014	1st Dec 2014	March 2015
Unmeasured Sewerage Gross Non-Household	15509	14810	14579
Unmeasured Sewerage Occupied Non-Household (L6 year end sub calc)	8495	7973	7741
Unmeasured Sewerage Voids Non-Household	7014	6937	6838

Measured Non-Household Property Movement

Property Numbers	March 2014	1st Dec 2014	March 2015
Measured Sewerage Gross Non-Household	26125	26061	26197
Measured Sewerage Occupied Non-Household (L7 year end sub calc)	23543	23529	23576
Measured Sewerage Voids Non-Household	2582	2532	2621

Non Household Voids

Non-Household Voids	Voids	Difference (in-year)
March 2015	9473	(-) 133
March 2014	9606	(-) 250
March 2013	9856	

Annex A details the methodology followed for the figures calculated in Table 13.

Confidence Grades

We have kept the confidence grades consistent with those of AIR14. During the reviews mentioned in the company commentary above, we will retain evidence to support any change in confidence grades.

Whilst the quality of data will improve, the method of extraction and reporting remained consistent. The automated tool (developed during AIR12) to populate the base property tables has remained in place for AIR15.

Annex A – Line Methodology for Table 13

A) Sewerage Properties and Population

Line 1 - Household Properties Connected during the Year

This line represents the number of new household (domestic) properties added to the sewerage network during the reporting year. (Previously not connected to the sewerage system)

An issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connection Team (CCT). A series of filters was then applied to identify New Connections connected for sewerage, as per embedded document. It is NIW policy to install meters on all New Connections.

AIR15_NCs_1415_4484.xlsx

Households properties connected during the year	2627

The number of new domestic connections for the year is 2627.

Line 2 - Non-Household Properties Connected during the Year

This line represents the number of new non-household (non-domestic) properties added to the sewerage network during the reporting year. (Previously not connected to the sewerage system)

An issue with the system report has resulted in a change in methodology for this year. The figures are based on a reconciliation of New Connections extracted directly from Rapid (via CorVu), with the New Connections reported by the Customer Connection Team (CCT). A series of filters was then applied to identify New Connections connected for sewerage, as per embedded document above. It is NIW policy to install meters on all New Connections.

Non-Households properties connected during the year	130

The number of new non-domestic connections for the year is 130.

B) Billing

Line 3: Households Billed Unmeasured Sewerage

Due to the deferral of domestic charging, NI Water does not bill households for unmeasured sewerage.

This figure refers to the average number of households billed for unmeasured sewerage within the supply area. Void properties have been excluded, so occupied numbers only used.

This is calculated from the monthly Rapid Property Summary for AIR15 (dated 31st March 2015) as embedded below.

Rapid Property Summary - Mar 2015.

Households Billed Unmeasured Sewerage	End March 2014	End March 2015
Household - Unmeasured	568168	568713
Household - Sewerage Only	6	6
Household - Measured – Not Charged (test meters)	288	283
Household - Measured	24423	26255
Household – Site Meters	438	453
Household - Unmeasured - Not Charged	0	17
Total	593323	595727
Average (Apr14/Apr15)	**594525**	

The figure represents the number of unmeasured domestic properties that would have been billed had charging been introduced.

Line 4 - Households Billed Measured Sewerage
Due to the deferral of domestic charging, NI Water does not bill households for measured water. Therefore any household properties that would have been included in line 4 are now included in line 3, as per AIR15 Table 7.

Households Billed Measured Sewerage	End March 2014	End March 2015
	0	0
Average (Apr14/Apr15)	**0**	

Line 5 - Households Billed Sewerage
Due to the deferral of domestic charging, NI Water does not bill households for sewerage.

This figure excludes void properties and is calculated as below:
(Table 13 line 2 plus line 4)

Households Billed Sewerage	Average 14/15
Households billed unmeasured sewerage	594525
Households billed measured sewerage	0
Total	**594525**

This figure represents the number of domestic properties that would have been billed had charging been introduced.

Line 6 - Non-Households Billed Unmeasured Sewerage
This is the average number of non-households billed for unmeasured sewerage within the supply area, calculated from the Rapid Property Summary.

Figures are based on Rapid, average of End March 2014 and End March 2015 non-domestic unmeasured properties.

Non-Households Billed Unmeasured Sewerage	End March 2014	End March 2015
Non-Household - Unmeasured	8495	7741
Non-Household - Sewerage Only	13	14
Total	8508	7755
Average (Apr14/Apr15)	**8132**	

Line 7 - Non-Households Billed Measured Sewerage
This refers to the average number of non-households billed for measured sewerage within the supply area, calculated from the Rapid Property Summary.

Figures are based on Rapid, average of End March 2014 and End March 2015 non-domestic measured sewerage properties.

Non-Households Billed Measured Sewerage	End March 2014	End March 2015
	23543	23576
Average (Apr14/Apr15)	**23560**	

Site metered properties are a subset of the overall non-domestic billed measured sewerage customer base, therefore not included in the figure above (as per AIR15 Table 7). Where many customers are served through one site meter, only the landlord or business park management are considered as the customer and the other business are tenants.

Line 8 - Non-Households Billed Sewerage
This is the total number of non-households billed for sewerage within NI Water's area, excluding void properties. It is a calculated figure of Table 13 Lines 6 and 7.

Non-Households Billed Sewerage	Average 14/15
Non-Households Billed Unmeasured Sewerage	8132
Non-Households Billed Measured Sewerage	23560
Total	**31692**

Line 9 - Void Properties
This is the average number of properties, within the supply area, which are connected to the sewerage system but do not receive a charge, as there are no occupants – (void properties)

This is calculated from the Rapid Property Summary for AIR15 by calculating the gross number of properties connected to the sewerage system minus the total number occupied as calculated in lines 5 and 8.

Gross Number of Properties Connected to the Sewerage System	End March 2014	End March 2015
Household - Unmeasured	599315	599194
Household - Sewerage Only	6	6
Household – Measured - Not Charged (test meters)	295	288
Household - Measured	28141	29980
Household – Site Meters	525	544
Household - Unmeasured - Not Charged	0	18
Non-Household - Unmeasured	15509	14579
Non-Household – Sewerage only	18	19
Non-Household - Measured	26125	26197
Total	669934	670825
Average (Apr14/Apr15)	**670380**	

Trade Effluent customers have been excluded from the above figure as they could already be included in measured sewerage. Trade effluent is considered within other tables of the AIR15 submission.

Voids	End March 2015
Total Gross Properties (as above)	670380
Less total occupied properties (line 5 [594525]+ line 8 [31691]) =	626216
Total	**44164**

C) Population

Line 10 - Total Connected Population

This figure is a calculation of the total population multiplied by the properties connected to the sewerage system as a proportion of the properties connected for water (according to the Rapid Property Summary).

The average totals for gross occupied sewerage and water properties are obtained using the Rapid Property Summary for End March 2014 and End March 2015.

	End March 2014	End March 2015	Average 14/15		
Gross number of properties connected for sewerage	667574	670380	668977		
Gross number of properties connected for water (T7 L7 + T7 L11)	821468	826517	823993		
Calculation = Sewerage Properties / Water Properties	= (668977 / 823993) * 100		**81.19%**	**Therefore, Total Connected Population equals (Table 7 Line 17 [1,840,540] * 81.19%) + Table 17a Line 2 [27,442]**	**1,521,776**
				1,494,334 + 27,442	

As detailed above, the number of sewerage properties has been calculated as 81.19% of those with water; This percentage is then applied to the total water population from Table 7 Block C.

(Water population total (Source Leakage Section) X 81.19%) + Non-Resident Population (Source CSDD) = Table 13 line 10

(1,840,540 X 81.19%) = 1,494,334 + 27,442 = **1,521,776**

T13 L10	**1521.776**

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 14 NON FINANCIAL MEASURES
SEWAGE COLLECTED (TOTAL)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	SEWAGE - VOLUMES										
1	Volume unmeasured household sewage	Ml/d	2	246.17	B3	243.14	B3	232.74	B3	237.61	A2
2	Volume unmeasured non-household sewage	Ml/d	2	6.10	B3	5.53	B3	4.89	B3	4.69	A2
3	Volume unmeasured sewage	Ml/d	2	252.27	B3	248.67	B3	237.63	B3	242.30	A2
4	Volume measured household domestic sewage	Ml/d	2	0.00	A1	0.00	A1	0.00	A1	0.00	A1
5	Volume measured non - household domestic sewage	Ml/d	2	36.56	B3	35.9	B3	36.65	B3	39.11	B3
6	Volume trade effluent (excluding Roads Drainage)	Ml/d	2	36.39	B2	34.12	B2	41.73	B2	48.49	B2
7	Volume waste water returned	Ml/d	2	325.22	B3	318.69	B3	316.01	B3	329.90	B3
8	Volume of Roads Drainage returned	Ml/d	2	175.80	CX	175.80	CX	175.80	CX	175.80	CX

Table 14 – Non Financial Measures - Sewage Collected (Total)

Line 1 – Volume Unmeasured Household Sewage

This is calculated by assuming a 95% return to sewer of volume delivered to households factored by the percentage of the number of households billed for water against the number of households billed for sewerage services.

Sources

- AIR Table 10 Line 4 – Billed unmeasured household (Ml/d)
- AIR Table 13 Line 3 – Households billed unmeasured sewage
- AIR Table 7 Line 3 – Households billed unmeasured water

$$\text{Volume of unmeasured household sewage (Ml/d)} = \text{AIR Table 10 Line 4} \times 0.95 \times \frac{\text{AIR Table 13 Line 3}}{\text{AIR Table 7 Line 3}}$$

It is worth noting that water Billed unmeasured household volume includes the MLE adjustment, meter under registration and supply pipe leakage.

The Billed Unmeasured Household volumes have been calculated by multiplying the average PCC figure for NI Water by the unmeasured household population. The source of the PCC figure is the NI Water domestic consumption monitor. The household population figure is sourced from the Northern Ireland Statistics and Research Agency (NISRA).

Underground Supply Pipe leakage has been applied to the billed unmeasured household volume component of this calculation.

A meter under registration factor of 7.39% has been applied to this total volume. This percentage has been provided by WRc, as a result of a project initiated by NI Water, and is specific to NI Water's domestic consumption monitor meters.

The AIR15 volume reported for unmeasured household sewage is 237.61 Ml/d. The volume reported in AIR14 was 232.74 Ml/d.

Line 2 - Volume Unmeasured Non-Household Sewage

This is calculated by assuming a 95% return to sewer of volume delivered to non-households factored by the percentage of the number of non-households billed for water against the number of non-households billed for sewerage services.

Sources

- AIR Table 10 Line 5 – Billed unmeasured non-household (Ml/d)
- AIR Table 13 Line 6 – Non-households billed unmeasured sewage
- AIR Table 7 Line 8 – Non-households billed unmeasured water

$$\text{Volume of unmeasured Non-household sewage (Ml/d)} = \text{AIR Table 10 Line 5} \times 0.95 \times \frac{\text{AIR Table 13 Line 6}}{\text{AIR Table 7 Line 8}}$$

It is worth noting that water Billed unmeasured non-household volume includes the MLE adjustment, meter under registration and supply pipe leakage.

The reported value for Billed Unmeasured Non-Household for AIR15 is 5.82 Ml/d. The value reported in AIR14 was 6.07 Ml/d.

The AIR15 volume reported for unmeasured non-household sewage is 4.69 Ml/d. The volume reported in AIR14 was 4.89 Ml/d.

Line 5 - Volume Measured Non-Household Domestic Sewerage

The reported sewerage figure was based on actual billed sewerage discharge April 14 to March 15. The discharge volumetric information was derived directly from;

- The monthly 'Reconciling' Reports Apr14-Mar15 - detailing actual billed sewerage discharge M^3.
- The DRD Domestic Allowance Subsidy Assurance Report Apr14 – Mar15 – detailing actual domestic sewerage allowance applied per bills.
- Monthly FN12 Transaction Reports Apr14 – Mar15 – detailing Bad Debt Write-Off by Charge Type.

The calculated sewerage discharge volume was 14,276,413 M^3 converted to mega litres per day of 39.11 Ml/d.

Sewerage volume is 7% (898,400M^3 | 2.46Ml/d) higher than last year, primarily due to retrospective billing.

During 2014/15, as part of ongoing efforts to improve the integrity and completeness of customer account configuration and subsequent billing, NIW commenced / completed the following;

- Customer Services Data Quality Programme;
  - Zero Reads
  - Combi Meter
  - Meter To Bill
- Account Configuration Charge Maintenance Review;
  - Measured
  - Unmeasured
  - Trade Effluent (ongoing)

All of which resulted in the identification & enhancement of data quality controls, improved process maps, and a suite of account configuration exception reports. Subsequent retrospective correction of account configuration resulted in a material increase in retrospective billing e.g. circa 300,000M^3 re Zero Reads.

The 'In-Year' impact of retrospective billing, was discussed and reviewed with the Utility Regulator in Oct14, prior to PC15 Resubmission.

This line has been allocated a confidence grade of B3 as it has an element of manual manipulation of raw data from Rapid report to derive the full year discharge M^3.

Line 6 - Volume Trade Effluent

Sources

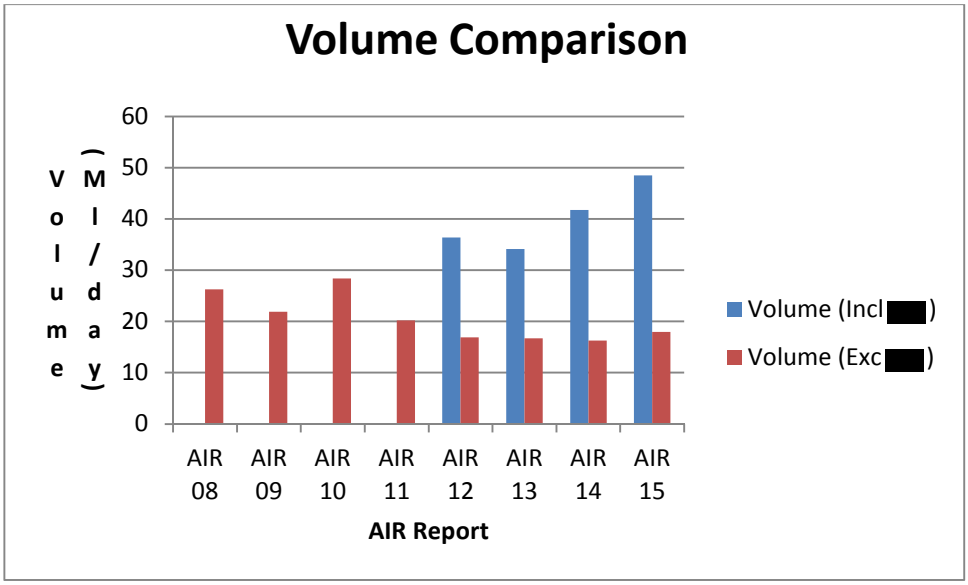
The names of individual traders were taken from Primary Source of Trade Effluent Customers (PSTEC). This database is updated by NIW on a regular basis. The actual volume of each trader was supplied by our Billing Section in Metered Accounts Management. Where no volumes were available, then consented volumes were used.

This applied to 78 traders, out of 541 assessed. The total number of traders has increased from 507 in AIR14 to 541 in AIR15.

The total volume for AIR 14 and 15 are detailed below:

AIR 14 Volume = 41.73 Ml/day
AIR 15 Volume = 48.49 Ml/day

In order to analyse these figures it has been decided to break them down into volumes including [redacted] and volumes without, to better identify the current trends in data.



There has been a significant increase in the reported discharge coming from [redacted] Discharge volumes are still within the maximum consented volume limits. Reported discharge from the [redacted] has increased from 25.469 Ml/day to 30.555 Ml/day. This is a 5.092 Ml/day increase. Comparing the Total AIR Volumes there has been an increase of 6.76 Ml/day. Therefore removing the volume of the [redacted] from this gives an increase of 1.668 Ml/day, which has been brought about by the remaining trade effluent discharges.

There were increases to the discharge volumes in all areas apart from the NE PPP Sampled and Charged. These summated to an increase of 1.89 ML/day. Below are some examples of these increases:

Trader	Area	AIR 14 Vol/day (m3)	AIR 15 Vol/Day (m3)	Increase (m3)
[redacted]	S NIW S&C	1630.03	1822.30	192.27
[redacted]	S PPP S&C	758.92	1009.59	250.67
[redacted]	S PPP S&C	68.17	222.91	154.74
[redacted]	S NIW S&C	446.09	519.90	73.81

The reductions in the North East PPP sampled and Charged area summated to a decrease of 0.21 Ml/day. Some of the major changes making up this reduction are detailed below:

Trader	Area	AIR 14 Vol/day (m3)	AIR 15 Vol/Day (m3)	Reduction (m3)
[redacted]	NE PPP S&C	795.61	626.46	169.15
[redacted]	NE PPP S&C	223.60	154.05	69.55

The net result of these changes is an overall increase of 1.68 Ml/day. Some of the more significant changes have been highlighted above, but the fluctuations of all the trade effluent discharges contribute to final figure.

Line 7 – Volume of Waste Water Returned

This line is a calculation of the figures from lines 3, 4, 5 and 6. The components of this calculation received confidence grades of A2, A1, B3 and B2 respectively. As B3 was the lowest confidence grade for a component, this line has been allocated a confidence grade of B3.

Line 8 – Volume of Road Drainage returned

In line with the proposed methodology, we carried out the following steps:

1. Based on information provided by Road Service, determined the surface area of all roads and footpaths in urban areas (i.e. within the 40mph speed limit) as follows:
    - Urban road surface area 39,264,486 m²
    - Urban footway surface area 17,022,987 m²
    - Total urban road & footway surface area 56,287,473 m²

2. Obtained Northern Ireland average annual rainfall data from the Met Office over the last 10 years – 1.14m.

3. Using the above, calculated the annual volume of rain falling on these surfaces and hence the run-off from roads & footpaths discharged to NIW sewers and storm drains.
    - 56,287,473 x 1.14 = 64,167,719m3 (175.80 MLD)

4. From data extracted from NIW's network information management system (NIMS) for the largest 105 urban areas in Northern Ireland (i.e. all areas with greater than 1,000 population) we determined the following:
    - Aggregate length of combined sewers = 4,378km
    - Aggregate length of stormwater sewers = 4,317 km

    Both of these figures were adjusted to allow for those stormwater sewers which –rather than discharging to a watercourse – are connected into the combined system.

    Applying the assumption that the sewer lengths represent a 'proxy' estimate of road lengths, this yields an approximate **50:50** split between areas draining to combined systems and those draining to separate systems.

5. Using points 3 and 4 the volumes of Road Drainage returned are calculated as follows:
    - Volume returned to combined sewer = 87.9 MLD
    - Volume returned to storm sewer = 87.9 MLD
    - Total Volume returned to sewer = 175.80 MLD

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 15 NON FINANCIAL MEASURES
SEWAGE TREATMENT (NIW Only)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**SEWAGE - LOADS**										
1	Trade effluent load receiving secondary treatment (BOD/year)	tonnes	1	4,255.6	B2	3,778.6	B2	3,880.2	B2	5,322.6	B2
2	Total load receiving secondary treatment (BOD/year)	tonnes	1	38,366.4	C3	39,183.9	C3	39,160.6	C3	38,946.1	C3
3	Total load receiving primary treatment only (BOD/year)	tonnes	1	193.9	C3	286.6	C3	273.9	C3	210.8	C3
4	Total load receiving preliminary treatment only (BOD/year)	tonnes	1	668.4	C3	691.5	C3	634.4	C3	634.4	C3
5	Total load entering sewerage system (BOD/year)	tonnes	1	39,504.1	C5	40,312.8	C5	40,213.4	C5	39,929.7	C5
6	Equivalent population served (resident)	000	2	1,769.98	C5	1,806.82	C5	1,802.63	C5	1,789.68	C5
7	Equivalent population served (resident) (numerical consents)	000	2	1,708.58	C5	1,742.90	C5	1,740.19	C5	1,727.76	C5
B	**SEWERAGE - SERVICE FACILITIES**										
8	Number of sewage treatment works	nr	0	1,023	A2	1,018	A2	1,015	A2	1,016	A2
9	Treatment capacity available (BOD5/day)	tonnes	1	129.2	D3	132.4	D3	133.4	D3	134.2	D3
C	**SEWAGE - SLUDGE DISPOSAL**										
14	Percentage unsatisfactory sludge disposal	%	2	0.00	A1	0.00	A1	0.00	A1	0.00	A1
15	Total sewage sludge produced	ttds	1	31.4	B2	32	B2	32.491	B2	33.5	B2
16	Total sewage sludge transferred to PPP	ttds	1	30.7	A2	31.3	A2	31.7	A2	32.6	A2
17	Total sewage sludge disposal by NI Water	ttds	1	0.7	B2	0.8	B2	0.8	B2	0.9	B2

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 15 NON FINANCIAL MEASURES
SEWAGE TREATMENT (PPP Only)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**SEWAGE - LOADS**										
1	Trade effluent load receiving secondary treatment (BOD/year)	tonnes	1	1,124.6	B2	1,040.6	B2	1,082.3	B2	1,117.7	B2
2	Total load receiving secondary treatment (BOD/year)	tonnes	1	7,834.5	B3	6,594.9	B3	7,209.1	B3	7,031.9	B3
3	Total load receiving primary treatment only (BOD/year)	tonnes	1	0.0	A1	0.0	A1	0.0	A1	0.0	A1
4	Total load receiving preliminary treatment only (BOD/year)	tonnes	1	0.0	A1	0.0	A1	0.0	A1	0.0	A1
5	Total load entering sewerage system (BOD/year)	tonnes	1	7,834.5	C5	6,594.9	C5	7,209.1	C5	7,031.9	B2
6	Equivalent population served (resident)	000	2	356.76	B2	301.14	B2	329.18	B3	321.09	B3
7	Equivalent population served (resident) (numerical consents)	000	2	356.76	B2	301.14	B2	329.18	B3	321.09	B3
B	**SEWERAGE - SERVICE FACILITIES**										
8	Number of sewage treatment works	nr	0	6	A1	6	A1	6	A1	6	A1
9	Treatment capacity available (BOD5/day)	tonnes	1	30.4	B3	30.4	B3	30.4	A2	30.4	A2
C	**SEWAGE - SLUDGE DISPOSAL**										
14	Percentage unsatisfactory sludge disposal	%	2	0.00	A1	0.00	A2	0.00	A1	0.00	A1
15	Total sewage sludge produced	ttds	1	7.6	B3	6.3	B2	6.4	A2	6.7	B3
16	Total sewage sludge received from NI Water	ttds	1	30.7	A2	31.3	A2	31.7	A2	32.6	A2
17	Total sewage sludge disposal	ttds	1	38.3	B2	37.6	B2	38.1	A2	39.3	B2

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 15 NON FINANCIAL MEASURES
SEWAGE TREATMENT (Total)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**SEWAGE - LOADS**										
1	Trade effluent load receiving secondary treatment (BOD/year)	tonnes	1	5,380.2	B2	4,819.2	B2	4,962.6	B2	6,440.3	B2
2	Total load receiving secondary treatment (BOD/year)	tonnes	1	46,200.9	C3	45,778.8	C3	46,369.7	C3	45,978.0	C3
3	Total load receiving primary treatment only (BOD/year)	tonnes	1	193.9	C3	286.6	C3	273.9	C3	210.8	C3
4	Total load receiving preliminary treatment only (BOD/year)	tonnes	1	668.4	C3	691.5	C3	634.4	C3	634.4	C3
5	Total load entering sewerage system (BOD/year)	tonnes	1	47,338.6	C5	46,907.7	C5	47,422.5	C5	46,961.6	C5
6	Equivalent population served (resident)	000	2	2,126.74	C5	2,107.96	C5	2,131.81	C5	2,110.77	C5
7	Equivalent population served (resident) (numerical consents)	000	2	2,065.34	C5	2,044.04	C5	2,069.37	C5	2,048.85	C5
B	**SEWERAGE - SERVICE FACILITIES**										
8	Number of sewage treatment works	nr	0	1,029	A2	1,024	A2	1,021	A2	1,022	A2
9	Treatment capacity available (BOD5/day)	tonnes	1	159.6	D3	162.8	D3	163.8	D3	164.6	D3
C	**SEWAGE - SLUDGE DISPOSAL**										
14	Percentage unsatisfactory sludge disposal	%	2	0.00	A1	0.00	A2	0.00	A1	0.00	A1
15	Total sewage sludge produced	ttds	1	39.0	B2	38.4	B2	38.9	A2	40.2	B2
16	Not used	ttds	1								
17	Total sewage sludge disposal	ttds	1	39.0	B2	38.4	B3	38.9	A2	40.2	B2

Table 15 - Sewage Treatment

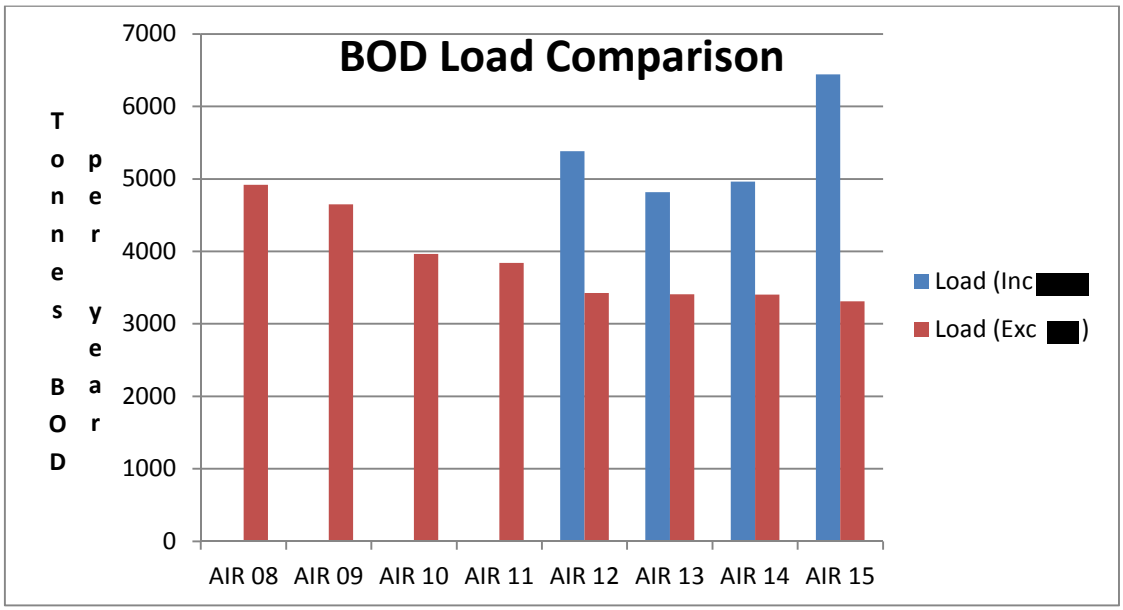
Line 1 - Trade effluent load receiving secondary treatment (BOD/year)

The names of individual traders were taken from the Primary Source of Trade Effluent Customers (PSTEC). This database is updated by NIW on a regular basis. The actual BOD strength of each sampled trader was used for the calculation of the load. For non-sampled discharges the standard sewage BOD strength was used.

The loading for this year's and the previous year's reports were as follows:

- AIR15 = 6440.3 tonnes/year
- AIR14 = 4962.6 tonnes/year.

In order to analyse these figures it has been decided to break them down into loading including [redacted] and loading without, to better identify the current trends in data.



The loading from the [redacted] has increased from 1557.1 tonnes/yr (AIR14) to 3129.7 tonnes/yr (AIR15), which is an increase of 1572.6 tonnes/yr. Overall the loading for AIR 15 increased by 1477.7 tonnes/yr. With the increase from the [redacted] removed from this figure, the difference between the two reports is actually a reduction of 94.9 tonnes/yr.

Some of these reductions have been caused due to a reduction in the BOD strength that was used for the standard charge traders. This strength was derived from the average results of the 2014 Mogden Samples. The average BOD strength of the Mogden samples decreased from 229 mg/l to 189 mg/l.

There were reductions in loadings reported in the following areas: South S&C, South Std charge, North West Std charge, North East PPP S&C and Std charge. The total of these reductions was 311.9 tonnes/year and included:

Trader	Area	AIR 14 Tonnes/yr	AIR 15 Tonnes/yr	Reduction (tonnes/yr)
[redacted]	South NIW S&C	170.82	90.28	80.54
[redacted]	South NIW S&C	130.88	53.82	77.06
[redacted]	South NIW S&C	547.37	442.98	104.39
[redacted]	South NIW S&C	127.27	97.95	29.32
[redacted]	NE PPP S&C	113.31	93.53	19.78

There were increases reported in the loading of the remaining areas. This equated to an increase in loading of 217.1 tonnes/year. Some examples of these increases to loadings are:

Trader	Area	AIR 14 Tonnes/yr	AIR 15 Tonnes/yr	Increase (tonnes/yr)
[redacted]	North West NIW S&C	150.45	219.54	69.09
[redacted]	NE NIW S&C	0.656	18.82	18.164
[redacted]	NE NIW S&C	1.09	19.4816	18.39
[redacted]	NE NIW S&C	n/a	7.8942	7.89

The net of these changes equates to the 94.8 tonnes BOD/yr reduction in the AIR loadings with the [redacted] figures excluded (difference of 0.1 is in the rounding).

In summary, there has been an increase in the loading from [redacted] If this is removed there has been a small reduction in loading from the remaining trade effluent discharges. This reduction can be attributed to a decrease in the standard strength BOD figure during 2014 and some traders introducing additional pre-treatment to reduce their discharge strength.

Line 2 - 7 – Sewage loads

NIW Only

It should be noted that the banding of the WWTWs for this table is on the same basis as that used for Table 17c. It is based on the latest set of Populations Equivalents minus the allowance for the tourist population. Since AIR15, PEs for 94 WWTWs have been updated.

The allowance for the tourist population, which has been deducted for the purposes of band size determination, has been the proportion of PE allocated to hotels, and caravan and tent pitches only. No deduction has been made for commuters as such information has not been captured.

The loads reported in this table are the sums of the loads received by each WWTWs or outfall in each particular category, and hence include the proportion of PE allocated to hotels, and caravan and tent pitches therefore loads reported in this table include the non-resident population. The method for computing loads from NIW only WWTWs is the same as was implemented for AIR14, there has been no inclusion of re-circulated sludge/sludge liquors in the loads reported.

Trade effluent information was obtained from NIW's Trade Effluent Section, for each individual consented trader, which enabled easy conversion to PEs. The COD: BOD conversion factor of 2:1 was not used as more accurate flow based information was available to the Trade Effluent Section.

The Water and Sewerage Services (NI) Order 2006 designated that the discharge from hospitals, nursing homes & clinics should no longer be considered as Trade Effluent, therefore for AIR15 these have been removed from the Trade Effluent Submission. For the majority of hospitals a certain % of hospital discharges has been included due to discharges from x-ray departments and bathing pools. The AIR11 Trade Information, for nursing homes and clinics, has been maintained for AIR15 in order to allow for this proportion of the influent entering the WWTWs. Similarly the PEs for the hospitals has been factored up to 100% of their total discharge to give a more accurate figure of load discharging to the sewerage network.

In AIR13 it was reported that flow & load information was validated for Belfast and a figure of 365,000Pe was agreed. This figure has been updated for AIR15 with the latest trade information giving a new figure of 365,177 PE. However it should be noted that there are a number of projects currently been carried out for NIW that are investigating the PEs discharging to Belfast and early indications would suggest the equivalent PE discharging to the WWTWs is much higher than currently stated. The two main projects involved are:

- Glenmachan Sewers Project, and
- Compliance with the Surface Water (Shellfish) Regs (NI) – Belfast Lough.

The outcomes of these projects are likely to influence the PE for Belfast for AIR16.

NIW has information pertaining to septic tank imports to its WWTWs. In summary of the 17 WWTWs that are septic tank imports centres four receive the sludge at the head of the inlet works and the remaining 13 receive it via sludge reception centres.

For AIR15 conversion factors, received from our scientific staff, were used to convert the septic tank imports to PEs for the 4 WWTWs where imports are discharged directly to the inlet works.

Allowance at the other 13 WWTWs is not being made as there is no way of computing the PE of the supernatant return as a result of the septic tank imports.

The WWTWs where this sludge was discharged at the head of the works were Belfast, Glenstall, Limavady and Lisburn (New Holland). A conversion was used to get an equivalent PE which was adopted for these sites for AIR13.

An assumption of 1% dry solids was made for Suspended Solid (SS) loading and an equivalent PE based on 60g of SS solids per PE was used

			PE Calculation			
NIW CAR Name	**Site Car Id**	**Total Volume m3/Yr**	**Total Volume m3/day**	**SS Loading (Assume 1% Dry Solids) m3/day**	**SS Loading kg/day**	**PE (SS/0.06)**
Belfast	345	2322	6.36	0.06	63.62	1060
Glenstall	1109	7291.548	19.98	0.20	199.77	3329
Limavady	3162	63.5	0.17	0.00	1.74	29
Lisburn (New Holland)	329	7809.041	21.39	0.21	213.95	3566

NIW has also information pertaining to Sludge Imports to its WWTWs however due to the fact that the supernatant return is metered at only a small number of WWTWs, it would appear that these meters require verification and perhaps calibration, no allowance is being made for PE resulting from sludge imports at these works.

The Reporters Report on AIR09 recommended that NIW correct possible overestimation of total WWTW loads due to the inclusion of offices/commercial premises. The majority of the residential and non-residential element of PEs used to calculate tables 17c and 17d was based on Pointer information from MapInfo. However it should be noted that the non-residential element of Pointer is made up of both commercial and unknown properties. At this present time it is not known what proportion of the unknowns are actually residential

and which are non-residential and therefore it has been decided to include both elements when calculating the PEs for the band sizes. It is difficult to estimate the proportion of load at a WWTW due to commuters, or the load which should be deducted from a particular WWTW due to population commuting out of the catchments. Hence no allowance to WWTWs loads has been made either way for Table 17d.

The table below gives a breakdown of the total load received by the company in '000 tonnes of BOD per annum, by each component used to build up the reported data. Please note the total equates to Line 5 (minor discrepancy due to rounding up of fractions).

Components used in build-up of Total Load	Total PE	000 tonnes of BOD per annum
Residential	1249000	27353.10
Non-Residential	226105	4951.69
Hotels	3741	81.93
Nursery School	1012	22.17
Playschool	1039	22.76
Primary School	27400	600.05
Secondary School	24564	537.95
Trade PE	114768	2513.42
Large (>7500m3) Consumers	120930	2648.37
Caravan Parks	29577	647.74
Sludge Import / Export	25139	550.54
Total (Line 5)	**1823275**	**39929.72**

Confidence Grades

The confidence grades of the data in lines 2 - 4 remain as C3, as although the PE confidence has been C5 there is greater confidence in process categories for the WWTWs.

The confidence grades of the data in lines 5–7 remain as stated in AIR14, as a result of the work carried out with Jacobs (during 2008) who developed a Growth Model for NIW, in line with the model they developed for Scottish Water. Through consultations with Jacobs and their understanding of the theoretical methodology used by both NIW and Jacobs staff during the previous year, their informed opinion was that the PEs could warrant only a C5 grading. NIW recognises the need to improve these PE grades through targeted flow and load surveys, and analysis of outputs from same with theoretical PE results through the Flow & Load Survey Group.

This group has been established to discuss and agree on the outputs from flow & load surveys carried out to date and those to be carried out in the future. The confidence grades for the actual loadings at 63 WWTWs (reviewed by the Flow & Load Survey Group) could in effect be increased from a C5 to a B4 due to the extent of analysis work which has been carried out. However this increase will not affect any of the overall confidence grades in Table 17d as the proportion of the 63 works to the overall number of works in each line is too small.

The confidence grades of the data in lines 8 and 9 remain as in AIR14, due to the confidence in the other information associated with the population of these lines.

The Reporter recommended in AIR14 that NI Water consider increasing the confidence grades for lines 5 – 7 from C5 to C3. NI Water understands the Reporter's position but

would wish to maintain the C5 grade for these lines on the basis of the recommendation offered by Jacobs who were involved in the updating of the WWTWs PEs, and as these lines refer only to PE information. Other lines such as 2 and 3 (within this Table 15) and Table 17d lines have been assigned a C3 confidence grade as these lines refer to loads (based on PEs) receiving a certain level of treatment, and NI Water has a greater confidence in the WWTW process categories. NI Water's preference is to maintain these confidence grades until further Flow and Load Surveys are carried out and outputs from the ongoing installation of flow measurement equipment is analysed and understood.

The Reporter also recommended that NI Water considers increasing the confidence grade for PPP Works (line 5) from C5 to B2, however, NI Water has assigned C5 to recognise the fact that this line refers to the load entering the sewerage system, and hence the inherent unknowns, rather than the load received at the works.

Line 2 - Total load receiving secondary treatment

The table below shows the changes in WWTWs receiving secondary treatment since AIR14 for Line 2. NB. Change in PE (-Ve AIR15 PE Higher).

Name of Works	CAR ID	PE Change	Comments
Abbacy Road	S03947	8	A population study was carried out for this site and reviewed and adopted for AIR15
Acton	S02111	1	A population study was carried out for this site and reviewed and adopted for AIR15
Annacloy (WWTW)	S00292	-397	Kilmore WWTW now pumps into Annacloy WWTWs
Annsborough	S02687	91	PE updated with AIR15 Trade Information
Antrim (WWTW)	S01422	-267	PE updated with AIR15 Trade Information
Ardglass (WWTW)	S00268	-2584	This WWTWs, previously a Prim WWTWs, was upgraded for AIR15
Ballycarry	S00267	77	PE updated with AIR15 Trade Information
Ballyclare	S01467	174	PE updated with AIR15 Trade Information
Ballykelly (L/Derry)	S03016	-44	PE updated with AIR15 Trade Information
Ballykinler (WWTW)	S00299	3	PE updated with AIR15 Trade Information
Ballymena (WWTW)	S01456	-3563	PE updated with AIR15 Trade Information
Ballynahinch (Down)	S00311	-154	PE updated with AIR15 Trade Information
Ballywalter(Retention Tank)	S05189	160	A population study was carried out for this site and reviewed and adopted for AIR15
Banbridge (WWTW)	S02102	-116	PE updated with AIR15 Trade Information
Belfast (WWTW)	S00345	5602	PE updated with AIR15 Trade Information
Bellany (WWTW)	S01137	5	A population study was carried out for this site and reviewed and adopted for AIR15
Belleek (Fermanagh)	S03024	1	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Bresagh	S00332	1	A population study was carried out for this site and reviewed and adopted for AIR15
Cappagh (WWTW)	S02857	-1	A population study was carried out for this site and reviewed and adopted for AIR15
Carrickfergus (WWTW)	S00261	-860	PE updated with AIR15 Trade Information
Carrowdore	S00236	6	A population study was carried out for this site and reviewed and adopted for AIR15
Castlederg (WWTW)	S03042	16	PE updated with AIR15 Trade Information
Clady (Tyrone)	S04149	-13	PE updated with AIR15 Trade Information
Cloughy (Retention Tank)	S00224	70	A population study was carried out for this site and reviewed and adopted for AIR15
Coalisland	S02828	-117	PE updated with AIR15 Trade Information
Cookstown (WWTW)	S01582	-36	PE updated with AIR15 Trade Information
Culmore (WWTW)	S03071	1031	PE updated with AIR15 Trade Information
Curglasson	S01566	7	A population study was carried out for this site and reviewed and adopted for AIR15
Derryhale	S02570	-10	PE updated with AIR15 Trade Information
Dervock (WWTW)	S01102	18	PE updated with AIR15 Trade Information
Donaghmore (WWTW)	S02840	18	PE updated with AIR15 Trade Information
Donemana	S03103	16	PE updated with AIR15 Trade Information
Donnybrewer	S03080	-158	PE updated with AIR15 Trade Information
Downpatrick (WWTW)	S00771	-255	PE updated with AIR15 Trade Information
Draperstown	S01615	-12	PE updated with AIR15 Trade Information
Dromara (WWTW)	S00316	1	PE updated with AIR15 Trade Information
Dromore (Down)	S02127	19	PE updated with AIR15 Trade Information
Dungannon	S02850	7860	PE updated with AIR15 Trade Information
Dungiven	S03101	-1	PE updated with AIR15 Trade Information
Dunmurry	S00346	133	PE updated with AIR15 Trade Information
Edencrannon (WWTW)	S02858	-28	A population study was carried out for this site and reviewed and adopted for AIR15
Enniskillen	S03218	-1001	PE updated with AIR15 Trade Information
Fivemiletown (WWTW)	S03113	-19	PE updated with AIR15 Trade Information
Glenstall	S01109	249	PE updated with AIR15 Trade Information
Greenisland (WWTW)	S00263	28	PE updated with AIR15 Trade Information
Greyabbey (WWTW)	S00214	-111	A population study was carried out for this site and reviewed and adopted for AIR15
Greysteel (WWTW)	S03123	8	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Hillsborough (WWTW)	S00323	4034	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Hilltown (WWTW)	S02701	145	PE updated with AIR15 Trade Information
Irvinestown	S03137	-5	PE updated with AIR15 Trade Information
Keady (Armagh)	S02553	13	PE updated with AIR15 Trade Information
Kesh (WWTW)	S03140	4	PE updated with AIR15 Trade Information
Kilkeel (WWTW)	S00313	-401	Increase in Actual PE to reflect that the majority of the Ballymartin drainage area now pumps into the Kilkeel drainage area.
Killinchy (WWTW)	S00252	-737	PE updated with AIR15 Trade Information
Killygonlan (WWTW)	S02043	4	PE updated with AIR15 Trade Information
Killyleagh (WWTW)	S00273	2	PE updated with AIR15 Trade Information
Kilmore (Down)	S00285	397	Kilmore WWTW now pumps into Annacloy WWTWs
Kilrea	S01156	68	PE updated with AIR15 Trade Information
Larne (WWTW)	S02044	-320	PE updated with AIR15 Trade Information
Limavady (WWTW)	S03162	-818	PE updated with AIR15 Trade Information
Lisburn (New Holland)	S00329	-4430	Hillsborough WWTWs now pumps into Lisburn (New Holland) WWTWs
Lisnaskea (WWTW)	S03171	11	PE updated with AIR15 Trade Information
Maghera (L/Derry)	S01629	10	PE updated with AIR15 Trade Information
Magherafelt (WWTW)	S01621	44	PE updated with AIR15 Trade Information
Markethill	S02591	19	PE updated with AIR15 Trade Information
Mayboy	S01163	27	A population study was carried out for this site and reviewed and adopted for AIR15
Moneymore (WWTW)	S01589	3	PE updated with AIR15 Trade Information
Moneyneany (WWTW)	S01631	40	A population study was carried out for this site and reviewed and adopted for AIR15
Moneyreagh (WWTW)	S00337	3	PE updated with AIR15 Trade Information
Mountain View (Drumintee)	S02278	-71	A population study was carried out for this site and reviewed and adopted for AIR15
Moy (WWTW)	S02859	579	PE updated with AIR15 Trade Information
Mullaghglass (Antrim)	S00325	1	A population study was carried out for this site and reviewed and adopted for AIR15
Newcastle (WWTW)	S00303	35	PE updated with AIR15 Trade Information
Newry (WWTW)	S02685	-249	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Newtownbreda (WWTW)	S00342	-16	PE updated with AIR15 Trade Information
Newtownstewart (WWTW)	S03202	-1	PE updated with AIR15 Trade Information
Noones Vale	S01632	-3	A population study was carried out for this site and reviewed and adopted for AIR15
North Coast (WWTWs)	S04150	221	PE updated with AIR15 Trade Information
Omagh (WWTW)	S03999	3754	PE updated with AIR15 Trade Information
Roughfort (WWTW)	S01470	6	PE updated with AIR15 Trade Information
Seahill (WWTW)	S00774	1	PE updated with AIR15 Trade Information
Stoneyford (WWTW)	S00328	695	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	-695	This is a new WWTWs for AIR15
Stoneyford Beeches Two WwTW	S05705	-3	This is a new WWTWs for AIR15
Strabane	S03223	562	PE updated with AIR15 Trade Information
Tandragee	S02174	1342	PE updated with AIR15 Trade Information
Warrenpoint (WWTW)	S02720	-171	PE updated with AIR15 Trade Information
Whitehouse	S00265	-165	PE updated with AIR15 Trade Information
	Total	9791	**Change in Line 2 PE since AIR14**

The change in PE equates to an increase in load of 214.4 t BOD/yr (i.e. 9791 x 60 for 60g/hd/day /1000/1000 x 365) from AIR13 to AIR14.

Difference between AIR15 and AIR14:

Line 2 for AIR14 -	**39160.6**
Line 2 for AIR 15 -	**38946.1**
Total Difference -	**214.5**

Line 3 - Total load receiving primary treatment only

The table below shows the changes in WWTWs receiving primary treatment only since AIR14 for Line 3. NB. Change in PE (-Ve AIR15 PE Higher).

Name of Works	CAR ID	PE Change	Comments
Ardglass (WWTW)	S00268	2824	This WWTWs, previously a Prim WWTWs, was upgraded for AIR15
Mountain View (Drumintee)	S02278	71	This WWTWs was upgraded in AIR15
Spelga Dam ST	S02676	-4	This is a newly consented WWTWs for NIW

Name of Works	CAR ID	PE Change	Comments
Drumsough Road Randalstown ST	S05750	-12	This is a newly consented WWTWs for NIW
	Total	2879	**Change in Line 3 PE since AIR14**

The change in PE equates to an increase in load of 63.05 t BOD/yr (i.e. 2879 x 60 for 60g/hd/day /1000/1000 x 365) from AIR14 to AIR15, allowing for rounding up and down and conversions.

Difference between AIR15 and AIR14:

Line 3 for AIR14 -	**273.9**
Line 3 for AIR 15 -	**210.85**
Total Difference -	**63.05**

Line 4 - Total load receiving preliminary treatment only

The table below shows the changes in WWTWs receiving preliminary only since AIR14 for Line 4. NB. Change in PE (-Ve AIR15 PE Higher).

Name of Works	CAR ID	PE Change	Comments
N/A – No Change			
	Total	0	**Change in Line 4 PE since AIR14**

The change in PE equates to an increase in load of 0 t BOD/yr (i.e. 0 x 60 for 60g/hd/day /1000/1000 x 365) from AIR14 to AIR15, allowing for rounding up and down and conversions.

Difference between AIR15 and AIR14:

Line 4 for AIR14 -	**634.4**
Line 4 for AIR 15 -	**634.4**
Total Difference -	**0**

Line 5 - Total load entering sewerage system

The table below shows the changes in WWTWs since AIR14 that affects load entering the system for Line 5. NB. Change in PE (-Ve AIR15 PE Higher).

Name of Works	CAR ID	PE Change	Comments
Abbacy Road	S03947	8	A population study was carried out for this site and reviewed and adopted for AIR15
Acton	S02111	1	A population study was carried out for this site and reviewed and adopted for AIR15
Annacloy (WWTW)	S00292	-397	Kilmore WWTW now pumps into Annacloy WWTWs
Annalong (WWTW)	S00300	-340	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Annsborough	S02687	91	PE updated with AIR15 Trade Information
Antrim (WWTW)	S01422	-267	PE updated with AIR15 Trade Information
Ardglass (WWTW)	S00268	240	PE updated with AIR15 Trade Information
Ballycarry	S00267	77	PE updated with AIR15 Trade Information
Ballyclare	S01467	174	PE updated with AIR15 Trade Information
Ballyhornan Outfall	S04090	1	PE updated with AIR15 Trade Information
Ballykelly (L/Derry)	S03016	-44	PE updated with AIR15 Trade Information
Ballykinler (WWTW)	S00299	3	PE updated with AIR15 Trade Information
Ballymartin (Retention Tank)	S00770	613	PE amended as majority of catchment pumped away to Kilkeel
Ballymena (WWTW)	S01456	-3563	PE updated with AIR15 Trade Information
Ballynahinch (Down)	S00311	-154	PE updated with AIR15 Trade Information
Ballywalter(Retention Tank)	S05189	160	A population study was carried out for this site and reviewed and adopted for AIR15
Ballywhiskin (Retention Tank)	S00827	-8	A population study was carried out for this site and reviewed and adopted for AIR15
Banbridge (WWTW)	S02102	-116	PE updated with AIR15 Trade Information
Belfast (WWTW)	S00345	5602	PE updated with AIR15 Trade Information
Bellany (WWTW)	S01137	5	A population study was carried out for this site and reviewed and adopted for AIR15
Belleek (Fermanagh)	S03024	1	PE updated with AIR15 Trade Information
Bresagh	S00332	1	A population study was carried out for this site and reviewed and adopted for AIR15
Cappagh (WWTW)	S02857	-1	A population study was carried out for this site and reviewed and adopted for AIR15
Carnduff (Retention Tank)	S01180	19	A population study was carried out for this site and reviewed and adopted for AIR15
Carrickfergus (WWTW)	S00261	-860	PE updated with AIR15 Trade Information
Carrowdore	S00236	6	A population study was carried out for this site and reviewed and adopted for AIR15

Name of Works	CAR ID	PE Change	Comments
Castlederg (WWTW)	S03042	16	PE updated with AIR15 Trade Information
Clady (Tyrone)	S04149	-13	PE updated with AIR15 Trade Information
Cloughy (Retention Tank)	S00224	70	A population study was carried out for this site and reviewed and adopted for AIR15
Coalisland	S02828	-117	PE updated with AIR15 Trade Information
Cookstown (WWTW)	S01582	-36	PE updated with AIR15 Trade Information
Culmore (WWTW)	S03071	1031	PE updated with AIR15 Trade Information
Curglasson	S01566	7	A population study was carried out for this site and reviewed and adopted for AIR15
Derryhale	S02570	-10	PE updated with AIR15 Trade Information
Dervock (WWTW)	S01102	18	PE updated with AIR15 Trade Information
Donaghmore (WWTW)	S02840	18	PE updated with AIR15 Trade Information
Donemana	S03103	16	PE updated with AIR15 Trade Information
Donnybrewer	S03080	-158	PE updated with AIR15 Trade Information
Downpatrick (WWTW)	S00771	-255	PE updated with AIR15 Trade Information
Draperstown	S01615	-12	PE updated with AIR15 Trade Information
Dromara (WWTW)	S00316	1	PE updated with AIR15 Trade Information
Dromore (Down)	S02127	19	PE updated with AIR15 Trade Information
Drumsough Road Randalstown ST	S05750	-12	This is a newly consented WWTWs for NIW
Dungannon	S02850	7860	PE updated with AIR15 Trade Information
Dungiven	S03101	-1	PE updated with AIR15 Trade Information
Dunmurry	S00346	133	PE updated with AIR15 Trade Information
Edencrannon (WWTW)	S02858	-28	A population study was carried out for this site and reviewed and adopted for AIR15
Enniskillen	S03218	-1001	PE updated with AIR15 Trade Information
Fivemiletown (WWTW)	S03113	-19	PE updated with AIR15 Trade Information
Glenstall	S01109	249	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Greenisland (WWTW)	S00263	28	PE updated with AIR15 Trade Information
Greyabbey (WWTW)	S00214	-111	A population study was carried out for this site and reviewed and adopted for AIR15
Greysteel (WWTW)	S03123	8	PE updated with AIR15 Trade Information
Hillsborough (WWTW)	S00323	4034	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Hilltown (WWTW)	S02701	145	PE updated with AIR15 Trade Information
Irvinestown	S03137	-5	PE updated with AIR15 Trade Information
Keady (Armagh)	S02553	13	PE updated with AIR15 Trade Information
Kesh (WWTW)	S03140	4	PE updated with AIR15 Trade Information
Kilkeel (WWTW)	S00313	-401	Increase in Actual PE to reflect that the majority of the Ballymartin drainage area now pumps into the Kilkeel drainage area.
Killinchy (WWTW)	S00252	-737	PE updated with AIR15 Trade Information
Killygonlan (WWTW)	S02043	4	PE updated with AIR15 Trade Information
Killyleagh (WWTW)	S00273	2	PE updated with AIR15 Trade Information
Kilmore (Down)	S00285	397	Kilmore WWTW now pumps into Annacloy WWTWs
Kilrea	S01156	68	PE updated with AIR15 Trade Information
Larne (WWTW)	S02044	-320	PE updated with AIR15 Trade Information
Limavady (WWTW)	S03162	-818	PE updated with AIR15 Trade Information
Lisburn (New Holland)	S00329	-4430	Hillsborough WWTWs now pumps into Lisburn (New Holland) WWTWs
Lisnaskea (WWTW)	S03171	11	PE updated with AIR15 Trade Information
Maghera (L/Derry)	S01629	10	PE updated with AIR15 Trade Information
Magherafelt (WWTW)	S01621	44	PE updated with AIR15 Trade Information
Markethill	S02591	19	PE updated with AIR15 Trade Information
Mayboy	S01163	27	A population study was carried out for this site and reviewed and adopted for AIR15
Moneymore (WWTW)	S01589	3	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Moneyneany (WWTW)	S01631	40	A population study was carried out for this site and reviewed and adopted for AIR15
Moneyreagh (WWTW)	S00337	3	PE updated with AIR15 Trade Information
Moy (WWTW)	S02859	579	PE updated with AIR15 Trade Information
Mullaghglass (Antrim)	S00325	1	A population study was carried out for this site and reviewed and adopted for AIR15
Newcastle (WWTW)	S00303	35	PE updated with AIR15 Trade Information
Newry (WWTW)	S02685	-249	PE updated with AIR15 Trade Information
Newtownbreda (WWTW)	S00342	-16	PE updated with AIR15 Trade Information
Newtownstewart (WWTW)	S03202	-1	PE updated with AIR15 Trade Information
Noones Vale	S01632	-3	A population study was carried out for this site and reviewed and adopted for AIR15
North Coast (WWTWs)	S04150	221	PE updated with AIR15 Trade Information
Omagh (WWTW)	S03999	3754	PE updated with AIR15 Trade Information
Roughfort (WWTW)	S01470	6	PE updated with AIR15 Trade Information
Seahill (WWTW)	S00774	1	PE updated with AIR15 Trade Information
Spelga Dam ST	S02676	-4	This is a newly consented WWTWs for NIW
Stoneyford (WWTW)	S00328	695	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	-695	This is a new WWTWs for AIR15
Stoneyford Beeches Two WwTW	S05705	-3	This is a new WWTWs for AIR15
Strabane	S03223	562	PE updated with AIR15 Trade Information
Tandragee	S02174	1342	PE updated with AIR15 Trade Information
Warrenpoint (WWTW)	S02720	-171	PE updated with AIR15 Trade Information
Whitehouse	S00265	-165	PE updated with AIR15 Trade Information
	Total	12955	**Change in Line 5 PE since AIR14**

The change in Pe equates to an increase in load of 283.7 t BOD/yr (i.e. 12955 x 60 for 60g/hd/day /1000/1000 x 365) from AIR14 to AIR15, allowing for rounding up and down and conversions.

Difference between AIR15 and AIR14:

Line 5 for AIR14 -	**40,213.4**
Line 5 for AIR 15 -	**39,929.7**
Total Difference -	**283.7**

Line 6 - Equivalent population served (resident)

The table below shows the changes in WWTWs since AIR14 that affects equivalent population served (resident) for Line 6. NB. Change in PE (-Ve AIR15 PE Higher)

Name of Works	CAR ID	PE Change	Comments
Abbacy Road	S03947	8	A population study was carried out for this site and reviewed and adopted for AIR15
Acton	S02111	1	A population study was carried out for this site and reviewed and adopted for AIR15
Annacloy (WWTW)	S00292	-397	Kilmore WWTW now pumps into Annacloy WWTWs
Annalong (WWTW)	S00300	-340	PE updated with AIR15 Trade Information
Annsborough	S02687	91	PE updated with AIR15 Trade Information
Antrim (WWTW)	S01422	-267	PE updated with AIR15 Trade Information
Ardglass (WWTW)	S00268	240	This WWTWs, previously a Prim WWTWs, was upgraded for AIR15
Ballycarry	S00267	77	PE updated with AIR15 Trade Information
Ballyclare	S01467	174	PE updated with AIR15 Trade Information
Ballyhornan Outfall	S04090	1	PE updated with AIR15 Trade Information
Ballykelly (L/Derry)	S03016	-44	PE updated with AIR15 Trade Information
Ballykinler (WWTW)	S00299	3	PE updated with AIR15 Trade Information
Ballymartin (Retention Tank)	S00770	613	PE amended as majority of catchment pumped away to Kilkeel
Ballymena (WWTW)	S01456	-3563	PE updated with AIR15 Trade Information
Ballynahinch (Down)	S00311	-154	PE updated with AIR15 Trade Information
Ballywalter(Retention Tank)	S05189	160	A population study was carried out for this site and reviewed and adopted for AIR15
Ballywhiskin (Retention Tank)	S00827	-8	A population study was carried out for this site and reviewed and adopted for AIR15

Name of Works	CAR ID	PE Change	Comments
Banbridge (WWTW)	S02102	-116	PE updated with AIR15 Trade Information
Belfast (WWTW)	S00345	5602	PE updated with AIR15 Trade Information
Bellany (WWTW)	S01137	5	A population study was carried out for this site and reviewed and adopted for AIR15
Belleek (Fermanagh)	S03024	1	PE updated with AIR15 Trade Information
Bresagh	S00332	1	A population study was carried out for this site and reviewed and adopted for AIR15
Cappagh (WWTW)	S02857	-1	A population study was carried out for this site and reviewed and adopted for AIR15
Carnduff (Retention Tank)	S01180	19	A population study was carried out for this site and reviewed and adopted for AIR15
Carrickfergus (WWTW)	S00261	-860	PE updated with AIR15 Trade Information
Carrowdore	S00236	6	A population study was carried out for this site and reviewed and adopted for AIR15
Castlederg (WWTW)	S03042	16	PE updated with AIR15 Trade Information
Clady (Tyrone)	S04149	-13	PE updated with AIR15 Trade Information
Cloughy (Retention Tank)	S00224	70	A population study was carried out for this site and reviewed and adopted for AIR15
Coalisland	S02828	-117	PE updated with AIR15 Trade Information
Cookstown (WWTW)	S01582	-36	PE updated with AIR15 Trade Information
Culmore (WWTW)	S03071	1031	PE updated with AIR15 Trade Information
Curglasson	S01566	7	A population study was carried out for this site and reviewed and adopted for AIR15
Derryhale	S02570	-10	PE updated with AIR15 Trade Information
Dervock (WWTW)	S01102	18	PE updated with AIR15 Trade Information
Donaghmore (WWTW)	S02840	18	PE updated with AIR15 Trade Information
Donemana	S03103	16	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Donnybrewer	S03080	-158	PE updated with AIR15 Trade Information
Downpatrick (WWTW)	S00771	-255	PE updated with AIR15 Trade Information
Draperstown	S01615	-12	PE updated with AIR15 Trade Information
Dromara (WWTW)	S00316	1	PE updated with AIR15 Trade Information
Dromore (Down)	S02127	19	PE updated with AIR15 Trade Information
Drumsough Road Randalstown ST	S05750	-12	This is a newly consented WWTWs for NIW
Dungannon	S02850	7860	PE updated with AIR15 Trade Information
Dungiven	S03101	-1	PE updated with AIR15 Trade Information
Dunmurry	S00346	133	PE updated with AIR15 Trade Information
Edencrannon (WWTW)	S02858	-28	A population study was carried out for this site and reviewed and adopted for AIR15
Enniskillen	S03218	-1001	PE updated with AIR15 Trade Information
Fivemiletown (WWTW)	S03113	-19	PE updated with AIR15 Trade Information
Glenstall	S01109	249	PE updated with AIR15 Trade Information
Greenisland (WWTW)	S00263	28	PE updated with AIR15 Trade Information
Greyabbey (WWTW)	S00214	-111	A population study was carried out for this site and reviewed and adopted for AIR15
Greysteel (WWTW)	S03123	8	PE updated with AIR15 Trade Information
Hillsborough (WWTW)	S00323	4034	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Hilltown (WWTW)	S02701	145	PE updated with AIR15 Trade Information
Irvinestown	S03137	-5	PE updated with AIR15 Trade Information
Keady (Armagh)	S02553	13	PE updated with AIR15 Trade Information
Kesh (WWTW)	S03140	4	PE updated with AIR15 Trade Information
Kilkeel (WWTW)	S00313	-401	Increase in Actual PE to reflect that the majority of the Ballymartin drainage area now pumps into the Kilkeel drainage area.

Name of Works	CAR ID	PE Change	Comments
Killinchy (WWTW)	S00252	-737	PE updated with AIR15 Trade Information
Killygonlan (WWTW)	S02043	4	PE updated with AIR15 Trade Information
Killyleagh (WWTW)	S00273	2	PE updated with AIR15 Trade Information
Kilmore (Down)	S00285	397	Kilmore WWTW now pumps into Annacloy WWTWs
Kilrea	S01156	68	PE updated with AIR15 Trade Information
Larne (WWTW)	S02044	-320	PE updated with AIR15 Trade Information
Limavady (WWTW)	S03162	-818	PE updated with AIR15 Trade Information
Lisburn (New Holland)	S00329	-4430	Hillsborough WWTWs now pumps into Lisburn (New Holland) WWTWs
Lisnaskea (WWTW)	S03171	11	PE updated with AIR15 Trade Information
Maghera (L/Derry)	S01629	10	PE updated with AIR15 Trade Information
Magherafelt (WWTW)	S01621	44	PE updated with AIR15 Trade Information
Markethill	S02591	19	PE updated with AIR15 Trade Information
Mayboy	S01163	27	A population study was carried out for this site and reviewed and adopted for AIR15
Moneymore (WWTW)	S01589	3	PE updated with AIR15 Trade Information
Moneyneany (WWTW)	S01631	40	A population study was carried out for this site and reviewed and adopted for AIR15
Moneyreagh (WWTW)	S00337	3	PE updated with AIR15 Trade Information
Moy (WWTW)	S02859	579	PE updated with AIR15 Trade Information
Mullaghglass (Antrim)	S00325	1	A population study was carried out for this site and reviewed and adopted for AIR15
Newcastle (WWTW)	S00303	35	PE updated with AIR15 Trade Information
Newry (WWTW)	S02685	-249	PE updated with AIR15 Trade Information
Newtownbreda (WWTW)	S00342	-16	PE updated with AIR15 Trade Information
Newtownstewart (WWTW)	S03202	-1	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Noones Vale	S01632	-3	A population study was carried out for this site and reviewed and adopted for AIR15
North Coast (WWTWs)	S04150	221	PE updated with AIR15 Trade Information
Omagh (WWTW)	S03999	3754	PE updated with AIR15 Trade Information
Roughfort (WWTW)	S01470	6	PE updated with AIR15 Trade Information
Seahill (WWTW)	S00774	1	PE updated with AIR15 Trade Information
Spelga Dam ST	S02676	-4	This is a newly consented WWTWs for NIW
Stoneyford (WWTW)	S00328	695	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	-695	This is a new WWTWs for AIR15
Stoneyford Beeches Two WwTW	S05705	-3	This is a new WWTWs for AIR15
Strabane	S03223	562	PE updated with AIR15 Trade Information
Tandragee	S02174	1342	PE updated with AIR15 Trade Information
Warrenpoint (WWTW)	S02720	-171	PE updated with AIR15 Trade Information
Whitehouse	S00265	-165	PE updated with AIR15 Trade Information
	Total	12955	**Change in Line 6 PE since AIR14**

Difference between AIR15 and AIR14:

Line 6 for AIR14 -	**1802635**
Line 6 for AIR 15 -	**1789680**
Total Difference -	**12955**

Line 7 - Equivalent population served (resident) (Numerical consents)

The table below shows the changes in WWTWs since AIR14 that affects equivalent population served (resident) with numerical consents for Line 7. NB. Change in PE (-Ve AIR15 PE Higher)

Name of Works	CAR ID	PE Change	Comments
Annacloy (WWTW)	S00292	-397	Kilmore WWTW now pumps into Annacloy WWTWs
Annsborough	S02687	91	PE updated with AIR15 Trade Information
Antrim (WWTW)	S01422	-267	PE updated with AIR15 Trade Information
Ardglass (WWTW)	S00268	240	This WWTWs, previously a Prim WWTWs, was upgraded for AIR15

Name of Works	CAR ID	PE Change	Comments
Ballycarry	S00267	77	PE updated with AIR15 Trade Information
Ballyclare	S01467	174	PE updated with AIR15 Trade Information
Ballykelly (L/Derry)	S03016	-44	PE updated with AIR15 Trade Information
Ballymena (WWTW)	S01456	-3563	PE updated with AIR15 Trade Information
Ballynahinch (Down)	S00311	-154	PE updated with AIR15 Trade Information
Banbridge (WWTW)	S02102	-116	PE updated with AIR15 Trade Information
Belfast (WWTW)	S00345	5602	PE updated with AIR15 Trade Information
Belleek (Fermanagh)	S03024	1	PE updated with AIR15 Trade Information
Carrickfergus (WWTW)	S00261	-860	PE updated with AIR15 Trade Information
Carrowdore	S00236	6	A population study was carried out for this site and reviewed and adopted for AIR15
Castlederg (WWTW)	S03042	16	PE updated with AIR15 Trade Information
Clady (Tyrone)	S04149	-13	PE updated with AIR15 Trade Information
Coalisland	S02828	-117	PE updated with AIR15 Trade Information
Cookstown (WWTW)	S01582	-36	PE updated with AIR15 Trade Information
Culmore (WWTW)	S03071	1031	PE updated with AIR15 Trade Information
Derryhale	S02570	-10	PE updated with AIR15 Trade Information
Dervock (WWTW)	S01102	18	PE updated with AIR15 Trade Information
Donaghmore (WWTW)	S02840	18	PE updated with AIR15 Trade Information
Donemana	S03103	16	PE updated with AIR15 Trade Information
Donnybrewer	S03080	-158	PE updated with AIR15 Trade Information
Downpatrick (WWTW)	S00771	-255	PE updated with AIR15 Trade Information
Draperstown	S01615	-12	PE updated with AIR15 Trade Information
Dromara (WWTW)	S00316	1	PE updated with AIR15 Trade Information
Dromore (Down)	S02127	19	PE updated with AIR15 Trade Information
Dungannon	S02850	7860	PE updated with AIR15 Trade Information
Dungiven	S03101	-1	PE updated with AIR15 Trade Information
Dunmurry	S00346	133	PE updated with AIR15 Trade Information
Enniskillen	S03218	-1001	PE updated with AIR15 Trade Information
Fivemiletown (WWTW)	S03113	-19	PE updated with AIR15 Trade Information
Glenstall	S01109	249	PE updated with AIR15 Trade Information
Greenisland (WWTW)	S00263	28	PE updated with AIR15 Trade Information
Greyabbey (WWTW)	S00214	-111	A population study was carried out for this site and reviewed and adopted for AIR15
Hillsborough (WWTW)	S00323	4034	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Hilltown (WWTW)	S02701	145	PE updated with AIR15 Trade Information
Irvinestown	S03137	-5	PE updated with AIR15 Trade Information
Keady (Armagh)	S02553	13	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Kesh (WWTW)	S03140	4	PE updated with AIR15 Trade Information
Kilkeel (WWTW)	S00313	-401	Increase in Actual PE to reflect that the majority of the Ballymartin drainage area now pumps into the Kilkeel drainage area.
Killinchy (WWTW)	S00252	-737	PE updated with AIR15 Trade Information
Killygonlan (WWTW)	S02043	4	PE updated with AIR15 Trade Information
Killyleagh (WWTW)	S00273	2	PE updated with AIR15 Trade Information
Kilmore (Down)	S00285	397	Kilmore WWTW now pumps into Annacloy WWTWs
Kilrea	S01156	68	PE updated with AIR15 Trade Information
Larne (WWTW)	S02044	-320	PE updated with AIR15 Trade Information
Limavady (WWTW)	S03162	-818	PE updated with AIR15 Trade Information
Lisburn (New Holland)	S00329	-4430	Hillsborough WWTWs now pumps into Lisburn (New Holland) WWTWs
Lisnaskea (WWTW)	S03171	11	PE updated with AIR15 Trade Information
Maghera (L/Derry)	S01629	10	PE updated with AIR15 Trade Information
Magherafelt (WWTW)	S01621	44	PE updated with AIR15 Trade Information
Markethill	S02591	19	PE updated with AIR15 Trade Information
Moneymore (WWTW)	S01589	3	PE updated with AIR15 Trade Information
Moneyneany (WWTW)	S01631	40	A population study was carried out for this site and reviewed and adopted for AIR15
Moneyreagh (WWTW)	S00337	3	PE updated with AIR15 Trade Information
Moy (WWTW)	S02859	579	PE updated with AIR15 Trade Information
Newcastle (WWTW)	S00303	35	PE updated with AIR15 Trade Information
Newry (WWTW)	S02685	-249	PE updated with AIR15 Trade Information
Newtownbreda (WWTW)	S00342	-16	PE updated with AIR15 Trade Information
Newtownstewart (WWTW)	S03202	-1	PE updated with AIR15 Trade Information
North Coast (WWTWs)	S04150	221	PE updated with AIR15 Trade Information
Omagh (WWTW)	S03999	3754	PE updated with AIR15 Trade Information
Roughfort (WWTW)	S01470	6	PE updated with AIR15 Trade Information
Seahill (WWTW)	S00774	1	PE updated with AIR15 Trade Information
Stoneyford (WWTW)	S00328	695	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	-695	This is a new WWTWs for AIR15
Strabane	S03223	562	PE updated with AIR15 Trade Information
Tandragee	S02174	1342	PE updated with AIR15 Trade Information

Name of Works	CAR ID	PE Change	Comments
Warrenpoint (WWTW)	S02720	-171	PE updated with AIR15 Trade Information
Whitehouse	S00265	-165	PE updated with AIR15 Trade Information
	Total	12430	**Change in Line 7 PE since AIR14**

Difference between AIR15 and AIR14:

Line 7 for AIR14 -	**1,740,189**
Line 7 for AIR 15 -	**1,727,759**
Total Difference -	**12430**

Line 8 - Number of sewage treatment works

The number of WWTWs of 1016, on this line differs from the total of 1025 as shown in Table 17c, as the former does not include the screened outfalls (2 No.) and the unscreened outfalls (7 No.), as per the definition for this line.

The table below shows the changes in numbers of WWTWs since AIR14 for Line 8.

Name of Works	CAR ID	Change in Nr of STWs	Comments
Drumsough Road Randalstown ST	S05750	Added	This is a newly consented WWTWs for NIW
Hillsborough (WWTW)	S00323	Removed	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Kilmore (Down)	S00285	Removed	Kilmore WWTW now pumps into Annacloy WWTWs
Spelga Dam ST	S02676	Added	This is a newly consented WWTWs for NIW
Stoneyford (WWTW)	S00328	Removed	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	Added	This is a new WWTWs for AIR15
Stoneyford Beeches Two WwTW	S05705	Added	This is a new WWTWs for AIR15
		Net Addition	**1**

Difference between AIR15 and AIR14:

Line 8 for AIR14 -	**1,015**
Line 8 for AIR 15 -	**1,016**
Total Difference -	**1**

Line 9 – Treatment capacity available

The table below shows the changes in Treatment Capacity Available at WWTWs since AIR14 for Line 9. NB. Change in PE (-Ve AIR15 PE Higher).

Name of Works	CAR ID	PE Change	Comments
Abbacy Road	S03947	57	This WWTWs was upgraded for AIR15
Annacloy (WWTW)	S00292	-661	This WWTWs was upgraded for AIR15
Ardglass (WWTW)	S00268	-7600	This WWTWs was upgraded for AIR15
Ballymagorry (WWTW)	S03018	-2720	This WWTWs was upgraded for AIR15
Ballynahinch (Down)	S00311	-100	This WWTWs was upgraded for AIR15
Bankside Shinn	S02692	-70	This WWTWs was upgraded for AIR15
Bolea (WWTW)	S03030	28	This WWTWs was upgraded for AIR15
Culcrow	S01146	-84	This WWTWs was upgraded for AIR15
Donaghmore (WWTW)	S02840	-2500	This WWTWs was upgraded for AIR15
Dorsy	S02267	-30	This WWTWs was upgraded for AIR15
Dromore (Tyrone)	S03083	-500	This WWTWs was upgraded for AIR15
Dromore Highlands	S03085	-37	This WWTWs was upgraded for AIR15
Drumilly	S02268	13	This WWTWs was upgraded for AIR15
Drumsough Road Randalstown ST	S05750	-12	This is a newly consented WWTWs for NIW
Edencrannon (WWTW)	S02858	-78	This WWTWs was upgraded for AIR15
Feeny	S03110	-412	This WWTWs was upgraded for AIR15
Gortnahey (WWTW)	S03126	-190	This WWTWs was upgraded for AIR15
Hillsborough (WWTW)	S00323	4046	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Katesbridge	S02136	150	This WWTWs was upgraded for AIR15
Killeen (Armagh)	S02294	100	This WWTWs was upgraded for AIR15
Kilmore (Down)	S00285	225	Kilmore WWTW now pumps into Annacloy WWTWs
Legacurry (Down)	S00321	-184	This WWTWs was upgraded for AIR15
Lisnadill (WWTW)	S02586	30	This WWTWs was upgraded for AIR15
Lisnarrick	S03170	-250	This WWTWs was upgraded for AIR15
Magheramason	S03177	-670	This WWTWs was upgraded for AIR15
McCandless Terrace	S02150	-13	This WWTWs was upgraded for AIR15
Moneydig	S01167	-41	This WWTWs was upgraded for AIR15
Moneyneany (WWTW)	S01631	126	This WWTWs was upgraded for AIR15
Mountain View (Drumintee)	S02278	-164	This WWTWs was upgraded for AIR15

Name of Works	CAR ID	PE Change	Comments
Nixons Corner (WWTW)	S03203	-339	This WWTWs was upgraded for AIR15
Noones Vale	S01632	-48	This WWTWs was upgraded for AIR15
Priestland	S01169	91	This WWTWs was upgraded for AIR15
Spelga Dam ST	S02676	-14	This is a newly consented WWTWs for NIW
Stoneyford (WWTW)	S00328	549	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	-952	This is a new WWTWs for AIR15
Stoneyford Beeches Two WwTW	S05705	-3	This is a new WWTWs for AIR15
Straid (Ballymena)	S01455	30	This WWTWs was upgraded for AIR15
Tempo (WWTW)	S03229	-500	This WWTWs was upgraded for AIR15
Waringsford	S02166	14	This WWTWs was upgraded for AIR15
	Total	-12713	**Change in Line 9 PE since AIR14**

The change in PE equates to an increase in load of – 0.76 t BOD/day (i.e. -12713 x 60 for 60g/hd/day /1000/1000) from AIR14 to AIR15, allowing for rounding up and down and conversions.

Difference between AIR15 and AIR14:

Line 9 for AIR14 -	**133.4**
Line 9 for AIR 15 -	**134.2**
Total Difference -	**0.8 increase**

The confidence grade for line 8 remains as A2 (as for AIR14). There may still be a number of small WWTWs which are perhaps under the ownership of the NI Housing Executive or have become private due to customers perhaps installing their own private septic tanks or converting 2 houses into 1. Hence a small reduction in confidence grade i.e. A2 is viewed as necessary to reflect this uncertainty, especially as 698 WWTWs (excluding tourist PE) are listed as having a PE of less than 100.

PPP Only

Line 2 - Total load receiving secondary treatment

The total loads receiving secondary treatment have changed to reflect the load discharged from the NI Water sewer network to the PPP works.

Line 5 - Total load entering sewerage system

The information has been separated out of the 'NIW Only' figure for the PPP related catchments and recorded in this cell to readily consider PPP Catchments to PPP Treatment Works. This information was not provided by the PPP Contractors as they do not operate these catchments.

Line 6 - Equivalent population served (resident)

The change in the Equivalent Population Served (resident) receiving treatment reflects the change in load received from the NIW Catchments.

Line 7 - Equivalent population served (resident) (Numerical consents)

As all the PPP WwTW's have numerical consents, the change reflects the same change in Line 6 above for the same reasons.

Lines 14- 17 Sewage – Sludge Disposal

NIW Only

Line 14 – Percentage unsatisfactory sludge disposal

Northern Ireland Water (NIW) continues to have zero unsatisfactory sludge disposals. NIW has again assigned a confidence grade of A1 to percentage unsatisfactory sludge disposal as the total is zero.

Line 15 – Total sewage sludge produced

Sewage cake is produced from 8Nr. NIW sites and transported to PPP Contractor for incineration. Liquid sludge is also transported to the PPP Contractor (Ballynacor & Duncrue Street, Belfast) where the Contractor measures and processes same for disposal (including Belfast WwTW Indigenous).

For the purpose of AIR 15 submission Table 15 (NIW Only) relates to sewage sludge produced for 2014/15 (tds) as recorded by PPP and monthly by Ww Area Sludge Officers (reconciled using the SLS) and presented in the monthly Sludge Management Report along with an estimated quantity of WwTW & WwPS grit & screenings which are routinely removed as part of the sewage treatment process and disposed of separately under Tender C480 (Collection, Transportation and Disposal of Waste by skip).

Line 16 - Total sewage sludge received from NI Water

Northern Ireland Water is contracted to transfer all sewage liquid and cake to PPP. Sewage cake is produced from 8Nr. NIW sites and transported to PPP Contractor for incineration. Liquid sludge is also transported to the PPP Contractor (Ballynacor & Duncrue Street, Belfast) where the Contractor measures and processes same for disposal (including Belfast WwTW Indigenous). That element of the sewage treatment production combined for the Total T15 submission. This data is also submitted through PPP reporting in T42.

NIW is aware of the variance between NIW cake figure and that of the NIW contractor. NIW has used the contractor figure due to perceived greater accuracy i.e. measured at end disposal point.

Line 17 - Total sewage sludge disposal

Northern Ireland Water disposes the same amount of sludge as that produced (Line 15). NIW remains committed to compliance with the requirements of the "Safe Sludge Matrix". A total of 97.5% of sewage sludge went to PPP during 2014/15, The total estimated quantity of grit and screenings removed as part of the sewage treatment process and disposed of separately under Tender C480 (Collection, Transportation and Disposal of Waste by skip) and total disposed to landfill in 2014/15 has been collated.

PPP only

Line 15 - Total sewage sludge produced

The changes in sludge produced data reflect the loads delivered to the PPP contractor from the NI Water sewer network, outside the PPP contractor's control. There are minor additions for Screenings and Grit which were initially reported in AIR13 and subsequently in AIR14 by the Contractors.

The variations are tabulated below;

PPP Production	AIR15	AIR14	AIR13	AIR12	AIR11	AIR10
Armagh WWTW	0.579	0.547	0.535	0.570	0.759	0.84
Richhill WWTW	0.063	0.071	0.065	0.066	0.213	0.21
Ballynacor WWTW	2.269	2.007	2.069	3.330	2.468	2.29
Ballyrickard WWTW	1.337	1.126	1.158	1.225	1.627	1.717
NDA WWTW	1.633	1.920	1.628	1.559	1.753	1.654
Kinnegar WWTW	0.668	0.643	0.726	0.823	0.792	0.7
Omega Screenings and Grit	0.083	0.088	0.106			
Kinnegar Screenings and Grit	0.057	0.047	0.022			
Totals	**6.689**	**6.449**	**6.309**	**7.573**	**7.612**	**7.411**

Line 16 - Total sewage sludge received from NI Water

This reflects the change in sludge quantities received by the PPP Contractor from the Company and includes that received from Kinnegar concession, which is treated as Company sludge for the purposes of the Omega PPP Contractor's records.

Line 17 - Total sewage sludge disposal

In AIR14 the Omega Contractor reported a disposal of 38.1 ttds sludge disposed of. This year (AIR15) the reported figure is 39.3ttds.

The variance of 1.2ttds is considered to be a combination of:

(i) Timing of data capture (sludges being collected and receipted for disposal)
(ii) Accurate measurement and records demanded under the Omega contract
(iii) Variations in quantities of sludge produced across PPP and NIW STWs.
(iv) Reporting of Screenings and Grit, and modification to accuracy where possible.

Specific Commentary Requirements:

- Assumptions Made:
  - 60g/h/d as per NIAUR requirements

- Skips weights (Screenings and Grit) are recorded in wet tonnes. An assumption of 30% Dry Solids content has been used to convert wet tonnes into TDS. Apart from Kinnegar where the %DS is assessed for each skip weight.

- BOD loading is based on the measured influent sample result of loading applied to the WWTW processes; therefore there is no need to include a calculation for recirculated Sludge/Sludge liquors in Lines 1-7. It is not a calculated load from desktop analysis of Population, as required by the Regulator Guidance Notes. However, PPP Contract Management team have been instructed to proceed on the basis of measured BOD and Pe calculated from measured BOD (rather than desktop calculation) as it has been advised this is the Reporter and Regulators preferred method of establishing PE and BOD.
- Sludge production is based on the records of actual sludge imported to treatment or disposal centres. This is confirmed from the Contractors records of sludge from both weighbridge / Waste Management Notes records (for sludge cake) and sludge logger records (for liquid sludge).
- The PE figures have only been established on the basis of the BOD_5 loads recorded by the end of the year and represent the load received for the AIR15 Reporting Period. They have not therefore been notified to NIEA, as any such notifications relate to calendar years.

As the PPP contractors do not control septage, trade effluent nor manage connections of domestic population, they are unable to build up the loads on this basis. The loads are therefore determined in accordance with the Table 15 Line 2 Methodology, based on 52 treated effluent BOD_5 sample results per year. This is contrary to the requirements of the Guidance Notes, and is not consistent with how NI Water only data is constructed; but Contracts Management Team has been advised that this is the Reporter and the Regulator's preferred method of calculation. The PPP only data remains unchanged. The recirculated sludge/sludge liquors in Lines 1-7 are consistent with the methodology presented in AIR 10-14.

Total Table

Line 14 - Percentage unsatisfactory sludge disposal

No change – the PPP Contractor has confirmed that all sludges were disposed of through authorised routes.

Line 15 - Total sewage sludge produced

The changes to the sludges produced are reflected in the commentary to Line 17 below.

Line 17 - Total sewage sludge disposal

In AIR14 the PPP Contractors reported a disposal of 38.1 ttds sludge disposed of. This year (AIR15) the reported figure is 39.3 ttds.

In AIR14 the Company disposed of 0.8 ttds relating to grit/screenings sludge. This year (AIR15) the reported figure is 0.9 ttds.

In total, AIR14 reported 38.9 ttds of sludge disposed of by all parties. In this reporting year (AIR15) the figure is 40.2 ttds.

The variance of 1.3 ttds is considered to be a combination of:

(i) An increase in total tonnage of sludge disposed of by the Omega contractor from NIW, Kinnegar and Omega WWTWs in combination.
(ii) Additional sludges derived for PPP Contractor grit and screenings, providing a further potential for variance.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 16 NON FINANCIAL MEASURES
SEWERAGE SERVICE ACTIVITIES (NIW Only)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2010-11	CG	2 REPORTING YEAR 2011-12	CG	3 REPORTING YEAR 2012-13	CG	4 REPORTING YEAR 2013-14	CG	5 REPORTING YEAR 2014-15	CG
A	**ASSET BALANCE AT APRIL 1**												
1	Total length of sewers	km	2	14,745.61	B3	14,904.68	B3	15,090.35	B3	15,254.37	B3	15,410.44	B3
2	Total length of "critical" sewers	km	2	3,653.62	C3	3,622.52	C3	3,656.86	C3	3,716.68	C3	3,732.98	C3
B	**CHANGES DURING REPORT YEAR**												
3	New "critical" sewers	km	2	16.18	B2	4.62	B2	33.50	C3	24.68	C3	19.54	C3
4	"Critical" sewers - inspection by CCTV/man entry	km	2	86.89	B3	53.18	C4	51.79	C4	48.98	C4	35.98	C4
5	"Critical" sewers - renovated	km	2	9.40	A2	2.86	B2	1.41	B2	0.99	B2	1.87	B2
6	"Critical" sewers - replaced	km	2	6.50	B3	2.64	B2	1.04	B2	3.32	B2	5.09	B2
7	Abandoned "critical" sewers and other changes	km	2	0.05	A2	0.00	B2	0.00	B2	1.48	B2	0.50	B2
8	New "non-critical" sewers	km	2	195.62	B2	181.90	B2	145.40	C3	172.22	C3	130.22	C3
9	"Non-critical" sewers - renovated	km	2	6.26	A2	6.26	B2	2.31	B2	2.93	B2	1.95	B2
10	"Non-critical" sewers - replaced	km	2	4.58	B3	1.02	B2	19.29	B2	18.08	B2	11.89	B2
11	Abandoned "non-critical" sewers and other changes	km	2	0.09	A2	0.72	B2	0	B2	0.36	B2	0.60	B2
11a	Total length of sewers replaced or renovated	km	2	26.74		12.78		24.05		25.32	B2	20.80	B2
12	Sewer collapses per 1,000km	nr	1	84.9	B2	80.6	B4	73.6	B3	72.678	B3	85.7	B3
13	Sewer blockages per 1,000km	nr	1	1,759.8	B2	1,619.8	B4	1,363.6	B3	1,172.1	B3	1073.6	B3
13a	Number of sewer blockage clearance which exceeds 6 hours	nr	0			N/C		1,250	B3	1,104	A2	2640	B4
13b	Number of sewer blockage clearance which exceeds 12 hours	nr	0			N/C		849	B3	645	A2	1832	B4
13c	Number of sewer blockage clearance which exceeds 24 hours	nr	0			N/C		444	B3	203	A2	276	B4
C	**ASSET BALANCE AT MARCH 31**												
14	Total length of sewers	km	2	14,904.68	B3	15,090.35	B3	15,254.37	B3	15,410.44	B3	15,581.51	B3
15	Total length of "critical" sewers	km	2	3,622.52	C3	3,656.86	C3	3,716.68	C3	3,732.98	C3	3,760.85	C3
D	**INTERMITTENT DISCHARGES**												
16a	Number of unsatisfactory intermittent discharges excluding CSOs (NIEA)	nr	0	218	C2	204	C2	197	C2	190	C2	159	C2
16b	Number of unsatisfactory intermittent discharges CSOs (NIEA)	nr	0	379	C2	349	C2	318	C2	312	C2	288	C2
17a	Number of intermittent discharges excluding CSOs	nr	0	1,519	B4	1,591	B3	1,675	B3	1,732	B3	1751	B3
17b	Number of CSOs	nr	0	748	B4	780	B3	779	B3	802	B3	802	B3
E	**DRAINAGE AREA PLANS**												
18	Cumulative number of drainage area plans completed	nr	0	71	A1	71	A1	71	A1	71	A1	58	A1
19	Number of drainage area plan studies in progress at the report end of the report year	nr	0	0	A1	0	A1	1	A1	8	A1	8	A1
20	Total sewerage drainage areas	nr	0	260	A2	261	A2	256	A2	254	A2	251	A2
21	Cumulative % drainage area plan studies completed	%	1	27.3	A2	27.2	A2	27.7	A2	28.0	A2	23.1	A2
22	% population/properties covered by completed studies	%	1	55.1	B3	54.7	B3	53.3	B3	53.2	B3	50.7	B3
F	**SEWAGE TREATMENT COMPLIANCE MEASURES**												
23	% WwTW discharges compliant with numeric consents	%	1	88.7		93.1		93.1		91.8	A1	92.2	A1
24	% of total p.e. served by WwTWs compliant with numeric consents	%	1	80.4		93.9		97.9		94.5	C5	96.5	C5
24a	% of total p.e. served by WwTWs compliant with numeric consents excluding upper tier failures	%	1	95.0		95.2		98.5		97.6	C5	98.2	C5
F	**NOMINATED SEWERAGE SERVICE OUTPUTS**												
25	Delivery of improvements to nominated UIDs as part of a defined programme of work	nr	0	20	A1	43	A1	38	B3	11	A2	17	A2
26	Delivery of improvements to WWTW through nominated schemes as part of a defined programme of work	nr	0	29	B3	15	B3	12	B3	17	A2	16	A2
27	Small WwTWs delivered as part of the rural wastewater investment programme	nr	0	11		23		14		7	A2	18	A2

Table 16 - Sewerage Service Activities (NI Water only WWTW)

Line 1 – Total length of sewers at 1 April

The value of 15,254.37 km has been extracted from line 14 of the AIR14 Table 16.

Line 2 – Total length of 'critical' sewers at 1 April

The value of 3716.67km has been extracted from line 15 of the AIR14 Table 16.

Lines 3 to 11a – Changes during report year

The tables below show the make-up of the figures submitted for these lines.

Line	Description	EP	DS	CSD	Total
3	New "critical" sewers	2.59	16.95	0	19.54
5	"Critical" sewers - renovated	1.62	n/a	0.25	1.87
6	"Critical" sewers - replaced	5.09	n/a	0	5.09
7	Abandoned "critical" sewers and other changes	0.50	n/a	0	0.50
8	New "non-critical" sewers	7.10	123.12	0	130.22
9	"Non-critical" sewers - renovated	0.89	n/a	1.06	1.95
10	"Non-critical" sewers - replaced	11.89	n/a	0	11.89
11	Abandoned "non-critical" sewers and other changes	0.60	n/a	0	0.60
11a	Total length of sewers replaced or renovated				20.80

Lines 3 and 8 – New 'critical' sewers/ new 'non-critical' sewers

Lines 3 and 8 include lengths of sewers within 'new development' which have been adopted by the Developer Services section of NI Water. The total length adopted has decreased from 187.53 km in AIR14 to 140.07km.

The critical sewer lengths have been calculated using the same methodology as AIR14.The confidence grade is unchanged at C3.

Line 4 - 'Critical' sewers – inspection by CCTV/man entry

Line	Description	EP	In-house	Contractor	Total
4	'Critical sewers'- inspection by CCTV/man entry	1.86	30.50	3.62	35.98

The confidence grade for this line remains unchanged at C4.

Lines 5, 6, 9, 10 and 11a - sewers renovated and replaced

The total length renovated and replaced (20.80 km) is lower than the AIR 14 figure of 25.32 km.

The critical sewer element 6.96 km has increased significantly from AIR 14 (4.31 km). Confidence grades remain unchanged at B2.

Lines 7 and 11 - sewers abandoned

These lines had a return of 1.10 km and in AIR14 a zero return was made.

Progress against PC13 Monitoring Plan

The renewal of sewers (renovation or replacement) is represented in the Monitoring Plan as a target output. The target was 14 km for the year 2014/15. The amount achieved – 20.80 km

Lines 12-13c – Sewer collapses and blockages

General

As result of further refinement at NIW's request the contractor now, (end of March 2015), accurately records on their invoices what section within the sewer the blockage occurred (e.g. main, lateral or private). NIW are now in a good position for AIR16 to report on whether collapses or blockages have occurred in a private lateral, public lateral or public main sewer.

NIW are now more proactive in their approach to repeat blockages, as part of their annual performance objectives all the Field Managers (FM) had been tasked to make a 7.5% reduction in the number of blocked sewers and the AIR return figure is evidence of this success rate. This reduction in blockage numbers is being achieved by NIW Customer Field Managers (CFM) using the resource of designated field technicians who are carrying out CCTV investigations on sewers which have repeat blockage complaints any faults found are remedied thus reducing the number of repeat incidents.

NIW now run a monthly report in Ellipse which confirms the length of time a sewer blockage job took to be completed. Due to the fact that the Ellipse system calculates the length of time a job takes from the time the work request is raised until the work request is closed all jobs exceeding 24 hours are investigated as all follow-on jobs are included in the time the work request is open. These jobs are then reported in the correct category according to the length of time the blockage job actually took to be completed.

Line 12 - Sewer collapses per 1,000 km

Due to the method of gathering the data on sewer collapses the regulatory instructions for calculating figures for Table 16 Line 12 and Table 46 Lines 32 and 33 must be reversed and is detailed below:

- The number of rising main failures and the number of gravity sewer collapses are summated to give the total number of sewer collapses.
- The total number of sewer collapses is divided by the total length of sewers at 31 March 2015 to give the number of sewer collapses per kilometre.
- The number of sewer collapses per kilometre is multiplied by 1000 to give the number of sewer collapses per 1,000km.

Table 16 line 12 has been calculated using the figure reported for table 46 Lines 32 and 33 and the total length of sewers figure reported for Table 16 line 14.

Line 13 - Sewer Blockages per 1,000 Km

Due to the method of gathering the data on sewer collapses, the regulatory instructions for calculating figures for Table 16 Line 13 and Table 46 Line 36 must be reversed and is detailed below:

- The number of sewer blockages is divided by the total length of sewers at 31 March 2015 to give the number of sewer blockages per kilometre.
- The number of sewer blockages per kilometre is multiplied by 1000 to give the number of sewer blockages per 1,000km.

Table 16: line 13 has been calculated using the figure reported for table 46 Line 36 and the total length of sewers figure reported for Table 16 line 14

Lines 13a, 13b and 13c - Number of blockage clearance which exceeds 6, 12 & 24 hours

NIW now run a monthly report in Ellipse which confirms the length of time a sewer blockage job took to be completed. Due to the fact that the Ellipse system calculates the length of time a job takes from the time the work request is raised until the work request is closed all jobs exceeding 24 hours are investigated as all follow-on jobs are included in the time the work request is open. These jobs are then reported in the correct category according to the length of time the blockage job actually took.

Confidence Grading – Lines 12, 13, 13a, 13b & 13c

Because NIW are using data from checked and paid invoices (B2) and total length of sewers (B3), the confidence grade for the AIR15 L12 & L13 is B3. NIW expects this to consolidate as we move forward into AIR15 as report building continues with the single Sewer Maintenance Contractor.

The Company has assigned a confidence grade of B4 for Line 13a, 13b & 13c, as the data is derived directly from Ellipse. This data doesn't distinguish between actual blockages, follow on jobs, cancelled jobs or repeat calls, only blockages deemed to have taken greater than 24 hours to be completed have been manually reviewed. As such, NI Water is likely to have overstated the number of blockages exceeding 6hrs and 12hrs and reported in lines 13a and 13b.

Line 14 – Total length of sewers

There has been no change to the structure of the data reported on this year from the previous years that would directly affect the totals provided. The same queries have been used to extract the data from the Corporate Asset Register and have been checked to ensure that they are still relevant. The confidence grade of the data will remain the same as the previous year. Any new data will have adhered to the NIW Code of Practice for the submission of asset data ensuring that data quality levels have been maintained throughout the year.

Line 15 – Total length of 'critical' sewers

The same estimation techniques have been used as in previous years and are still dependent on 3rd party datasets. The analysis performed assesses the criticality of the sewers based on size, material and depth attributes of the sewer and its location in regards to structures, roads, railways and watercourses. This is a desktop exercise based on the location and attributes of each sewer as per the definition of critical sewers in the WRc Sewerage Rehabilitation Manual. As the result of the analysis is still an estimation the confidence grade of C3 will remain in place.

Lines 16a - 16b – Unsatisfactory intermittent discharges

In AIR09 this line was reported as the number of UIDs which had been classified to date – and a query was submitted to NIAUR seeking confirmation that this was the correct interpretation. The reply from NIAUR stated that they instead would like the return to be an estimate of the number of UIDs following completion of the classification process by NIEA. As a consequence the current return complies with that interpretation.

The line refers to those intermittent discharges which have been defined as Unsatisfactory by NIEA within the terms of the Guidelines to the UWWT Directive.

The estimate of the number of Unsatisfactory Intermittent Discharges which was produced for AIR 14 was:

CSOs: 312
Other UIDs: 190

However when carrying out the update for AIR15 it was noted that although 6 UID improvements at CSOs were claimed for AIR14 this figure was incorrect and only 5 should been claimed. Therefore the stable baseline should be:

CSOs: 313
Other UIDs: 190

In order that lines 16a and 16b should provide a stable baseline by which progress in UID improvements may be assessed, the above estimates have been retained – and the entries made in 16a and 16b for AIR15 are equal to the above figures minus the numbers UID improvements which were executed in 14/15. i.e.

CSOs: 313 – 25 = 288.
Other UIDs: 190 – 31 = 159.

Since the return is an attempt to predict the number of discharges which will ultimately be classified as unsatisfactory by NIEA the confidence grade is correspondingly low at C2.

Notes:

1. The estimate of UIDs excludes those IDs within the boundary of WWTW sites. These are not subject to any systematic classification by NIEA.
2. The estimate of UIDs excludes those IDs which are overflows from 'Foul-only pumping stations'. These are not subject to any formal classification by NIEA.

Lines 17a and 17b – Intermittent discharges and CSO's

Sewerage System Intermittent Discharges

Table A - Depicting differences between the sewerage system overflows between AIR14 and AIR15

Intermittent Discharges	APT Preliminary AIR14 Number	Final AIR14 Number (after removal of Dual, Duplicates and Bifurcation Assets)	APT Preliminary AIR15 Number	Difference between AIR14 & AIR15 Preliminary Number	Total Number of Dual, Duplicates and Bifurcation assets to be removed	Final AIR15 Number (after removal of Dual, Duplicates and Bifurcation Assets)
Combined Storm Overflows (CSOs)	844	802	844	0	42	802
Waste Water Pumping Stations (WwPSs)	1101	1099	1104	+3	2	1102
Total Number of Intermittent Discharges	1945	1901	1948	+3	44	1904

Hence for AIR15 the total number of Sewerage System Overflows is 802 plus 1102 i.e. 1904.

From the APT data used there has been no increase in CSOs since AIR14 (i.e. 844 to 844). There has been a net increase of 3 WWPS overflows since AIR14 (i.e. 1101 to 1104). This is made up of 3 new WWPSs overflows.

Preliminary net increase of 0 CSOs overflows since AIR14
Preliminary net increase of 3 WWPS overflows since AIR14
Preliminary total increase of 3 overflows since AIR14 (i.e. 1945 to 1948).
(For a further breakdown see Table B, C & D – Changes in Intermittent Discharges by Drainage Area below).

The total number of consented assets held by NI Water is 1948. However a number of these assets (n=44) are not included in the finalised number. This is because these are duplicates, dual manholes or bifurcation manholes which do not fall within the industry standard for reporting purposes.

The 44 sewerage system overflows have been categorised into the following:

- 29 Dual Manholes;
- 4 Bifurcation Manholes;
- 11Duplicate Assets

(For further details see Tables E, F & G below).

Overall this equates to a:

Net increase of 3 Preliminary overflows since AIR14

Plus:	1945 Preliminary overflows identified in AIR14
Sub Total:	1948 sewerage system overflows
Minus:	44 Overflows not included in the finalised number for AIR15
Total:	1904 sewerage system overflows identified for AIR15

An exercise has been ongoing over the AIR 10,11,12,13 & 14 reporting years to confirm the number of sewage system overflows within NI Water. An agreement is in place with Northern Ireland Environment Agency (NIEA) that updates will only be submitted on a catchment by catchment basis once all information is confirmed.

As reported in AIR 14, the consultants employed to carry out this work submitted their final conclusions in December 2010. The final conclusions detailed assets that are currently consented, that do not have overflows as well as assets which have overflows and are currently unconsented. However before this information can be adopted by NI Water, it has to be signed off by NI Water Network Sewage Business Unit and any changes included on NI Water's Geographical Information Service (GIS). This process is ongoing and currently Network Sewage Business Unit has confirmed the information for a total of 126 catchments (8 in AIR 11 + 36 in AIR 12 + 38 in AIR 13 + 44 in AIR 14). This updated information has been included on GIS and submitted to NIEA with changes included in the AIR15 figures.

Table B – APT Preliminary changes in intermittent discharges by drainage area for AIR15

Drainage Area	No of CSOs added since AIR14	No of CSOs removed since AIR14	No of WWPS added since AIR14	No of WWPS removed since AIR14	Comments
Stoneyford DA	0	0	1	0	WWPS Added: SP003407247
Kilkeel DA	0	0	1	0	WWPS Added: S05625
Kilmore Crossgar DA	0	0	1	0	WWPS Added: SP003449634
Total Number of intermittent discharges added or removed since AIR14	0	0	3	0	
Net decrease in CSOs since AIR14	0				
Net Increase in WWPSs since AIR14			3		

Table C – AIC Preliminary changes in Intermittent discharges by drainage area for AIR15

Drainage Area	No of CSOs added since AIR14	No of CSOs removed since AIR14	No of WWPS added since AIR14	No of WWPS removed since AIR14	Comments
N/A	0	0	0	0	No Updates from AIC for AIR15
AIC Net Increase in CSOs since AIR14	0				
AIC Net Increase in WWPSs since AIR14			0		

Table D – Combined Totals of APT & AIC Preliminary changes in Intermittent discharges by drainage area for AIR14

	No of CSOs added since AIR14	No of CSOs removed since AIR14	No of WWPS added since AIR14	No of WWPS removed since AIR14
Preliminary APT number of intermittent discharges added or withdrawn since AIR14	0	0	3	0
Preliminary AIC number of intermittent discharges added or withdrawn since AIR14	0	0	0	0
Subtotals	0	0	3	0
Preliminary net increase or decrease in WWPS & CSOs since AIR14	0		+3	
Preliminary total increase in sewage system overflows for AIR14	+3			

Table E - Dual Manholes not included in the finalised number for AIR15

Name of Sewer System	Car Id	Easy reference of asset from Consent of Discharge Map	Dual Manholes (To be Withdrawn)	Total No: of Dual Manholes per drainage area
Antrim	CO002586738		Y	1
Whitehouse	NM001345599		Y	16
Whitehouse	NM001348440		Y	
Whitehouse	NM001345603		Y	
Whitehouse	NM001349241		Y	
Whitehouse	NM001347238		Y	
Whitehouse	NM001346012		Y	
Whitehouse	NM001339619		Y	
Whitehouse	NM001340886		Y	
Whitehouse	NM001350136		Y	
Whitehouse	NM001340887		Y	
Whitehouse	NM001349313		Y	
Whitehouse	NM001339615		Y	
Whitehouse	NM001340884		Y	
Whitehouse	NM001349320		Y	
Whitehouse	NM001349319		Y	
Whitehouse	NM001349658		Y	
Ballynacor	NM001229100		Y	12
Ballynacor	NM001230688		Y	
Ballynacor	NM001231583		Y	
Ballynacor	NM001231355		Y	
Ballynacor	NM001229426		Y	
Ballynacor	NM001232930		Y	
Ballynacor	NM001278776		Y	
Ballynacor	NM001278775		Y	
Ballynacor	NM001234366		Y	
Ballynacor	NM001280565		Y	
Ballynacor	NM001282390		Y	
Ballynacor	NM001231354		Y	
Total Number of Dual Manholes not included in the finalised number for AIR15				**29**

Table F - Bifurcation Manholes not included in the finalised number for AIR15

Name of Sewer System	Car Id	Easy reference of asset from Consent of Discharge Map	Dual Manholes (To be Withdrawn)	Total No: of Dual Manholes per drainage area
Carrickfergus	NM001353097	Elis Street A	Y	1
Rathfriland	NM001291669	John Street	Y	1
Waringstown	NM001238461	CS 06	Y	1
Enniskillen	CO003124504		Y	1
Ballynacor	NM001231354		Y	
Total No: of Bifurcation Manholes not included in the finalised number for AIR15				**4**

Table G - Duplicate Assets not included in the finalised number for AIR15

Name of Sewer System	Car Id	Easy reference of asset from Consent of Discharge Map	Dual Manholes (To be Withdrawn)	Total No: of Dual Manholes per drainage area
Carrickfergus	NM001353097	Elis Street A	Y	1
Rathfriland	NM001291669	John Street	Y	1
Waringstown	NM001238461	CS 06	Y	1
Enniskillen	CO003124504		Y	1
Ballynacor	NM001231354		Y	
Total No: of Bifurcation Manholes not included in the finalised number for AIR15				**4**

Name of Sewer System	Car Id	Easy reference of asset from Consent of Discharge Map	Duplicate Assets (To be Withdrawn)	Total No: of Duplicate Assets per drainage area
Ballymena	SP002022687	Tullaghgarley Transfer WWPS FA Overflow	Y	1
Whitehouse	CO002966311	John Street	Y	6
Whitehouse	CO002987846		Y	
Whitehouse	CO002914133		Y	
Whitehouse	CO002988722		Y	
Whitehouse	CO002987839		Y	
Whitehouse	CO000984647		Y	
Omagh	SP002021852	Omagh Transfer WWPS	Y	2
Omagh	SP002021852	Omagh Transfer WWPS	Y	
Ballynacor	CO000984402	Thomas Street	Y	2
Ballynacor	SP002022218	Annsborough	Y	
Total Number of Duplicate Manholes not included in the finalised number for AIR15				**11**

Lines 17a -17b

Table H - Total number of Overflows within WWTW

	AIR14 Number	AIR15 Number
Total number of Overflows from within WWTW	633	649

Hence for AIR15 the total number of overflows within WWTW is 649

The overall number of WWTW overflows from AIR14 to AIR15 has had a net increase of 16 overflows. With regards to the number of additional and withdrawn overflows and further changes to the designation of the type of overflow listed (see Tables H to P below).

The increase in WWTW overflows in AIR15 is mainly due to works being upgraded in the PC13 period, the roll out of the Rural Wastewater Investment Plan (RWWIP), which has resulted in numerous small works now having an overflow facility.

The changes in the number of overflows within WWTW since AIR14 are as follows:

- 19 Overflows within WWTW withdrawn since AIR14.
  (See Table I, J, K, & L below)
- 35 Additional overflows within WWTW since AIR14.
  (See Table M, N & O below)
- A net increase of 16 overflows since AIR14.

Table I - Overflows within WWTW withdrawn since AIR14 due to works becoming a pump away in AIR15

Name of Works	Site ID	Status in AIR15	Withdrawn O/Fs Since AIR14
Hillsborough (WWTW)	S00323	WwTW is now a WWPS called Hillsborough WWPS (CARID: SP003423253, Site ID: S00323) which pumps into the Lisburn/New Holland drainage area.	-2
Kilmore (Down)	S00285	WwTW is now a pumpaway to Annacloy WWTW	-1
Stoneyford (WWTW)	S00328	WwTW is now a Terminal WWPS called Stoneyford Moss Road WWPS which pumps to the new Stoneyford Beeches WWTW (Site ID: S05705) built on a separate site	-1
Total Number of overflows withdrawn since AIR14 due to the WWTWs becoming a pump away			**-4**

Table J - Overflows within WWTW withdrawn since AIR14 due to works being upgraded

Name of Works	Site ID	Status in AIR15	Changes to Overflows for AIR15	Withdrawn O/Fs Since AIR14
Culcrow	S01146	Works upgraded	Removal of 1 no Pumping Station E/O	-1
Noones Vale	S01632	Works upgraded	Removal of 1 no Pumping Station E/O	-1
Priestland	S01169	Works upgraded	Removal of 1 no FFT O/F	-1
Killeen (Armagh)	S02294	Works upgraded	Removal of 1 no FFT O/F	-1
Waringsford	S02166	Works upgraded	Removal of 1 no FFT O/F	-1
Ballymagorry (WWTW)	S03018	Works upgraded	Removal 1 No 3 DWF O/F plus	-1
Dromore (Tyrone)	S03083	Works upgraded	Removal of 1 no FFT O/F	-1
Drumsurn	S03100	Works upgraded	Removal of 1 no FFT O/F	-1
Feeny	S03110	Works upgraded	Removal of 1 no FA O/F	-1

Gortnahey (WWTW)	S03126	Works upgraded	Removal of 1 no FFT O/F	-1
Lisnarrick	S03170	Works upgraded	Removal of 1 no 3 DWF O/F.	-1
Magheramason	S03177	Works upgraded	Removal 1 No FFT O/F	-1
Total Number of overflows withdrawn since AIR14 due to the works being upgraded				**-12**

Table K – Withdrawn Overflows within WWTWs due to incorrect designation in AIR14

Name of Works	Site ID	Status in AIR15	Withdrawn O/Fs Since AIR14
Ballynahinch (Down)	S00311	Removal of 1 no pumping station E/O to reflect new WOC application.	-1
Moneyreagh (WWTW)	S00337	Removal of 1 No interstage pumping station O/F to reflect new WOC application.	-1
Spamount	S03221	Removal of 1 no 3 DWF O/F to reflect new WOC application.	-1
Total of Withdrawn Overflows due to incorrect designation in AIR14			**-3**

Table L– Summary of the total number of Overflows withdrawn since AIR14

Total of overflows withdrawn since AIR14 due to the works becoming a pump away	-4
Total of overflows withdrawn since AIR14 due to the works being upgraded	-12
Total of Withdrawn Overflows due to incorrect designation in AIR14	-3
Combined Total Number of overflows within WWTW withdrawn since AIR14	**-19**

Table M - Additional overflows within WWTW since AIR14 due to WWTW upgrades

Name of Works	Site ID	Status in AIR15	Changes to Overflows for AIR15	Additional O/Fs Since AIR14
Abbacy Road	S03947	Works upgraded	1 additional FA O/F	1
Annacloy (WWTW)	S00292	Works upgraded	1 additional FFT O/F with Storm Retention	1
Legacurry (Down)	S00321	Works upgraded	1 additional FFT O/F with Storm Retention	1
Culcrow	S01146	Works upgraded	1 additional FFT O/F with Storm Retention	1
Moneydig	S01167	Works upgraded	1 additional FFT O/F with Storm Retention	1
Noones Vale	S01632	Works upgraded	1 additional FFT O/F with Storm Retention	1

Name of Works	Site ID	Status in AIR15	Changes to Overflows for AIR15	Additional O/Fs Since AIR14
Priestland	S01169	Works upgraded	1 additional FFT O/F with Storm Retention	1
Straid (Ballymena)	S01455	Works upgraded	1 additional FFT O/F with Storm Retention	1
Bankside Shinn	S02692	Works upgraded	1 additional FFT O/F with Storm Retention	1
Dorsy	S02267	Works upgraded	1 additional FFT O/F with Storm Retention	1
Drumilly	S02268	Works upgraded	1 additional FFT O/F with Storm Retention	1
Katesbridge	S02136	Works upgraded	1 additional FFT O/F with Storm Retention 1 additional Formula "A" O/F (which also act as PS E/O)	2
Killeen (Armagh)	S02294	Works upgraded	1 additional FFT O/F with Storm Retention	1
Lisnadill (WWTW)	S02586	Works upgraded	1 additional FFT O/F with Storm Retention	1
McCandless Terrace	S02150	Works upgraded	1 additional FFT O/F with Storm Retention	1
Mountain View (Drumintee)	S02278	Works upgraded	1 additional FFT O/F with Storm Retention	1
Waringsford	S02166	Works upgraded	1 additional FA O/F	1
Ballymagorry (WWTW)	S03018	Works upgraded	1 additional FFT O/F with storm Retention	1
Bolea (WWTW)	S03030	Works upgraded	1 additional FFT O/F with Storm Retention	1
Dromore Highlands	S03085	Works upgraded	1 additional FFT O/F with Storm Retention	1
Dromore (Tyrone)	S03083	Works upgraded	1 additional FFT O/F with Storm Retention	1
Drumsurn	S03100	Works upgraded	1 additional FA O/F & 1 No FFT O/F with Storm Retention to reflect WOC application.	2
Feeny	S03110	Works upgraded	1 additional FA O/F with Storm Retention & 1 No FFT O/F with Storm Retention to reflect revised WOC application.	2
Gortnahey (WWTW)	S03126	Works upgraded	1 additional FFT O/F with the addition of 1 No FA O/F & 1 FFT O/F with Storm Retention to reflect WOC application.	2

Name of Works	Site ID	Status in AIR15	Changes to Overflows for AIR15	Additional O/Fs Since AIR14
Edencrannon (WWTW)	S02858	Works upgraded	1 additional FA O/F	1
Lisnarrick	S03170	Works upgraded	1 additional FFT O/F with Storm Retention to reflect WOC application.	1
Magheramason	S03177	Works upgraded	1 additional FFT O/F with storm Retention	1
Tempo (WWTW)	S03229	Works upgraded	1 additional Formula "A" O/Fs with Storm Retention (which might also act as PS E/O) to reflect WOC application.	1
Total Number of additional overflows since AIR14 due to WWTW being upgraded				**32**

Table N - Additional overflows within WWTW due to incorrect designation in AIR14

Name of Works	CAR ID	Status in AIR15	Changes in Overflows for AIR15 from Process Info	Additional O/Fs Since AIR14
Ballynahinch (Down)	S00311	Wrongly designated O/Fs changed for AIR15	1 additional Formula "A" O/Fs with Storm Retention (which also acts as PS E/O) to reflect new WOC application.	1
Spamount	S03221	Wrongly designated O/Fs changed for AIR15	1 additional Formula “A” O/F & 1 No FFT O/F with Storm Retention to reflect new WOC application.	2
Totals Number of additional overflows within WWTW due to incorrect designation in AIR14				**3**

Table O – Summary of additional overflows within WWTW since AIR14

Total Number of additional overflows since AIR14 due to works being upgraded	32
Totals Number of additional overflows within WWTWs due to incorrect designation in AIR14	3
Combined Total: of Additional overflows within WWTWs since AIR14	**35**

For AIR15, 3 overflows have been withdrawn (see Table K) and 3 additional overflows (see Table N) due to incorrect designation in AIR14. This equates to no overall change to the number of overflows for AIR15 due to incorrect designation in AIR14.

Table P – Summary of Overflow type within WWTW

Overflow Type	AIR14 Overflows from WWTW	AIR14 Overflows listed for comparison purposes with AIR13	AIR15 Overflows from WWTW	AIR15 Overflows listed for comparison purposes with AIR14	Difference between AIR14 & AIR15
Formula "A" O/Fs only	165	188	168	195	7
Formula "A" O/Fs (which also act as PS E/O)	17		18		
Formula "A" O/Fs with Storm (which also act as PS E/O)	6		9		
FFT O/Fs only	109	311	101	328	17
FFT O/Fs (which also act as PS E/O)	17		17		
FFT O/Fs with Storm Retention	175		200		
FFT O/Fs with Storm Retention (which also act as PS E/O	10		10		
3 DWF	18	18	15	15	-3
Additional Overflows-storm	6	116	6	111	-5
Additional Overflows-other structures	6		6		
Additional Overflows-pumping station E/O	104		99		
Total No of WWTWs Overflows	**633**	**633**	**649**	**649**	**16**

Since AIR14 the Asset Performance Team has continued to review their WWTW overflow summary information from Water Order Consent (WOC) applications.

This provides further refinement and greater confidence in the designation of overflow type. Therefore for the purpose of these lines APT has not endeavored to use AIC data due to the on-going AIC process of subscribing WOC information across onto GIS.

Hence the **value for line 17a** i.e. 'Number of intermittent discharges excluding CSOs' (i.e. number of WwPS overflows in Sew. System 1102 and the total number of overflows within WWTWs of 649) = **1751**.

Comparison between AIR14 & AIR15 - Intermittent discharges excluding CSOs
The number of intermittent discharges excluding CSOs in AIR14 was 1732. This was made up of 633 WWTW overflows + 1099 WWPS overflows.

In comparison the number of intermittent discharges excluding CSOs in AIR15 has increased by 19 No: intermittent discharges to 1751.

The net increase in the number of intermittent discharges excluding CSOs is due to a net increase of 16 WWTW overflows and a net increase of 3 WWPS overflows since AIR14. This is mainly due to works being upgraded and the roll out of the Rural Wastewater Investment Plan (RWwIP), which has resulted in numerous small works now having an overflow facility.

The **value for line 17b** i.e. 'Number of CSOs' (i.e. the number of CSOs in the Sew. System) = **802**.

Comparison between AIR14 & AIR15 – CSOs in the Sewerage System

The number of CSOs in the sewerage system is 820 and has remained unchanged since AIR14 i.e. (820 in AIR14 - 820 in AIR15). The final reported number is 802, 844 minus 42 Dual, Duplicates and Bifurcation assets which are not reported upon.

This static number for CSOs in the sewerage network is due to on-going improvements in NI Water's data capturing process. The improvements being made to the process will offer a significant improvement in data quality in the future.

Lines 18, 19, 20, 21 and 22 - Drainage Area Plans

1. Background

NI Water had a programme of Drainage Area Studies which commenced in 1995. The programme related to those drainage areas with residential population greater than one thousand and included 109 drainage areas. The status of the 109 networks within the programme is summarised in the schedule below.

Each Drainage Area Study has used the full investigation procedure set out in the Sewerage Rehabilitation Manual, 4th Edition (WRc), including a CCTV survey targeted at surveying all critical sewers within the network.

More recently, networks with less than 5000 population have been subject to a scoping-study which seeks to identify the needs within the network, and allows a decision to be made as to whether a full DAS is justified.

It has been NI Water practice to review each Study on a 5-year cycle and, if necessary, to commission an update of the Study. A number of updates of older studies have been completed and others have commenced.

2. Current studies

Following a two-year hiatus, procurement of drainage area studies recommenced in early 2013 and eight network studies were initiated:

- Newtownbreda
- Whitehouse
- Carrickfergus
- Larne
- Ballyclare
- Cushendall
- Dungiven
- Ballykelly.

These have achieved completion of the first stage - Model Build and Verification – of a study, but not the second stage – Needs and Options. However the AIR 15 value of 58 for completed DASs differs from the AIR14 value of 71. This change is the result of an AIR15 method change.

For AIR15 only Category A - DAS completed since 2003 is being reported i.e. 58. In the previous AIR14 return Category B - Catchments subject to completed Scoping Studies (n=13) were included, yielding a total of 71. The reason for their exclusion in AIR15 is that the Catchment Scoping Studies do not include a model build and only form a high level drainage area needs assessment.

3. Specification

A review of NI Water's DAS specification by an external consultant is nearing completion. It is intended that a greater emphasis will be placed upon the WRc Sewer Risk Management approach.

4. PC 15

To date, the principal driver for DAPs in Northern Ireland has been the need to develop UID solutions. The PC15 capital plan includes very limited funding for additional UID projects. There is therefore a risk that DAPs produced at present will not achieve funding for implementation and will therefore inform the PC21 business plan.

DRAINAGE AREA STUDY PROGRAMME
STATUS AT APRIL 2015

CATEGORY A – Drainage Area Studies Completed Since 2003

Initial DAS	Catchment	Domestic population	DAP date
	Magheralin	2163	Jul-05
	Tandragee	5512	Jun-05
	Waringstown	5388	Jun-05
	Draperstown	2256	Jun-06
	Maghera	4492	Jun-06
	Moneymore	1833	Jun-06
	Greyabbey	1079	Feb-06
	Kircubbin	1347	Feb-06
	Portaferry	2870	Feb-06
	Ballyhalbert	1511	Aug-06
	Ballywalter	2197	Aug-06
	Cloughey	1194	Aug-06
	Portavogie	2624	Aug-06
	Castledawson	792	Nov-06
	Magherafelt	10,952	Nov-06
	Portglenone	2819	Oct-06
	Castlewellan	3570	Oct-06
	Dromore	6084	Nov-06
	Maghaberry	2163	Nov-06
	Donaghadee*	6470	Mar-06
	Millisle*	2331	Mar-06
	Whitehead	3862	Mar-06
	Newcastle	9577	Dec-05
	Annalong	2430	Jun-06
	Dundrum	1936	Jul-06
	Kilkeel	6807	Jul-06
	Downpatrick	11,974	Sep-05
	Ardglass	1874	Oct-06
	Upper Falls*	27683	Apr-09
	Bushmills*	2015	Apr-09
	Portballintrae*	1785	Apr-09
	Ballyrickard (Newtownards)	39165	Nov-08

	REVISITED DAS		
	Catchment	**Domestic population**	**DAP date**
	East Belfast*	100,000	Feb-10
	Greencastle*	8500	Apr-10
	Lisburn	40,769	Oct-09
	Ballymoney (Glenstall)	12894	Oct-04
	Seahill*	2831	Apr-06
	Dunmurry	35,856	Nov-03
	Hillsborough	3284	Aug-03
	Ballyclare	14,612	Jul-04
	Coleraine*	22,730	Nov-06
	Moira	4342	Apr-03
	Lurgan*	26512	Apr-03
	Rathfriland	2724	Nov-03
	Bessbrook*	3000	Feb-04
	Richhill	2927	Feb-04
	Limavady	13,869	Sep-03
	Strabane	15,463	Sep-03
	Londonderry	75529	Nov-06
	Carrickfergus	28,170	Aug-03
	Randalstown*	5734	Mar-08
	Antrim*	31983	Mar-08
	Ballycastle	10,592	Jun-05
	Portadown*	30,154	Nov-06
	Craigavon*	16,281	Nov-06
	Armagh	17,568	Apr-09
	Warrenpoint*	6000	Apr-09
	Bangor*	59813	Oct-10
CATEGORY A POPULATION		**770892**	

Category B - Catchments Subject to Completed Scoping Studies

	Catchment	**Domestic population**	
	Annahilt	1550	
	Saintfield	3852	
	Crossgar*	1892	
	Ballykelly	2091	
	Dungiven	3624	
	Eglinton (Donnybrewer)	4130	
	Greysteel	1977	
	Ballygowan	3029	
	Killyleagh*	3276	
	Fintona	1858	
	Fivemiletown	1569	
	Irvinestown	2240	

	Catchment	Domestic population	
	Lisnaskea	4029	
CATEGORY B POPULATION		**34634**	

CATEGORY C - DAS STAGE 1 COMPLETE

Initial DAS	Catchment	Domestic population	
	Coalisland	6576	
	Gilford	2028	
	Markethill	2276	
	Castlederg	3561	
	Newbuildings*	4500	
	Newtownstewart	1748	
	Sion Mills	3118	
	Castlerock	1883	
	Bellaghy	1261	
	Garvagh	2159	
	Kilrea	1785	
	Ballycarry	1280	
	Ballystrudder	1026	
	Crossmaglen	2235	
	Dungannon	15,486	
	Keady	3339	
	Glenavy	1434	
	Ballynahinch	6052	
	Newtownbreda**	31,785	
	Ballykelly**	3662	
	Dungiven**	4744	
	Cushendall**	4006	
	REVISITED DAS		
	Ballymena	43,620	
	Omagh	22,784	
	Cookstown	12,724	
	Whitehouse	66,885	
	Larne	21749	
	Carrickfergus	28170	
	Ballyclare	14612	

CATEGORY D – DAS YET TO COMMENCE

	Catchment	Domestic population	

CATEGORY E - DASs Requiring a Revisit

	Catchment	Domestic population	
	Crumlin*	4260	
	Holywood*	12000	
	Whitehouse	66,885	
	Belfast*	239,457	
	Greenisland	8275	

Domestic population extracted from Asset Performance "Master List of AIR 12" spreadsheet for NI Water WWTW, except those asterisked. Catchments marked * are those which are conveyed to a common treatment centre: populations for these have been extracted from NIAMP 2 (2002). Catchments marked

The above domestic pe has been updated where possible from the 'Master List of AIR12' spreadsheet.

Please note the following colour codes:

- Blue – pe has been updated according to AIR12 residential pe
- Green – Indicates that a WWTWs is no longer present at that location and the pe has not been updated
- Red – Indicates a PPP catchment and pe has not been updated

Lines 23 – 24a Sewage treatment compliance measures

Introduction

The Northern Ireland Environment Agency (NIEA) issues Water Order Consents (WOC) which set out legally binding conditions under which discharges to the aquatic environment are permitted. NI Water has in the order of 1500 WOC's covering all Waste Water Treatment Works (WWTW), Water Treatment Works and sewerage systems.

NIEA assesses compliance on a calendar year basis, against WOC and UWWTR standards to give the "official" compliance figure. However, to inform Management of progress on achieving Key Performance Indicators (KPI's) and address any potential problems, monthly reports are produced. In 2014 the KPI's related to wastewater treatment performance were:

- The percentage of WWTW serving more than 250 Population Equivalent (pe) compliant with the WOC and Urban Wastewater Treatment Regulations (UWWTR).
- The percentage PE served by compliant WWTW

Changes carried forward for AIR 15

1. For AIR 15 data the base for the WWTW in service aligns with the compliance figures of the KPI outturn and NIEA compliance assessment, which reports on all works in service at the start of the calendar year.
2. The pe data used to populate this table are the pe derived by the Asset Management Section (Performance Team – Above Ground) for the AIR 13 Return. These same pe were also used to calculate the number of audit samples required per site for the 2014 reporting year and agreed with (NIEA).

3. Only WWTW serving greater than 250PE with numeric standards are included. No qualifying works were excluded from the assessment, with all regulatory samples having been sampled and analysed for the regulatory parameters.
4. The list of WWTW for AIR 15 contains a number of works which have crossed sampling thresholds. Table 1, which indicates the sampling frequencies associated with WWTW pe, is provided below.

Table 1 – Sampling Frequency Table

Pe	Sampling Frequency
<250 pe	0
250 – 4,999 pe	12
5,000 – 49,999 pe	24
>50,000 pe	48

If the pe of a WWTW causes a difference in sampling frequency, NIEA require evidence to justify the change. Evidence is required in the form of results of a flow and load survey or daily inlet sample results for a period of preferably one year but no less than six months. Table 2 indicates the WWTW affected by sampling frequency threshold changes and is provided below.

Table 2 – Sampling Frequency Threshold Changes

Works Name	Pe used in AIR14	Pe Supplied by Asset Management	Threshold Being Crossed
Ballymena	113,825	80,361	100,000
Coalisland	12095	9929	10,000
Dunmurry	53,605	45,798	50,000
Dromore (Tyrone)	2032	1917	2,000

The 2012 sample scheduling pe data, which was agreed with NIEA in November 2011, has been applied to the works in Table 2, in the absence of flow and load data.

5. Only NI Water operated WWTW are included in assessment.

How the compliance is measured

Line 23 – Percentage of WWTW discharges compliant with numeric consents

The WOC specifies the number of samples to be taken per year and the parameters which have to be determined. A WWTW may fail if the required numbers of samples are not taken or the full range of parameter's are not determined.

Compliance for each WWTW was assessed on a parameter basis over a calendar year using the Look-Up Tables (LUT) of the Urban Waste Water Treatment Regulations (NI) 1995. This statistically derived methodology permits a certain number of exceedances, based on the number of samples taken, for each parameter included in the WOC e.g. where 24 samples are taken, three exceedances of each parameter are permitted. When this number of exceedances is surpassed, see Table 3, a WWTW is deemed to fail.

Table 3 – Permitted Exceedances

No of Samples	Permitted Exceedances
4-7	1
8-16	2
17-28	3
29-40	4
41-53	5

A number of WWTW have an additional clause in the consent known as an Upper Tier Limit (UTL) on the sanitary parameters of Biological Oxygen Demand (BOD, Suspended Solids (SS) and Ammonia (NH_4). One exceedance of this standard will lead to the WWTW failing for the year.

The WOC standards are contained in the Laboratory Information Management System (LIMS) and the audit sample results are automatically assessed against the standard. LIMS generates a standard report listing all WWTW with numeric standards and indicating the number of exceedances and whether the works has passed or failed.

A small number of WWTW have nutrient standards, nitrogen and/or phosphorus, although these are assessed on an annual average. While LIMS calculates a running average, which is displayed in the report referred to previously, it does not have the facility to compare this against a standard. This requires that the average is compared manually on an ongoing basis with the WOC standard.

Exceedances can be discounted from compliance assessment should NI Water be able to demonstrate to NIEA that, at the time of the exceedance, a works was not under normal operating conditions. The definitions of abnormal operating conditions are given in Appendix 1 but NIEA may permit discounts under other conditions e.g. skewing of performance through too many samples being lifted in a short period caused by the rescheduling of samples. Should a sample be discounted it must be replaced by another sample taken on the same day of the week. A replacement sample when entered on LIMS will register automatically on the compliance report.

NIEA can also issue interim time banded standards during capital upgrades of a WWTW. This is a more relaxed standard applicable for a specified period over which construction work may disrupt the normal treatment processes. When this time banded standard is entered in LIMS it is taken account in the production of the compliance report.

At monthly intervals (for the KPI, Board and CSDD/MT) and at the end of the calendar year, the number of WWTW which have passed their numeric WOC was calculated as a percentage of the total number of works to determine the compliance with the target.

Line 23 Calculations – Taken from AIR 15 Calculation Spreadsheet

No. of NI Water Only WWTW's = 230
No. of failing NI Water Only works = 18
No. of passing NI Water Only works = 212

212/230 x 100 = 92.17%
Reported to one decimal place = **92.2%**

Line 24 – Percentage of Total pe Served by WWTW's Compliant with Numeric Consents (Upper Tier Fails Included)

The PE served by compliant WWTW was calculated as a percentage of the PE served by the total number of WWTW. As referred to above it should be noted that Upper Tier Limits (UTL) were applied in determining this compliance. The figure reported is based on the total population.

Line 24 Calculations – Taken from AIR 15 Calculation Spreadsheet

PE of failing NI Water Only works = 64218
Total PE of NI Water Only works = 1808510
PE of passing NI Water Only works = 1744292

1744292 / 1808510 x 100 = 96.45
Reported to one decimal place = **96.5%**

Line 24a – Percentage of total PE served by WwTWs compliant with numeric consents (Upper tier fails excluded)

The PE served by compliant WWTW was calculated as a percentage of the PE served by the total number of WWTW. As referred to above it should be noted that Upper Tier Limits (UTL) were not applied in determining this compliance. The figure reported is based on the total population.

Line 24a Calculations – Taken from AIR 15 Calculation Spreadsheet

Pe of failing NI Water Only works (Excl UT) = 33374
Total PE of NI Water Only works = 1808510
PE of passing NI Water Only works = 1775136

1775136 / 1808510 x 100 = 98.15
Reported to one decimal place = **98.2%**

The data reported in this table was new for AIR14. As more information is developed in future AIR reporting cycles, further commentary can be developed on emerging trends for these measures.

Line 25 - Delivery of improvements to nominated UIDs as part of a defined programme of work

NI Water has established the process for the identification, monitoring and review of UIDs. This included linking CAR and FD identifiers, developing CPMR to hold all relevant UID information and introducing review steps for all potential UIDs identified. In addition, NIEA have full visibility of the programme and sign off individual outputs within overall schemes: consequently, UIDs are claimed on a rolling basis rather than waiting for overall scheme completion.

The PC13 Monitoring Plan indicated a target of 84 UID improvements for the 2-year period. 17 of these PC13 FD nominated outputs were delivered between 01 April 2014 and 31 March 2015. As 11 PC13 FD nominated outputs were delivered between 01 April 2013 and 31 March 2014, 28 were delivered in total during the actual PC13 period. UID244 Winters Lane CSO was delivered in March 2013 which brings the total PC13 FD nominated outputs delivered by 31 March 2015 to 29. It is important to note however that NI Water delivered an additional 17 UIDs in 2013/14 and an additional 22 in 2014/15, producing an overall total of 68 by the end of the PC13 period.

Confidence grades

NI Water has maintained improvements in the reporting process and the cross checking process for this line which were initially implemented for the AIR14 submission. The confidence grades for this line were determined using the reporting guidance and were assessed as A2 – based on sound, time specific data captured relevant to each individual UID.

UIDs Delivered during the second year of PC13 – AIR15 Period

Catchment	UID Address	FD Reference	Project ID	Comments	Operational Date
New Holland WWTW	Maralin Avenue CSO 02	UID070	KT403	New WWPS at Drumbeg Drive able to pump forward 519l/s. Provision of 1500cu.m of storage, a new Emergency overflow with 6mm screens at new WWPS also a standby generator on site.	18/08/2014
North Down WWTW	Lukes Point SPS 11	UID189	KS875	Increased storage and replacement of 2 screw pumps.	27/08/2014
New Holland WWTW	Waterside 2 CSO 07	UID066	KT391	Upgrade CSO chamber and install 6mm screens	12/03/2015
New Holland WWTW	Hilden PS CSO 13B	UID067	KT391	Upgrade CSO chamber and install 6mm screens	30/03/2015
New Holland WWTW	Waterside 1 CSO 01	UID221	KT391	Upgrade CSO chamber and install 6mm screens	12/03/2015
New Holland WWTW	Linenhall Street CSO 03	UID222	KT391	Pipe Upsizing	30/03/2015
New Holland WWTW	Sprucefield WwPS Screen CSO 20	UID225	KT391	Upgrade CSO chamber and install 6mm screens	30/03/2015
New Holland WWTW	Ballynahinch Road 2 CSO 27	UID228	KT391	Install Weir	18/03/2015
Kinnegar WWTW	Jacksons Road CSO 52	UID219	KR480	Closure of CSO	06/10/2014
Armagh WWTW	Drumcairn SPS Scheme 3	UID007	KF330	6mm screens on CSO	30/03/2015
Armagh WWTW	Gillis Lane CSO	UID176	KF330	Closure of CSO	30/03/2015
North Down WWTW	Somerset Avenue CSO 11	UID018	KS879	This CSO discharge will go to the new storm tank by the route of the interceptor sewer.	27/08/2014
North Down WWTW	Bridge Street CSO 13	UID019	KS879	This CSO discharge will go to the new storm tank by the route of the interceptor sewer.	27/08/2014
North Down WWTW	Quay Street CSO 14	UID020	KS879	This CSO discharge will go to the new storm tank by the route of the interceptor sewer.	27/08/2014
North Down WWTW	Tennyson CSO 10	UID021	KS879	This CSO discharge will go to the new storm tank by the route of the interceptor sewer.	27/08/2014
North Down WWTW	Queens Parade CSO 12	UID022	KS879	This CSO discharge will go to the new storm tank by the route of the interceptor sewer.	27/08/2014
Carrickfergus WWTW	Carrickfergus CSO	UID272	KR501	New CSO with 6mm screen.	19/03/2015

Line 26 – Delivery of improvements to WwTW through nominated schemes as part of a defined programme of work

18 WwTW nominated outputs were delivered between 01 April 2014 and 31 March 2015. Only 16 have been claimed in Table 16: Waringsford WwTW was delivered through Sub-Programme 17 (RWwIP) but as the upgrade increase the site to over 250 pe, was stated as a separate nominated output, while Annacloy, part of the Kilmore scheme was a PC15 site which was delivered in PC13.

The PC13 target was 38 WwTWs. 19 were delivered by 31 March 2014 (including Forkhill and Mullaghbane WwTWs delivered early in 2012/13). Consequently, 35 of the PC13 nominated outputs were delivered during PC13 and 37 in total.

Confidence grades

NI Water has maintained improvements to the reporting process and the cross checking process for this line which were implemented during the AIR14 submission. The confidence grade for this line was determined using the reporting guidance and was assessed as A2.

WwTWs Delivered during the second year of PC13 – AIR14 Period

Project Name	Project Code	Beneficial Use Date	Comments
Ardglass	KS225	20/03/2015	
Ballymartin	KS389	31/03/2015	
Stoneyford WwTW	KT126	28/11/2014	
Kilmore WwTW	KS905	10/03/2015	Scheme included two WwTW, Kilmore and Annacloy. Annacloy was originally a PC15 output: as such, only one WwTW will be included in Table 16.
Ards South (Ballycranbeg)	KS887	31/03/2015	
Tempo WwTW	KP672	06/01/2015	
Lisnarrick WwTW	KP668	01/12/2014	
Dromore (Tyrone) WwTW	KN640	20/03/2015	
Donaghmore WwTW	KN599	19/03/2015	
Ballymagorry WwTW	KN596	30/03/2015	
Feeny WwTW Replacement of Secondary Treatment	KL496	29/07/2014	
Nixon's Corner WwTW Londonderry	KL487	30/01/2015	
Magheramason WwTW	KL424	01/12/2014	
Drunsurn WwTW	KL394	16/12/2014	
Gortnahey WwTW	KL386	24/07/2014	
Aghagallon WwTW	KG202	31/03/2015	
Waringsford		30/09/2014	Originally part of Rural Wastewater Investment Programme but stated as a nominated output as it was upgraded to greater than 250 PE. Not included in Table 16 as it was not a PC13 nominated output.

Line 27 - Investment in improvements to small wastewater treatment works as part of the Rural Wastewater Investment Programme

The PC13 target has been achieved. The total delivery for this programme in PC13 is 25 works with 7 delivered in year 1, and 18 in year 2. Those details of the actual works and year delivered are listed below.

CAR Site Reference	Project title	Year claimed
S00284	Thorney Glen	2013/14
S00902	Rathlin Island	2013/14
S03111	Fincarn	2013/14
S0145	Procklis	2013/14
S01179	Capecastle	2013/14
S01456	Mountfield	2013/14
S02999	Arney	2013/14
S02136	Katesbridge	2014/15
S03143	Kileen	2014/15
S02267	Dorsey	2014/15
S03085	Dromore	2014/15
S01146	Culcrow	2014/15
S02268	Drumilly	2014/15
S01169	Priestland	2014/15
S03030	Bolea	2014/15
S00321	Legacurry	2014/15
S02150	McCandless Terrace	2014/15
S01167	Moneydig	2014/15
S02586	Lisnadill	2014/15
S02692	Bankside Shinn	2014/15
S03947	Abbacy Road	2014/15
S02712	Mountain View	2014/15
S01632	Noones Vale	2014/15
S02858	Edencrannon	2014/15
S03148	Kilskeery	2014/15

The confidence grades for this line were determined using the reporting guidance and were assessed as A2, based on the evidence within the methodology and the visibility of programme as defined within the tracker spreadsheet which detailed financial expenditure on the Rural Wastewater Investment Programme sites.

APPENDIX 1
NORMAL OPERATING CONDITIONS UNUSUAL SITUATIONS AND NORMAL LOCAL CLIMATIC CONDITIONS

1. THE REGULATIONS' TERMINOLOGY

1.1 The term "normal operating conditions" is used in paragraph 4(b) of Part II of Schedule 3; the phrase "unusual situations such as those due to heavy rain" is used in paragraph 5 of Part II of Schedule 3; "normal local climatic conditions" are referred to in regulation 4(4)(a).

2. INTERPRETATION

2.1 In order to assist in interpreting the weather conditions that might be considered to be abnormal or unusual; a definition of exceptional weather conditions is given below, together with an example of what might be considered to be other kinds of abnormal or unusual operating conditions.

2.2 The abnormal conditions set out below include capital works construction and periods of industrial action. Both are being considered by the Regulatory Committee, along with other possible exceptions suggested by other Member States. An amendment to this guidance note will be issued in the light of any guidance from the Regulatory Committee.

2.3 Definitions

2.3.1 For the purpose of this *registered standard / consent* the works shall be deemed to have been under 'normal operating conditions' except during a period when the following apply:

a. 'Unusual weather conditions' which shall include the following:

i) low ambient temperature as evidenced by effluent temperature of 5°C or less, or by the freezing of mechanical equipment in the works;

ii) significant snow deposits;

iii) fluvial flooding;

iv) weather conditions causing unforeseen loss of power to the works which could not be ameliorated by the reasonable provision and operation of standby generator facilities.

b. A reduction in the level of treatment due to periods of industrial action or acts of vandalism that could not have been reasonably prevented.

c. When the Regulator has issued a variation of the registered standard for reasons such as construction of capital works.

NORTHERN IRELAND WATER LIMITED - ANNNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17a SEWERAGE EXPLANATORY FACTORS
SEWERAGE SUB - AREA EXPLANATORY FACTORS (TOTAL)

	DESCRIPTION	UNITS	DP	1 AREA 1	CG	2 AREA 2	CG	3 AREA 3	CG	4 AREA 4	CG	5 AREA 5	CG	6 AREA 6	CG	7 AREA 7	CG	8 AREA 8	CG	9 Total	CG
A	**SEWERAGE SUB AREAS GENERAL**																				
	Area name:-																				
1	Annual average resident connected population	000	1																	1494.3	C3
2	Annual average non-resident population	000	1																	27.4	C3
3	Volume of sewage collected (daily average)	Ml/d	1																	329.9	B3
4	Total connected properties	nr	0																	670825	A2
5	Area of Sewerage District	km^2	0																	13520	B2
B	**SEWERAGE DATA**																				
6	Total length of sewer	km	0																	15582	B3
C	**Costs**																				
7	Sewerage: Direct Costs	£000	0																	14906	
8	Sewerage: Power Costs	£000	0																	4749	
9	Sewerage: Service Charges	£000	0																	154	
10	Sewerage: General & Support Expenditure	£000	0																	7262	
11	Sewerage: Functional Expenditure	£000	0																	22169	

Table 17a Sewerage Explanatory Factors- Sewerage Sub-Area Explanatory Factors

Line 1 - Annual average resident connected population (Total)
The guidance for Table 17a includes the following text:

"Companies must check that the following data are consistent. Companies must explain in the commentary any reasons why this data is not consistent.

- *Annual average resident connected population in table 17a (line 1, 'total' column) plus annual average non-resident population in table 17a (line 2, 'total' column) should equal the total connected population in table 13 (line 10)"*

NI Water has not calculated the Total Annual Average Resident Connected Population independently of the Total Annual Average Non-Resident Population and the Total Connected Population. Instead, the Company has used the consistency check *(above)* to derive the Total Annual Average Resident Connected Population.

- According to AIR15: Table 13: Line 10, the total connected population (comprising resident and non-resident population) is 1,521.776 x 10^3
- According to AIR15: Table 17a: Line 2, the annual average non-resident population is 27.442 x 10^3
- By calculation, the annual average resident connected population = 1,521.776 x 10^3 - 27.442 x 10^3 = **1,494.334 x 10^3**

Significant year on year changes in reported figures including an explanation of any factors that may have influenced the figure

AIR13	CG	AIR14	CG	AIR15	CG
1,483.2 x 10^3	C3	1,486.9 x 10^3	C3	**1,494.3 x 10^3**	**C3**

The estimated annual average resident sewerage connected population has increased from 1,486.9 x 10^3 in AIR14 to 1,494.3 x 10^3 in AIR15, an increase of 7.4 x 10^3 (0.50%).

Confidence Grade
There are two figures associated with the calculation of AIR15: Table 17a: Line 1: Column 9. The first figure is derived from AIR15: Table 13: Line 10 and was allocated a confidence grade of B3. The second figure is derived from AIR15: Table 17a: Line 2: Column 9 and was allocated a confidence grade of C3. Since the lower of the two confidence grades is C3, a confidence grade of **C3** has been allocated to Table 17a: Line 1: Column 9.

Line 2 - Column 9 - Annual average non-resident population (Total)

AIR13	CG	AIR14	CG	AIR15	CG
28.8 x 10^3	C3	28.0 x 10^3	C3	**27.4 x 10^3**	**C3**

NI Water has included holiday and tourist population connected to the sewerage system, averaged over the year.

NI Water has not included any allowance for daily commuters or day visitors.

Changes in Methodology
Tourism publications have undergone a number of changes in recent years. As well as changes to the consistency and scope of publications, the tourism estimates have been subject to a series of revisions due to improvements to the survey / analysis methodology

or the inclusion of data returned after the publication date. Each year, NI Water reviews all of the latest publications and adopts a methodology which best utilises the information available at the time.

Last year, NI Water stated in its commentary that a new NISRA publication *'Northern Ireland Tourism Statistics October 2012 to September 2013'* had replaced the earlier style of tourism report and as such, the Company had revised its methodology in line with the availability of more reliable information on overseas plus RoI tourists combined. The Company also explained that when the AIR13 outturn was recalculated using the AIR14 methodology, the outturn changed from 28,792 to 27,005, a change of 6.2%.

This year, the Company has used the NISRA publication *'Northern Ireland Annual Tourism Statistics 2014 Additional Tables'* which lists the estimated annual number of non-resident visitor nights and has removed the need to calculate this figure using available data for the first nine months only. For the purposes of calculating the non-resident winter visitor nights, the methodology is still based on the assumption that there is a relationship between the occupancy of hotels and guesthouses/B&Bs and visitor nights. As year-on-year differences in the outturns for this measure continue to be small and the estimates involved make trends difficult to identify, the Company has recalculated the AIR14 outturn using data now available for overseas plus RoI tourists combined for the entire twelve-month period of 2013 and confirms a change from 28.0 x 10^3 to 27.2 x 10^3 (3.1%).

Statement detailing estimation method used including date of data on which estimate is made

The following statistic was derived from Table 1.4 of the NISRA publication *'Northern Ireland Annual Tourism Statistics 2014 Additional Tables'*, available as a download from the DETNI website.

	Date Range	Overall Nights
All Visitors (exc. NI Residents)	Jan 14 – Dec 14	10,016,208

Estimated non-resident visitor nights from Jan 14 to Dec 14 = 10,016,208.

The annual average non-resident population was estimated as follows:
10,016,208 / 365 nights = **27,442**

In obtaining the estimated number of visitor nights, NI Water has avoided the assumption specified in the guidance of *'a two-thirds occupancy rate of estimated bed-spaces available for non-residents for four months in the year'*.

Significant year on year changes in reported figures including an explanation of any factors that may have influenced the figures

Based on the re-worked calculation for AIR13, the estimated annual average non-resident sewerage population has increased from 27.2 x 10^3 in AIR14 to 27.4 x 10^3 in AIR15, an increase of 0.3 x 10^3 (1.1%).

The NISRA publication 'Northern Ireland Annual Tourism Statistics 2014' points towards growth in local tourism.

Confidence Grade

The annual average non-resident population is an estimate based on several sources of information:

1. The NISRA publication '*Hotel, Guesthouse, Bed and Breakfast and Guest Accommodation Occupancy Statistics 2010-2014*' provides only an estimate of the monthly numbers of bed-spaces sold, based on the extrapolation of data for a representative sample group of establishments.
2. The NISRA publication *'Northern Ireland Annual Tourism Statistics 2014 Additional Tables'* provides only an estimate of the annual number of non-resident visitor nights, based on sample surveys. The estimate therefore has an associated degree of sampling error, determined both by the sample design and by the sample size. Sample surveys include the Northern Ireland Passenger Survey (NIPS) conducted by the Northern Ireland Statistics and Research Agency (NISRA), the Survey of Overseas Travellers (SOT) conducted on behalf of Fáilte Ireland and the Household Travel Survey (HTS) conducted by Central Statistics Office (CSO).

NI Water has assigned a confidence grade of **C3** to account for known deficiencies in the reliability and accuracy of the reported figure.

Line 3 – Volume of Sewerage Collected

This figure has been copied from AIR15 Table 14 Line 7 – Volume Waste Water Returned.

Line 4 – Total Connected Properties

Northern Ireland Water's (NIW) property data is provided via a data download of the property database tables held within the RapidXtra billing system. The data is then manipulated within Microsoft SQL to produce the Rapid Property Summary Report.

In AIR12 we introduced an automated tool to populate the figure for Table 17a Line 4. (Rapid Property Summary as the input) Our methodology for AIR15 has remained consistent. Further details are in Appendix A.

The difference between the AIR14 and the AIR15 figures is circa 890. This can be explained by the following;

1. New Connections during the 2014/15 reporting year.

2. Added as a result of a customer contact. E.g. septic tank empty request, no water complaint, blocked sewer etc. Within this category there are 2 scenarios:
   a. The adding of properties NI Water allegedly didn't know about (A requirement has been written into the new CBC Contract, the Rapid/POINTER quarterly reconciliation will close the gap on such properties)
   b. he adding of duplicates as the customers address couldn't be found on Rapid. For example, Rapid may hold the site number but when the customer contacts NI Water they quote the verified postal address which is different, therefore creating a duplicate. Another scenario - The street name may have changed from the time of New Connection to that of customer contact – street names can change in the early stages of site development. (A requirement has been written into the new CBC Contract to check weekly (against POINTER) for address updates to New Connection properties).

3. Removal of duplicates/properties as a result of data quality initiatives

4. The increased number of properties within the no water/well water category (further detail provided within the Table 7 Commentary)

In addition to the above, numerous other data quality requirements have been built into the new CBC Contract. They cover all aspects of the property life cycle (creating, amending and demolishing properties) and data degradation will be monitored/measured throughout. The work on data validation has commenced, with some new validations 'live' as of mid-May. Identifying data primacy is key to ensuring the validations are effective.

Line 5 - Area of sewerage district

The figure provided equates to the total land mass of Northern Ireland excluding major bodies of inland water. The same LPS product has been used to determine the Area of Sewerage District. There remains only one sewerage district for all of Northern Ireland. The confidence grade of the data will remain the same as the previous year.

Line 6 - Total length of sewer

There has been no change to the structure of the data reported on this year from the previous years that would directly affect the totals provided. The same queries have been used to extract the data from the Corporate Asset Register and have been checked to ensure that they are still relevant. The confidence grade of the data will remain the same as the previous year. Any new data will have adhered to the NIW Code of Practice for the submission of asset data ensuring that data quality levels have been maintained throughout the year.

Lines 7-11 - Costs

The overall approach and allocation process for Table 17a has not changed since AIR08. There are still some limitations and it has not been possible to fully complete the Information Returns for 2015. Work is on-going, through the Cost to Serve Project. Cost to Serve is not fully implemented and therefore could not be used for AIR15. The figures populated in Column 9 have been taken from Table 22 (NIW only).

Line 7 – Direct Costs

It is not yet possible to split the costs into areas, however, work is on-going to agree this. A total figure has been supplied in Column 9 which agrees to the direct sewerage costs in Table 22, Line 9 Column 1. See Table 22 commentary. Direct Costs have decreased by circa £1.3M from AIR14.

This is driven by a £0.9M decrease in Power, due to reduced energy tariffs, a £0.7M reduction in Hired & Contracted Services due to increased capitalisation of networks activities, netted off by a £0.2M increase in employment costs and a £0.1M increase in chemicals.

Line 8 – Power Costs

The figure for Power costs agrees to Table 22, Line 2 Column 1. See Table 22 commentary. Power costs have decreased by £0.9M from AIR14 due to a reduction in the energy tariff.

Line 9 – Services Charges

The figure for Service Charges agrees to Table 22, Line 7 Column 1. The cost for Sewerage is £0.2M which remains consistent with AIR14.

Line 10 – General & Support

The figure for General & Support costs agrees to Table 22, Line 10 Column 1. See Table 22 commentary and methodology. The cost for Sewerage is £7.2M which remains consistent with AIR14.

Line 11 – Functional Expenditure

This is a calculated cell and is the total of Line 7 and Line 10. This figure agrees to Table 22, Line 11 Column 1. The costs in this line have decreased by circa £1.4M from AIR14. This is primarily driven by decreases in Power Hired and Contracted costs as outlined above.

Annex A

Line 4 - Total Connected Properties

Total properties connected for sewerage services (including voids) at year end.

This figure is taken from the AIR15 Rapid Property Summary, as attached.

Rapid Property Summary - Mar 2015.

Total Gross Sewerage Properties	End March 2015
Household - Unmeasured	599194
Household - Sewerage Only	6
Household – Measured - Not Charged (test meters)	288
Household - Measured	29980
Household – Site Meters	544
Household - Unmeasured - Not Charged	18
Non-Household - Unmeasured	14579
Non-Household – Sewerage only	19
Non-Household - Measured	26197
Total	**670825**

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17b SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - LARGE WORKS INFORMATION DATABASE (NIW Only)

	DESCRIPTION	UNITS	DP	TOTAL	1	CG	2	CG	3	CG	4	CG	5	CG	6	CG	7	CG	8	CG	9	CG	10	CG	11	CG	12	CG	13	CG	14	CG
1	Works Name				Belfast		Culmore		Ballymena		Whitehouse		North Coast		Newry		Lisburn		Antrim		Dunmurry		Omagh		Dungannon		Newtownbreda		Carrickfergus		Enniskillen	
A	**WORKS SIZE**																															
2	Population equivalent of total load received	000	0	1,193	365	C5	131	C5	78	C5	88	C5	77	C5	60	C5	70	C5	66	C5	46	C5	36	C5	77	C5	40	C5	33	C5	26	C5
B	**EFFLUENT CONSENT STANDARD**																															
3	Suspended solids consent	mg/l	0		50	A1	50	A1	25	A1	50	A1	50	A1	50	A1	15	A1	20	A1	25	A1	50	A1	40	A1	30	A1	50	A1	30	A1
4	BOD5 consent	mg/l	0		30	A1	30	A1	15	A1	30	A1	30	A1	30	A1	10	A1	10	A1	10	A1	30	A1	25	A1	15	A1	30	A1	20	A1
5	COD consent	mg/l	0		125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1
6	Ammonia consent	mg/l	1				10.0	A1	3.0	A1							2.5	A1	15.0	A1	2.5	A1	10.0	A1	7.0	A1	5.0	A1			10.0	A1
7	Phosphates consent	mg/l	1						1.0	A1							2.0	A1	1.0	A1	2.0	A1	2.0	A1	1.0	A1	2.0	A1			1.0	A1
C	**TREATMENT CATEGORY**																															
8	Classification of Treatment Works				SAS		SAS		TA2		SAS		SAS		SAS		TA1		TA2		TA1		TA2		TA2		TA2		SAS		TA2	
D	**COSTS**																															
9	Direct cost	£000	0	6,164	1,597		485		427		379		297		462		441		327		269		262		416		287		265		251	
10	Power costs	£000	0	3,833	1,228		269		286		185		166		262		216		189		176		149		286		161		139		120	
11	Service Charges	£000	0	182	15		17		9		11		14		18		17		15		4		11		17		11		13		10	
12	General and support expenditure	£000	0	2,377	131		180		135		161		213		217		248		149		60		171		188		170		202		152	
13	Functional expenditure	£000	0	8,541	1,728		664		562		540		510		679		689		476		329		433		604		456		467		404	
14	Estimated terminal pumping costs	£000	0	0	0		0		0		0		0		0		0		0		0		0		0		0		0		0	
15	Estimated sludge costs	£000	0	0	0		0		0		0		0		0		0		0		0		0		0		0		0		0	

Table 17b – Sewerage Explanatory Factors (NIW only)
Sewage Treatment Works – Large Works Information Database

Lines 1 - 8 - Works Size, Effluent Consent Standards and Category
NI Water has a number of sites which fall into the Band 6 category and are to be reported within this submission.

The WWTW to be reported on for AIR15 are:

LIMS Code	LIMS Name	Confirmed PE	AIR15 Band	BOD WOC	BOD UWWTR
S34AG	Carrickfergus WWTW	32902	Band 6	30	25
S34AK	Belfast WWTW	365177	Band 6	30	25
S37AB	Dunmurry WWTW	46325	Band 6	10	25
S37AA	Lisburn (New Holland) WWTW	70447	Band 6	10	25
S34AD	Newtownbreda WWTW	40019	Band 6	15	25
S34AE	Whitehouse WWTW	88079	Band 6	30	25
S15AO	Antrim (Milltown) WWTW	66228	Band 6	10	25
S13BE	Ballymena (Tullaghgarley) WWTW	78442	Band 6	15	25
S25AC	Dungannon (Moygashel) WWTW	76976	Band 6	25	25
S27AC	Newry WWTW	59655	Band 6	30	25
S45IB	Omagh WWTW	36173	Band 6	30	25
S43CI	Culmore WWTW	130648	Band 6	30	25
S47HK	Enniskillen	25978	Band 6	20	25
S17HF	North Coast WWTW	77432	Band 6	30	25

No assumptions have been made for the return.

All consents reported have both BOD and SS as part of the consent as issued by Northern Ireland Environment Agency (NIEA).

There are no consents for ammonia by itself without accompanying BOD and SS consents.

The consent conditions as issued by NIEA are based on 95%ile limits.

For the purposes of reporting the WOC BOD limit has been reported for all WWTW's. It should be noted that in some instances, the UWWTR BOD limit of 25mg/l is lower, as identified in the table above.

For reference, the works in Band 5 which have the potential to be included in subsequent returns are listed here:

LIMS Code	LIMS Name	Confirmed pe	AIR 14 Band
S36AA	Downpatrick	17539	Band 5
S36BB	Kilkeel	12738	Band 5
S36BO	Newcastle	16236	Band 5
S15BS	Larne	23531	Band 5
S17ED	Ballycastle	11174	Band 5
S15AA	Ballyclare	16576	Band 5
S17BP	Ballymoney	21561	Band 5

LIMS Code	LIMS Name	Confirmed pe	AIR 14 Band
S13CH	Cookstown	19672	Band 5
S13GK	Magherafelt	16046	Band 5
S27AA	Banbridge	22411	Band 5
S25AB	Coalisland	10131	Band 5
S27AN	Tandragee	14185	Band 5
S27AD	Warrenpoint	14894	Band 5
S43GI	Limavady	17029	Band 5
S45JA	Strabane	20129	Band 5

Lines 9-15 - Costs

This table was populated in the same way as AIR14. The costs are a further breakdown by location of the Band 6 expenditure detailed in Table 17f NIW Line 6 is populated with the information available for the year ended 31st March 2015. The Population Equivalent (pe) information used to complete this table was received from Asset Management on 19th May 2015. No PPP costs are included in this table.

Line 9 – Direct Costs

Direct costs include power 521x, contractors 531x, other contractors 532x, materials 541x, chemicals 548x, cost reallocations 611x (this includes direct labours costs and & overhead charges) and service charges.

In AIR15 there are 14 works that fall into Band 6 whereas in AIR14 there were 13. Enniskillen was included in Band 5 in AIR14 whereas in AIR15 it is included in Band 6.

Direct costs have increased by circa £0.5M from AIR14. This is mainly driven by the inclusion of Enniskillen to Band 6, £0.3M and an increase in Hired and Contracted costs due to additional degritting of aeration lanes.

Line 10 – Power Costs

Through the Cost to Serve project all power costs are allocated to individual sites and a report was taken from EAM to get the full year power cost per WWTW's. The power costs have increased in AIR15 by £0.1M, due to the movement of Enniskillen to Band 6.

Belfast WWTW's was treated separately as there is one electricity meter at Duncrue Street which includes the costs for the Belfast WWTW's and the two Incinerators operated by PPP. The power team supplied an estimated 48:52 split between the Belfast WWTWs and the Incinerators (based on an estimated KWhr usage and a number of sub-meters) which has been used to calculate the amount relating to Sewage Treatment at Belfast WWTW's. The split in AIR14 was 45:55 for the Belfast and Incinerators. No costs for the Incinerator have been included in this table in AIR15.

Line 11 – Service Charges

Service Charges in AIR15 remain consistent with AIR14.

Line 12 – General & Support

The total general & support expenditure was taken from Table 22 Line 10 Column 2 (see Table 22 methodology and commentary). This figure was allocated across all the WWTWs in this table based on Cost Reallocations 611X (this includes direct labours costs & overhead charges). This figure has remained consistent with AIR14. See commentary on Table 22 for further breakdown and explanation.

Line 13 – Functional Expenditure
This is a calculated line and is the total of Line 9 and Line 12. The total in the workings agrees to Table 22 (NIW Only) Column 2 Line 11. Costs have increased since AIR14 by £0.5M mainly due to the inclusion of Enniskillen works in Band 6 and for the reasons given above.

Line 14 – Terminal Pumping Costs
This information was populated in the same way as AIR14. No Power costs for Terminal Pumping Stations have been included in the table.

Line 15 – Sludge Costs
Sludge treatment is a separate activity in the accounts and the direct costs are not included in Line 9 to Line 13.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17c SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - NUMBERS (NIW Only)

				1	2	3	4	5	6	7	8	9	10	11
	DESCRIPTION	UNITS	DP	TREATMENT CATEGORY										TOTAL
				PRIMARY	SECONDARY		TERTIARY				SEA OUTFALLS			
					ACTIVATED	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED	
A	**SMALL WORKS**													
1	Number of STWs in size band 1	nr	0	236	25	513	0	0	1	2	0	0	6	783
2	Number of STWs in size band 2	nr	0	0	5	31	3	2	7	7	1	1	0	57
3	Number of STWs in size band 3	nr	0	1	13	47	7	12	14	7	1	0	1	103
4	Number of STWs in size band 4	nr	0	1	16	8	1	15	3	5	3	1	0	53
5	Number of STWs in size band 5	nr	0	0	3	0	2	8	0	1	1	0	0	15
B	**LARGE WORKS**													
6	Number of STWs in size band 6	nr	0	0	6	0	2	6	0	0	0	0	0	14
7	Total numbers of STWs	nr	0	238	68	599	15	43	25	22	6	2	7	1025
C	**SMALL WORKS WITH AMMONIA CONSENTS**													
8	Number of small STWs with NH_3 consent (5 - 10mg	nr	0	45										
9	Number of small STWs with NH_3 consent (< = 5mg/	nr	0	59										

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17c SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - NUMBERS (PPP Only)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11
				TREATMENT CATEGORY										
					SECONDARY		TERTIARY				SEA OUTFALLS			
				PRIMARY	ACTIVATED	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED	TOTAL
A	**SMALL WORKS**													
1	Number of STWs in size band 1	nr	0											0
2	Number of STWs in size band 2	nr	0											0
3	Number of STWs in size band 3	nr	0											0
4	Number of STWs in size band 4	nr	0				1							1
5	Number of STWs in size band 5	nr	0					1						1
B	**LARGE WORKS**													
6	Number of STWs in size band 6	nr	0		1			3						4
7	Total numbers of STWs	nr	0	0	1	0	1	4	0	0	0	0	0	6
C	**SMALL WORKS WITH AMMONIA CONSENTS**													
8	Number of small STWs with NH3 consent (5 - 10mg	nr	0	0										
9	Number of small STWs with NH3 consent (< = 5mg	nr	0	2										

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17c SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - NUMBERS (Total)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11
				TREATMENT CATEGORY										TOTAL
				PRIMARY	SECONDARY		TERTIARY				SEA OUTFALLS			
					ACTIVATED	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED	
A	**SMALL WORKS**													
1	Number of STWs in size band 1	nr	0	236	25	513	0	0	1	2	0	0	6	783
2	Number of STWs in size band 2	nr	0	0	5	31	3	2	7	7	1	1	0	57
3	Number of STWs in size band 3	nr	0	1	13	47	7	12	14	7	1	0	1	103
4	Number of STWs in size band 4	nr	0	1	16	8	2	15	3	5	3	1	0	54
5	Number of STWs in size band 5	nr	0	0	3	0	2	9	0	1	1	0	0	16
B	**LARGE WORKS**													
6	Number of STWs in size band 6	nr	0	0	7	0	2	9	0	0	0	0	0	18
7	Total numbers of STWs	nr	0	238	69	599	16	47	25	22	6	2	7	1031
C	**SMALL WORKS WITH AMMONIA CONSENTS**													
8	Number of small STWs with NH3 consent (5 - 10mg	nr	0	45										
9	Number of small STWs with NH3 consent (< = 5mg	nr	0	61										

Table 17c- Sewage Treatment Works Numbers

NIW only

It should be noted that the banding of the WWTWs is based on the latest Population Equivalent minus tourist pe (i.e. hotels and caravan parks only as information does not exist on proportion of pe to commuters). Since AIR14, pe for 94 WWTWs have been updated.

Changes regarding WWTWs from the AIR14 period are as follows:

- 3 WWTWs have been rationalised and pumped away/gravity away to larger WWTWs in last financial year
- 2 WWTWs have been commissioned
- 2 previously private WWTWs have been adopted by NIW.

This is a net increase of 1 WWTWs from AIR14 reporting.

We have assumed the Bands to be:

Small works

a. Size band 1<=15kg BOD5/day (population equivalent: 0 - 250)
b. Size band 2>15 but <=30kg BOD5/day (population equivalent: 251 - 500)
c. Size band 3>30 but <=120kg BOD5/day (population equivalent: 501 – 2,000)
d. Size band 4>120 but <= 600kg BOD5/day (population equivalent: 2,001 –10,000)
e. Size band 5>600 but <= 1500kg BOD5/day (population equivalent: 10,001 – 25,000)

It should be noted that the bandings of b, c, d and e above are slightly different from those listed in the NIAUR Chapter 17c guidance, to ensure no duplication of works which may have 250, 500, 2000 or 10,000 pe.

Large works

f. Size band 6> 1500kg BOD5/day (population equivalent: > 25,000)

The total number of WWTWs in Table 17c line 7 is the total of all works in this table i.e. 1,025 including the screened outfalls (2 No.) and the unscreened outfalls (7 No). The number of WWTWs in Table 15 line 8 is 1,015 as the screened and unscreened outfalls are not to be included in the total for this line.

The AIR13 NIAUR Chapter 17c guidance also requests the following cross checks to be carried out, which have been completed.

- Number of large WWTWs in each treatment category in table 17c (line 6, columns 1-10) should equal corresponding total number of large WWTWs reported in table 17b (line 8).

  It should be noted that the AIR14 pe, used to populate tables 17c and 17d, were forwarded to others within the organisation that are responsible for the population of tables 17b and 17f, which should ensure consistency of reporting.

The Reporters report for AIR09 recommended that the difference in the total population used to calculate the size bands and the population given in Table 13 Line 10 should be investigated and consideration given to a harmonised approach. The table below shows the AIR15 comparison between the two figures.

Total Residential Population used to Calculate Table 17c for AIR15	1,249,000
Total Population connected to the sewerage system based on Table 13 Line 10	1,521,776
Difference	**272,776**

As can be seen there is a difference of 272,776. However the Table 17c information does not include the residential population within PPP catchments. An exercise was carried out during February 2012 to establish a Theoretical Desktop pe for the PPP sites and these have been updated with the latest AIR15 Trade pe. The non-residential aspect of these pe have been subtracted from the overall AIR15 PPP pe (based on the reported AIR15 PPP BOD Load and divided by 60g/head/day).

Name of WWTWs	Equivalent Population (From PPP Section)	Non-Residential pe held against PPP Catchments (Includes Non-Residential, Trade, Schools, Large Water Consumers)	Residential Population (Based on PPP Equivalent Population)
North Down WWTW	63043	9487	53556
Armagh WWTW	17052	8058	8994
Richhill WWTW	2605	239	2366
Newtownards (Ballyrickard)	40865	11118	29747
Ballynacor WWTW	119977	59873	60104
Kinnegar	77545	31487	46058
Total	**321087**	**120262**	**200825**

As can be seen the residential population for the PPP sites is now approximated to be 200,825. If this is added to the 17c figure (1,249,000) then the total is 1,449,825 which is 71,951 less than the figure held in Table 13. However the figure included Table 13 Line 10 includes both residential population and tourist population. Therefore if the AIR15 tourist population for both NIW sites (33,595 pe) and PPP sites (1,964) are included this gives a revised figure of 1,485,384 which is 36,392 pe less than the figure held in Table 13, approximately 2.4% less.

It should be noted that the Residential pe for most of the NIW WWTWs has been derived from GIS pointer data and that inaccuracies do exist in that some residential properties are labelled as commercial or industrial, and visa-versa.

The AIR11 Reporter's Report stated '***The Asset Performance team collates all information into the central spreadsheet from which Band Size for each WwTW can be assessed and any changes highlighted. The size banding of each works is added manually. For AIR12, we consider this process should be automated, for the avoidance of any misrepresentation.'*** Hence NIW has incorporated a means within the central spreadsheet to automate this process.

The Reporters report for AIR09 recommended that a consistent approach for population figures used in the 17 series tables should be adopted. The population figures used in

Table 17c are the same as in 17d. These figures have also been supplied to the other parts of the business which populate Tables 17a, 17b & 17f etc., so population figures should be consistent.

With reference to the WWTWs in Size Band 1:

- the number of WWTWs with a pe less than or equal 100 (excluding tourist pe) is 698, and
- the number of WWTWs with a pe greater than 100 but less than or equal to 250 (excluding tourist pe) is 85.

The table below highlights the changes in band sizes from AIR14 to AIR15

Name of Works	CAR ID	AIR14 Band Sizes	AIR15 Band Sizes	Comment
Annacloy (WWTW)	S00292	Band 2	Band 3	Kilmore WWTW now pumps into Annacloy WWTWs
Ballymartin (Retention Tank)	S00770	Band 3	Band 1	PE amended as majority of catchment pumped away to Kilkeel
Drumsough Road Randalstown ST	S05750		Band 1	This is a newly consented WWTWs for NIW
Enniskillen	S03218	Band 5	Band 6	Pe updated with AIR15 Trade Information
Hillsborough (WWTW)	S00323	Band 4		Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Kilmore (Down)	S00285	Band 2		Kilmore WWTW now pumps into Annacloy WWTWs
Spelga Dam ST	S02676		Band 1	This is a newly consented WWTWs for NIW
Stoneyford (WWTW)	S00328	Band 3		Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705		Band 3	This is a new WWTWs for AIR15
Stoneyford Beeches Two WwTW	S05705		Band 1	This is a new WWTWs for AIR15

It should be highlighted that for AIR14 NIW re-assessed the treatment categories for a number of sites. This followed a query from NIW with OFWAT as to the definition of what constitutes a tight consent. At this time it was confirmed that that a company is given a tight consent if it has a Suspended Solids consent of less than or equal to 30mg/l AND a BOD of less than or equal to 20mg/l. Also a company is given a tight consent if its ammonia consent is less than or equal to 5mg/l.

The AIR definition on treatment categories states that Tertiary A2 can be defined as *Works with a secondary activated sludge process whose treatment methods also include* ***nutrient control using physic-chemical and biological methods***. Likewise Tertiary B2 can be

defined as *Works with a secondary biological process whose treatment methods also include* ***nutrient control using physic-chemical and biological methods.***

NIW has historically oversized secondary assets to meet tight ammonia consents and it is now felt that this falls within the definition of Tertiary Treatment described above i.e. ***nutrient control using physic-chemical and biological methods.*** In total NIW re-designated the treatment category for 33 WWTWs based on this definition for AIR14. Changing 22 WWTWs from Sec Act to Ter A2 & 11 from Sec Bio to Ter B2 and the treatment categories for these sites remain unchanged for AIR15.

The table below highlights the changes in treatment category from AIR14 to AIR15.

Name of Works	CAR ID	AIR14 Treatment Category	AIR15 Treatment Category	Comment
Annacloy (WWTW)	S00292	Ter A1	Sec Bio	This WWTWs was upgraded for AIR15
Ardglass (WWTW)	S00268	Prim	Sec Act	This WWTWs, previously a Prim WWTWs, was upgraded for AIR15
Donaghmore (WWTW)	S02840	Ter B2	Sec Bio	This WWTWs was upgraded for AIR15
Dorsy	S02267	Sec Act	Sec Bio	This WWTWs was upgraded for AIR15
Dromore (Tyrone)	S03083	Sec Bio	Ter B1	This WWTWs was upgraded for AIR15
Drumsough Road Randalstown ST	S05750		Prim	This is a newly consented WWTWs for NIW
Hillsborough (WWTW)	S00323	Sec Bio	Pumpaway	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Killeen (Armagh)	S02294	Sec Act	Sec Bio	This WWTWs was upgraded for AIR15
Kilmore (Down)	S00285	Sec Act	Pumpaway	Kilmore WWTW now pumps into Annacloy WWTWs
Lisnarrick	S03170	Sec Act	Sec Bio	This WWTWs was upgraded for AIR15
Mountain View (Drumintee)	S02278	Prim	Sec Bio	This WWTWs was upgraded for AIR15
Spelga Dam ST	S02676		Prim	This is a newly consented WWTWs for NIW
Stoneyford (WWTW)	S00328	Ter A2	Pumpaway	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705		Ter B1	This is a new WWTWs for AIR15

Name of Works	CAR ID	AIR14 Treatment Category	AIR15 Treatment Category	Comment
Stoneyford Beeches Two WwTW	S05705		Sec Bio	This is a new WWTWs for AIR15

Difference between AIR13 and AIR14 for total in Table 17c (column 11, row 7)

Total Number of Works for AIR 14 -	**1,024**
Total Number of Works for AIR 15 -	**1,025**
Total Difference -	**1**

With reference to lines 8 and 9, data regarding the ammonia consents of the Small WWTWs was obtained from a spreadsheet of standards obtained from the Environmental Regulation Team.

Changes to lines 8 and 9 of this table, from AIR14 to present are summarised below:

Line	Nr AIR13	Nr AIR14	Difference	Comment
8	45	45	0	No Change
9	60	59	6	1 new sites – Stoneyford Beeches One 1 site removed – Hillsborough & Stoneyford

PPP

Lines 1-6

There are no changes to the PPP sewage works treatment categories.

Line 9

There are no changes to the PPP sewage works treatment categories.

There are no doubts about the classification of any of the PPP works. The data is consistent with the data provided on Table 15 Line 8 (PPP Only) table. Based on the calculated loads treated at the PPP sewage works in the AIR 15 Reporting period, there are no size band 1 PPP works on which to provide extra detail.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17d SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - LOADS (NIW Only)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11	
				TREATMENT CATEGORY										TOTAL	CG
				PRIMARY	SECONDARY		TERTIARY				SEA OUTFALLS				
					ACTIVATED SLUDGE	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED		
A	**SMALL WORKS**														
1	Load received by STWs in size band 1	kg BOD_5/day	0	137	160	1,405	0	0	7	25	0	0	47	1,781	C3
2	Load received by STWs in size band 2	kg BOD_5/day	0	0	121	677	61	34	161	163	248	69	0	1,534	C3
3	Load received by STWs in size band 3	kg BOD_5/day	0	91	1,020	2,552	422	816	889	455	42	0	55	6,341	C3
4	Load received by STWs in size band 4	kg BOD_5/day	0	350	4,029	1,459	130	4,159	447	1,279	778	208	0	12,840	C3
5	Load received by STWs in size band 5	kg BOD_5/day	0	0	2,866	0	1,660	9,072	0	963	670	0	0	15,231	C3
B	**LARGE WORKS**														
6	Load received by STWs in size band 6	kg BOD_5/day	0	0	45,234	0	7,006	19,429	0	0	0	0	0	71,669	C3
7	Total loads rec'd (daily average all size bands)	kg BOD_5/day	0	578	53,430	6,093	9,280	33,510	1,504	2,885	1,738	277	102	109,396	C3
C	**SMALL WORKS WITH AMMONIA CONSENTS**														
8	Load rec'd by small STW w. NH_3 consent (5 - 10mg	kg BOD_5/day	0	4,848											
9	Load rec'd by small STW w. NH_3 consents (< = 5mg	kg BOD_5/day	0	14,108											

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17d SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - LOADS (PPP Only)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11	
				TREATMENT CATEGORY										TOTAL	CG
				PRIMARY	SECONDARY		TERTIARY				SEA OUTFALLS				
					ACTIVATED SLUDGE	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED		
A	**SMALL WORKS**														
1	Load received by STWs in size band 1	kg BOD5/day	0												
2	Load received by STWs in size band 2	kg BOD5/day	0												
3	Load received by STWs in size band 3	kg BOD5/day	0												
4	Load received by STWs in size band 4	kg BOD5/day	0				156							156	B3
5	Load received by STWs in size band 5	kg BOD5/day	0					1,023						1,023	B3
B	**LARGE WORKS**														
6	Load received by STWs in size band 6	kg BOD5/day	0	0	4,653	0	0	13,434	0	0	0	0	0	18,087	B3
7	Total loads rec'd (daily average all size bands)	kg BOD5/day	0	0	4,653	0	156	14,457	0	0	0	0	0	19,266	B3
C	**SMALL WORKS WITH AMMONIA CONSENTS**														
8	Load rec'd by small STW w. NH3 consent (5 - 10mg	kg BOD5/day	0	0											
9	Load rec'd by small STW w. NH3 consents (< = 5m	kg BOD5/day	0	1,179											

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17d SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - LOADS (Total)

				1	2	3	4	5	6	7	8	9	10	11	
	DESCRIPTION	UNITS	DP	TREATMENT CATEGORY										TOTAL	CG
				PRIMARY	SECONDARY		TERTIARY				SEA OUTFALLS				
					ACTIVATED SLUDGE	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED		
A	SMALL WORKS														
1	Load received by STWs in size band 1	kg BOD5/day	0	137	160	1,405	0	0	7	25	0	0	47	1,781	C3
2	Load received by STWs in size band 2	kg BOD5/day	0	0	121	677	61	34	161	163	248	69	0	1,534	C3
3	Load received by STWs in size band 3	kg BOD5/day	0	91	1,020	2,552	422	816	889	455	42	0	55	6,341	C3
4	Load received by STWs in size band 4	kg BOD5/day	0	350	4,029	1,459	286	4,159	447	1,279	778	208	0	12,996	C3
5	Load received by STWs in size band 5	kg BOD5/day	0	0	2,866	0	1,660	10,095	0	963	670	0	0	16,254	C3
B	LARGE WORKS														
6	Load received by STWs in size band 6	kg BOD5/day	0	0	49,887	0	7,006	32,863	0	0	0	0	0	89,756	C3
7	Total loads rec'd (daily average all size bands)	kg BOD5/day	0	578	58,083	6,093	9,436	47,967	1,504	2,885	1,738	277	102	128,662	C3
C	SMALL WORKS WITH AMMONIA CONSENTS														
8	Load rec'd by small STW w. NH3 consent (5 - 10m	kg BOD5/day	0	4,848											
9	Load rec'd by small STW w. NH3 consents (< = 5m	kg BOD5/day	0	15,287											

Table 17d - Sewage Treatment Works Loads

NIW only

It should be noted that the banding of the WWTWs for this table is on the same basis as that used for Table 17c. It is based on the latest set of Population Equivalents minus the allowance for the tourist population. Since AIR14, pe for 94 WWTWs have been updated.

The allowance for the tourist population, which has been deducted for the purposes of band size determination, has been the proportion of pe allocated to hotels, and caravan and tent pitches only. No deduction has been made for commuters as such information has not been captured.

The loads reported in this table are the sums of the loads received by each WWTWs or outfall in each particular category, and hence include the proportion of PE allocated to hotels, and caravan and tent pitches. Hence the loads reported in this table include the non-resident population.

1,024 WWTWs were reported on in Table 17d for AIR14. Hence there has been an overall net increase of 1 in the number of WWTWs being reported from AIR14 to AIR15, which is summarised as follows:

- 3 WWTWs (Hillsborough, Kilmore (Down) & Stoneyford) were pumped to other works,
- 2 WWTWs (Stoneyford Beeches One & Stoneyford Beeches Two) have been commissioned,
- 2 previously private WWTWs (Drumsough Rd & Randalstown ST) have been adopted by NIW.

Trade effluent information was obtained from NIW's Trade Effluent Section, for each individual consented trader, which enabled easy conversion to pe. The COD: BOD conversion factor of 2:1 was not used as more accurate flow based information was available to the Trade Effluent Section.

The Water and Sewerage Services (NI) Order 2006 designated that the discharge from hospitals, nursing homes & clinics should no longer be considered as Trade Effluent, therefore for AIR15 these have been removed from the Trade Effluent Submission. For the majority of hospitals a certain % of hospital discharges has been included due to discharges from x-ray departments and bathing pools. The AIR11 Trade Information, for nursing homes and clinics, has been maintained for AIR15 in order to allow for this proportion of the influent entering the WWTWs. Similarly the pe for the hospitals has been factored up to 100% of their total discharge to give a more accurate figure of load discharging to the sewerage network.

In AIR13 it was reported that flow & load information was validated for Belfast and a figure of 365,000 pe was agreed. This figure has been updated for AIR15 with the latest trade information giving a new figure of 365,177 pe. However it should be noted that there are a number of projects currently been carried out for NIW that are investigating the pe discharging to Belfast and early indications would suggest the equivalent pe discharging to the WWTWs is much higher than currently stated. The two main projects involved are:

- Glenmachan Sewers Project, and
- Compliance with the Surface Water (Shellfish) Regs (NI) – Belfast Lough.

The outcomes of these projects are likely to influence the pe for Belfast for AIR16.

We have assumed the Bands to be:

Small works

a. size band 1 <= 15kg BOD5/day (population equivalent: 0 - 250)
b. size band 2 >15 but <= 30kg BOD5/day (population equivalent: 251 - 500)
c. size band 3 >30 but <= 120kg BOD5/day (population equivalent: 501 – 2,000)
d. size band 4 >120 but <= 600kg BOD5/day (population equivalent: 2,001 –10,000)
e. size band 5 >600 but <= 1500kg BOD5/day (population equivalent: 10,001 – 25,000)

Large works

f. size band 6 > 1500kg BOD5/day. (population equivalent: > 25,000)

It should be noted that the bandings of b, c, d and e above are slightly different from those listed in the NIAUR Chapter 17c guidance, to ensure no duplication of works which may have 250, 500, 2000 or 10,000 pe.

The total number of WWTWs in Table 17c line 7 is the total of all NIW only works in this table i.e. 1,025 including the screened outfalls (2 No.) and the unscreened outfalls (7 No.).

The Reporters Report on AIR09 recommended that NIW correct possible overestimation of total WWTW loads due to the inclusion of offices/commercial premises. The majority of the residential and non-residential element of pe used to calculate tables 17c and 17d was based on Pointer information from MapInfo.

However it should be noted that the non-residential element of Pointer is made up of both commercial and unknown properties. At this present time it is not known what proportion of the unknowns are actually residential and which are non-residential and therefore it has been decided to include both elements when calculating the pe for the band sizes.

It is difficult to estimate the proportion of load at a WWTW due to commuters, or the load which should be deducted from a particular WWTW due to population commuting out of the catchments, which that WWTW serves. Hence no allowance to WWTWs loads has been made either way for Table 17d.

The confidence grades of the data in lines 1 - 7 remain as C3 as stated in AIR14, as although the pe confidence grade is still C5, (due to the mainly theoretical derivation), there is greater confidence in the process categories for the WWTWs, which warrants the raising of grade from C5 to C3.

The AIR11 Reporter's report stated '***We suggest that NI Water consider comparing the results from the ongoing programme of flow and load surveys against the previous assumptions for each site to determine if there is a statistically significant difference which should be extrapolated into the larger population of WwTW sites.'***

There was some analysis on this within the AIR13 commentary however it was concluded that there was not a large enough sample to justify extrapolating the differences. Since AIR13 only one additional Flow & Load pe has been adopted and this was for Kilkeel WWTWs and therefore the sample is still not large enough to extrapolate.

The reporter also recommended in AIR11 that significant variances in load of WWTWs (i.e. greater than 15%) should be investigated. Below is a table detailing these sites and the reason for the change in pe. There are 14no. WWTWs included in the table.

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	Difference* *(-ve indicates AIR15 figure larger)	Comments
Abbacy Road	S03947	42	34	8	A population study was carried out for this site and reviewed and adopted for AIR15
Annacloy (WWTW)	S00292	492	889	-397	Kilmore WWTW now pumps into Annacloy WWTW
Ballymartin (Retention Tank)	S00770	637	24	613	PE amended as majority of catchment pumped away to Kilkeel
Carnduff (Retention Tank)	S01180	79	60	19	A population study was carried out for this site and reviewed and adopted for AIR15
Drumsough Road Randalstown ST	S05750	N/A	12		This is a newly consented WWTWs for NIW
Edencrannon (WWTW)	S02858	90	118	-28	A population study was carried out for this site and reviewed and adopted for AIR15
Hillsborough (WWTW)	S00323	4034	Pump away		Hillsborough WWTW now pumps into Lisburn (New Holland) WWTW
Killinchy (WWTW)	S00252	3363	4100	-737	PE updated with AIR15 Trade Information
Kilmore (Down)	S00285	397	Pump away		Kilmore WWTW now pumps into Annacloy WWTW
Moy (WWTW)	S02859	3696	3117	579	PE updated with AIR15 Trade Information
Spelga Dam ST	S02676	N/A	4		This is a newly consented WWTW for NIW
Stoneyford (WWTW)	S00328	695	Pump away		Stoneyford WWTW now pumps into Stoneyford Beeches WWTW

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	Difference* *(-ve indicates AIR15 figure larger)	Comments
Stoneyford Beeches One WwTW	S05705	Under Construction	695		This is a new WWTW for AIR15
Stoneyford Beeches Two WwTW	S05705	Under Construction	3		This is a new WWTW for AIR15

***(-ve indicates AIR15 figure larger)**

It should be highlighted that for AIR14 NIW re-assessed the treatment categories for a number of sites. This followed a query from NIW with OFWAT as to the definition of what constitutes a tight consent. At this time it was confirmed that that a company is given a tight consent if it has a Suspended Solids consent of less than or equal to 30mg/l AND a BOD of less than or equal to 20mg/l. Also a company is given a tight consent if its ammonia consent is less than or equal to 5mg/l.

The AIR definition on treatment categories states that Tertiary A2 can be defined as *Works with a secondary activated sludge process whose treatment methods also include* ***nutrient control using physic-chemical and biological methods***. Likewise Tertiary B2 can be defined as *Works with a secondary biological process whose treatment methods also include* ***nutrient control using physic-chemical and biological methods.***

NIW has historically oversized secondary assets to meet tight ammonia consents and it is now felt that this falls within the definition of Tertiary Treatment described above i.e. ***nutrient control using physic-chemical and biological methods.*** In total NIW re-designated the treatment category for 33 WWTWs based on this definition for AIR14. Changing 22 WWTWs from Sec Act to Ter A2 & 11 from Sec Bio to Ter B2 and the treatment categories for these sites remain unchanged for AIR15.

The total load of 109396.5 kg BOD/day from all NIW (only) WWTWs reconciles with the Total load entering sewerage system (BOD/year) of *39929.7 t BOD/year*, from Table 15 line 5.

The Total load receiving primary treatment in table 17d (line 7, column 1) of 577.7 kg BOD/day is consistent (allowing for rounding up/down and conversions) with total load receiving primary treatment in table 15 (line 3) of *210.9 t BOD/yr.*

The Total load receiving secondary and tertiary treatment in table 17d (line 7, sum of columns 2–7) i.e. 106701.8 kg BOD/day is consistent (allowing for rounding up/down and conversions) with total load receiving secondary treatment in table 15 (line 2) i.e. *38946.4 t BOD/yr*.

The Total load receiving preliminary treatment in table 17d (line 7, column 8) of 1738.1 kg BOD/day is consistent (allowing for rounding up/down and conversions) with total load receiving preliminary treatment in table 15 (line 4) (both include non-resident population) of *634.4 t BOD/yr.*

The table below depicts changes in PEs at WWTWs from AIR13 to AIR14.

The following table depicts how PE changes have occurred at WWTWs during the last financial year.

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	Difference*	AIR14 Band	AIR15 Band	Band Size Change
Abbacy Road	S03947	42	34	8	Band 1	Band 1	
Acton	S02111	75	74	1	Band 1	Band 1	
Annacloy (WWTW)	S00292	492	889	-397	Band 2	Band 3	Y
Annalong (WWTW)	S00300	3135	3475	-340	Band 4	Band 4	
Annsborough	S02687	5967	5876	91	Band 4	Band 4	
Antrim (WWTW)	S01422	65961	66228	-267	Band 6	Band 6	
Ardglass (WWTW)	S00268	2824	2584	240	Band 4	Band 4	
Ballycarry	S00267	2193	2116	77	Band 4	Band 4	
Ballyclare	S01467	16750	16576	174	Band 5	Band 5	
Ballyhornan Outfall	S04090	913	912	1	Band 3	Band 3	
Ballykelly (L/Derry)	S03016	3618	3662	-44	Band 4	Band 4	
Ballykinler (WWTW)	S00299	2260	2257	3	Band 4	Band 4	
Ballymartin (Retention Tank)	S00770	637	24	613	Band 3	Band 1	Y
Ballymena (WWTW)	S01456	74879	78442	-3563	Band 6	Band 6	
Ballynahinch (Down)	S00311	7943	8097	-154	Band 4	Band 4	
Ballywalter(Retention Tank)	S05189	2383	2223	160	Band 4	Band 4	
Ballywhiskin (Retention Tank)	S00827	1141	1149	-8	Band 2	Band 2	
Banbridge (WWTW)	S02102	22295	22411	-116	Band 5	Band 5	
Belfast (WWTW)	S00345	370779	365177	5602	Band 6	Band 6	
Bellany (WWTW)	S01137	118	113	5	Band 1	Band 1	
Belleek (Fermanagh)	S03024	1756	1755	1	Band 3	Band 3	
Bresagh	S00332	30	29	1	Band 1	Band 1	
Cappagh (WWTW)	S02857	130	131	-1	Band 1	Band 1	
Carnduff (Retention Tank)	S01180	79	60	19	Band 1	Band 1	
Carrickfergus (WWTW)	S00261	32042	32902	-860	Band 6	Band 6	
Carrowdore	S00236	1440	1434	6	Band 3	Band 3	
Castlederg (WWTW)	S03042	3931	3915	16	Band 4	Band 4	
Clady (Tyrone)	S04149	760	773	-13	Band 3	Band 3	
Cloughy (Retention Tank)	S00224	1451	1381	70	Band 3	Band 3	

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	Difference*	AIR14 Band	AIR15 Band	Band Size Change
Coalisland	S02828	10014	10131	-117	Band 5	Band 5	
Cookstown (WWTW)	S01582	19636	19672	-36	Band 5	Band 5	
Culmore (WWTW)	S03071	131679	130648	1031	Band 6	Band 6	
Curglasson	S01566	62	55	7	Band 1	Band 1	
Derryhale	S02570	1124	1134	-10	Band 3	Band 3	
Dervock (WWTW)	S01102	986	968	18	Band 3	Band 3	
Donaghmore (WWTW)	S02840	2042	2024	18	Band 4	Band 4	
Donemana	S03103	818	802	16	Band 3	Band 3	
Donnybrewer	S03080	5214	5372	-158	Band 4	Band 4	
Downpatrick (WWTW)	S00771	17284	17539	-255	Band 5	Band 5	
Draperstown	S01615	3263	3275	-12	Band 4	Band 4	
Dromara (WWTW)	S00316	1379	1378	1	Band 3	Band 3	
Dromore (Down)	S02127	7384	7365	19	Band 4	Band 4	
Drumsough Road Randalstown ST	S05750	N/A	12	-12		Band 1	Y
Dungannon	S02850	84836	76976	7860	Band 6	Band 6	
Dungiven	S03101	4743	4744	-1	Band 4	Band 4	
Dunmurry	S00346	46458	46325	133	Band 6	Band 6	
Edencrannon (WWTW)	S02858	90	118	-28	Band 1	Band 1	
Enniskillen	S03218	24977	25978	-1001	Band 5	Band 6	Y
Fivemiletown (WWTW)	S03113	2109	2128	-19	Band 4	Band 4	
Glenstall	S01109	21810	21561	249	Band 5	Band 5	
Greenisland (WWTW)	S00263	9627	9599	28	Band 4	Band 4	
Greyabbey (WWTW)	S00214	1036	1147	-111	Band 3	Band 3	
Greysteel (WWTW)	S03123	2196	2188	8	Band 4	Band 4	
Hillsborough (WWTW)	S00323	4034	Pump away	4034	Band 4		Y
Hilltown (WWTW)	S02701	2170	2025	145	Band 4	Band 4	
Irvinestown	S03137	2669	2674	-5	Band 4	Band 4	
Keady (Armagh)	S02553	4576	4563	13	Band 4	Band 4	
Kesh (WWTW)	S03140	2682	2678	4	Band 3	Band 3	
Kilkeel (WWTW)	S00313	12337	12738	-401	Band 5	Band 5	

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	Difference*	AIR14 Band	AIR15 Band	Band Size Change
Killinchy (WWTW)	S00252	3363	4100	-737	Band 4	Band 4	
Killygonlan (WWTW)	S02043	1303	1299	4	Band 3	Band 3	
Killyleagh (WWTW)	S00273	7228	7226	2	Band 4	Band 4	
Kilmore (Down)	S00285	397	Pump away	397	Band 2		Y
Kilrea	S01156	2578	2510	68	Band 4	Band 4	
Larne (WWTW)	S02044	23211	23531	-320	Band 5	Band 5	
Limavady (WWTW)	S03162	16211	17029	-818	Band 5	Band 5	
Lisburn (New Holland)	S00329	66017	70447	-4430	Band 6	Band 6	
Lisnaskea (WWTW)	S03171	6391	6380	11	Band 4	Band 4	
Maghera (L/Derry)	S01629	6586	6576	10	Band 4	Band 4	
Magherafelt (WWTW)	S01621	16090	16046	44	Band 5	Band 5	
Markethill	S02591	2529	2510	19	Band 4	Band 4	
Mayboy	S01163	192	165	27	Band 1	Band 1	
Moneymore (WWTW)	S01589	2829	2826	3	Band 4	Band 4	
Moneyneany (WWTW)	S01631	329	289	40	Band 2	Band 2	
Moneyreagh (WWTW)	S00337	2386	2383	3	Band 4	Band 4	
Moy (WWTW)	S02859	3696	3117	579	Band 4	Band 4	
Mullaghglass (Antrim)	S00325	184	183	1	Band 1	Band 1	
Newcastle (WWTW)	S00303	16271	16236	35	Band 5	Band 5	
Newry (WWTW)	S02685	59406	59655	-249	Band 6	Band 6	
Newtownbreda (WWTW)	S00342	40003	40019	-16	Band 6	Band 6	
Newtownstewart (WWTW)	S03202	2168	2169	-1	Band 4	Band 4	
Noones Vale	S01632	53	56	-3	Band 1	Band 1	
North Coast (WWTWs)	S04150	77653	77432	221	Band 6	Band 6	
Omagh (WWTW)	S03999	39927	36173	3754	Band 6	Band 6	
Roughfort (WWTW)	S01470	442	436	6	Band 2	Band 2	
Seahill (WWTW)	S00774	6796	6795	1	Band 4	Band 4	
Spelga Dam ST	S02676	N/A	4	-4		Band 1	Y
Stoneyford (WWTW)	S00328	695	Pump away	695	Band 3		Y

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	Difference*	AIR14 Band	AIR15 Band	Band Size Change
Stoneyford Beeches One WwTW	S05705	Under Construction	695	-695		Band 3	Y
Stoneyford Beeches Two WwTW	S05705	Under Construction	3	-3		Band 1	Y
Strabane	S03223	20691	20129	562	Band 5	Band 5	
Tandragee	S02174	15527	14185	1342	Band 5	Band 5	
Warrenpoint (WWTW)	S02720	14723	14894	-171	Band 5	Band 5	
Whitehouse	S00265	87914	88079	-165	Band 6	Band 6	
			Total	12955			

***(-ve indicates AIR15 figure larger)**

The change in PE equates to a decrease in load of 777.3kg BOD/day (i.e. 12955 x 0.06 for 60g/hd/day) from AIR14 to AIR15

Difference between AIR15 and AIR14 for the total load entering WWTWs as shown in Table 17d - column 11, row 7

Total Load Received at WWTWs for AIR14 -	**110173.8**
Total Load Received at WWTWs for AIR 15 -	**109396.5**
Total Difference -	**777.3**

The interpretation of the treatment categories is as below:-

AIR15 Treatment Category	**Highest Form of Treatment at WWTWs**	**Treatment Category Abbreviation**
Primary	Primary Settlement Septic Tank	Prim
Secondary Activated Sludge (Whether followed by Final settlement or not)	Oxidation Ditch Extended Aeration Activated Sludge SAF BAF MBR SBR	Sec Act
Secondary Biological (Whether followed by Final settlement or not)	Biological Filter RBC RBC Package Bioclere Package ; Reed Bed (If used as secondary treatment stage)	Sec Bio
Tertiary A1	Secondary Activated Sludge processes whose treatment methods also include prolonged settlement in conventional lagoons or raft lagoons, irrigation over grassland, constructed wetlands, root zone treatment (where used as a tertiary stage), drum filters, microstrainers, slow sand filters, tertiary nitrifying filters, Lockertex screens, gravel clarifiers, wedge wire clarifiers or Clariflow installed in humus tanks, where used as a tertiary treatment stage;	Ter A1
Tertiary A2	Secondary Activated Sludge processes whose methods also include phosphorous reduction, rapid-gravity sand filters, moving bed filters, pressure filters, nutrient control using physio-chemical and biological methods, disinfection, hard COD and colour removal and MBRs where used as a tertiary treatment stage;	Ter A2

AIR15 Treatment Category	Highest Form of Treatment at WWTWs	Treatment Category Abbreviation
Tertiary B1	Secondary Biological processes whose treatment methods also include prolonged settlement in conventional lagoons or raft lagoons, irrigation over grassland, constructed wetlands, root zone treatment (where used as a tertiary stage), drum filters, microstrainers, slow sand filters, tertiary nitrifying filters, Lockertex screens, gravel clarifiers, wedge wire clarifiers or Clariflow installed in humus tanks, where used as a tertiary treatment stage;	Ter B1
Tertiary B2	Secondary Biological processes whose methods also include phosphorous reduction, rapid-gravity sand filters, moving bed filters, pressure filters, nutrient control using physio-chemical and biological methods, disinfection, hard COD and colour removal and MBRs where used as a tertiary treatment stage;	Ter B2
Sea Outfalls	Where a load is discharged to sea having received only Preliminary treatment (including Grit removal and screenings conditioning) or simple screening (Bar Screen) or no screening or no treatment (Includes Retention Tanks)	Sea Out Prel Sea Out Screen Sea Out Unscreen

Changes in Line 8 - Small works with ammonia consent (between 5 and 10) from AIR14 to AIR15.

Name of Works	CAR ID	AIR13 Actual PE	AIR14 Actual PE	PE Change *	Comments
Derryhale	S02570	1124	1134	-10	PE updated with AIR15 Trade Information
Donaghmore (WWTW)	S02840	2042	2024	18	PE updated with AIR15 Trade Information
Draperstown	S01615	3263	3275	-12	PE updated with AIR15 Trade Information
Enniskillen	S03218	24977	25978	24977	This WwTW is now a Band 6 WWTWs
Hilltown (WWTW)	S02701	2170	2025	145	PE updated with AIR15 Trade Information
Kesh (WWTW)	S03140	2682	2678	4	PE updated with AIR15 Trade Information
Lisnaskea (WWTW)	S03171	6391	6380	11	PE updated with AIR15 Trade Information
Maghera (L/Derry)	S01629	6586	6576	10	PE updated with AIR15 Trade Information
Markethill	S02591	2529	2510	19	PE updated with AIR15 Trade Information

Name of Works	CAR ID	AIR13 Actual PE	AIR14 Actual PE	PE Change *	Comments
Moss-side (WWTW)	S01194	509	509	-509	This WWTWs is an addition to the WWTWs list with Ammonia between 5-10
Newtownstewart (WWTW)	S03202	2168	2169	-1	PE updated with AIR15 Trade Information
Strabane	S03223	20691	20129	562	PE updated with AIR15 Trade Information
			Total	25214	

***(-ve Indicates AIR15 PE Higher)**

The change in PE equates to an increase in load of 1512.84kg/d (i.e. 25214 x 0.06 for 60g/hd/day) from AIR14 to AIR15, for line 8.

Total Load rec'd by small WWTWs with NH3 consents (5-10mg/l) for AIR14-	**6361.2**
Total Load rec'd by small WWTWs with NH3 consents (5-10mg/l) for AIR15-	**4848.3**
Total Difference –	**1512.9**

Changes in Line 9 - Small works with ammonia consent (between 0 and 5) from AIR14 to AIR15.

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	PE Change*	Comments
Annsborough	S02687	5967	5876	91	PE updated with AIR15 Trade Information
Ballyclare	S01467	16750	16576	174	PE updated with AIR15 Trade Information
Ballynahinch (Down)	S00311	7943	8097	-154	PE updated with AIR15 Trade Information
Ballyvoy	S01177	288	288	-288	This WWTWs is an addition to the WWTWs list with Ammonia <=5
Banbridge (WWTW)	S02102	22295	22411	-116	PE updated with AIR15 Trade Information
Carrowdore	S00236	1440	1434	6	A population study was carried out for this site and reviewed and adopted for AIR15
Coalisland	S02828	10014	10131	-117	PE updated with AIR15 Trade Information
Cookstown (WWTW)	S01582	19636	19672	-36	PE updated with AIR15 Trade Information
Downpatrick (WWTW)	S00771	17284	17539	-255	PE updated with AIR15 Trade Information

Name of Works	CAR ID	AIR14 Actual PE	AIR15 Actual PE	PE Change*	Comments
Dromara (WWTW)	S00316	1379	1378	1	PE updated with AIR15 Trade Information
Dromore (Down)	S02127	7384	7365	19	PE updated with AIR15 Trade Information
Dungiven	S03101	4743	4744	-1	PE updated with AIR15 Trade Information
Gulladuff (WWTW)	S01619	517	517	517	This WWTW has been removed from the WWTW list with Ammonia between <=5
Hillsborough (WWTW)	S00323	4034	Pump away	4034	Hillsborough WWTW now pumps into Lisburn (New Holland) WWTWs
Irvinestown	S03137	2669	2674	-5	PE updated with AIR15 Trade Information
Keady (Armagh)	S02553	4576	4563	13	PE updated with AIR15 Trade Information
Killinchy (WWTW)	S00252	3363	4100	-737	PE updated with AIR15 Trade Information
Limavady (WWTW)	S03162	16211	17029	-818	PE updated with AIR15 Trade Information
Magherafelt (WWTW)	S01621	16090	16046	44	PE updated with AIR15 Trade Information
Moneymore (WWTW)	S01589	2829	2826	3	PE updated with AIR15 Trade Information
Moneyreagh (WWTW)	S00337	2386	2383	3	PE updated with AIR15 Trade Information
Stoneyford (WWTW)	S00328	695	Pump away	695	Stoneyford WWTW now pumps into Stoneyford Beeches WWTWs
Stoneyford Beeches One WwTW	S05705	Under Construction	695	-695	This WWTWs is an addition to the WWTWs list with Ammonia <=5
Tandragee	S02174	15527	14185	1342	PE updated with AIR15 Trade Information
			Total	3720	

***(-ve Indicates AIR15 PE Higher)**

The change in PE equates to an increase in load of 223.2 kg/d (i.e. 3720 x 0.06 for 60g/hd/day) from AIR14 to AIR15 for line 9.

Total Load rec'd by small WWTWs with NH3 consents (0-5mg/l) for AIR14-	**14332**
Total Load rec'd by small WWTWs with NH3 consents (0-5mg/l) for AIR15-	**14108**
Total Difference -	**224**

PPP

Lines 1 – 7

The variation in load data from AIR 14 is solely due to the variation in influent loads received by the same PPP works from the NI Water catchments over the AIR 15 Period.

Line 9

The variation in load data is due to the variation in influent loads received by the Richhill STW and Armagh STW over the AIR 15 Period.

There have been no changes to the number of PPP operated STW's in each Treatment Category.

There are currently the following Capital Works Project schemes to close or divert flows arriving to PPP operated works and in PPP catchments;

- KG203 Portadown DAP (Storage at Seagoe WWPS)
- KR568 Loughries PS Newtownards *(Diversion into Ballyrickard)*
- KS958 Bangor DAP Wks Pkge 5 Clandeboye Stream UIDs Phase II
- KF330 Armagh DAP Stage 1
- KR480 Holywood Sewer Network Improvements
- KI 515 DG5 Minor Works – Bullays Hill PS Lurgan
- KG184 Portadown Drainage Area Network Improvements
- KR576 Belfast WWTW PLC Upgrades.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17f SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - COSTS (NIW Only)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11
				TREATMENT CATEGORY										TOTAL
					SECONDARY		TERTIARY				SEA OUTFALLS			
				PRIMARY	ACTIVATED SLUDGE	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED	
A	**SMALL WORKS**													
1	Direct costs of STWs in size band 1	£000	3	40.758	113.579	607.455	0.000	0.000	3.080	7.204	0.000	0.000	6.278	778.354
2	Direct costs of STWs in size band 2	£000	3	0.000	62.985	296.528	35.085	19.281	55.023	50.108	21.107	19.201	0.000	559.317
3	Direct costs of STWs in size band 3	£000	3	8.260	583.792	759.201	175.698	423.253	227.845	187.281	12.878	0.000	3.433	2,381.641
4	Direct costs of STWs in size band 4	£000	3	16.983	964.704	385.776	61.194	1,486.693	100.431	265.231	80.505	9.933	0.000	3,371.448
5	Direct costs of STWs in size band 5	£000	3	0.000	516.695	0.000	316.556	1,807.448	0.000	193.733	77.146	0.000	0.000	2,911.577
B	**LARGE WORKS**													
6	Direct costs of STWs in size band 6	£000	3	0.000	3,484.678	0.000	709.943	1,969.650	0.000	0.000	0.000	0.000	0.000	6,164.271
C	**ALL WORKS**													
7	Total direct costs of STWs - all sizes	£000	3	66.001	5,726.431	2,048.961	1,298.476	5,706.326	386.379	703.556	191.635	29.134	9.711	16,166.608
8	Sludge Treatment and Disposal Adjustments	£000	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	Sewage Treatment: Direct costs	£000	3	66.001	5,726.431	2,048.961	1,298.476	5,706.326	386.379	703.556	191.635	29.134	9.711	16,166.608
10	Sewage Treatment: Power costs	£000	3	10.694	3,379.162	588.804	700.964	3,370.480	103.785	232.388	71.670	-6.812	0.000	8,451.134
11	Sewage Treatment: service charges	£000	3	4.956	188.042	131.205	41.447	206.928	28.028	45.670	21.811	5.627	1.372	675.087
12	Sewage Treatment: General and Support	£000	3	65.035	2,549.343	2,518.473	618.498	2,857.305	468.704	532.184	42.974	9.695	8.750	9,670.961
13	Sewage Treatment: Functional Expenditure	£000	3	131.035	8,275.775	4,567.434	1,916.973	8,563.631	855.083	1,235.739	234.609	38.829	18.461	25,837.569

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17f SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - COSTS (PPP only)

				1	2	3	4	5	6	7	8	9	10	11
	DESCRIPTION	**UNITS**	**DP**	**TREATMENT CATEGORY**										**TOTAL**
				PRIMARY	**SECONDARY**		**TERTIARY**				**SEA OUTFALLS**			
					ACTIVATED SLUDGE	**BIOLOGICAL**	**A1**	**A2**	**B1**	**B2**	**PRELIMINARY TREATMENT**	**SCREENED**	**UNSCREENED**	
A	**SMALL WORKS**													
1	Direct costs of STWs in size band 1	£000	3											
2	Direct costs of STWs in size band 2	£000	3											
3	Direct costs of STWs in size band 3	£000	3											
4	Direct costs of STWs in size band 4	£000	3				42.777							42.777
5	Direct costs of STWs in size band 5	£000	3					153.200						153.200
B	**LARGE WORKS**													
6	Direct costs of STWs in size band 6	£000	3					1,843.415						1,843.415
C	**ALL WORKS**													
7	Total direct costs of STWs - all sizes	£000	3	0.000	0.000	0.000	42.777	1,996.615	0.000	0.000	0.000	0.000	0.000	2,039.392
8	Sludge Treatment and Disposal Adjustments	£000	3											0.000
9	Sewage Treatment: Direct costs	£000	3				42.777	1,996.615						2,039.392
10	Sewage Treatment: Power costs	£000	3				42.777	1,996.615						2,039.392
11	Sewage Treatment: service charges	£000	3											0.000
12	Sewage Treatment: General and Support (NIW	£000	3		36.237		26.560	106.240						169.037
13	Sewage Treatment: Functional Expenditure	£000	3	0.000	36.237	0.000	69.337	2,102.855	0.000	0.000	0.000	0.000	0.000	2,208.429

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17f SEWERAGE EXPLANATORY FACTORS
SEWAGE TREATMENT WORKS - COSTS (Total)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11
				TREATMENT CATEGORY										TOTAL
					SECONDARY		TERTIARY				SEA OUTFALLS			
				PRIMARY	ACTIVATED SLUDGE	BIOLOGICAL	A1	A2	B1	B2	PRELIMINARY TREATMENT	SCREENED	UNSCREENED	
A	**SMALL WORKS**													
1	Direct costs of STWs in size band 1	£000	3	40.758	113.579	607.455	0.000	0.000	3.080	7.204	0.000	0.000	6.278	778.354
2	Direct costs of STWs in size band 2	£000	3	0.000	62.985	296.528	35.085	19.281	55.023	50.108	21.107	19.201	0.000	559.317
3	Direct costs of STWs in size band 3	£000	3	8.260	583.792	759.201	175.698	423.253	227.845	187.281	12.878	0.000	3.433	2,381.641
4	Direct costs of STWs in size band 4	£000	3	16.983	964.704	385.776	103.971	1,486.693	100.431	265.231	80.505	9.933	0.000	3,414.225
5	Direct costs of STWs in size band 5	£000	3	0.000	516.695	0.000	316.556	1,960.648	0.000	193.733	77.146	0.000	0.000	3,064.777
B	**LARGE WORKS**													
6	Direct costs of STWs in size band 6	£000	3	0.000	3,484.678	0.000	709.943	3,813.065	0.000	0.000	0.000	0.000	0.000	8,007.686
C	**ALL WORKS**													
7	Total direct costs of STWs - all sizes	£000	3	66.001	5,726.431	2,048.961	1,341.253	7,702.941	386.379	703.556	191.635	29.134	9.711	18,206.000
8	Sludge Treatment and Disposal Adjustments	£000	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	Sewage Treatment: Direct costs	£000	3	66.001	5,726.431	2,048.961	1,341.253	7,702.941	386.379	703.556	191.635	29.134	9.711	18,206.000
10	Sewage Treatment: Power costs	£000	3	10.694	3,379.162	588.804	743.741	5,367.095	103.785	232.388	71.670	-6.812	0.000	10,490.526
11	Sewage Treatment: service charges	£000	3	4.956	188.042	131.205	41.447	206.928	28.028	45.670	21.811	5.627	1.372	675.087
12	Sewage Treatment: General and Support	£000	3	65.035	2,585.580	2,518.473	645.058	2,963.545	468.704	532.184	42.974	9.695	8.750	9,839.998
13	Sewage Treatment: Functional Expenditure	£000	3	131.035	8,312.012	4,567.434	1,986.310	10,666.486	855.083	1,235.739	234.609	38.829	18.461	28,045.998

Table 17f - Sewage Treatment Works (NIW only)

Lines 1-13

An updated Population Equivalent (pe) database with treatment type by WWTW's was sent from Asset Management on the 19th May 2015 which was used to populate Line 1-13. No PPP sites are included in this table. Ballycastle WWTW's falls into Band 5 – Line 5. Ballycastle does not have a separate W finance location however with the further implementation of Cost to Serve the costs can be separately identified. Enniskillen is included in Band 6 for AIR15 however was included in Band 5 in AIR14.

Table 17f has been completed based on the figures available at for the year ended 31st March 2015 for sewage treatment – Activity 510 less M & E expenditure which is treated as general & support.

A Small Works

Line 1-4 – Size band 1-4

Each WWTW's was assigned a finance location code, W or X. W codes are for a specific works and X codes include the costs of a number of small works. Nearly 90% of the costs can be directly allocated to WWTW's through the further implementation of Cost to Serve and the remaining direct costs are apportioned across the appropriate WWTW's based on PE or direct labour.

Direct Costs include power 521x, contractors 531x, other contractors 532x, materials 541x, chemicals 548x, cost reallocations 611x (this includes direct labours costs and & overhead charges) and service charges.

Through the Cost to Serve project all power costs are allocated to individual sites and a report was taken from EAM to get the full year power cost per WWTW's. There is one electric meter at each site and all the power costs are coded to each individual works to sewage treatment. The Field Managers responsible for each WWTW's estimated the percentage use for sludge treatment and sewage treatment at each WWTW's. This was multiplied by the Power costs at the site to calculate the portion relating to sewage treatment.

The type of treatment at each WWTW's was provided by Asset Management and this was used to assign costs to Column 1-10.

In total the costs have decreased in Lines 1-4 from AIR14 by circa £0.1M due to the reduction in Power costs. The Power reduction is a result of reduced energy tariffs.

Line 5 – Size band 5

Direct costs for sewage treatment, at each location in Size Band 5, were recorded and matched to the appropriate type of treatment. Ballycastle is not separately identifiable with a W finance location code for, it is included under X25 – Ballymena Area, however, with the use of EAM and the Cost to Serve project the majority of costs for Ballycastle can be separately identified using CAR ID. Enniskillen is included in Size Band 6 in AIR15; this WWTW's was included in Bank 5 in AIR14.

The costs against this line have decreased by circa £0.08M, mainly due to the transfer of the Enniskillen to Band 6.

B Large Works

Line 6 – Size band 6

This line agrees with Line 9 in Table 17b. No PPP sites have been included.

The costs have increased from AIR14 by circa £0.5M. £0.3M of this is due to the transfer of Enniskilllen to Band 6 and £0.2M is due to increasing costs in Hired and Contracted. The increase in Hired and Contracted is due to additional degritting at Aeration Lanes and sump cleans during 2014/15.

Power costs for TPS that are intrinsically connected to the works cannot be separately identified as there is only one electric metre. Ballymena has been noted separately and is included in the power costs in this table.

C All Works

Line 7 – Total Direct Costs

This is a calculated line and it's the total of Line 1-6. This figure agrees with Table 22, Column 2 Line 9.

The total direct costs have increased since AIR14 by circa £0.3M. This is primarily due to a decrease in hired and contracted costs as mentioned earlier.

Line 8 – Sludge Treatment & Disposal Adjustment

These costs are not included in the total of Line 7 therefore this line is zero.

Line 9 – Direct Costs

This line is equal to Line 7 and is the total direct costs for each type of treatment. This figure agrees with Table 22, Column 2 Line 9.

Line 10 – Power Costs

Through the Cost to Serve project all power costs are allocated to individual sites and a report was taken from EAM to get the full year power cost per WWTW's. The Power costs have reduced by £0.1M from AIR14, mainly due to a reduction in the energy tariffs. This figure agrees with Table 22, Column 2 Line 2.

Line 11 – Service Charges

£0.7M of environmental regulatory charges are included in Sewage, in line with AIR14.

Line 12 – General & Support

The Total General & Support expenditure was taken directly from Table 22 (NIW only) Line 10 Column 2 (see Table 22 commentary) and apportioned across the locations based on direct costs.

This figure has decreased by £0.4M from AIR14. Overall General and Support costs have increased in AIR14 and the apportionment of costs to Sewage Treatment has increased. See commentary on Table 22 for further breakdown and explanation.

Line 13 – Functional Expenditure

This is a calculated line and is the total of Line 9 and Line 12. The total agrees to Table 22 (NIW Only) Column 2 Line 11. The total costs have decreased from AIR14 by circa

£0.1M for all the reasons mentioned under the lines above. Refer to Table 22 commentary for further explanation.

PPP Only

Lines 1- 3 – Size bands 1- 3

There are no PPP sites sized within these categories. Therefore, this is a nil return for these size bands.

Line 4 – Size band 4

Direct costs associated with Richhill (TA1) include power costs only derived from the Oracle system using the appropriate location code.

Line 5 – Size band 5

Direct costs associated with Armagh (TA2) include power costs only derived from the Oracle system using the appropriate location code.

Line 6 – Size band 6

No costs are reported for Kinnegar (SAS) direct costs as Kinnegar power costs are part of the Concessionaire's payment to the Operating Company.

Costs for North Down, Ballyrickard and Ballinacor (all TA2) include power costs only derived from the Oracle system using appropriate location codes.

Line 9 - Direct costs

This refers to power only. See comments on Line 10 below.

Line 10 - Power

Kinnegar (SAS) remains unreported as power costs are not incurred by NIW directly but through the Concessionaire payments. This is consistent between AIR13 and AIR 14.

Power costs have reduced from AIR14 as a result of a reduced tariff in 2014/15.

The total of this line reconciles to table 22 line 2 column 2.

Line 12 – General & support

General and support costs have been calculated using all staff and overhead costs for the contracts management team together with PPP related professional managed service costs – PPP Professional Advisors. Costs have been attributed to schemes in accordance with management's estimated time spent by each member of staff on each contract, with such costs spread equally on schemes therein. Professional Advisors costs are attributable to a contract by invoice. General and support costs have been allocated to facilities on a straight line basis according to the number of facilities in each scheme.

The total on this line reconciles to table 22 line 10 column 2.

Lines 1-13 - Consolidated - NIW Total

Table 17f has been completed based on the figures available for the year ended 31st March 2015.

The figures in Column 11 in the NIW Total table agree with Table 22(NIW Total) Column 2.

Refer to commentary on NIW only and PPP only individual tables for explanation of changes from AIR14. The main changes are covered in the NIW only commentary.

NIW only plus PPP only equals NIW Total.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 17g SEWERAGE EXPLANATORY FACTORS
SLUDGE TREATMENT AND DISPOSAL INFORMATION (NIW Only)

	DESCRIPTION	UNITS	DP	1 FARMLAND UNTREATED	CG	2 FARMLAND CONVENTIONAL	CG	3 FARMLAND ADVANCED	CG	4 INCINERATION	CG	5 TO PPP	CG	6 LANDFILL	CG	7 COMPOSTED	CG	8 LAND RECLAMATION	CG	9 OTHER	CG	10 TOTAL	G
1	Resident population served	000	1	0.0	0	0.0	0	0.0	0	0.0	0	1454.1	C3	40.2	C3	0.0	0	0.0	0	0.0	0	1,494.3	C3
2	Amount of sewage sludge	ttds	1	0.0	0	0.0	0	0.0	0	0.0	0	32.6	A2	0.9	B2	0.0	0	0.0	0	0.0	0	33.5	B2
3	Sludge treatment: direct costs	£000	3									0.000		0.000						2,237.150		2,237.150	
4	Sludge disposal: direct costs	£000	3									2,393.432		126.460						0.000		2,519.892	
5	Sludge treatment & disposal: direct costs	£000	3									2,393.432		126.460						2,237.150		4,757.042	
6	Sludge treatment & disposal: power costs	£000	3									0.000		0.000						1,418.778		1,418.778	
7	Sludge treatment & disposal: service charges	£000	3									0.000		0.000						182.267		182.267	
8	Sludge treatment & disposal: general & support exp.	£000	3									1,403.310		0.000						545.369		1,948.679	
9	Sludge treatment & disposal: functional expenditure	£000	3									3,796.742		126.460						2,782.519		6,705.720	

Table 17g - Sewerage explanatory factors - sludge treatment and disposal information

NIW only

Line 1 - Resident population served

The resident population served is that reported in T17a:L1 as required in the Utility Regulator's guidance documentation.

Lines 1.5 & 1.6 have been estimated using a pro-rata value based on the total sewage sludge disposal data from SLS and the WW Sludge Management monthly report. The pro-rata population figures have been assigned CGs of C3 accordingly based on the C3 CG of the base population data.

Line 2 – Amount of sewage sludge

This is the total sewage sludge produced (NIW Only) for 2014/15 (tds) as recorded by PPP and monthly by Ww Area Sludge Officers (reconciled using the SLS) and presented in the monthly Sludge Management Report along with an estimated quantity of WwTW & WwPS grit & screenings removed as part of the treatment process and disposed of under Tender C480.

Line 2.5 has been based on the total sewage sludge disposal (NIW Only) data from SLS and the WW Sludge Management monthly report.

Line 2.6 is an estimated quantity of WwTW's & WwPS`s grit & screenings removed as part of the treatment process and disposed of under Tender C480.

Lines 3-9

The methodology has not changed from AIR14. All Sludge is transported and disposed of at the Incinerator or another PPP site.

The costs in Table 17g are populated with the information available for the year ended 31st March 2015.

Line 3 – Sludge Treatment: Direct Costs

Expenditure has been input in Column 9.

The costs for Sludge Treatment have reduced by £0.2M from AIR14. This is due to a reduction in chemical costs at Sludge Facilities and a reduction in employment costs.

Sludge treatment costs for WWTW's are coded using activity 621 and can be separately identified to populate Column 9.

Power costs in AIR15 do not include the Incinerator or any PPP sites.

Line 4 - Sludge Disposal: Direct Costs

Column 5 and 6 have been populated in this line. Total Direct Costs have decreased by circa £0.3M from AIR14. This is mainly due to a reduction in contractors' costs, a result of improved sludge quality, and a reduction in employment costs.

Line 5 - Sludge Treatment & Disposal: Direct Costs

This is a calculated line and is the total of Line 3 and Line 4. The figure agrees with Table 22 (NIW only) Column 3 Line 9. Costs have decreased by circa £0.5M from AIR14, primarily due to the reduction in employment costs, chemicals costs and contractor costs as mentioned above.

Line 6 – Sludge Treatment & Disposal: Power Costs

Power costs associated with Sludge Treatment are used to populate Column 9. Power costs have been allocated to every site through Cost to Serve. There is only one electric metre at each WWTW's so an estimate was received for each WWTW's from the wastewater field mangers so that a split could be calculated at each works between sludge and sewage treatment at the sites where both activities occur. The power team supplied a split between the Incinerators and Belfast WWTW's which was used apportion a cost to the works. The split for this in AIR14 was 45:55 and in AIR15 is 48:52 for the Belfast and Incinerators (based on an estimated KWhr usage and a number of sub-meters). No costs for the Incinerator have been included in this table in AIR15. Power costs have remained consistent with AIR14.

Line 7 - Sludge treatment & disposal: Service Charges

The Service Charges figure is £0.2M in AIR15 and is consistent with AIR14. PPC (Pollution Prevention Control) Permits are included as Sludge Treatment and therefore included in Column 9. The Service Charges figure agrees to Table 22, Line 7 Column 3.

Line 8 - Sludge treatment & disposal: General & Support

This figure was taken directly from Table 22 (NIW only) Column 3 Line 10 and apportioned across the columns in Table 17g based on direct labour costs. This is following the same methodology as AIR14. Overall General and Support costs have decreased from AIR14 by £0.4M. See Table 22 commentary. A detailed breakdown of general & support is included in the commentary for Table 21 & 22.

Line 9 – Sludge treatment & disposal: Functional Expenditure

This is a calculated line and is the total of Line 5 and Line 8. Total costs have reduced by £0.9M.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 18 REGULATORY ACCOUNTS (HISTORICAL COST ACCOUNTING)
PROFIT AND LOSS ACCOUNT FOR YEAR ENDING 31 MARCH

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
1	Turnover	£m	3	354.819	366.398	361.313	364.407
2	Operating costs (excluding HCD)	£m	3	-200.677	-202.316	-209.933	-205.450
3	Historical cost depreciation	£m	3	-46.216	-44.871	-48.580	-47.523
4	Operating income	£m	3	0.212	0.334	0.276	0.525
5	Operating profit	£m	3	108.138	119.545	103.076	111.959
6	Other income	£m	3	0.000	0.000	0.000	0.000
7	Net interest receivable less payable	£m	3	-50.468	-55.067	-48.580	-51.957
8	Profit on ordinary activities before taxation	£m	3	57.670	64.478	54.496	60.002
9	Current tax	£m	3	0.000	0.000	0.000	-0.017
10	Deferred tax	£m	3	-18.472	-24.872	13.798	-24.037
11	Profit on ordinary activities after taxation	£m	3	39.198	39.606	68.294	35.948
12	Extraordinary items	£m	3	0.000	0.000	0.000	0.000
13	Profit for the year	£m	3	39.198	39.606	68.294	35.948
14	Dividends	£m	3	-25.604	-26.587	-21.391	-21.562
15	Retained profit for the year	£m	3	13.594	13.019	46.903	14.386

Table 18 – HC Profit and Loss account for the year ending 31 March 2015

- Results of unappointed activities are shown separately in the published regulatory accounts.
- There are no exceptional charges or income.
- Accounting treatments under Historical Cost and Current Cost are the same.
- There are no minority interests.
- PPP charges for 2014/15 can be analysed as follows:

	Gross Charge	Residual interest credit	Lease repayment	Capital maintenance	HC Depreciation	Net P&L Charge
	£m	£m	£m	£m	£m	£m
Alpha	18.443*	-	(1.672)	(1.516)	3.295	18.550
Omega	25.263	(3.207)	-	-	-	22.056
Kinnegar	2.530	(0.262)	-	-	-	2.268
Total	**46.236**	**(3.469)**	**(1.672)**	**(1.516)**	**3.295**	**42.874**

* includes lease interest of £6.824m – shown in line 7 of Table 18.

- PPP elements of line 2 'Operating Costs' are £32.755m.
  Additionally within Line 3 'HCD' there are depreciation costs for the Alpha Project of £3.295m.
- The current tax charge is zero and this is explained as follows:

Factors affecting the tax charge for the current period

The company adopted International Financial Reporting Standards (IFRS) for the first time in its statutory accounts for the year end 31st March 2011. The regulatory accounts will continue to be produced under UK generally accepted accounting policies (UK GAAP). However as the corporation tax computation for the company will be based on the IFRS statutory accounts it has been agreed with the Regulator that the tax charge and provision in the regulatory accounts should be the same as those shown in the statutory accounts.

The income tax charge in the statutory accounts for the period is £24.129m which is lower than the charge based on the standard rate of corporation tax in the UK (21%). The differences are explained below:

Reconciliation of effective tax rate	**£m**
Profit for the year	107.343
Income tax expense	24.129
Profit before income tax	131.472
Income tax using the Company's domestic tax rate (21%)	27.609
Reduction in tax rate	(1.322)
Non deductible expenses	(0.245)
Adjustment to prior years	(1.913)
	24.129

The deferred tax charge in line 10 of £24.037m is the statutory accounts charge of £24.037m. The statutory deferred tax charge has been allocated wholly to appointed activities since the temporary tax timing differences associated with the deferred tax charge reside in the appointed part of the business.

The statutory accounts income tax charge of £24.129m can be shown as follows:

Tax recognised in profit and loss	**£m**
Current tax expense	
Current year	(0.198)
Adjustment for prior years	0.106
	(0.092)
Deferred Tax	
(Origination)/ reversal of timing differences	**(25.844)**
Adjustment to prior years	**1.807**
	(24.037)
Tax charge on profit on ordinary activities	**(24,129)**

The statutory current tax charge of £0.92m relates to appointed (interest receivable) and unappointed activities (aerial site income and rental income) as follows:

	£m
Appointed activities	(0.017)
Unappointed activities	(0.075)
	(0.092)

Line 9 in Table 18 shows £0.017m for the appointed activities.

The statutory deferred tax liability at 31st March 2015 is £195.656m. Table 19 shows a deferred tax liability on the appointed balance sheet of £197.982m (with zero balance at 31st March 2015 for unappointed activities). This liability under UKGAAP reconciles to the IFRS based statutory accounts balance at 31st March 2015 of £195.656m as the IFRS Accounts are required to show the deferred tax credit associated with the pension liability of £2.326m within the deferred tax balance rather than the UKGAAP approach of showing this amount separately within the pension account. The statutory balance of £195.656m can be summarised as follows:

	2015 £m Excluding Pension	2015 £m Pension	**2015 £m Total**
Opening liability	173.693	0.696	**174.389**
Current year deferred tax charge/ (credit) to profit and loss account	26.096	(0.252)	**25.844**
Prior year deferred tax (credit)/charge to P&L	(1.807)	-	**(1.807)**
Current year deferred year tax charge to the Statement of Total Recognised Gains and Losses	0.000	(2.770)	**(2.770)**
Closing liability	197.982	(2.326)	**195.656**

The UKGAAP approach (FRS 17) aspect of deferred tax is shown separately in the Regulatory Accounts and rolled up into the balance shown within the pension asset on the balance sheet as follows:

	2015 £m
Benefit obligation at end of year	(215.743)
Fair value of plan assets at end of year	204.113
Net liability	(11.630)
Less deferred tax	2.326
Pension asset after deferred tax	**(9,304)**

The actuarial assumptions underpinning the FRS 17 valuation of the NIW defined benefit scheme assets and liabilities can be shown as follows:

Weighted average assumptions used to determine benefit obligations at:

	31-Mar-15	31-Mar-14
Discount rate	3.40%	4.60%
Rate of compensation increase	2% for 5 yrs 3% thereafter	4.30%
Rate of increase in pensions in payment	3.00%	3.30%
Rate of increase in pensions in deferment	3.00%	3.30%
Inflation RPI	3.00%	3.30%
Inflation CPI	2.00%	2.30%

Weighted average assumptions used to determine net pension cost for year ended:

	31-Mar-15	31- Mar-14
Discount rate	4.60%	4.40%
Rate of compensation increase	4.30%	4.40%
Rate of increase in pensions in payment	3.30%	3.40%
Inflation	3.30%	3.40%

Any changes to the assumptions from 2014 to 2015 have been advised by the independent actuaries.

There is a pension liability at 31 March 2015 of £9.304m (after deferred tax). Contributions to the fund in 2014/15 were 26.9% of pensionable pay. (2012/13: 26.9%).

A dividend of £23.543m was proposed, approved and paid in 2014/15 and thus there is a dividend in Table 18 for the current year.

The approach to dividends is to allocate an amount of dividend to unappointed activities in the year that will reduce the ongoing build up of cash balances within the unappointed balance sheet. This is achieved by allocating dividend to unappointed activities to achieve nil profit on these activities.
In the year ended 31st March 2015 £21.562m of the statutory dividend of £23.543m was allocated to appointed activities and £1.981m allocated to unappointed activities.

Operating Costs

The following table shows a reconciliation between the operating costs as reported in the regulatory historic cost accounts (Table 18 line 2) and regulatory current cost accounts (Table 20 line 2).

Operating Costs	**£m**
Table 18 Line 2	**(205.450)**
Add back HC amortisation of grants and contributions	(0.875)
Less CC amortisation of grants and contributions	3.886
Less CC depreciation	(104.185)
Table 20 line 2	**(306.624)**

Cost components in Operating Costs

The following cost components of Line 2 (£205.450m) exceed £5m in 2014-15:

Wages and Salaries	40.334m*^
Other pension costs	11.434m*
Power	32.682m*
Rates	13.881m*
Contractors	19.593m*
Out sourced billing	6.202m
PPP Operating Charges –Alpha	8.431m
PPP Operating Charges –Omega	22.055m^^
Total	**154.612m (75.3% of total operating costs)**

* includes an amount relating to unappointed activities that cannot be extracted out for the summary above.
^ stated before an amount is capitalised (see later in commentary).
^^ stated net of residual interest credit.

Interest

Interest received and payable can be summarised as follows:

	£m	**£m**
Interest received		
Bank Interest	0.079	
On Pension Fund	0.155	
Total Interest received		**0.234**
Interest Payable:		
On bonds held as security	(0.077)	
On all other loans	(45.290)	
On PPP finance lease	(6.824)	
Total Interest Payable		**(52.191)**
Net Interest		**(51.957)**

Capitalisation of costs

During 2014/15 £12.202m of costs were capitalised from the profit and loss account. This can be broken down as follows:

Cost	**£m**
Staff Costs	10.468
Labour charge	0.015
Overheads capitalised	1.719
Total	**12.202**

The majority of costs capitalised relate to staff costs and overheads. These costs relate to the NIW staff who spend their time on capital projects e.g. Engineering Procurement or Asset Management staff. These costs will add to the value of the completed asset.

Comparison to prior year and PC13

A comparison to 2013/14 and to PC13 can be shown as follows:

	Actual	**Actual**	**PC13**
	2014 -2015	**2013 -2014**	**2014 -2015**
	£m	**£m**	**£m**
Sales	364.407	361.313	346.513
Expenditure	(252.448)	(258.237)	(245.317)
Net Operating Profit	111.959	103.076	101.196
Operating Margin	*30.7%*	*28.5%*	*29.2%*
Interest payable	(51.957)	(48.580)	(62.475)
Tax charge	(24.054)	13.798	(8.519)
Profit for the year	35.948	68.294	30.202
Net Profit Margin	*9.9%*	*18.9%*	*8.72%*

Explanation of variances on sales, operating profit and interest payable are outlined in the commentary to Table 20.

Systems and controls

The company uses the Oracle financial system to produce monthly and annual accounting information. The Oracle General Ledger produces a trial balance and the detailed accounts are summarised to produce the year end statutory accounts. A series of spreadsheets are then used to analyse appointed and non appointed sales and costs to produce the financial information for the Regulatory Accounts and AIR Tables.

The company is progressing a major project to develop a costing system. In terms of regulatory reporting the main tables requiring costing information are Tables 21 and 22 and the commentaries for these tables detail how an interim costing solution is being used to populate these tables until the new costing system is in place.

This new costing solution is also intended to provide better information for the allocation of costs to non appointed activities (which is currently based on a set of high level costing assumptions).

Internal Controls

The company continues to place great emphasis on internal financial controls throughout the organisation.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 18c REGULATORY ACCOUNTS (HISTORICAL COST ACCOUNTING)
STATEMENT OF TOTAL RECOGNISED GAINS AND LOSSES

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
A	**CAPITAL EXPENDITURE CATEGORIES**						
1	Profit for the year	£m	3	39.198	13.019	46.903	14.386
2	Actuarial gains/losses on post employment plans	£m	3	1.456	-11.535	8.012	-11.081
3	Other gains and losses	£m	3	0.000	0.000	0.000	0.000
4	Total recognised gains and losses for the year	£m	3	40.654	1.484	54.915	3.305

Table 18c – STRGL (HCA)

Line 2 shows £11.081m of actuarial gains/losses on post employment plans.

Line 3 is nil as there are no other recognised gains or losses for the year.

Although the Regulatory Accounts are based on UKGAAP the actuarial loss noted above of £11.081m is taken from the IFRS statutory accounts. Similar to last year the application of the amended version of IAS 19 (Employee Benefits) has led to the UKGAAP and IFRS approaches on accounting for pension costs being different. The IFRS approach was used in the Regulatory Accounts for the following reasons:

- The primary difference in IFRS and UKGAAP in this area arises in the allocation of pension costs as an expense to the profit and loss account or directly to reserves. If the actuarial loss had been calculated in line with UKGAAP rather than IFRS the actuarial loss charged directly to reserves (through the STRGL) would have been approximately £1.1m higher and the pension costs charged to the profit and loss account would have been approximately £1.1m lower. There would have been no overall balance sheet impact on either the profit and loss account reserves or on the pension asset of following IFRS as opposed to UKGAAP.

- Adopting this approach avoided the additional costs of requesting the company actuary to provide year end pension disclosures for both statutory accounts and regulatory accounts purposes.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 18d REGULATORY ACCOUNTS (HISTORICAL COST ACCOUNTING)
ANALYSIS OF DIVIDENDS AND INTEREST CHARGES FOR YEAR

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
A	**DIVIDEND ANALYSIS**						
1	Dividends in respect of a financial re-organisation	£m	3	0.000	0.000	0.000	0.000
2	Other ordinary dividends	£m	3	-25.604	-26.587	-21.391	-21.562
3	Total dividends	£m	3	-25.604	-26.587	-21.391	-21.562
B	**INTEREST ANALYSIS**						
4	Interest receivable/payable on intercompany balances	£m	3	0.000	0.000	0.000	0.000
5	Interest receivable/payable in respect of a financial re-organisation	£m	3	0.000	0.000	0.000	0.000
6	Indexation element of index-linked bonds	£m	3	0.000	0.000	0.000	0.000
7	Preference share dividends	£m	3	0.000	0.000	0.000	0.000
8	Other interest receivable	£m	3	0.109	0.134	0.112	0.079
9	Other interest payable	£m	3	-39.983	-44.137	-41.459	-45.367
10	Other finance charges - post employment costs	£m	3	1.156	0.849	-0.300	0.155
11	Other finance charges	£m	3	-11.750	-11.913	-6.933	-6.824
12	Total net interest	£m	3	-50.468	-55.067	-48.580	-51.957

Table 18d – Analysis of dividends and interest charges

There has been no financial reorganisation during the year.

A dividend was proposed and approved in 2014/15 and this is shown on line 2. The full dividend for 2014/15 was £23.543m with £21.562m apportioned to appointed activities and £1.981m apportioned to unappointed activities.

See commentary to Table 18 in relation to the approach to the apportionment of dividend to appointed and unappointed activities.

Interest receivable (£0.079m) relates to monies held on deposit.

Interest payable of £45.367m is comprised of £45.312m relating to the loan notes held with DRD, £0.077m relating to interest payable on cash bonds, £0.007m on late payment of corporation tax and a £0.03m release of an accrual no longer required. The interest on loan notes has increased from last year by £3.906m (9.4%). This increase is the product of additional interest on the drawdown of £36m additional loan notes in 2014/15 and the release of an accrual in the comparator year 2013/14. (Generally the interest payable on loan notes will rise year on year as the outstanding liability steadily rises. This occurs as new loans are taken out to cover in year capital expenditure whilst at the same time the loans are not repayable until 2027).

Other finance charges – post employment plans is a credit of £0.155m for the finance income relating to post employment plans calculated by the actuaries of the pension fund at year end.

During 2014/15 an amount of £6.824m (2013/14: £6.933m) has been included as other finance charges. This relates to the imputed interest on the finance lease underpinning the on balance sheet Alpha PPP Project.

The following table compares the actual net interest payable and balance of loan notes with the 2014/15 budget and PC13:

	Actual	**Budget**	**PC13**
	£m	**£m**	**£m**
Net Interest payable	51.957	45.575	49.936
Loan notes	947.560	970.560	1,043.848

The drawdown of loans is £96.288m less than the PC13 projected for 2014/15. This is primarily driven by a lower working capital requirement than was anticipated particularly for capital creditors.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 19 REGULATORY ACCOUNTS (HISTORICAL COST ACCOUNTING)
BALANCE SHEET AS AT 31 MARCH (Total)

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
A	**FIXED ASSETS**						
1	Tangible fixed assets	£m	3	1822.992	1907.525	1994.848	2073.392
2	Investment - loan to group company	£m	3	0.000	0.000	0.000	0.000
3	Investment - other	£m	3	0.106	0.106	0.091	0.091
4	Total fixed assets	£m	3	1823.098	1907.631	1994.939	2073.483
B	**CURRENT ASSETS**						
5	Stocks	£m	3	2.177	2.379	2.021	2.269
6	Debtors	£m	3	33.783	28.824	27.167	30.759
7	Cash	£m	3	-2.340	9.102	1.637	0.792
8	Short term deposits	£m	3	0.000	5.300	0.600	0.020
9	Infrastructure renewals prepayment	£m	3	2.734	3.341	0.050	0.000
10	Total current assets	£m	3	36.354	48.946	31.475	33.840
C	**CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR**						
11	Overdrafts	£m	3	0.000	0.000	0.000	0.000
12	Infrastructure renewals accrual	£m	3	0.000	0.000	0.000	-0.702
13	Creditors	£m	3	-120.598	-118.022	-124.404	-132.752
14	Borrowings	£m	3	0.000	0.000	0.000	0.000
15	Corporation tax payable	£m	3	0.000	0.000	0.000	0.000
16	Ordinary share dividends payable	£m	3	0.000	0.000	0.000	0.000
17	Preference share dividends payable	£m	3	0.000	0.000	0.000	0.000
18	Total creditors	£m	3	-120.598	-118.022	-124.404	-133.454
19	Net current assets	£m	3	-84.244	-69.076	-92.929	-99.614
D	**CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR**						
20	Borrowings	£m	3	-807.560	-882.560	-911.560	-947.560
21	Other creditors	£m	3	-98.978	-96.187	-95.302	-93.773
22	Total creditors	£m	3	-906.538	-978.747	-1006.862	-1041.333
E	**PROVISION FOR LIABILITIES AND CHARGES**						
23	Deferred tax provision	£m	3	-162.493	-187.416	-173.693	-197.982
24	Deferred income - grants and contributions	£m	3	-18.657	-19.456	-19.785	-21.969
25	Post employment asset / (liabilities)	£m	3	7.253	-4.123	2.784	-9.304
26	Other provisions	£m	3	-20.679	-9.589	-10.315	-5.837
F	**PREFERENCE SHARE CAPITAL**						
27	Preference share capital	£m	3	0.000	0.000	0.000	0.000
28	Net assets employed	£m	3	637.740	639.224	694.139	697.444
G	**CAPITAL AND RESERVES**						
29	Called up share capital	£m	3	500.000	500.000	500.000	500.000
30	Share premium	£m	3	0.000	0.000	0.000	0.000
31	Profit and loss account	£m	3	-33.950	-32.466	22.449	25.754
32	Other reserves	£m	3	171.690	171.690	171.690	171.690
33	Capital and reserves	£m	3	637.740	639.224	694.139	697.444

Table 19 – HC Balance Sheet as at 31 March 2015

The balance sheet in the published regulatory accounts includes a separate analysis of unappointed activities.

There are no Group companies.

The retained profit for the year is £14.386m (post dividend).

The P&L reserves in the Balance Sheet increased by £3.305m and this movement can be shown as follows:

Retained profit for the year	£14.386m
Pension scheme actuarial loss net of deferred tax	(£11.081m)
Movement in P&L Account	**£3.305m**

The company has adopted International Financial Reporting Standards (IFRS) in its statutory accounts for the year end 31st March 2015. The regulatory accounts will continue to be produced under UK generally accepted accounting policies (UK GAAP). As the corporation tax computation for the company will be based on the IFRS statutory accounts it has been agreed with the Regulator that the tax charge and provision in the regulatory accounts should be the same as those shown in the statutory accounts.

No minority interests exist.

The elements of PPP included in the table are as follows:

Line 1 - Tangible Fixed Assets

	Alpha	Omega	Kinnegar	Total
	£m	£m	£m	**£m**
Gross	115.916 *	18.802	3.234	**137.952**
Acc. Deprec	(20.813)	-	-	**(20.813)**
NBV	**95.103**	**18.802**	**3.234**	**117.139**

* Includes the original capital value of Alpha PPP (£111.708m), the NIW assets transferred to and utilised by the concessionaire and subsequent additions of capital maintenance.

Line - 13 Creditors falling due within one year

	Alpha	Omega	Kinnegar	Other PPP expense	Total
	£m	£m	£m	£m	£m
Lease obligation due < 1 yr	1.888	-	-	-	**1.888**
Accruals	2.965	17.977	0.223	-	**21.165**
Total	**4.853**	**17.977**	**0.223**	**-**	**23.053**

Line 21 - Other creditors falling due after more than one year

	Alpha
	£m
Lease obligation due > 1 yr	92.500

Line 26 - Other provisions

	Omega
	£m
Provisions	3.403

Significant features and movements

Fixed Assets

Increase of £79m in line with in year additions of £211m, capital contributions of £53m, HC depreciation of £80m, disposals of £0.5m and a movement from an infrastructure prepayment of £0.050m to an infrastructure accrual of £0.702m.

Debtors

Increased by £3.592m from £27.167m to £30.759m (13.2%). This is primarily due to:

- Measured, unmeasured and TE debtors increased by £0.4m
- PPP Capital maintenance increase of £1.25m
- Accrued income from measured and TE customers increased by £0.3m.
- VAT receivable debtors increased by £1.5m.
- Miscellaneous accrued income decreased by £0.3m

Cash and Short term deposits

Cash has decreased by £0.845m from £1.637m to £0.792m (51.6%) and Short term deposits have decreased by £0.58m from £0.6m to £0.02m (96.7%).

The cashflow statement in Table 28 illustrates the uses of these cash and deposit monies in contributing to meeting the non opex expenditure needs for the year. This can be summarised as follows:

Non opex expenditure

Capex	£158m
Net Interest paid	£ 52m
Dividend paid	£ 22m
PPP Lease payments	£ 2m
Total	**£234m**

Funded by:

Generated from operations	£196m
Loans	£ 36m
Decrease in cash	£ 1m
Decrease in deposit monies	£ 1m
Total	**£ 234m**

Deferred tax

The deferred tax balance has increased from £173.693m to £197.982m. An explanation for this has been included in the commentary to Table 18.

Borrowings > 1 year

Borrowings have increased by £36m from £911.56m to £947.56m. The additions to capital expenditure during the year were £211.0m. The increase in borrowings were used to partly fund these additions to capital expenditure with the balance of capital being financed through capital contributions and working capital.

Post employment asset/(liabilities)

The Pension asset of £2.784m became a Pension liability of £9.304m (a change in value of 434.2%).

This can be shown as follows:

	£m
Opening balance at 1.4.14	**2.784**
Current Service Costs	(10.190)
Administration Costs	(0.742)
Past Service Costs	(1.018)
Contributions	10.536
Finance Income	0.155
Actuarial Loss	(13.851)
Decrease in Deferred tax on liability	3.022
Closing balance 31.3.15	**(9.304)**

Other provisions

Decreased from £10.315m to £5.837m (43.4%).

This decrease of £4.479m can be summarised as follows:

	£m
Decrease in Public and Employer Liability claims	0.329
Decrease in Environmental provision	4.150
Total	**4.479**

PPP – Infrastructure renewals charge (IRC) and expenditure (IRE)
– Capital Maintenance

The table below summarises the IRC, IRE and capital maintenance during 2014/15 in relation to the PPP projects:

	Alpha	**Omega**	**Kinnegar**	**Total**
	£m	£m	£m	**£m**
IRE	-	-	-	**-**
IRC	-	-	-	**-**
Capital maintenance	0.271	-	-	**0.271**

Alpha

Alpha is treated as 'on balance sheet' and an amount of the unitary charge for Alpha is deemed to be related to the carrying out of capital maintenance by the operator. For 2014-15 this is confirmed by the operator to be £271k. This amount is credited to the Profit and Loss account and debited to Alpha fixed assets.

This capital maintenance is assumed to be 100% non infrastructure and there are no infrastructure additions to Alpha in 2014-15 (2013-14: nil). There has therefore been no apportionment of IRC in 2014-15 (2013-14: nil).

Omega and Kinnegar

Both Omega and Kinnegar are treated as 'off balance sheet' and the additions in year relate to the residual interest asset with no related IRE, IRC or capital maintenance aspects.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 19a ANALYSIS OF BORROWINGS DUE AFTER MORE THAN ONE YEAR (HISTORICAL COST ACCOUNTING)
BALANCE SHEET AS AT 31 MARCH

	1	2	3	4	5	6	7	8	9
	DESCRIPTION	MATURITY years 0dp	PRINCIPAL SUM £m 3dp	x principle sum £m 3dp	REAL COUPON % 2dp	INTEREST RATE % 2dp	EQUIVALENT £m 3dp	EQUIVALENT £m 3dp	VALUE £m 3dp
A	BORROWINGS IN HEDGING RELATIONSHIPS								
A1	Fixed rate instruments								
1									
"									
50									
A2	Floating rate instruments								
51									
"									
100									
A3	Index linked instruments								
101									
"									
150									
	TOTAL FOR HEDGING INSTRUMENTS								
B	BORROWINGS DESIGNATED AT FAIR VALUE THROUGH PROFIT AND LOSS								
B1	Fixed rate instruments								
151									
"									
200									
B2	Floating rate instruments								
201									
"									
250									
B3	Index linked instruments								
251									
"									
300									
	TOTAL FOR BORROWINGS DESIGNATED AT FAIR VALUE THROUGH PROFIT AND LOSS								
C	OTHER BORROWINGS								
C1	Fixed rate instruments								
301	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	627.560	7530.720	4.35%	5.25%	32.947	32.947	627.560
302	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	20.000	240.000	4.13%	5.03%	1.006	1.006	20.000
303	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	20.000	240.000	3.99%	4.89%	0.978	0.978	20.000
304	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	20.000	240.000	3.58%	4.48%	0.896	0.896	20.000
305	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	10.000	120.000	4.23%	5.13%	0.513	0.513	10.000
306	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	10.000	120.000	4.26%	5.16%	0.516	0.516	10.000
307	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	10.000	120.000	4.37%	5.27%	0.527	0.527	10.000
308	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	20.000	240.000	4.15%	5.05%	1.010	1.010	20.000
309	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	3.90%	4.80%	0.240	0.240	5.000
310	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	15.000	180.000	3.49%	4.39%	0.659	0.659	15.000
311	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	7.000	84.000	2.60%	3.50%	0.245	0.245	7.000
312	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	10.000	120.000	2.47%	3.37%	0.337	0.337	10.000
313	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	15.000	180.000	2.72%	3.62%	0.543	0.543	15.000
314	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	18.000	216.000	2.78%	3.68%	0.662	0.662	18.000
315	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	8.000	96.000	2.74%	3.64%	0.291	0.291	8.000
316	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	8.000	96.000	2.46%	3.36%	0.269	0.269	8.000
317	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	2.32%	3.22%	0.161	0.161	5.000
318	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	20.000	240.000	2.16%	3.06%	0.612	0.612	20.000
319	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	10.000	120.000	2.23%	3.13%	0.313	0.313	10.000
320	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	24.000	288.000	2.32%	3.22%	0.773	0.773	24.000
321	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	3.09%	3.99%	0.200	0.200	5.000
322	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	8.000	96.000	3.20%	4.10%	0.328	0.328	8.000
323	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	3.05%	3.95%	0.198	0.198	5.000
324	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	11.000	132.000	3.01%	3.91%	0.430	0.430	11.000
325	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	2.96%	3.86%	0.193	0.193	5.000
326	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	2.82%	3.72%	0.186	0.186	5.000
327	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	3.01%	3.91%	0.196	0.196	5.000
328	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	2.25%	3.15%	0.158	0.158	5.000
329	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	5.000	60.000	2.30%	3.20%	0.160	0.160	5.000
330	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	8.000	96.000	1.90%	2.80%	0.224	0.224	8.000
331	Capital loan note issued under GBP £1.2802bn Fixed Coupon Unsecured Loan note instrument 2027	12	3.000	36.000	1.71%	2.61%	0.078	0.078	3.000
C2	Floating rate instruments								
351									
"									
400									
C3	Index linked instruments								
401									
"									
450									
	TOTAL FOR OTHER BORROWINGS		947.560				45.847	45.847	947.560
D	TOTALS		947.560	11370.720			45.847	45.847	947.560

E	RPI assumption	0.90%
F	ANALYSIS	
F	INDICATIVE INTEREST RATES	
F1	Nominal interest	4.84%
F2	Cash interest	4.84%
G	INDICATIVE DEBT PORTFOLIO BREAKDOWN	
G1	Floating rate debt as percentage of total debt	0
G2	Fixed rate debt as percentage of total debt	100%
G3	Index inked debt as percentage of total debt	0
G4	Fixed rate debt and index linked debt as percentage of total debt	100%
G5	Weighted average years to maturity	12

Table 19a – Analysis of Borrowings due after more than One Year

At 31 March 2015 NIW borrowings related to Capital Loan notes issued under a £1,280,200,000 Fixed Coupon Unsecured Loan note 2027. Further loan notes may be issued under this facility in the period to 31 March 2016. This facility is available to provide finance for capital investment only.

The loan note subscription agreement provides that the loan notes in issue before 31 March 2010 carry a fixed rate of interest of 5.25%. Loan notes issued after this date carry fixed interest rates based on a margin of 0.85% above the reference gilt rate published by UK HM Government Debt Management Office on the date of issue of the loan note.

In 2014/15 Capital loan notes were accounted for as held to maturity borrowings.

In addition to the capital loan note instrument NIW has a committed facility available in a £20m overdraft facility. That facility was not utilised during 2014/15.

The **Overdraft facility**, for £20m, provides financing for working capital requirements of NIW. This is available until 31 March 2016 at a cost of Libor + 0.35%.

Other than for column 8 the calculated cells match the guidance definitions.

Column 8 requests details of the full year equivalent cash interest payment. For fixed rate instruments this should be copied from the full year equivalent nominal interest. However the guidance indicates that this is in column 6 whereas it is detailed in column 7. The information disclosed was copied from column 7.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 20 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
PROFIT AND LOSS ACCOUNT FOR YEAR ENDING 31 MARCH (TOTAL)

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
1	Turnover	£m	3	354.819	366.398	361.313	364.407
2	Current cost operating costs (including CCD & IRC)	£m	3	-355.177	-349.470	-343.723	-306.624
3	Operating income	£m	3	-0.285	0.303	0.208	0.488
4	Working capital adjustment	£m	3	2.824	2.641	2.001	0.840
5	Current cost operating profit	£m	3	2.181	19.872	19.799	59.111
6	Other income	£m	3	0.000	0.000	0.000	0.000
7	Net interest receivable less payable	£m	3	-50.468	-55.067	-48.580	-51.957
8	Financing adjustment	£m	3	30.450	30.464	23.962	9.183
9	Current cost profit before taxation	£m	3	-17.837	-4.731	-4.819	16.337
10	Current tax	£m	3	0.000	0.000	0.000	-0.017
11	Deferred tax	£m	3	-18.472	-24.872	13.798	-24.037
12	Current cost profit on ordinary activities	£m	3	-36.309	-29.603	8.979	-7.717
13	Extraordinary items	£m	3	0.000	0.000	0.000	0.000
14	Current cost profit attributable to shareholders	£m	3	-36.309	-29.603	8.979	-7.717
15	Dividends	£m	3	-25.604	-26.587	-21.391	-21.562
16	Current cost profit retained	£m	3	-61.913	-56.190	-12.412	-29.279

Table 20 – CC Profit and Loss account for year ending 31 March 2015

There are no exceptional charges or income. Atypical and reorganisation costs are shown separately in the commentary to Table 21 and 22.

The calculation of the financing adjustment excludes dividends payable.

There are no minority interests.

PPP charges within operating costs line 2 can be summarised as follows:

	Gross Charge	Residual interest credit	Lease repayment	Capital maintenance	CC Depreciation	Net P&L Charge
	£m	£m	£m	£m	£m	£m
Alpha	18.443	-	(1.672)	(1.516)	4.082	19.337
Omega	25.263	(3.207)	-	-	-	22.056
Kinnegar	2.530	(0.262)	-	-	-	2.268
Total	**46.236**	**(3.469)**	**(1.672)**	**(1.516)**	**4.082**	**43.661**

Line 7 Net interest receivable less payable includes £6.824m interest payable on Alpha PPP finance lease.

Comparison with prior year results

	2014-2015	2013-2014	Variance
	£m	£m	%
Turnover	364.407	361.313	0.9%
CC Operating profit	59.111	19.799	198.6%
CC profit/(loss) attributable to shareholders	(7.717)	8.979	(186.0%)
Dividends	(21.562)	(21.391)	(0.8)%
CC (loss) retained	(29.279)	(12.412)	(135.9)%

Sales have increased in 2015 by £3.094m (0.9%) due to:

- Increase in unmeasured household income £2.099m
- Decrease in unmeasured non-household income (£0.730m)
- Increase in measured non-household income £3.427m
- Decrease in trade effluent income (£0.328m)
- Decrease in road drainage income (£0.895m)
- Decrease in large user income (£0.437m)
- Decrease in other income (£0.042m)

  Total increase **£3.094m**

(see Table 23 for detail on water and sewerage income changes)

Operating costs have fallen by £37.099m (10.8%) over the same period and the overall impact is that the CC operating profit margin has risen from 5.5% to 16.2%. As in previous years the overall focus on cost reduction throughout the business has continued during 2014-15 with operating costs before taking account of IRC, CCD and amortisation have

fallen by £3.3m from £177.3m to £174.0m (1.9%). However the most significant factor contributing to the decrease in operating costs has been the fall in CCD of £31.3m (from £135.5m to £104.2m) which has led to the significant rise in the operating margin. Some of the main changes in operating costs in 2015 include:

- Power costs have fallen by £1.4 m (4.1%)
- Customer services costs have fallen by £0.5m (5.6%)
- Rates costs have risen by £1.1m (8.4%)
- General and support costs have fallen by £2.0m (5.5%)
- PPP Unitary charges have fallen by £0.4m (1.1%)
- CCD has fallen by £31.3m (23.1%)*.

*The CCD has fallen as a result of a reduction in the level of decommissioning in 2014-15 compared to 2013-14.

The profit attributable to shareholders in 2013-14 of £8.979m has been reduced to a loss attributable to shareholders of £7.717m in 2014-15 (a decrease in profitability of £16.696m or 186.0%) primarily due to:

- Net interest payable increase by £3.4m.
- Deferred tax has moved from a credit of £13.8m to a charge of £24.0m increasing costs year on year by £37.8m.
- Working capital and financing adjustments decreased by £15.9m (although remain credit items).

Offset by:

- Operating costs decrease by £37.1m.
- Sales increase of £3.1m.
- Increase in cc profit on disposal of £0.3m.

There was a dividend declared and approved for 2013/14 of £23.543m (accounted for in 2014-15) with £21.562m attributed to appointed activities.

Cost components in Operating Costs

The following cost components of Line 2 (£306.624m) exceed £5m in 2014-15:

Wages and Salaries	40.836m*^
Other pension costs	10.932m*
Power	32.682m*
Rates	13.881m*
Contractors	19.593m*
Out sourced billing	6.202m
PPP Operating Charges –Alpha	8.431m
PPP Operating Charges –Omega	22.055m^^
IRC	32.309m
Current cost depreciation	104.185m
Total	**291.106m**
	(94.9% of total Operating Costs)

* includes an amount relating to unappointed activities that cannot be extracted out for the summary above.
^ stated before an amount is capitalised (see later in commentary).
^^ stated net of residual interest credit.

Voluntary Early Retirement and Pension

The VER schemes in 2014/15 and 2013/14 can be summarised as follows:

	2014-15	**2013-14**
Number	4*	7*
Non pension element	-	£0.055m
Pension element	£0.540m	£0.457m
Total	£0.540m	£0.512m

***** all 4 ill health retirees (2013/14- 4 ill health retirees).

Voluntary Severance (VS) Scheme

The VS schemes in 2014/15 and 2013/14 can be summarised as follows:

	2014-15	**2014-15**	**2014-15**	**2013-14**	**2013-14**	**2013-14**
	VS Under 55	VS 60+	**Total**	VS Under 55	VS 60+	**Total**
Number	-	7	**7**	6	9	**15**
Total	-	0.154	**0.154**	£0.464m	£0.208m	**£0.672m**

The future VER/VS schemes are still to be finalised.

The total costs, payments and accruals for VER and VS are as follows:

	2014-15	**2013-14**	**2014-15**	**2013-14**
	VER	**VER**	**VS**	**VS**
Total Cost	£0.540m	£0.512m	£0.154m	£0.672m
Payments in year	Nil	£0.055m	Nil	£0.672m
Accrual at year end due to employees	Nil	Nil	£0.154m	Nil
Accrual at year end due to pension fund	£0.540m	£0.457m	Nil	Nil

The entries for the pension related elements of VER and the change in the pension asset (before deferred tax) over the year can be summarised as follows:

	BS	**BS**	**BS**	**P&L**	**P&L**	**P&L**	**P&L**	**P&L**
	A/C 2956	**A/C 1752**	**A/C 3119**	**A/C 5117**	**A/C 5155**	**A/C 5140**	**A/C 4511**	**TOTAL**
	£m	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**
Opening Surplus-pension	3.480							
Current Service Costs	(10.190)			3.085	7.105			10.190

Admin. Costs	(0.742)				0.742			0.742
Past Service Costs	(1.018)				0.478	0.540		1.018
Paid	10.536	(10.536)						
Net Finance Income	0.155						(0.155)	(0.155)
Actuarial Loss	(13.851)		13.851					
Closing Liability-pension	(11.630)							

Key to Account codes

Code		
2956	BS	Pension
1752	BS	Bank
3119	BS	STRGL
5117	P&L Acct	Superannuation – Industrial
5155	P&L Acct	Superannuation – Non Industrial
5140	P&L Acct	Retirement –movement in provision
4511	P&L Acct	Interest Received

There are no non pension related lump sums in relation to VER 2014/15 as the four leavers left under ill-health retirement with pension fund payments only.

The accounting entries for the VS schemes for 2014/15 are as follows:
Dr 5140 Retirement movement in provision £0.154 m
Cr 2313 Accruals £0.154 m

NIW Pension Fund

The Statutory Accounts at 31 March 2015 (Note 21) shows a full disclosure for the NIW pension fund. An extract of this is shown below:

Movements in fair value of plan assets

	Total year to 31 March 2015	Total year to 31 March 2014
	£000	£000
At the beginning of the year	**170,993**	155,788
Movement in year		
Expected return on assets	**-**	-
Interest on pension scheme assets	**8,018**	7,100
Contributions by plan participants	**881**	861
Contributions by employer	**10,536**	11,424
Actuarial gain/(loss)	**17,328**	(1,260)
Benefits paid	**(2,901)**	(2,799)
Settlement payments from plan	**-**	527
Administrative expenses and insurance	**(742)**	(648)
	204,113	170,993

Movement in present value of defined benefit obligations

	Total year to 31 March 2015 £000	Total year to 31 March 2014 £000
At the beginning of the year	**167,513**	161,142
Movement in year		
Current service cost	**10,190**	11,200
Interest on scheme liabilities	**7,863**	7,400
Past service costs	**1,018**	457
Actuarial (gain)/loss	**31,179**	(11,275)
Contributions by plan participants	**881**	861
Benefits paid	**(2,901)**	(2,799)
Settlement payments from plan	**-**	527
	215,743	167,513

Scheme assets and liabilities

	Total at 31 March 2015 £000	Total at 31 March 2014 £000
Equities	**59,871**	49,362
Corporate bonds	**37,447**	31,640
Gilts	**54,588**	45,455
Other	**43,042**	36,123
Property	**9,165**	8,413
Total market value of assets	**204,113**	170,993
Actuarial value of liabilities	**(215,743)**	(167,513)
Surplus/ (deficit) in the scheme - pension asset / (liability)	**(11,630)**	3,480
Related deferred tax (liability)/asset	**2,326**	(696)
Net pension asset / (liability)	**(9,304)**	2,784

The year end pension liability as shown above before deferred tax is £11.630m.

There have been no pension costs directly allocated to non appointed costs as management consider that the cost of obtaining this information would outweigh any benefits of it being available. However the operating costs attributed to non appointed activities would include an apportionment of pension costs.

Business Improvement costs

Business improvement costs are not analysed through the Oracle financial system but are separately identified at month end for reporting purposes only. These costs are included within line 2 – current cost operating costs and can be summarised as follows:

	£m
Salaries	1.256
Hired and contracted	0.266
Materials and Equipment	0.002
Other costs of employment	0.022
Other expenses	0.027
Total	**1.573**

Reprofiling of costs may occur during the year as part of the quarterly reforecasting process.

Capitalisation of costs

During 2014/15 £12.189m of costs were capitalised from the profit and loss account. This can be broken down as follows:

Cost	**£m**
Staff Costs	10.468
Labour charge	0.0015
Overheads capitalised	1.719
Total	**12.189**

The majority of costs capitalised relate to staff costs and overheads. These costs relate to the NIW staff who spend their time on capital projects e.g. Engineering Procurement or Asset Management staff. These costs will add to the value of the completed asset.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 21 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ACTIVITY COSTING ANALYSIS - WATER SERVICE (NIW Only)

	DESCRIPTION	UNITS	DP	1 WATER RESOURCES & TREATMENT	2 WATER DISTRIBUTION	3 WATER SERVICE TOTAL
	SERVICE ANALYSIS - WATER					
A	**DIRECT COSTS**					
1	Employment costs	£m	3	3.665	9.807	13.472
2	Power	£m	3	5.156	3.478	8.634
3	Agencies	£m	3	0.000	0.000	0.000
4	Hired and contracted services	£m	3	2.139	5.788	7.927
5	Associated companies	£m	3	0.000	0.000	0.000
6	Materials and consumables	£m	3	3.447	0.508	3.955
7	Service charges	£m	3	0.653	0.007	0.660
8	Bulk supply imports	£m	3	0.000	0.000	0.000
9	Other direct costs	£m	3	0.003	0.037	0.040
10	Total direct costs	£m	3	15.063	19.625	34.688
11	General and support expenditure	£m	3	6.917	7.482	14.399
12	Functional expenditure	£m	3	21.980	27.107	49.087
B	**OPERATING EXPENDITURE**					
13	Customer services	£m	3			4.327
14	Scientific services	£m	3			1.368
15	Other business activities	£m	3			1.037
16	Total business activities	£m	3			6.732
17	Rates	£m	3			4.620
18	Doubtful debts	£m	3			0.554
19	Exceptional items	£m	3			0.000
20	Total opex less third party services	£m	3			60.994
21	Third party services - opex	£m	3			0.004
21a	PPP Unitary Charges (Opex element)	£m	3			
22	Total operating expenditure	£m	3			60.998
22a	Payment by concessionaire to operator	£m	3			
C	**OPEX)**					
23	Reactive and planned maintenance infrastructure	£m	3	0.000	8.452	8.452
24	Reactive and planned maintenance non-infrastructure	£m	3	0.805	4.570	5.375
D	**CAPITAL MAINTENANCE**					
25	Infrastructure renewals charge (excluding third party services)	£m	3	22.488	0.000	22.488
26	Current cost depreciation (allocated)	£m	3	17.289	16.023	33.312
27	Amortisation of deferred credits	£m	3			-1.562
28	Amortisation of intangible assets	£m	3			0.000
29	Business activities current cost depreciation (non-allocated)	£m	3			0.164
30	Capital maintenance excluding third party services	£m	3			54.402
31	Third party services - current cost depreciation	£m	3			0.000
32	Third party services - infrastructure renewals charge	£m	3			0.000
33	Total capital maintenance	£m	3			54.402
34	Total operating costs	£m	3			115.400

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 21 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ACTIVITY COSTING ANALYSIS - WATER SERVICE - (PPP Only)

	DESCRIPTION	UNITS	DP	1 WATER RESOURCES & TREATMENT	2 WATER DISTRIBUTION	3 WATER SERVICE TOTAL
	SERVICE ANALYSIS - WATER					
A	**DIRECT COSTS**					
1	Employment costs	£m	3			
2	Power	£m	3	[redacted]	[redacted]	[redacted]
3	Agencies	£m	3			
4	Hired and contracted services	£m	3			
5	Associated companies	£m	3			
6	Materials and consumables	£m	3			
7	Service charges	£m	3	0.081	0.000	0.081
8	Bulk supply imports	£m	3			
9	Other direct costs	£m	3	0.000	0.000	0.000
10	Total direct costs	£m	3	5.555	0.000	5.555
11	General and support expenditure (NIW Only)	£m	3	[redacted]	[redacted]	[redacted]
12	Functional expenditure	£m	3	5.613	0.000	5.613
B	**OPERATING EXPENDITURE**					
13	Customer services	£m	3			
14	Scientific services	£m	3			0.000
15	Other business activities	£m	3			
16	Total business activities	£m	3			0.000
17	Rates	£m	3			[redacted]
18	Doubtful debts	£m	3			
19	Exceptional items	£m	3			
20	Total opex less third party services	£m	3			8.935
21	Third party services - opex	£m	3			
21a	PPP Unitary Charges (Opex element)	£m	3			[redacted]
22	Total operating expenditure	£m	3			[redacted]
22a	Payment by concessionaire to operator	£m	3	[redacted]	[redacted]	[redacted]
C	**OPEX)**					
23	Reactive and planned maintenance infrastructure	£m	3			
24	Reactive and planned maintenance non-infrastructure	£m	3			
D	**CAPITAL MAINTENANCE**					
25	Infrastructure renewals charge (excluding third party services)	£m	3	0.000	0.000	0.000
26	Current cost depreciation (allocated)	£m	3	4.082	0.000	4.082
27	Amortisation of deferred credits	£m	3			0.000
28	Amortisation of intangible assets	£m	3			0.000
29	Business activities current cost depreciation (non-allocated)	£m	3			0.000
30	Capital maintenance excluding third party services	£m	3			4.082
31	Third party services - current cost depreciation	£m	3			0.000
32	Third party services - infrastructure renewals charge	£m	3			0.000
33	Total capital maintenance	£m	3			4.082
34	Total operating costs	£m	3			[redacted]

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 21 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ACTIVITY COSTING ANALYSIS - WATER SERVICE - (TOTAL)

	DESCRIPTION	UNITS	DP	1 WATER RESOURCES & TREATMENT	2 WATER DISTRIBUTION	3 WATER SERVICE TOTAL
	SERVICE ANALYSIS - WATER					
A	**DIRECT COSTS**					
1	Employment costs	£m	3	3.665	9.807	13.472
2	Power	£m	3	[redacted]	[redacted]	[redacted]
3	Agencies	£m	3	0.000	0.000	0.000
4	Hired and contracted services	£m	3	2.139	5.788	7.927
5	Associated companies	£m	3	0.000	0.000	0.000
6	Materials and consumables	£m	3	3.447	0.508	3.955
7	Service charges	£m	3	0.734	0.007	0.741
8	Bulk supply imports	£m	3	0.000	0.000	0.000
9	Other direct costs	£m	3	0.003	0.037	0.040
10	Total direct costs	£m	3	20.618	19.625	40.243
11	General and support expenditure	£m	3	[redacted]	[redacted]	[redacted]
12	Functional expenditure	£m	3	27.593	27.107	54.700
B	**OPERATING EXPENDITURE**					
13	Customer services	£m	3			4.327
14	Scientific services	£m	3			1.368
15	Other business activities	£m	3			1.037
16	Total business activities	£m	3			6.732
17	Rates	£m	3			[redacted]
18	Doubtful debts	£m	3			0.554
19	Exceptional items	£m	3			0.000
20	Total opex less third party services	£m	3			69.928
21	Third party services - opex	£m	3			0.004
21a	PPP Unitary Charges (Opex element)	£m	3			[redacted]
22	Total operating expenditure	£m	3			[redacted]
22a	Payment by concessionaire to operator	£m	3	[redacted]	[redacted]	[redacted]
C	**OPEX)**					
23	Reactive and planned maintenance infrastructure	£m	3	0.000	8.452	8.452
24	Reactive and planned maintenance non-infrastructure	£m	3	0.805	4.570	5.375
D	**CAPITAL MAINTENANCE**					
25	Infrastructure renewals charge (excluding third party services)	£m	3	22.488	0.000	22.488
26	Current cost depreciation (allocated)	£m	3	21.371	16.023	37.394
27	Amortisation of deferred credits	£m	3			-1.562
28	Amortisation of intangible assets	£m	3			0.000
29	Business activities current cost depreciation (non-allocated)	£m	3			0.164
30	Capital maintenance excluding third party services	£m	3			58.484
31	Third party services - current cost depreciation	£m	3			0.000
32	Third party services - infrastructure renewals charge	£m	3			0.000
33	Total capital maintenance	£m	3			58.484
34	Total operating costs	£m	3			[redacted]

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 22 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ACTIVITY COSTING ANALYSIS - SEWERAGE SERVICE (NIW Only)

	DESCRIPTION	UNITS	DP	1 SEWERAGE	2 SEWAGE TREATMENT	3 SLUDGE TREATMENT & DISPOSAL	4 SEWERAGE SERVICE TOTAL
	SERVICE ANALYSIS - SEWERAGE						
A	**DIRECT COSTS**						
1	Employment costs	£m	3	3.863	4.445	0.260	8.568
2	Power	£m	3	4.749	8.452	1.419	14.619
3	Agencies	£m	3	0.000	0.000	0.000	0.000
4	Hired and contracted services	£m	3	5.967	2.182	2.404	10.553
5	Associated companies	£m	3	0.000	0.000	0.000	0.000
6	Materials and consumables	£m	3	0.171	0.410	0.492	1.072
7	Service charges	£m	3	0.154	0.675	0.182	1.012
8	Other direct costs	£m	3	0.003	0.003	0.000	0.007
9	Total direct costs	£m	3	14.906	16.167	4.757	35.830
10	General and support expenditure	£m	3	7.262	9.671	1.949	18.882
11	Functional expenditure	£m	3	22.169	25.838	6.705	54.712
B	**OPERATING EXPENDITURE**						
12	Customer services	£m	3				4.200
13	Scientific services	£m	3				1.253
14	Other business activities	£m	3				1.007
15	Total business activities	£m	3				6.460
16	Rates	£m	3				4.928
17	Doubtful debts	£m	3				0.282
18	Exceptional items	£m	3				0.000
19	Total opex less third party services	£m	3				66.382
20	Third party services - opex	£m	3				0.000
20a	PPP Unitary Charges (Opex element)	£m	3				
21	Total operating expenditure	£m	3				66.382
21a	Payment by concessionaire to operator	£m	3				
C	**OPEX)**						
22	Reactive and planned maintenance infrastructure	£m	3	3.625	0.000	0.000	3.625
23	Reactive and planned maintenance non-infrastructure	£m	3	9.820	2.702	0.000	12.522
D	**CAPITAL MAINTENANCE**						
24	Infrastructure renewals charge (excluding third party services)	£m	3	9.821		0.000	9.821
25	Current cost depreciation (allocated)	£m	3	2.690	62.219	1.714	66.623
26	Amortisation of deferred credits	£m	3				-2.324
27	Amortisation of intangible assets	£m	3				0.000
28	Business activities current cost depreciation (non-allocated)	£m	3				0.004
29	Capital maintenance excluding third party services	£m	3				74.124
30	Third party services - current cost depreciation	£m	3				0.000
31	Third party services - infrastructure renewals charge	£m	3				0.000
32	Total capital maintenance	£m	3				74.124
33	Total operating costs	£m	3				140.506

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 22 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ACTIVITY COSTING ANALYSIS - SEWERAGE SERVICE (PPP Only)

	DESCRIPTION	UNITS	DP	1 SEWERAGE	2 SEWAGE TREATMENT	3 SLUDGE TREATMENT & DISPOSAL	4 SEWERAGE SERVICE TOTAL
	SERVICE ANALYSIS - SEWERAGE						
A	**DIRECT COSTS**						
1	Employment costs	£m	3				
2	Power	£m	3	[redacted]	[redacted]	[redacted]	[redacted]
3	Agencies	£m	3				
4	Hired and contracted services	£m	3				
5	Associated companies	£m	3				
6	Materials and consumables	£m	3				
7	Service charges	£m	3				
8	Other direct costs	£m	3	0.000	0.000	0.000	0.000
9	Total direct costs	£m	3	0.000	2.039	1.601	3.640
10	General and support expenditure (NIW Only)	£m	3	[redacted]	[redacted]	[redacted]	[redacted]
11	Functional expenditure	£m	3	0.000	2.208	1.654	3.862
B	**OPERATING EXPENDITURE**						
12	Customer services	£m	3				
13	Scientific services	£m	3				0.075
14	Other business activities	£m	3				
15	Total business activities	£m	3				0.075
16	Rates	£m	3				1.011
17	Doubtful debts	£m	3				
18	Exceptional items	£m	3				
19	Total opex less third party services	£m	3				4.948
20	Third party services - opex	£m	3				
20a	PPP Unitary Charges (Opex element)	£m	3				[redacted]
21	Total operating expenditure	£m	3				[redacted]
21a	Payment by concessionaire to operator	£m	3	[redacted]	[redacted]	[redacted]	[redacted]
C	**OPEX)**						
22	Reactive and planned maintenance infrastructure	£m	3				
23	Reactive and planned maintenance non-infrastructure	£m	3				
D	**CAPITAL MAINTENANCE**						
24	Infrastructure renewals charge (excluding third party services)	£m	3	0.000		0.000	0.000
25	Current cost depreciation (allocated)	£m	3	0.000	0.000	0.000	0.000
26	Amortisation of deferred credits	£m	3				0.000
27	Amortisation of intangible assets	£m	3				0.000
28	Business activities current cost depreciation (non-allocated)	£m	3				0.000
29	Capital maintenance excluding third party services	£m	3				0.000
30	Third party services - current cost depreciation	£m	3				0.000
31	Third party services - infrastructure renewals charge	£m	3				0.000
32	Total capital maintenance	£m	3				0.000
33	Total operating costs	£m	3				[redacted]

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 22 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ACTIVITY COSTING ANALYSIS - SEWERAGE SERVICE (Total)

	DESCRIPTION	UNITS	DP	1 SEWERAGE	2 SEWAGE TREATMENT	3 SLUDGE TREATMENT & DISPOSAL	4 SEWERAGE SERVICE TOTAL
	SERVICE ANALYSIS - SEWERAGE						
A	**DIRECT COSTS**						
1	Employment costs	£m	3	3.863	4.445	0.260	8.568
2	Power	£m	3	[redacted]	[redacted]	[redacted]	[redacted]
3	Agencies	£m	3	0.000	0.000	0.000	0.000
4	Hired and contracted services	£m	3	5.967	2.182	2.404	10.553
5	Associated companies	£m	3	0.000	0.000	0.000	0.000
6	Materials and consumables	£m	3	0.171	0.410	0.492	1.073
7	Service charges	£m	3	0.154	0.675	0.182	1.011
8	Other direct costs	£m	3	0.003	0.003	0.000	0.006
9	Total direct costs	£m	3	14.906	18.206	6.358	39.470
10	General and support expenditure	£m	3	[redacted]	[redacted]	[redacted]	[redacted]
11	Functional expenditure	£m	3	22.169	28.046	8.359	58.574
B	**OPERATING EXPENDITURE**						
12	Customer services	£m	3				4.200
13	Scientific services	£m	3				1.328
14	Other business activities	£m	3				1.007
15	Total business activities	£m	3				6.535
16	Rates	£m	3				5.939
17	Doubtful debts	£m	3				0.282
18	Exceptional items	£m	3				0.000
19	Total opex less third party services	£m	3				71.330
20	Third party services - opex	£m	3				0.000
20a	PPP Unitary Charges (Opex element)	£m	3				[redacted]
21	Total operating expenditure	£m	3				[redacted]
21a	Payment by concessionaire to operator	£m	3	[redacted]	[redacted]	[redacted]	[redacted]
C	**OPEX)**						
22	Reactive and planned maintenance infrastructure	£m	3	3.625	0.000	0.000	3.625
23	Reactive and planned maintenance non-infrastructure	£m	3	9.820	2.702	0.000	12.522
D	**CAPITAL MAINTENANCE**						
24	Infrastructure renewals charge (excluding third party services)	£m	3	9.821		0.000	9.821
25	Current cost depreciation (allocated)	£m	3	2.690	62.219	1.714	66.623
26	Amortisation of deferred credits	£m	3				-2.324
27	Amortisation of intangible assets	£m	3				0.000
28	Business activities current cost depreciation (non-allocated)	£m	3				0.004
29	Capital maintenance excluding third party services	£m	3				74.124
30	Third party services - current cost depreciation	£m	3				0.000
31	Third party services - infrastructure renewals charge	£m	3				0.000
32	Total capital maintenance	£m	3				74.124
33	Total operating costs	£m	3				[redacted]

Tables 21 & 22 Activity Costing Analysis – Water & Sewerage Service

The costs in Tables 21 & 22 are populated with the updated information available at 8th May 2015 for the year ended 31 March 2015.

Allocation of costs between expenditure types

Expenditure is classified as capital expenditure if it satisfies the following criteria:

- It exceeds the threshold limit set at £1,000 (Note: land has a capital threshold of zero) and,
- It was used for one of the following purposes:
    1. Initial construction or purchase of a fixed asset (e.g. land, buildings, vehicles, plant, computers);
    2. Extension of a fixed asset which increases its size or operating capacity;
    3. Improvement of a fixed asset beyond the assets original condition on construction or acquisition;
    4. To substantially extend the original life of a fixed asset;
    5. To renew or replace an existing fixed asset;
    6. Contributions paid to another body towards the cost of work that would be fixed asset expenditure were it undertaken by NI Water, provided that the resultant ownership of the assets is vested in NI Water.

Some items, individually, may be valued at less than £1,000 but because they form part of an operational configuration they should be capitalised; for example workstations which comprise a monitor, keyboard, central processor, mouse and printer should be capitalised.

Cost includes own work capitalised comprising the direct costs of materials, labour and applicable overheads. Interest costs relating to the acquisition of fixed assets have not been capitalised in AIR15. This is consistent with past years.

Fixed assets comprise:

- Infrastructure assets
  Infrastructure assets comprise a network of systems consisting of mains and sewers, impounding and pumped raw water storage reservoirs, sludge pipelines and sea outfalls. The infrastructure renewals charge for infrastructure assets is included in Tables 21 and 22 and is the estimated level of annual expenditure required to maintain the operating capability of the network, which is based on the Company's Asset Management Plan.
- Other assets
  Other assets comprise:
    a) Land and non-operational buildings,
    b) Operational assets (consisting of sites used for water and wastewater treatment, pumping or storage where not classified as infrastructure), and
    c) Vehicles, mobile plant and equipment.

Allocation of costs between service areas

All costs entered to NI Water's Oracle General Ledger (GL) have a 5-segment coding combination (account, cost centre, service activity, location and project). For the purpose of Tables 21 & 22 Opex costs from the General Ledger have been allocated between Water and Sewerage services and between service areas within the Water and Sewerage activities by mapping NI Water's Oracle General Ledger to the tables using the coding structure.

Expense Groups are mapped to the NIAUR cost categories – **Appendix 1** provides details of this mapping. The Services Activities segment is mapped to the NIAUR service areas – **Appendix 2** provides details of this mapping.

The only exception to this is in direct General & Support expenditure, which can relate to more than one service area or activity. These costs are collated into 5 separate 'Overhead Pots' and are apportioned either on the basis of the directly coded spend; on the basis of the total direct costs or in the case of M&E function costs using a split provided by the business. The quantum of the apportionment of the general Overhead Pots has reduced significantly from AIR14 to AIR15 (by circa £2M). This is explained in the General & Support section further on in the commentary. The table below shows the basis of apportionment of 'indirect' General & Support expenditure between service activities.

Allocation of General and Suppo	Water		Sewerage			
Description	R&T	Distribution	Sewerage	Sewage Treatment	Sludge Treatment & Disp	Comments
G&S Overhead Pot 1	25.5%	25.2%	18.9%	22.5%	7.9%	Non ops general spend. Excludes CS, SS & Regulation
G&S Overhead Pot 2a - Water	50.3%	49.7%	0.0%	0.0%	0.0%	Water related activities only
G&S Overhead Pot 2b - Sewerage	0.0%	0.0%	38.4%	45.6%	16.1%	Sewerage activities only
G&S Overhead Pot 3 SA 390	25.5%	25.2%	18.9%	22.5%	7.9%	Water and sewerage networks spend only
G&S Overhead Pot 3 M&E	7.0%	10.0%	32.0%	51.0%	0.0%	Function

The percentage splits in AIR15 used to allocate General & Support expenditure are consistent with AIR14. The allocation to Water from General & Support Overhead Pot 1, which contains approx. 69% of the costs, remains consistent with AIR14. The main change in allocations from AIR14 is in the allocation of G&S Overhead Pot 3 M&E which has reduced its allocation to water from 23% in AIR14 to 17% in AIR15. This is due to a revision of the split as advised by the M&E Function based on their activity carried out in the various Functions during the financial year. Further explanation is detailed later in the commentary.

The costs of the CRC Energy Efficiency Scheme are included within Power.

During the year NI Water incurred less than £0.1M in fines, associated costs and provisions for fines. These costs are included within General & Support costs. In 2014/15 NI Water has not paid any fines under the Streetworks (NI) Order.

Allocation of costs to business activities and rates

All costs which relate to business activities e.g. Customer Services, Scientific Services etc., were collated using the relevant cost centre segment from the Oracle General Ledger. The total expenditure attributable to these activities is apportioned to Water and Sewerage on the basis of the directly coded spend. This basis is consistent with past returns. The allocation to Water has increased slightly from 49.5% in AIR14 to 50.7% in AIR15 while allocation to Sewerage has decreased slightly from 50.5% in AIR14 to 49.3% in AIR15.

The table below shows the basis of apportionment for AIR15.

Apportionment of business activities	Water		Sewerage		
Description	R&T	Distribution	Sewerage	Sewage Treatment	Sludge Treatment & Disp
BASIS - Total spend (Includes general & Support)	25.3%	25.4%	18.8%	22.5%	8.0%
Apportionment					
Water / Sewerage split	50.7%		49.3%		

Rates were allocated between Table 21 and Table 22 using the rates bills. The rates charge can be specifically identified from the rates bill. Admin properties are split based on the business activity apportionment in the table above. In AIR15 overall rates are split

57% Water and 43% Sewerage which is slightly different from the AIR14 split of 63% Water 37% Sewerage. The reason for the change is due to ongoing work with Land & Property Services (LPS) which has resulted in a more refined basis for the accrual for unbilled WWTWs.

Allocation of costs to unappointed activities

A final allocation of costs has been made to unappointed activities based on an assumption that these activities are either charged on a full cost recovery basis, and thus costs broadly mirror income generated, or the income does not give rise to any additional operational costs (e.g. rents received or fishing rights). This is consistent with previous AIR returns.

Atypical costs and provisions

Reorganisation costs

Reorganisation costs included within reported totals on Tables 21 and 22 are provided in the table below:

Description	Amount	Table 21/22 location
Business Improvement Programme	£1.6M	General & Support – all activities
Voluntary Early Retirement Scheme \ Voluntary Severance (VER \ VS)	£0.7M	Employment Costs and General & Support – all activities
Total	**£2.3M**	

Business Improvement Programme

The Business Improvement Programme ("BIP") seeks to address four strategic strands:

- Improve services to Customers;
- Develop the NI Water people;
- Build a more efficient and effective organisation; and
- Exceed, where possible, quality compliance standards.

Total opex on the BI Programme in AIR15 was £1.6M which is relatively unchanged from AIR14 (£1.4M).

Voluntary Early Retirement

During 2014/15 NI Water further reduced the workforce resulting in the release of Voluntary Early Retirement (VER) and Voluntary Severance (VS) schemes. Further details on the staff reduction programme are contained within the Annual Report.

The cost of £0.7M can be broken down as follows:

Description	Amount
VER / VS scheme payments	£0.2M
Ill Health Retirement payments	£0.5M
Total	**£0.7M**

The payments made during the year totalled £0.7M in relation to the 2014/15 scheme while the corresponding charge for AIR14 was £1.3M.

Industrial Action

There was an industrial action incident in NIW over the months of December and January. The total cost of the incident was £1.7M but through overall efficiencies this had a nil impact on year outturn.

Employment Costs

Staff costs for total NI Water come to circa £47M as detailed below which is consistent with AIR14. These costs include the £0.7M VER\VS costs outlined above. Only circa £22M is included in Employment Costs (Line 1) in Tables 21 & 22 (AIR14 circa £22M).

The table below provides the reconciliation between these amounts:

Description	Amount	Table 21/22 location
Industrial Wages	£17.0M	
Salaries	£26.7M	
Temporary Staff	£1.1M	
Other Costs of Employment	£1.0M	
Staff Expenses	£1.1M	
Total NI Water staff costs	**£46.9M**	
Less:		
Customer Services	(£3.2M)	Customer Services
Scientific Services	(£1.3M)	Scientific Services
Regulation	(£0.6M)	Other Business Activities
Unallocated	(£19.7M)	General & Support
Total Employment Costs	**£22.1M**	**£13.5M Table 21 and £8.6M Table 22**

The unallocated amount of circa £19.7M is included in General & Support and has been apportioned between Table 21 and 22, across each of the columns, based on total direct costs, with the exception of M&E Employment costs which are allocated on the basis of a split provided by the business.

Total NI Water staff costs have decreased by approximately £0.9M from AIR14 due to a reduction in Industrial wages of £0.3M; Salaries of £0.5M and Other Costs of Employment of £0.5M which was offset by an increase of £0.3M in Temporary Staff.

The reduction in Industrial Wages was due to a reduction in overtime paid during the year. Salaries were reduced as a result of a higher amount of capitalisation. Other Costs of Employment have reduced as the VER scheme has reduced from previous years. Temporary support staff has increased in Customer Services due to temps covering permanent NIW staff who are working on Business Improvement projects or capital projects.

Hired & Contracted

Hired and Contracted Services of circa £18M in Table 21 and Table 22 are split out in the table below. The corresponding charge in the AIR14 was also circa £18M.

Hired & Contracted Services:	Table 21	Table 22	TOTAL
Operational Contractors	£7.4M	£10.5M	£17.9M
Other Contractors	£0.5M	£0.0M	£0.5M
Consultants	£0.0M	£0.0M	£0.0M
TOTAL	**£7.9M**	**£10.5M**	**£18.4M**

Within the Operational Contractors costs of £7.4M in Table 21, circa £2M relates to the cost of contractors for Water Treatment with the balance being the cost for the hire of plant and contractors to facilitate the maintenance of the networks. This is consistent with AIR14. Within the Operational Contractors cost of £10.5M in Table 22, circa £2.2M is for the cost of the various Sludge Disposal Routes, circa £6.0M is for the maintenance of the Sewerage network and the balance relates to the costs of Sewage Treatment (including the costs of Skip Hire etc.).

There is no spend on Consultants Fees within Hired and Contracted in AIR15.

Hired and Contracted Services are consistent with AIR14.

General & Support Costs

General & Support costs have decreased by circa £1.9M from AIR14 (£35.5M) to AIR15 (£33.6M).

The principal costs in this expenditure line are:

Description	Amount	Table 21/22 location
Unallocated Employment Costs	£19.7M	Included in General & Support (Removed from Employment Costs)
Unallocated Power	£0.3M	Included in General & Support (Removed from Power Costs)
Unallocated Hired & Contracted Costs	£5.1M	Included in General & Support (Removed from Hired & Contracted)
Unallocated Materials & Consumables	£1.2M	Included in General & Support (Removed from Materials & Consumables)
Unallocated Other Direct Costs	£4.5M	Included in General & Support (Removed from Other Direct Costs)
Communication	£0.9M	General & Support
Mobile V&P Charges	£1.9M	General & Support
Other	£0.1M	General & Support
Total	**£33.6M**	**£14.5M Table 21 and £19.1M Table 22**

General & Support costs were apportioned across Table 21 & Table 22 based on either the total direct costs allocated to each column or in the case of the M&E Function based on a split as supplied by the Function. Service Activities are mapped to the NIAUR service areas in **Appendix 2**. This approach was consistently applied to both AIR14 and AIR15. See the **Allocation of costs between service areas** section at the start of the commentary.

The main decreases from AIR15 are in Unallocated Employment Costs (£0.5M decrease); Unallocated Other Direct Costs (£0.7M decrease) and Other (£0.4M decrease).

The Unallocated Employment Costs decreases are driven by a decrease in Salaries due to a reduction in superannuation costs.

The main driver for the decrease in Unallocated Other Direct Costs is as a result of a decrease in Public Liability as a result of decreased claims.

The reduction in Other was as a result of reduction in Regulatory Costs (£0.2M); reduced V&P repairs (£0.1M) and a reduction in Other Grants & Subscriptions (£0.1M).

Table 21 – NI Water Total

A - Direct Costs

Table 21 Total Functional Expenditure has decreased by circa £0.9M from AIR14 to AIR15. This is primarily due to the reduction in General & Support expenditure of circa £1.1M and some other minor variances which are explained on a line by line basis below:

- Line 1: Employment costs have increased by circa £0.1M from AIR14.
- Line 2: Power costs include electricity costs, fuel costs for power generation and costs for the CRC Energy Efficiency Scheme. Overall the costs have remained consistent in AIR15 from AIR14. Power costs include [redacted] related to PPP.
- Line 3: Agencies – there are no costs in this line.
- Line 4: Hired and Contracted Services have increased by circa £0.3M from AIR14. The increase has been driven by an increase in Water Distribution (WD) of £0.4M off-set by a reduction of £0.1M in Water Resources & Treatment (WRT). The main reason for the increase in WD was as a result of the Industrial Action Incident in December and January.
- Line 5: Associated companies – there are no costs in this line.
- Line 6: Materials & Consumables have decreased by circa £0.1M from AIR14.
- Line 7: Service Charges – the costs are £0.7M with the majority of the costs in WRT for abstraction licences. These are consistent with AIR14. Service Charges include circa [redacted] for PPP.
- Line 8: Bulk Supply imports – there are no costs in this line.
- Line 9: Other Direct Costs are immaterial and in line with AIR14.
- Line 10: Total Direct Costs – this is a calculated line and is the total of Line 1-9. AIR15 direct costs are £0.2M higher than AIR14. This is driven by the increase in Hired and Contracted services which have been off-set by the slight decreases in the other lines as detailed above.
- Line 11: General & Support expenditure has decreased by circa £1.1M from AIR14 to AIR15. The reason for the decrease in the costs in Table 21 is the decrease in the overall General & Support expenditure (as already discussed) combined with the changes in allocation.

  The percentages used are calculated on the total of Direct Costs for General & Support Pot 1 & 2 which have remained in line with AIR14. However General & Support Pot 3 M&E has changed from AIR14. WRT has reduced from 10% to 7% while WD has reduced from 13% to 10% resulting in a total reduction for Table 21 of 6%. See the Allocation of costs between service areas section at the start of the commentary. Service Activities are mapped to the NIAUR service areas in **Appendix 2**. The NI Water total costs include circa [redacted] for PPP.

- Line 12: This is the calculated total line for functional expenditure which has decreased by circa £0.9M mainly due to the decrease in General & Support expenditure off-set by the increase in Hired & Contracted as discussed above. Line 12 includes [redacted] of costs associated with PPP (AIR14 [redacted]).

B - Operating Expenditure

- Line 13: Customer Services costs have decreased by circa £0.1M compared to AIR14 in Table 21. Customer Services costs are apportioned based on the percentage of direct costs from Table 21 & 22 and are broadly in line with the split in previous years. In AIR15 the percentage split was calculated at 50.7% Table 21 and 49.3% Table 22. In AIR14 the percentage split was 49.5% and 50.5% between Table 21 & 22 respectively.

- Line 14: Scientific Services costs have increased by circa £0.2M from AIR14. Scientific Services costs have been split using the same percentage basis as Customer Services as detailed above in line 13.
- Line 15: Other Business Activities – Regulatory costs have decreased from AIR14 by circa £0.1M in Table 21. This is due to a decrease in payments to the NIAUR. These costs are apportioned on the same basis as Line 13 and Line 14.
- Line 16: Total Business Activities – this is a calculated line and is the total of Line 13, 14 and 15. The decrease from AIR14 of circa £0.1M is driven by the decreases as detailed above.
- Line 17: Local authority rates have decreased slightly in AIR15 from £8.0M in AIR14 to £7.9M in AIR15. Rates include circa [redacted] relating to PPP sites.
- Line 18: Doubtful debts have remained the same as AIR14 with a charge of £0.6M in AIR15. The doubtful debts have split between Table 21 and Table 22 on a specific line by line basis, consistent with what was done in AIR14.
- Line 19: Exceptional items– there are no costs in this line.
- Line 20: Total Opex less third party services – this is a calculated line and is the total of line 12,16,17,18 and 19. This has decreased by circa £1.0M from AIR14 driven by the decreases in Direct costs as detailed above.
- Line 21: Third party services are immaterial.
- Line 21a: Total PPP Unitary Charge has increased slightly by circa [redacted] from the AIR14 charge at [redacted] in AIR15. See Table 42 commentary for details.
- Line 22: Total operating expenditure, this is a calculated line and is the total of line 20, 21 and 21a. This line has decreased by [redacted] from AIR14 mainly due to the decreases in the General & Support expenditure as discussed above. This agrees to Table 35 line 24.
  Total operating expenditure includes circa [redacted] relating to PPP (AIR14 [redacted]).
- Line 22a: This figure has increased by [redacted] from AIR14 and varies from year to year depending upon volumes of water dispatched, changes in the volumetric charge, deductions incurred and indexation. See Table 42 commentary for details.

C Reactive & Planned Maintenance

- Line 23: Infrastructure, this figure has decreased by circa £0.8M from AIR14. This is as a result of a reduction on spend on all the activities that feed into this line in WD. The reduction is a combination of reduced activity and rates.
- Line 24: Non-infrastructure, this figure has decreased by circa £1.0M from AIR14. The reduction is mainly within WRT and is due to a decrease in M&E expenditure in WRT. This has also been reflected in the reduction of the apportionment % split used in General and Support Pot 3 M&E.

Leakage costs

Operating costs relating to leakage have increased marginally from £5.1M in AIR14 to £5.3M in AIR15. Capital expenditure has remained consistent from AIR14 to AIR15.

Table 22 – NI Water Total

A - Direct Costs

Total Functional Expenditure in Table 22 has decreased by circa £2.8M from AIR14 to AIR15. This is driven by a decrease in Employment costs of circa £0.4M; Power of circa £1.3M and General & Support expenditure of circa £0.9M. These are explained on a line by line basis below:

- Line 1: Employment costs have decreased in Sewage Treatment by circa £0.3M and by £0.3M in Sludge Treatment & Disposal from AIR14 which offsets an increase of circa £0.2M in Sewerage. The overall decrease is due to a combination of a reduction in staff numbers and efficiencies in overtime.
- Line 2: Power costs include electricity costs and fuel costs for power generation and costs for the CRC Energy Efficiency Scheme. Overall the costs have decreased by £1.3M in AIR15 from AIR14. The main reason for the reduction is due to reduced energy tariffs.

  In AIR15 the Wastewater Field Managers provided a percentage estimate of power costs between Sewage Treatment and Sludge Treatment at each of the WWTWs where there are both activities. These percentages were applied to the power costs to calculate the costs for each activity. This is the same rationale as AIR14.

  There is one electricity meter at Duncrue Street which includes the costs for the Belfast WWTWs and the Incinerators which are operated by PPP. The power team supplied an estimated 48:52 split between the Belfast WWTWs and the Incinerators (based on an estimated KWhr usage and a number of sub-meters) which has been used to calculate the amount relating to Sewage Treatment at Belfast and Sludge Treatment at the Incinerators. In AIR14 the estimated split was 45:55. Power costs include [redacted] for PPP (AIR14 [redacted]).

- Line 3: Agencies – there are no costs in this line.
- Line 4: Hired and Contracted costs have remained consistent with AIR14. However Sewage Treatment has increased by £0.9M which has been offset by a decrease in Sewerage of £0.7M and Sludge Treatment & Disposal of £0.2M. The increase is due to additional degritting at Aeration Lanes and sump cleans with a reduction in spend on the network through capitalisation.
- Line 5: Associated companies– there are no costs in this line.
- Line 6: Materials & Consumables have remained the same as AIR14.
- Line 7: Service Charges – the costs are £1.0M and are £0.1M less than AIR14. The vast majority of these fees relate to NIEA Discharge Consents.
- Line 8: Other Direct Costs are immaterial.
- Line 9: Total Direct Costs – this is a calculated line and is the total of lines 1-8. AIR15 direct costs are £1.9M lower than AIR14. This is driven by the reduction in Employment Costs and Power as detailed above.
- Line 10: General & Support expenditure has decreased by circa £0.9M from AIR14 to AIR15. The reason for the decrease in the costs in Table 22 is the decrease in the overall General & Support expenditure (as already discussed).

  The percentages used are calculated on the total of Direct Costs for General & Support Pot 1 & 2 which have remained in line with AIR14. However General & Support Pot 3 M&E has changed from AIR14. Sewerage has increased from 24% to 32% while Sewage Treatment has significantly decreased from 53% to 51% resulting in a total increase for Table 22 of 6%. Service Activities are mapped to the

NIAUR service areas in **Appendix 2**. See the **Allocation of costs between service areas** section at the start of the commentary. The NI Water Total costs include circa [redacted] for PPP. This is consistent with AIR14.

- Line 11: This is the calculated total line for Functional Expenditure which has decreased by £2.8M. This decrease is driven by the decreases in Salaries, Power and General & Support costs as discussed above. Line 11 includes costs of [redacted] associated with PPP (AIR14 [redacted]).

B - Operating Expenditure

- Line 12: Customer Services costs have decreased by circa £0.4M compared to AIR14 in Table 22. Customer Services costs are apportioned based on the percentage of direct costs from Table 21 & 22. In AIR15 the percentage split was calculated at 50.7% Table 21 and 49.3% Table 22. In AIR14 the percentage split was 49.5% and 50.5% between Table 21 & 22 respectively.
- Line 13: Scientific Services costs have increased marginally from AIR14. Scientific Services costs have been split using the same percentage basis as Customer Services as detailed above in line 12.
- Line 14: Other Business Activities have decreased marginally from AIR14 by circa £0.1M in Table 22. This is due to a decrease in payments to the NIAUR. These costs have been apportioned on the same basis as line 12 and line 13.
- Line 15: Total Business Activities – this is a calculated line and is the total of Line 12, 13 and 14. There has decreased by circa £0.4M from AIR14.
- Line 16: Local authority rates have increased by circa £1.1M from AIR14. The reason for the change is due to ongoing work with Land & Property Services (LPS). This has resulted in a more refined basis for the accrual for unbilled WWTWs. Line 16 includes circa [redacted] for PPP rates.
- Line 17: Doubtful debts have increased marginally from AIR14 by circa £0.05M. The doubtful debts have split between Table 21 and Table 22 on a specific line by line basis, consistent with what was done in AIR14.
- Line 18: Exceptional items– there are no costs in this line.
- Line 19: Total Opex less third party services – this is a calculated line and is the total of Line 11, 15, 16, 17 and 18. This has decreased by £2.0M from AIR14. This is primarily driven by the decrease in Employment Costs, Power and General & Support Costs being off-set by in the increase in Rates as detailed above.
- Line 20: Third party services are immaterial.
- Line 20a: Total PPP Unitary Charge has decreased by circa [redacted] from AIR14. See Table 42 commentary for details.
- Line 21: Total operating expenditure, this is a calculated line and is the total of line 19, 20 and 20a. This line has decreased by £2.5M from AIR14.
  Total operating expenditure includes [redacted] of costs associated with PPP (AIR14 [redacted]).
- Line 21a: Payments to Operators for Sewerage Services has changed to reflect:
  i. The variation in flows (and loads; in the case of Kinnegar) received from the NIW Catchment upon which the Contractor / Concessionaire and Operators revenue payments are based;
  ii. Any non-performance issues encountered by either Operator under their own contract arrangements with the Contractor / Concessionaire.

  The costs have increased by [redacted] to [redacted] in AIR15.

C - Reactive & Planned Maintenance

- Line 22: Infrastructure, this figure has reduced by circa [redacted] from AIR14 to [redacted]. This is as a result of a reduction on spend on all the activities that feed into this line

in Sewerage. The reduction is a combination of activity and rate and more spend satisfying the capitalisation rules.

- Line 23: Non-infrastructure, this figure has decreased by circa [redacted] from AIR14 to [redacted]. The reduction is mainly within Sewage Treatment and is due to a decrease in M&E expenditure in Sewage Treatment.

Reactive and planned maintenance

The overall approach and allocation process for Tables 21 and 22 has remained consistent with AIR14. However there still remain some limitations to the coding which means that some expenditure, for example building and ground maintenance, cannot be split separately.

Pensions

Pension costs per the actuarial information at 31st March 2015 were £11.8M (AIR14 £12.6M) which amounts to £11.9M before interest **income** of £0.1M (AIR14 £12.3M before interest **costs** of £0.3M) and these were charged to the profit and loss account. This is made up of current service costs of £10.9M (AIR14 £11.8M) and past service costs of £1.0M (AIR14 £0.5M). These costs have been included in general and support costs and employment costs in Tables 21 and 22 on the basis outlined in the cost allocation section above.

The total employer pension contributions for the year were £10.5M (AIR14 £11.4M) including £0.5M relating to payment of 2013/14 past service costs.

These costs have been included in general and support costs and employment costs in Tables 21 and 22. Pension costs for those employees who can be directly attributed to service or business activities will be mapped directly to these areas via the wages and salaries codes as outlined in the cost allocation methodology. Pension costs that relate to either employees not engaged directly on service/business activities or that relate to past service costs (i.e. VER provision) will be apportioned to activities in line with the treatment of general and support expenditure as detailed in the cost methodology.

Pension costs and finance charges associated with employees involved with unappointed activities have not been specifically excluded from pension figures within the profit and loss account. However as noted in the costing section above an estimate of the costs of unappointed activities has been adjusted for during the costs allocation process and it has been assumed that an element of this allocation would cover pension costs.

The pension fund at 31st March 2015 has moved from an asset to a liability position.

Further disclosures on pensions are contained in the statutory accounts which are based on the company's actuarial report at 31 March 2015.

Third party costs

Third party costs remain negligible in AIR15 and relate primarily to services recharged to third parties. The associated income is reported in Table 23 as third party income.

Infrastructure Renewals Charge (IRC)

See Commentary for Table 33.

Table 21 – Water Service (PPP only)

Line 2 - Power costs

Power costs for the PPP Alpha sites of [redacted] have risen by [redacted] from the AIR14 figure. This is driven by an increase in the Carbon Reduction Commitment charge in 2014/15.

Line 7 - Service charges

This line includes the costs of abstraction licences at each of the PPP Alpha sites. The figure has increased by an inflationary amount from AIR14.

Line 11 - General & support expenditure

General and support expenditure has been calculated on the same basis as in AIR14. Costs have fallen slightly as use of professional advisors on the Alpha contract was very low in 2014/15.

Line 14 - Scientific services

The company does not incur any net costs associated with scientific services for Alpha as costs are offset by a reduction in the payment to the PPP Concessionaire.

Line 17 - Rates

Rates costs have risen by [redacted] from AIR14. This arises as a result of an inflationary increase in the rates charge and also the allocation of the rates charge is done on the basis of total water supply and the proportion of total water supplied by PPP in 2014/15 has risen slightly.

Line 21a - PPP unitary charges (Opex)

This line data is drawn directly from the Company's accounts. No additional reconciliation is required.

During 2014/15 the Alpha Concessionaire recognised performance deductions of [redacted] and this is reflected in the [redacted] opex charge. The charge also includes atypical income of [redacted] as follows:

Quality Monitoring Change credit	[redacted]
EIB Step-down	[redacted]
[redacted] in respect of reorganisation costs	[redacted]
Aggregated Generator Unit credit	[redacted]
Total	[redacted]

Further details on each of these are given in the commentary to table 42 line 10.

The increase of [redacted] in the unitary charge cost in AIR15 is made up as follows:

Inflationary increase in capacity charge	[redacted]
Increase in volumetric charge (inflation and flow related)	[redacted]
Increase in performance deductions	([redacted]
Increase in atypical credits	[redacted]
Increase in amounts capitalised	[redacted]
Decrease in interest element of charge	[redacted]
	[redacted]

Table 22 – Sewerage Service (PPP only)

Line 2 - Power costs

Power costs have reduced from AIR14 as a result of a reduced tariff in 2014/15.

Costs for Duncrue and a 35% allocation of the Ballynacor site costs have been included in column 3 as sludge treatment and disposal costs. This is consistent with AIR14.

Kinnegar: Power costs are not recorded as [redacted]

Line 8 - Other direct costs

Nil.

Line 10 - General & support expenditure

The general and support expenditure has been calculated in the same way as for AIR14 reflecting all costs associated with P101 cost centre. These costs have remained at similar levels to AIR14.

Total general and support costs associated with the Omega contract were calculated at [redacted] and two sevenths of this has been allocated to column 3 to reflect costs associated with Duncrue and Ballynacor sludge facilities, the remaining five sevenths are associated with the 5 Omega WWTW facilities.

Line 13 - Scientific services

Scientific Services costs reflect the contract sampling and analysis costs borne by the Company in providing its sampling and analytical contractual obligations to the Kinnegar and Omega Facilities in Service: Kinnegar, North Down, Richhill, Ballyrickard, Ballynacor and Armagh. This cost has increased from AIR14 as a result of increased courier costs and also a change in the methodology to base charges on total PPP samples rather than just chargeable samples as all samples impact the labs overall cost.

Line 16 - Rates

The rates figure for Kinnegar and each of the Omega sites were taken directly from the rates bills. The bill for the Duncrue site was allocated between PPP and NIW in line with the total area of the site occupied by PPP. PPP occupy 15% of the Duncrue site. The increase in rates cost in AIR15 is 1.9% arising from an inflationary increase in the annual rates charge.

Line 20a - PPP unitary charges (Opex)

The charge for Kinnegar included in this line of [redacted] reflects the invoiced/accrued amounts for the year of [redacted] and an atypical payment of [redacted] paid to Coastal Clearwater for the variation of leased lands and accommodating capital works to enable NIW construction of a new wastewater pumping station on land previously part of the Kinnegar site. These costs have been reduced by the credit for residual interest of £0.262m.

The Omega charge of [redacted] reflects unitary charge invoiced and accrued of [redacted] performance deductions of [redacted], the credit for residual interest of [redacted] and atypical costs of [redacted] as follows:

North Down and Ards Disinfection Change [redacted]

Supplemental 4 Agreement	[redacted]
Change in Calibration Frequency	[redacted]
Additional Costs associated with Industrial Action	[redacted]
NIW Payment for Access Gate at NDA	[redacted]
Total	[redacted]

Further details on all of these atypical amounts are given in the commentary to line 10 of table 42.

The charge on this line has decreased by [redacted] from AIR14. This movement can be summarised as follows:

Increase in volumetric charge (inflationary and flow related)	[redacted]
Increase in performance deductions	[redacted]
Decrease in atypical costs	[redacted]
Increase in amounts capitalised	[redacted]
	[redacted]

The atypical costs in AIR14 included [redacted] for contractor legal costs associated with the contractor claims.

Appendix 1 – Expense group mapping

Expense Group	Desc	Table 21 & 22 mapping
511X	Industrial Wages	Employment
513X	Other Wage Costs	Employment
514X	Other Costs of Employment	Employment
515X	Salaries	Employment
516X	Non-Industrial Expenses	Employment
517X	Temporary Support Staff	Employment
611X	Cost Reallocations	Employment
612X	N/A	Employment
613X	N/A	Employment
614X	N/A	Employment
521X	Power	Power
531X	Operational Contractors	Hired and Contracted
532X	Other Contractors	Hired and Contracted
534X	Out sourcing	Hired and Contracted
538X	Consultants Fees	Hired and Contracted
541X	Materials and Equipment	Materials & consumables
544X	Non Operations Materials	Materials & consumables
547X	Stock Adjustments	Materials & consumables
548X	Chemicals	Materials & consumables
5562 & 5565	Environmental Regulator & Crown Estates	Service Charges
536X	Office and Computer Services	Other direct costs
537X	Legal and other professional fees	Other direct costs
551X	Accommodation	Other direct costs
553X	Insurance - Premiums	Other direct costs
553Y	Insurance - Claims	Other direct costs
554X	Public Liability	Other direct costs
555X	Employer's Liability	Other direct costs
616X	N/A	Other direct costs
695X	Management Task	Other direct costs
759X	Overheads Capitalised	Other direct costs
518X	Staff Training & Hospitality	General & support
533X	V&P repairs	General & support
539X	Audit	General & support
546X	Mobile V&P Charges	General & support
552X	Communication	General & support
556X	Other Grants and Subscriptions	General & support
557X	Advertising and Publicity	General & support
641X	Intra Departmental Notionals	General & support
651X	Inter Departmental Notionals	General & support
772X	Bad Debts	Doubtful debts
775X	Discount Allowed	Customer services
558X	Rates	Rates
5561	Regulatory Costs	Other Business Activities
534Y	PPP	PPP unitary charge

Appendix 2 – Service activity mapping

NIW Service Activity	Service Activity description	Table 21/22 Mapping
310	Pumping (Inc Highlift at WTW)	Water - Distribution
311	Service Resv Wat Tower Tanks	
312	Service Resv cleaning	
313	Distribution and Water Operations	
320	Repair and Maintenance (Mains Repair)	
321	Repair and Maintenance (Service Repair)	
322	Repair and Maintenance (Hydrant & Valve Repairs)	
323	R&M (NIFRS Hydrant & Valve Repairs)	
324	Repair and Maintenance (Mains Cleansing)	
326	Repair and Maintenance (Lead Replacement)	
331	Repair and Maintenance of 'Street Furniture' (Water)	
340	Leakage - Monitoring	
341	Leakage - Detection	
342	Hydrant & Valve Repairs as identified by	
343	Service Repairs as identified by active	
344	Mains Repairs as identified by active Le	
351	Consumer Meter Repair & Maintenance	
360	Investigations	
362	Customer Contacts excluding meter query	
363	Regulatory Plumbing Inspection	
380	'In House' Investigations and Attendance	
385	Health & Safety - Networks	
391	Networks Function Activity -Query	
399	Networks Stores	
920	Connection (Water)	
110	Impounding Reservoir	Water - Resource & Treatment
111	Loughs	
112	River Intakes	
113	Boreholes,Springs & Wells	
120	Repairs & Maint A/duct/Main	
140	Recreation & Amenity	
150	Water Treatment	
151	Water Sludge Treatment	
152	Water Sludge Disposal	
185	Health & Safety - Supply	
190	Supply Function Activity	
191	Supply Function Activity - Query	
822	Instrumental Control Activity M & E Water Supply	
410	Repair & Maintenance of Sewers	Sewerage - Sewerage
411	Blockage	
412	Desilting	
413	Inspection of Sewers	
414	Repair and Maintenance of 'Street Furniture' (Sewerage)	
415	Sewerage Tankering	
430	Pumping (Foul & Combined)	
431	Pumping (Surface Water)	
460	'In House' Investigations and Attendance	
462	Rodent Control	
940	Rechargeable (Sewerage)	
950	Connection (Sewerage)	
510	Sewage Treatment	Sewerage - Sewage Treatment
591	Waste Water Function Activity - Query	
620	Sludge Treatment - Tankering Between Works	Sewerage - Sludge Treatment
621	Sludge Treatment	
630	Sludge Disposal to Agricultural Land Transportation	
631	Instrumental Control Activity M & E WasteWater	
632	Sludge Cake Transportation to Landfill	
633	Sludge Cake Disposal to Landfill	
635	Sludge Logger Maintenance (Contract)	
636	Incinerator Sludge Treatment	
637	Sludge Disposal Tankering from Strategic Collection Centres to Dewatering Centres	
638	Sludge Cake Disposal to Incinerator	
639	Incinerator Ash Disposal to Landfill	
640	Private Septic Tank Desludging	Customer Services
710	General	
711	Customer Services (Meter Read & Customer Queries)	
712	Disconnection / Reconnection	
714	Consumer Meters Repair And Maintenance	
790	Customer Services Function Activity	
730	Water Analysis	Scientific Services
731	Sewerage General	
732	Labs Water & Sewerage General	
733	Sampling	
734	Labs Sewage Sampling	
003	Rates DRC - Water	Rates
013	Rates DRC - Sewerage	
910	Rechargeable Work	Third Party Opex
000	Default	Overhead Pot 1 - General
021	GAE	
023	Invest to Save Revenue	
810	Vehicle & Plant Maintenance	
811	Vehicle & Plant Accident Repair	
812	Garage Overheads	
813	Roads Service	
820	Telemetry	
890	TMG Function Activity	
050	Ops & Maint General (Water)	Overhead Pot 2 - Water
055	Ops & Maint General (Sewerage)	Overhead Pot 2 - Sewerage
585	Health & Safety - WW	
590	Waste Water Function Activity	
735	Trade Effluent	
821	Radio & Monitoring Wastewater	
390	Networks Function Activity	Overhead Pot 3 - Networks Water & Sewerage

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 23 REGULATORY ACCOUNTS
ANALYSIS OF TURNOVER AND OPERATING INCOME

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	CG
				2011-12			2012-13			2013-14			2014-15					
				WATER SERVICES	SEWERAGE SERVICES	APPOINTED BUSINESS	WATER SERVICES	SEWERAGE SERVICES	APPOINTED BUSINESS	WATER SERVICES	SEWERAGE SERVICES	APPOINTED BUSINESS	WATER SERVICES	SEWERAGE SERVICES	APPOINTED BUSINESS	SUBSIDY WATER INCLUDED	SUBSIDY SEWERAGE INCLUDED	
A	**TURNOVER**																	
1	Unmeasured - household	£m	3	119.300	134.000	253.300	121.195	143.905	265.100	122.139	138.161	260.300	126.574	135.825	262.399	126.574	135.826	A2
2	Unmeasured - non- household	£m	3	2.287	2.591	4.878	2.211	2.766	4.977	2.049	2.545	4.594	1.762	2.102	3.864	0.966	1.134	A2
3	Unmeasured	£m	3	121.587	136.591	258.178	123.406	146.671	270.077	124.188	140.706	264.894	128.336	137.927	266.263	127.540	136.960	A2
4	Measured - household	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	A2
5	Measured - non- household	£m	3	40.761	22.178	62.939	38.751	22.144	60.895	38.465	24.148	62.613	39.872	26.168	66.040	8.191	4.465	A2
6	Measured	£m	3	40.761	22.178	62.939	38.751	22.144	60.895	38.465	24.148	62.613	39.872	26.168	66.040	8.191	4.465	A2
7	Trade effluent	£m	3		3.543	3.543		4.326	4.326		3.889	3.889		3.561	3.561	0.000	0.000	A2
7a	Roads Drainage Revenue	£m	3	0.000	20.134	20.134	0.000	20.911	20.911		20.049	20.049		19.154	19.154	0.000	0.000	A2
8	Large user and special agreement	£m	3	5.553	3.881	9.434	5.354	4.290	9.644	5.243	4.041	9.284	5.136	3.711	8.847	0.000	0.000	A2
9	Revenue grants	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	A2
10	Non potable water large user and special agreements	£m	3	0.000		0.000	0.000		0.000	0.000		0.000	0.000		0.000	0.000	0.000	A2
11	Rechargeable works	£m	3	0.073	0.074	0.147	0.093	0.093	0.186	0.092	0.092	0.184	0.056	0.056	0.112	0.000	0.000	A2
12	Bulk supplies/inter company payments	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	A2
13	Other appointed business (third party)	£m	3	0.216	0.228	0.444	0.172	0.187	0.359	0.162	0.238	0.400	0.191	0.239	0.430	0.000	0.000	A2
14	Third party services (excluding non-potable water)	£m	3	0.289	0.302	0.591	0.265	0.280	0.545	0.254	0.330	0.584	0.247	0.295	0.542	0.000	0.000	A2
15	Other sources (excluding large users, third parties and special agreemen	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	A2
16	Total turnover	£m	3	168.190	186.629	354.819	167.776	198.622	366.398	168.150	193.163	361.313	173.591	190.816	364.407	135.731	141.425	A2
B	**OPERATING INCOME**																	
17	Current cost profit or loss on sale of fixed assets	£m	3	0.181	-0.466	-0.285	-0.133	-0.170	-0.303	0.208	0.000	0.208	0.255	0.233	0.488			A2
18	Exceptional items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			A2
19	Other operating income	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			A2
20	Total operating income	£m	3	0.181	-0.466	-0.285	-0.133	-0.170	-0.303	0.208	0.000	0.208	0.255	0.233	0.488			A2
C	**WORKING CAPITAL ADJUSTMENT**																	
21	Working capital adjustment	£m	3	2.824	0.000	2.824	2.641	0.000	2.641	2.001	0.000	2.001	0.840	0.000	0.840			A2
D	**REVENUE CORRECTION MECHANISM**																	
22	Net revenue movement out of the tariff basket	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	A2

Table 23 – Analysis of turnover and operating income

Working Capital Adjustment

The commentary to Table 26 outlines the methodology for the Working Capital Adjustment.

Monthly Non-domestic Income Monitoring Process

The process for monitoring income is laid out in the flow diagram in Appendix A.

At the close of the third working day (Day 3) of each month, NI Water's billing partner, Echo Managed Services Ltd (Echo), e-mails to NI Water a spreadsheet which includes details of summary billed income, accrued income, cash, bad debt write-off and debtor information, as well as the general ledger postings for the month. Billed income comes in the form of both invoices (first-time round billing, arising from a meter reading or an estimate) and system adjustments (adjustments made to a previously invoiced bill). On Day 3, Echo sends through a list of all the Rapid transactions in the month. The transaction information is reviewed by both F&R and CS to analyse the system adjustments made in the month and to understand better any budget/forecast variances in the month.

NI Water performs the general ledger posting on to Oracle and then assesses and posts the following:

- The amount of income on "N-stop" i.e. invoices held back for a variety of reasons, to be recognised in the accounts;
- Any adjustments to the accrued income; and
- The amount of provision to be made against the accrued income (based on those items of accrued income greater than 210 days old).

A draft income report is prepared showing income to date across the five income categories (measured water, measured sewerage, unmeasured water, unmeasured sewerage and trade effluent) for both the month and the year to date, together with comparative figures for the budget and the latest forecast. An initial meeting between Finance and Regulation (F&R) and Customer Services (CS) is held on the afternoon of Day 4 to ascertain high level reasons for any budget/forecast variances in the month.

On Day 5, Echo finalises the Day 5 data to CS. This contains a number of detailed spreadsheets, containing, amongst other things, transaction information, VAT information and accrual information (see Appendix B).

On Day 8, the final income meeting is held between F&R and CS, at which the variance analysis is discussed in greater depth. A final income report is then prepared and sent out to all relevant staff, including the Finance Director and the Customer Services Delivery Directorate (CSDD) Director.

A commentary on the income for the month is prepared for the Board to be included in the monthly Finance Report.

NI Water also analyses billed income each month by volume and consumption, in what is termed the "Actuals Report". A monthly meeting between F&R and CS is held to review this.

Movements in Income against budget

Following on from the monitoring process detailed above, the 2014/15 year-end position of income against budget was as follows:

Income	Actual Income 2014/15 £m	Budget Income 2014/15 £m	Variance £m
Subsidy:			
Domestic phasing subsidy - water	126.6	126.5	0.1
Domestic phasing subsidy - sewerage	135.8	135.8	0.0
Non-domestic phasing subsidy - water	1.0	1.0	0.0
Non-domestic phasing subsidy - sewerage	1.1	1.2	(0.1)
Domestic allowance - water	8.2	7.7	0.5
Domestic allowance - sewerage	4.5	4.0	0.5
Septic tank subsidy	2.5	2.4	0.1
Total subsidy	279.7	278.6	1.1
Non-domestic income:			
Measured water	36.8	33.9	2.9
Measured sewerage	23.1	20.6	2.5
Unmeasured water	0.8	0.9	(0.1)
Unmeasured sewerage	0.9	1.0	(0.1)
Trade effluent	5.9	5.9	0.0
Total non domestic income	67.5	62.3	5.2
Road drainage income	19.1	19.1	0.0
Other	3.8	3.6	0.2
TOTAL INCOME	**370.1**	**363.6**	**6.5**

The above table includes both appointed and un-appointed income.

There was a large amount of “back-billing” in 2014/15, following on from the project work done in recent years. There were:

- customers identified as “zero reads” (i.e. customer’s meter not giving a reading);
- meters which were never entered on to Rapid at the time of installation; and
- meters which had been read incorrectly.

In, addition, there have been releases in the income provisions. At March 2014, amounts were set aside in measured sewerage and trade effluent to cover expected net refunds in the following areas:

- Hospitals which were charged for some of their output e.g. laundries, as measured sewerage, when it should have charged as trade effluent. As trade effluent is charged at a lower rate than measured sewerage, the customer was, in effect, over-charged; and
- Customers e.g. swimming pools, who were "double charged" for their output as both measured sewerage and trade effluent. This arose where the customer was charged for an element of their output as trade effluent at a fixed amount, but were also charged for their full amount of output as measured sewerage.

However, investigation work during the 2014/15 year uncovered that there were customers in both areas who had not actually been charged at all in the past e.g. [redacted]. Hence, rather due a refund, these customers had to be back-billed, which all meant that the income provision level had been over-stated.

The back-billing and provision releases, chiefly, have led to total income being £6.5m over budget for 2014/15; however, specific reasons are:

- With domestic allowance subsidy, more customers applying for the domestic allowance, but also there was increased consumption and the impact of back-billing.
- With measured water and measured sewerage, large customers back-billed have included [redacted].
- Furthermore, there have been instances of increases in consumption for some customers in measured water and trade effluent, the major ones being [redacted] budget assumed that there would be a consumption reduction in 2014/15.
- There was an increase in the provision set aside for future system adjustments of £0.2m, to recognise the higher level of outstanding back-billing debtors as at March 2015. This led to a £0.4m decrease in measured sewerage and a £0.2m income increase in measured water.
- The releases in income provisions have affected mainly measured sewerage and trade effluent. There has been:
    - A release in the Hospital TE/TE review provision (i.e. an increase in income) against measured sewerage of £1.2m.
    - £0.3m of the Hospital TE/TE review was written back against income (i.e. a reduction in income).

Movements in Income between 2014/15 and 2013/14

The table below details the income for the year ended 31 March, for both 2015 and 2014:

Income	Actual Income 2014/15 £m	Actual Income 2013/14 £m	Variance £m
Subsidy:			
Domestic phasing subsidy - water	126.6	122.1	4.5
Domestic phasing subsidy - sewerage	135.8	138.2	(2.4)
Non-domestic phasing subsidy - water	1.0	1.1	(0.1)
Non-domestic phasing subsidy - sewerage	1.1	1.3	(0.2)
Domestic allowance - water	8.2	8.2	0.0
Domestic allowance - sewerage	4.5	4.3	0.2
Septic tank subsidy	2.5	2.2	0.3
Total subsidy	279.7	277.4	2.3
Non-domestic income:			
Measured water	36.8	35.5	1.3
Measured sewerage	23.1	21.4	1.7
Unmeasured water	0.8	1.0	(0.2)
Unmeasured sewerage	0.9	1.2	(0.3)
Trade effluent	5.9	6.4	(0.5)
Total non domestic income	67.5	65.5	2.0
Road drainage income	19.1	20.0	(0.9)
Other	3.8	3.6	0.2
TOTAL INCOME	**370.1**	**366.5**	**3.6**

The above table includes both appointed and un-appointed income.

The income has increased by £3.6m, due to:

- An increase in the subsidy of £2.3m, which reflects the final year of the PC13 Final Determination, where the overall revenue requirement increased from the first year of PC13.
- For measured water, there was a tariff decrease against 2013-14 for measured water (3%). However, as mentioned above in the analysis against budget:
    - Measured water had a number of back-billing incidents during the year.
    - The £0.2m increase from the provision for future systems adjustment movement compared to a £1.2m income reduction (from provisions) in 2013/14.
    - There have been consumption increases for some of the larger customers e.g. [redacted].

- For measured sewerage, there was also a tariff decrease against 2013/14 (5%). Again, as in the analysis against budget, the big movements which have negated the tariff reduction have been:
  - The higher level of back-billing;
  - The £0.9m net release of provisions (against a £1.6m increase in provisions in 2013/14).
- Trade effluent income in 2014/15 included the income provision reduction of £0.3m. However, there have been increases in consumption/strengths for various customers e.g. [redacted] to compensate for this.

Reconciliation of Billed Income to Income in the Accounts

The tables below detail, for both measured/unmeasured income and for trade effluent, how the income billed reconciles to the income reported at 31 March 2015:

Measured and unmeasured income	
	£m
Billed income	63.0
Movement in accrued income	(0.8)
2015/16 unmeasured billing deferred	(2.3)
Movement in Hospital TE/TE review provisions	2.2
Movement in future system adjustments provision	(0.2)
[redacted] adjustment	(0.3)
Total income per accounts	61.6

Accrued income at 31 March 2015 represented 19% (2014: 21%) of annual billed income.

Trade effluent	
	£m
Invoiced income	6.8
System adjustments	(0.4)
Movement in accrued income	0.1
Movement in Hospital TE/TE review provisions	(0.6)
Total income per accounts	5.9

Accrued income at 31 March 2015 represented 11% (2014: 10%) of annual billed income.

The two tables above show the total income per accounts prior to the classification in the accounts of elements of total income to large user revenue.

Of the adjustments detailed above, the following are "one-off" adjustments in 2014/15, and are not expected to recur:

- [redacted] adjustment – this was reversed out in 2014/15, from what was put through in 2013/14.

The following adjustments may recur in future years:

- Movement in accrued income – there will always be a small variance over a period of a year.
- 2015/16 unmeasured billing deferred – the annual unmeasured billing will always be deferred, assuming that the invoicing is carried out in March.
- Movement in Hospital TE/TE Review provision – there will be movements in this provision during 2015/16, once the refunds have been completed for the remaining hospitals. This is expected to be completed by Q1 of 2015/16.
- Movement in Future system adjustments provision – there will always be the need to provide for estimated future system adjustments.

Reconciliations and Controls carried out

A number of reconciliations are carried out on the income information sent by Echo:

- The Day 3 income information received from Echo is reconciled back to what has been entered on Oracle (see Appendix C). This reconciliation is signed off monthly by both Management Accounts (MA) and Financial Accounts (FA) within F&R.
- The debtor account in the balance sheet is reconciled each month, and signed off by MA and FA (see Appendix D).
- The accrued income account is reconciled each month by FA (see Appendix E).
- The number of meters to be billed is reconciled to what has actually been billed (see Appendix F).
- The invoices and system adjustments as per the Transaction Report are reconciled back to the GL posting within the Day 3 report (see Appendix G).
- The billed income for monthly customers and for the relevant six-monthly customers is compared to what was accrued in the previous month, on a meter by meter basis. The results from this are discussed at the Day 8 meeting.

In addition, Echo carry out controls on meter readings, such that a bill is “held” and not sent out to the customer if its value has exceeded a certain level, known as the “bill ceiling”. The bill will then be investigated.

Review by Internal Audit

There were no internal audit reviews carried out in 2014/15 on income reporting.

Balance Sheet Nominal Ledger Accounts

The table below gives details of the relevant balance sheet accounts as at 31 March 2015, together with a comparison to the balances as at 31 March 2014.

	Balance 2014/15 £m	Balance 2013/14 £m	Variance £m
Debtors (water and sewerage)	11.0	11.1	(0.1)
Debtors (trade effluent)	1.2	1.1	0.1
Bad debt provision	(4.3)	(4.3)	0.0
Bad debt provision (trade effluent)	(0.1)	(0.1)	0.0

While there was no material movement in the net trade debtor balances for water and sewerage and trade effluent, this obscures the fact that:

- Overall debit balances increased by £0.5m; this reflects the increased level of back-billed debtors at March 2015;
- Overall credit balances increased by £0.3m, reflecting the credits arising from the work on Hospital TE and TE Review.

While, again, there was no material movement in the bad debts provision, there has been:

- An increased level of aged debt at 31 March 2015; in particular, debt greater than six months rose from £4.7m at March 2014 to £5.1m at March 2015, thereby increasing the "basic" bad debt provision.
- At the same time, the additional provision held against back-billed debtors was reduced, given the cash received during 2014/15.

Accrued Income

In essence, there has been no change in how income has been accrued from the previous year. There are two reports which Echo uses for accrued income, both in the form of Excel spreadsheets included within the Day 5 data: the Dynamic Consumption Report (DCR), and a separate report for Trade Effluent, which is an excel spreadsheet model.

Measured customers are billed either every month (mainly larger customers) or every six months, in arrears, and income needs to be accrued for them for a period of up to six months. Therefore, there are seven "bill frequency" periods:

- Monthly
- Jan/Jul six monthly
- Feb/Aug six monthly
- Mar/Sep six monthly
- Apr/Oct six monthly
- May/Nov six monthly
- Jun/Dec six monthly

The DCR takes information directly from the RAPID system, and is based on the latest reading date (as opposed to billing date) and the average consumption of previous bills. If estimated readings have been made, these are used in the calculation. If there is not the necessary information available, the report will use the industry average consumption (for the industry sector which the customer has been assigned to). Any system adjustments made to the original bill meter reading will automatically over-ride the original bill, and it will be system adjustment readings which are used for the calculation of the accrual.

Accruals for trade effluent income are based on an excel spreadsheet model built by Xansa. This takes billing data from 1 April of the previous year i.e. close to 2 years of data when March accrual is being calculated, and a year is shut down at the start of April each year. The model contains a price tariff percentage to either increase or decrease the accrual, depending on the % uplift/reduction in prices from the previous year. The other parameter which has been built into the model is that the report will not create an accrual, if either:

- A monthly customer has not been billed for 3 months; or
- A six monthly customer has not been billed for 500 days;

The model designates customers as monthly or six-monthly, but does not break six-monthly down into the relevant month in which the six monthly bills are issued.

A high level reconciliation is performed by Echo each month, looking for any major differences in the month from the previous month.

Each month, the DCR is reviewed by Customer Services for any unusual items, and an adjustment made for those. The adjustment made in March 2015 is shown in Appendix H.

The accrued income in the last two years has been:

	Accrued Income 2014/15 £m	Accrued Income 2013/14 £m	Variance £m
Accrued income:			
Measured water and sewerage	8.0	7.2	0.8
Trade effluent	1.4	1.9	(0.5)
TOTAL ACCRUED INCOME	**9.4**	**9.1**	**0.3**

This rise of £0.3m against the previous year can be explained as follows:

- There was £0.6m provision reduction arising from the TE review.
- The provision for TE/MS relating to hospitals was decreased by £0.9m.
- To counteract these, basic accrued income for measured water, measured sewerage and trade effluent decreased by £0.7m. In addition, the provision for future system adjustments was increased by £0.2m, while accrued income of £0.1m for unmeasured income was dropped. However, there were a few increases as indicated below.

Subsidy Income

In 2014/15, NI Water had total subsidy income of £279.7m. This was broken down as follows:

- £262.4m for domestic phasing subsidy for water and sewerage, in lieu of domestic charges.
- £2.1m for non-domestic phasing subsidy, representing 50% of unmeasured non-domestic income.
- £12.7m for domestic allowance subsidy, representing the domestic allowance claimed by customers for both water and sewerage.
- £2.5m for septic tank subsidy. NI Water receives subsidy income for all septic tanks which it empties, except for those customers who receive a charge if they have more than one empty in a 12 month period.

Road Drainage Income

The road drainage charge for 2014/15 was based on the projections of NI Water's costs of operation (see the table below). The basis for the calculation has been approved by both the Regulator and by DRD. A total of £19.1m was invoiced in 2014/15 to DRD, compared to £20.0m in 2013/14. A more detailed breakdown of the assumptions behind the calculation is provided in Appendix I.

	Combined	Storm Water	Total
Split of sewers for run off from roads and footpaths	50.35%	49.65%	100%
Total volume of Water (Cubic metres)	32,325,198	31,874,802	64,200,000
Mogden Formula element	R+V	R	
Cost of Element	£0.4049 / M^3	£0.1903 / M^3	
Cost of Run off	£13,088,472	£6,065,775	£19,154,247

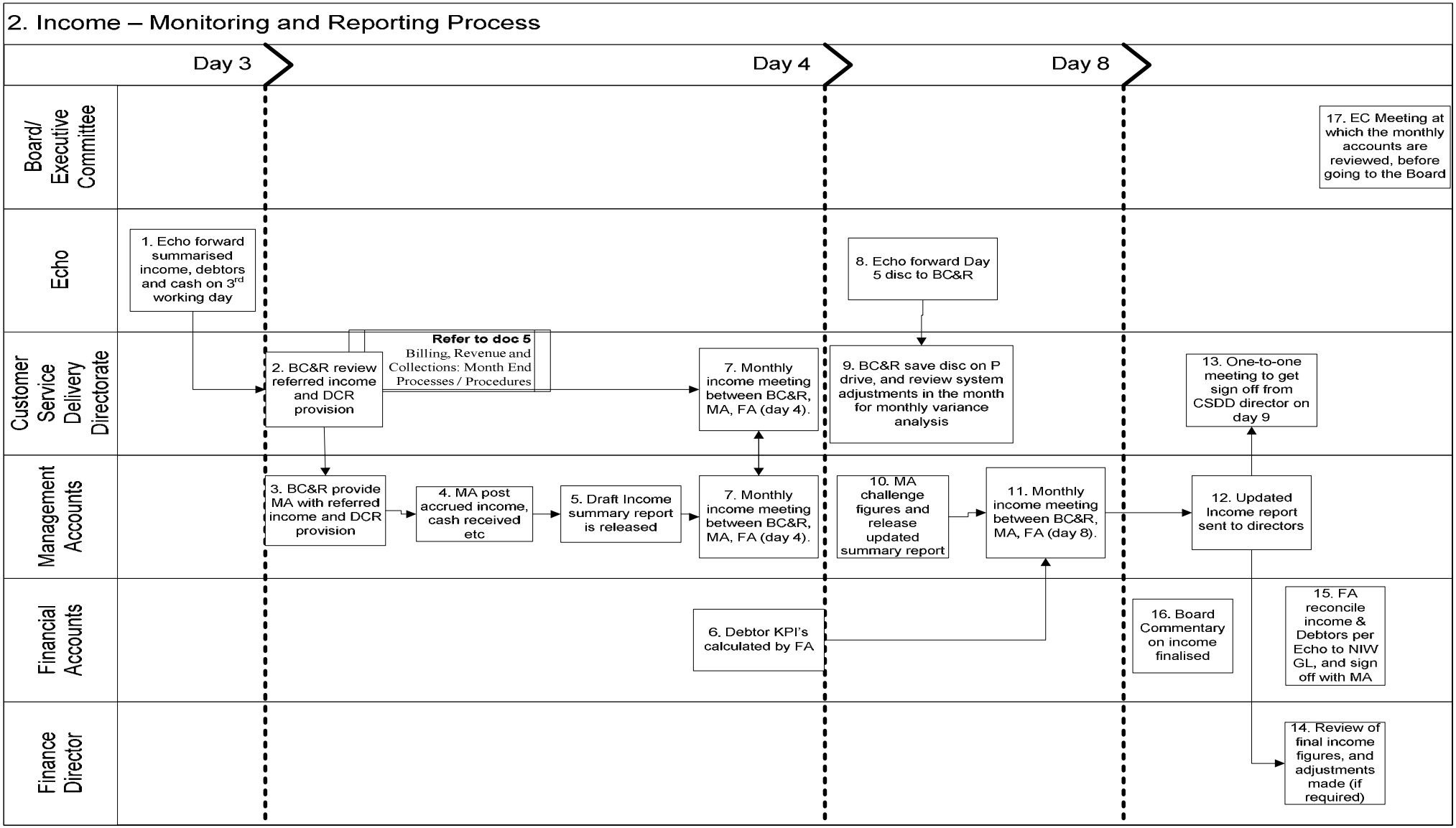
Non-tariff Basket Income

There is no net income movement out of the tariff basket for either water or sewerage.

Other Income

Other income was £3.8m for the 2014/15 year, against a budget of £3.6m, largely as a result of increased income from the sale of electricity Renewable Obligation Certificates (ROCs).

Appendix A - Monthly Process for Monitoring Income



Appendix B – Day 5 Data received from Echo

File Name	Output	Reconciliations & Checks
CA_BSD_02 MMM xx Financial Summary Information_v1.0.xls	Day 3 Summary of Day 5 Files	ensure all 23 tabs relate to files for day 5 CD
CA_BSD_MMM xx Bank rec_V1.0.xls	Bank Reconciliation	Ensure reconciliation to FN012 Cash, FN012 credit card, FN012 refunds and Suspense
CA_BSD_0211 Refunds_MMM xx_v1.0.xls	Details of refunds	
CA_BSD_AccrualdetailMMM xx_v1.0.xls	Details of accruals by customer	Analysis performed to examine changes in meters, consumption and summary given in Day 3 of income analysis
CA_BSD_AccrualexceptionsDCMMM xx_v1.0.xls	Details of meters not accrued	Ensure No of meters corresponds to Accrual Summary file
CA_BSD_AccrualsummaryDCMMM xx_v1.0.xls	Summary by Pipesize of accruals	Ensure that totals correspond to detailed file
CA_BSD_Aged Cash MMM xx_v1.0.XLS	Cash received aging	Reconciliation to FN012
CA_BSD_Aged Returned Payments MMM xx_v1.0.XLS	Returned Payments aging	Reconciliation to FN012
CA_BSD_VAT EC Sales List		
CA_BSD_FN012 Summary Split Extended MMM xx_v1.1.xls	Summary of FN012 by category with monthly summary and journals	Reconciliation to FN012, reconciliation of journal files to FN012
CA_BSD_FN012 Summary Split OLD - MMM xx_v1.0.xls	Summary of FN012 with VAT summary	Reconciliation to FN012
CA_BSD_FN012 Summary Total MMM xx_v1.0.xls	Summary by month of billing and cash received	Reconciliation to FN012
CA_BSD_FN015 Aged Debt By Industry MMM xx_v1.0.xls	Aged debt	Reconciliation to FN012 and FN016,FN017,FN018
CA_BSD_FN016 Aged Debt By Payment Plan MMM xx_v1.0.xls	Aged debt	Reconciliation to FN012 and FN015,FN017,FN018
CA_BSD_FN017 Aged Debt By Recovery Stage MMM xx_v1.0.xls	Aged debt	Reconciliation to FN012 and FN015,FN016,FN018
CA_BSD_FN018 Aged Debt By Recovery Profile MMM xx_v1.0.xls	Aged debt	Reconciliation to FN012 and FN015,FN016,FN017
CA_BSD_Manual Adjustments MMM xx_v1.0.xls	details of manual adjustment transactions	reconciles to FN012
CA_BSD_N-Stop Aging - MMM xx_v1.0.xls	Summary of N-Stops by age	Reconciles to GL99 - Ordinary Customers
CA_BSD_Referred Bills Summary MMM xx_v1.0.xls	N-Stops and Bill Ceilings	Reconciles to GL99 and CTLPRT04
CA_BSD_Summary Suspense Report MMM xx incl aged_v1.0.xls	Summary of FN013 (aged)	Reconciles to FN013 / Bank Rec
CA_BSD_TE FN012 Aged Debt Rec MMM xx_v1.0.xls	Reconciliation of TE FN012 to aged debt	n/a - this is a reconciliation
CA_BSD_TE_AI_MMM xx_V1.xls	Details of accruals by customer (TE)	Spot check on calculation sheets. Income test for TE accruals and invoices
CA_BSD_Transaction Report MMM xx_v1.0.xls	Full transactional detail of FN012 amounts	Reconciled to FN012
CA_BSD_VAT EC Sales List		
CA_BSD_VAT Invoice Summary	All VAT bill transactions for period	Reconciles to FN012 and summary split (old)
SIC movement		
2 VAT reports		

Appendix C – Reconciliation of Echo Day 3 Information at 31 March 2015

Extract or Finance Summary

	YTD Income 1st Apr to end of Previous Month	31 Mar-15 from Echo	Accrued Income	Accrued Income	Referred Income	Referred Income	Deferred Income	Deferred Income	Monthly																																				
		Dec	Reverse Previous	For this month	Reverse Previous	For this month	Reverse Previous	For this month	Movement	Closing Balance	GL01 export	Diff		Voids adj written off	DCR provision movement reversal	DCR movement provision	Hospital TE Reversal	Hospital TE	reversal		reversal		Adj in accrued income reversal	Adj in accrued income	TE review reversal	TE review	Industry average adj reversal	Industry average adj	Income prov reversal	Income prov adj	TE review provision reversal	TE review provision	Prov against MS customers reversal	Prov against MS customers	Backbilling provision reversal	Backbilling provision	reversed			Future system adjustments reduced provision	TE review reversal	TE review	Diff
		D (Cr)	Dr (Cr)	Dr (Cr)	Dr (Cr)	Dr (Cr)																																							
4211 Measured Water	33 627 967		8 056 046	7 284 439	51 846	119 510			2 858 300	36 486 360	36 808 349	321 989			136 828	136 828							50 699	44 263			63 000	(63 000)	55 000	55 000					225 000	(225 000)	20 000	(20 000)	(80 000)	380 000			0
4311 Measured Sewerage	19 891 480		5 648 722	5 047 094	34 806	154 060			1 442 135	21 333 595	23 101 697	1 768 102			95 500	106 332	3 091 230	1 800 630	183 000	183 000	285 616	285 616	83 352	86 682	400 000	(400 000)			25 000	(25 000)	240 000	(240 000)	50 000	50 000	200 000	(200 000)	30 000	(30 000)			850 000	(380 000)	0
4251 Unmeasured Water	769 942						44 741	(1 036 808)	67 156	837 098	796 348	40 750		(40 750)																															(0)
4351 Unmeasured Sewerage	923 927						59 169	(1 212 136)	84 800	1 008 727	967 977	40 750		(40 750)																															(0)
4411 Trade Effluent	5 782 052		716 984	746 461	0				629 875	6 411 927	5 872 716	539 211			12 244	13 632	(1 184 610)	644 010	183 000	(183 000)															25 000	25 000							0
	60 995 348	8 758 071	15 735 146	13 077 995	86 652	(273 576)	103 910	(2 248 941)	5 082 359	66 077 707	67 547 087	1 469 380	0	(81 500)	291 957	(264 183)	1 906 620	(1 156 620)	0	0		(285 616)	134 051	(130 945)	400 000	(400 000)	63 000	(63 000)	80 000	(80 000)	240 000	(240 000)	50 000	(50 000)	450 000	(450 000)	50 000	(50 000)	(80 000)	380 000	850 000	(380 000)	(0)

Appendix D – Reconciliation of Debtors account on Oracle

NORTHERN IRELAND WATER LIMITED AS AT 31 MARCH 2015	
Summary of Debtors	
Water & Sewerage Debtors GL code 1210	**March 2015**
Opening Balance	**£8,706,458.62**
Take on Bills/New Bills- TOTAL	**£7,524,812.53**
Take on Bills/New Bills- Sewerage	2,027,031.86
Take on Bills/New Bills- Water	3,025,256.72
Take on Bills/New Bills- VAT	163,653.92
Annual Billing	2,248,915.81
Annual Billing - VAT	59,954.22
Discounts	(26.79)
System Adjustments- Total	**£1,238,577.33**
System Adjustments- Sewerage	194,152.96
System Adjustments- Water	921,715.89
System Adjustments- VAT	122,708.48
Manual Adjustments- Total	**-£305,472.85**
Manual Adjustments- Sewerage	(32,769.90)
Manual Adjustments- Water	(227,158.57)
Manual Adjustments- VAT	(45,544.38)
Write Off Adjustments Total	**£519.90**
Write Off Adjustments- Sewerage	**238.94**
Write Off Adjustments- Water	**290.04**
Write Off Adjustments- VAT	**(9.08)**
NIWS Bad Debt Authorised Write Off- Total	**-£55,888.55**
NIWS Authorised Write Off- Sewerage	(25,201.61)
NIWS Authorised Write Off- Water	(28,444.63)
NIWS Authorised Write Off- VAT	(2,242.31)
Net Cash	**(4,655,598.52)**
Refunds	532,178.29
Water & Sewerage GL code 1210 Closing Balance	**£12,985,559.96**
Check	
Metered & Unmetered Water & Sewerage Debtors	**£12,985,559.96**
(AS per Crystal)	
Per Tb GL code 1210	**11,021,685.77**
Variance	**£1,963,874.19**
Due to:	
Variance (Oct = w/off Income 0708 in Oct08)	
Referred Bills **NOT** Recognised NET	(273,576.00)
System Adjustment Reduction	(1,550,000.00)
Various MS Adjustments	(140,000.00)
Adjustment to Refunds	
Vat Payments	
Unknown	-£298.19
Trade Effluent Debtors GL code 1213	
Opening Balance	**£1,214,347.45**
Take on Bills/New Bills	624,021.96
Referred Bills	
Annual Billing	
System Adjustments	**-£14,097.39**
Manual Adjustments	**-£9,527.62**
Write Off Adjustments	
NIWS Authorised Bad Debt Write Off	**£0.00**
Net Cash	**-£592,829.06**
Refunds	**£0.00**
Trade Effluent GL code 1213 Closing Balance	**£1,221,915.34**
Variance	**£0.00**
Per Trial Balance general ledger code 1213	**1,221,915**
Referred Bills	
Total Opening Balance GL code 1213 & 1210	**£9,920,806.07**
Take on Bills/New Bills	**£5,899,918.68**
Annual Billing	**£2,248,915.81**
Discounts	**-£26.79**
System Adjustments	**£1,224,479.94**
Manual Adjustments	**-£315,000.47**
Write Off Adjustments	**£519.90**
NIWS Authorised Bad Debt Write Off	**-£55,888.55**
Net Cash	**-£5,248,427.58**
Refunds	**£532,178.29**
Total Closing Balance GL code 1213 & 1210	**£14,207,475.30**
Balance as per FN012 Summary	£14,207,005.72
Difference	£469.58
Echo Debtor Ledger	£14,157,621.24
Balance as per FN012 Summary	£14,207,005.72
Suspense Ac FN012 Summary	£54,344.57
Difference	-£103,729.05
Prepared By	[redacted]
Date	
Reviewed By	[redacted]
Date	

Appendix E – Reconciliation of Accrued Income Account

NIW Accrued Income	
	Mar-15
Per Echo	
Measured Water	7,284
Measured Sewerage	5,047
Trade Effluent	746
Accrued income	**13,078**
Accrued income adjustments	
Voids not billed in unmeasured	0
DCR Provision	-264
DCR Further	-500
Accrued Income provision	-131
Industry average adj	-63
Income prov adj	-80
[redacted]	-50
[redacted]	-80
Future System Adjustments	-620
BackBilled Income Provision	-600
TE Review	-380
Hospital TE	-871
Accrued income posted	9,438
Per TB	9,438
Difference	0
Miscellanous accrued Income	299
Interest Received Accrual	3
Total Accrued Income	**9,740**
Signed:	
TB Check	
1420 - Metered Water Accrued Income	8,040,003
1423 - Trade Effluent Accrued Income	1,398,387
1426 - Miscellaneous Accrued Income	299,238
1451 - Interest Received Accrual	2,871
	9,740,498

Appendix F – Reconciliation of Meters

2014/15 - Meter Reconciliation Analysis

Meters to be read	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Estimated	1,366	1,868	1,284	1,224	1,955	813	838	1,774	745	643	604	3,006
No Read	469	473	305	290	319	405	499	504	316	311	364	434
Read	11,917	12,684	8,811	8,991	9,951	13,182	12,415	12,736	9,317	9,556	11,297	10,996
Total Meters	13,752	15,025	10,400	10,505	12,225	14,400	13,752	15,014	10,378	10,510	12,265	14,436
No Reads to be investigated - Code Red	13	9	8	12	6	12	18	15	9	4	5	18

Meters to be billed	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Billable Meters	12,911	14,097	9,790	9,948	11,521	13,658	12,895	14,074	9,745	9,940	11,534	13,680
Non-Billable Meters	841	928	610	557	704	742	857	940	633	570	731	756
Total Meters	13,752	15,025	10,400	10,505	12,225	14,400	13,752	15,014	10,378	10,510	12,265	14,436
Total Meters Billed	12,788	13,954	9,682	9,824	11,416	13,547	12,760	13,938	9,644	9,823	11,407	13,567
Meters to be investigated	123	143	108	124	105	111	135	136	101	117	127	113
Billable Meters	12,911	14,097	9,790	9,948	11,521	13,658	12,895	14,074	9,745	9,940	11,534	13,680
Meters to be investigated - Code Red	28	27	24	28	12	21	21	31	17	23	30	23

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Estimated reads as % of Total Meters to be read	10%	12%	12%	12%	16%	6%	6%	12%	7%	6%	5%	21%	
No Reads as a % of Total Meters to be read	3%	3%	3%	3%	3%	3%	4%	3%	3%	3%	3%	3%	
Read Meters as % of Total Meters to be read	87%	84%	85%	86%	81%	92%	90%	85%	90%	91%	92%	76%	
Total Meters	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Code Red as % of Meters to be investigated	3%	2%	3%	4%	2%	3%	4%	3%	3%	1%	1%	4%	
													Average
Estimated % (Excl 'No Reads')	10%	13%	13%	12%	16%	6%	6%	12%	7%	6%	5%	21%	11%

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Billable Meters as % of Total Meter Records	94%	94%	94%	95%	94%	95%	94%	94%	94%	95%	94%	95%
Non - Billable Meters as % of Total Meter Records	6%	6%	6%	5%	6%	5%	6%	6%	6%	5%	6%	5%
Total Meters	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Meters Billed as a % of Billable Meters	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Meters to be investigated as a % of Billable Meters	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Billable Meters	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Code Red as % of Meters to be investigated	23%	19%	22%	23%	11%	19%	16%	23%	17%	20%	24%	20%

Appendix G – Reconciliation of invoices and system adjustments as at 31 March 2015

	Trans Rpt	GL Posting	Variance
Measured Water	3,697,689	3,697,663	26
Measured Sewerage	2,163,015	2,163,023	(8)
Unmeasured Water	1,059,197	1,059,223	(26)
Unmeasured Sewerage	1,237,773	1,237,765	8
TE	600,397	600,397	(0)
Sub-total	8,758,071	8,758,071	(0)
Discount	(27)	(27)	0
VAT	300,763	300,763	0
TOTAL	**9,058,807**	**9,058,807**	**0**

Appendix H – DCR Adjustments at 31 March 2015

	Cus om	Meter F	Customer / Company Name	Indus ry	P pe Si	Read F	Accrual	Read H	Water	Water	Sewera	Sewera	Water S	Water Va	Total Wa	Sewera	Sewerag	Total Sev	Total ad	To al acc	Total Accn
Per DCR	8470074	237799	[redacted]	Army Bas	125mm/5	Six Month	69	ND AVE	2 194	32	2 084	32	£303	£2 238	£2 541	£347	£3 414	£3 761	£651	£5 651	£6 302
Correct on	8470074	237799	[redacted]	Army Bas	125mm/5	Six Month	69	ND AVE	0	0	0	0	£303	£0	£ 03	£347	£0	£347	£651	£0	£651
														Variance	(£2 238)		Var ance	(£3 414)		Variance	(£5 651)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	2033585	640203	[redacted]	Hau age C	20mm/ 75	Six Month	59	READINGS	6 022	102	0	102	£11	£5 872	£5 883	£0	£0	£0	£11	£5 872	£5 883
Correct on	2033585	640203	[redacted]	Hau age C	20mm/ 75	Six Month	59	READINGS	295	5	0	5	£11	£ 08	£318	£0	£0	£0	£11	£308	£318
														Variance	(£5 565)		Var ance	£0		Variance	(£5 565)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	5863662	541198	[redacted]	Farms Do	15mm/ 50	Six Month	166	READINGS	4 233	26	0	26	£30	£4 225	£4 255	£0	£0	£0	£30	£4 225	£4 255
Correct on	5863662	541198	[redacted]	Farms Do	15mm/ 50	Six Month	166	READINGS	2 490	15	0	15	£30	£2 596	£2 626	£0	£0	£0	£30	£2 596	£2 626
														Variance	(£1 629)		Var ance	£0		Variance	(£1 629)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	7801393	389324	[redacted]	Farms Do	15mm/ 50	Six Month	48	READINGS	1 765	37	0	37	£9	£1 774	£1 782	£0	£0	£0	£9	£1 774	£1 782
Correct on	7801393	389324	[redacted]	Farms Do	15mm/ 50	Six Month	48	READINGS	720	15	0	15	£9	£751	£759	£0	£0	£0	£9	£751	£759
														Variance	(£1 023)		Var ance	£0		Variance	(£1 023)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	6362277	113439	[redacted]	Farms Do	15mm/ 50	Six Month	42	READINGS	1448	34	0	34 47	7 59	1453 5	1461 09	0	0	0	7 59	1453 5	1461 09
Correct on	6362277	113439	[redacted]	Farms Do	15mm/ 50	Six Month	42	READINGS	3 6	8	0	8	£8	£350	£358	£0	£0	£0	£8	£350	£358
														Variance	(£1 03)		Var ance	£0		Variance	(£1 103)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	247070	1257655	[redacted]	Food Man	20mm/ 75	Monthly	676	ND AVE	20 972	31	19 923	31	£0	£0	£0	£0	£33 433	£33 433	£0	£33 433	£33 433
Correct on	247070	1257655	[redacted]	Food Man	20mm/ 75	Monthly	676	ND AVE	0	2	1 284	2	£0	£0	£0	£0	£2 033	£2 033	£0	£2 033	£2 033
														Variance	£0		Var ance	(£31 400)		Variance	(£31 400)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	7795725	807669	[redacted]	Food Man	100mm/4	Monthly	5	ND AVE	155	31	155	31	£2	£158	£160	£2	£39	£41	£3	£197	£201
Correct on	7795725	807669	[redacted]	Food Man	100mm/4	Monthly	5	ND AVE	2 500	500	2 375	500	£2	£2 606	£2 608	£2	£3 720	£3 722	£3	£6 366	£6 368
														Variance	£2 448		Var ance	£3 721		Variance	£6 168
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	8947420	281237	[redacted]	Restauran	15mm/ 50	Six Month	142	READINGS	4 686	33	4 452	33	£26	£4 700	£4 726	£30	£7 171	£7 201	£55	£11 871	£11 927
Correct on	8947420	281237	[redacted]	Restauran	15mm/ 50	Six Month	142	READINGS	2 1 0	15	2 024	15	£26	£2 220	£2 246	£30	£3 203	£3 233	£55	£5 424	£5 479
														Variance	(£2 480)		Var ance	(£3 968)		Variance	(£6 448)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	8969088	771072	[redacted]	Fil ing Sta	15mm/ 50	Six Month	110	READINGS	8 932	81	8 485	81	£20	£9 049	£9 069	£23	£13 805	£13 828	£43	£22 855	£22 897
Correct on	8969088	771072	[redacted]	Fil ing Sta	15mm/ 50	Six Month	110	READINGS	550	5	523	5	£20	£573	£593	£23	£827	£850	£43	£1 400	£1 443
														Variance	(£8 476)		Var ance	(£12 978)		Variance	(£21 454)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	311295	582700	[redacted] (Farm Accou	Farms Do	15mm/ 50	Six Month	105	READINGS	2 689	26	0	26	£19	£2 684	£2 703	£0	£0	£0	£19	£2 684	£2 703
Correct on	311295	582700	[redacted] (Farm Accou	Farms Do	15mm/ 50	Six Month	105	READINGS	525	5	0	5	£19	£547	£566	£0	£0	£0	£19	£547	£566
														Variance	(£2 136)		Var ance	£0		Variance	(£2 1 6)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	4473146	825214	[redacted]	Restauran	25mm/1 0	Six Month	138	READINGS	3 748	27	3 561	27	£42	£3 823	£3 865	£48	£5 833	£5 881	£89	£9 656	£9 745
Correct on	4473146	825214	[redacted]	Restauran	25mm/1 0	Six Month	138	READINGS	1 242	9	1 80	9	£42	£1 295	£1 336	£48	£1 868	£1 916	£89	£3 163	£3 252
														Variance	(£2 528)		Var ance	(£3 965)		Variance	(£6 493)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	43338	287991	[redacted]	Army Bas	40mm/1 5	Six Month	3	ND AVE	95	32	90	32	£2	£95	£97	£2	£144	£146	£4	£239	£243
Correct on	43338	287991	[redacted]	Army Bas	40mm/1 5	Six Month	3	ND AVE	6	2	6	2	£2	£6	£8	£2	£9	£13	£4	£15	£19
														Variance	(£89)		Var ance	(£135)		Variance	(£224)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	450829	677713	[redacted]	Army Bas	50mm/2 0	Six Month	42	ND AVE	1 335	32	1 268	32	£36	£1 315	£1 351	£42	£2 005	£2 047	£78	£3 320	£3 398
Correct on	450829	677713	[redacted]	Army Bas	50mm/2 0	Six Month	42	ND AVE	126	3	120	3	£36	£131	£ 68	£42	£189	£231	£78	£321	£399
														Variance	(£1 83)		Var ance	(£1 815)		Variance	(£2 999)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	8729849	101978	[redacted]	Army Bas	75mm/3 0	Six Month	151	READINGS	1 472	10	1 398	10	£467	£1 501	£1 969	£534	£2 290	£2 824	£1 002	£3 791	£4 793
Correct on	8729849	101978	[redacted]	Army Bas	75mm/3 0	Six Month	151	READINGS	1 206	8	1 148	8	£467	£1 259	£1 727	£534	£1 137	£1 671	£1 002	£1 076	£2 078
														Variance	(£242)		Var ance	(£47)		Variance	(£715)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	8934060	698517	[redacted]	Food Man	25mm/1 0	Six Month	127	ND AVE	3 940	31	3 743	31	£38	£4 019	£4 057	£44	£6 131	£6 175	£82	£10 150	£10 232
Correct on	8934060	698517	[redacted]	Food Man	25mm/1 0	Six Month	127	ND AVE	127	1	121	1	£38	£132	£171	£44	£191	£235	£82	£323	£405
														Variance	(£3 886)		Var ance	(£5 940)		Variance	(£9 826)
	Cus omer f	Meter Ref	Customer / Company Name	Indus ry C	P pe Size	Read Freq	Accrual D	Read Hist	Water volu	Water volu	Sewerage	Sewerage	Water Sta	Water Volur	Total Water	Sewerage	Sewerage V	Total Sewer	Total acc	To al accrua	Total Accrual
Per DCR	8936642	733833	[redacted]	Food Man	25mm/1 0	Six Month	135	ND AVE	4 188	31	3 979	31	£41	£4 272	£4 312	£47	£6 518	£6 564	£87	£10 789	£10 877
Correct on	8936642	733833	[redacted]	Food Man	25mm/1 0	Six Month	135	ND AVE	135	1	128	1	£41	£141	£ 81	£47	£203	£250	£87	£344	£431
														Variance	(£4 131)		Var ance	(£6 315)		Variance	(£ 0 446)
	HOUSING ASSOCIATIONS TO BE EXCLUDED!!! (General Adj)													Variance	(£10,000)		Var ance	(£20,000)		Variance	(£30,000)
													Total Accrual Adj		(£44,263)			(£86,682)			(£130,944)

Appendix I – Calculation of Road Drainage Charges

The calculation of Road Drainage charges was prepared on the following basis:

i The total urban road and footway surface area was obtained (Source Roads Service),
   a. Urban road surface area = 39.3million m^2
   b. Urban footway surface area = 17.0million m^2
   c. Total Urban road & footway surface area = 56.3million m^2

ii The average annual rainfall in Northern Ireland over the last 10 years was obtained (Source: Met Office).

   Average annual rainfall = 1.14m

iii The average volume of rain and therefore the run-off from roads and footpaths discharged into NIW sewers and storm drains was calculated as follows:

   56.3million m^2 x 1.14m = 64.2million m^3

NIW's network information management system (NIMS) indicated that for the largest 105 urban areas in N Ireland the length of combined sewers and the length of stormwater sewers was split as detailed in the following table. These figures were adjusted to allow for those storm water sewers which rather than discharging into a watercourse were connected into the combined system.

	Km	% of total
Combined sewers	4,378	50.35%
Storm water sewers	4,317	49.65%
Total	8,695	100.00%

The unit costs of R & V applied were obtained using the Trade Effluent Mogden Formula as per the table below:

Mogden Formula element	Cost (£) Per cubic metre	Application
R (Reception)	0.1992	Run off into Storm water sewers
V (Volumetric)	0.2246	Run off into Combined sewers
R+V	0.4238	

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 24 REGULATORY ACCOUNTS (CURRENT COST)
BALANCE SHEET AS AT 31 MARCH (TOTAL)

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
A	**FIXED ASSETS**						
1	Tangible assets	£m	3	8147.759	8438.992	8707.701	8859.341
2	Third party contributions	£m	3	-255.418	-313.278	-384.624	-440.445
B	**OTHER OPERATING ASSETS AND LIABILITIES**						
3	Working capital	£m	3	-80.503	-81.590	-93.032	-97.443
4	Cash	£m	3	-2.340	9.102	1.637	0.792
5	Short term deposits	£m	3	0.000	5.300	0.600	0.020
6	Overdrafts	£m	3	0.000	0.000	0.000	0.000
7	Infrastructure renewals prepayment/(accrual)	£m	3	2.734	3.341	0.050	-0.702
8	Net operating assets	£m	3	-80.109	-63.847	-90.745	-97.333
C	**NON-OPERATING ASSETS AND LIABILITIES**						
9	Borrowings	£m	3	0.000	0.000	0.000	0.000
10	Non-trade debtors	£m	3	0.006	0.007	0.020	0.197
11	Non-trade creditors due within one year	£m	3	-4.141	-5.218	-2.203	-2.477
12	Investment - loan to group company	£m	3	0.000	0.000	0.000	0.000
13	Investment - other	£m	3	0.106	0.106	0.091	0.091
14	Corporation tax payable	£m	3	0.000	0.000	0.000	0.000
15	Ordinary share dividends payable	£m	3	0.000	0.000	0.000	0.000
16	Preference share dividends payable	£m	3	0.000	0.000	0.000	0.000
D	**CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR**						
17	Borrowings	£m	3	-807.560	-882.560	-911.560	-947.560
18	Other creditors	£m	3	-98.978	-96.184	-95.668	-93.773
E	**PROVISION FOR LIABILITIES AND CHARGES**						
19	Deferred tax provision	£m	3	-162.493	-187.416	-173.693	-197.982
20	Post employment asset / (liabilities)	£m	3	7.253	-4.123	2.784	-9.304
21	Other provisions	£m	3	-20.679	-9.589	-10.315	-5.837
F	**PREFERENCE SHARE CAPITAL**						
22	Preference share capital	£m	3	0.000	0.000	0.000	0.000
23	Net assets employed	£m	3	6725.746	6876.890	7041.788	7064.918
G	**CAPITAL AND RESERVES**						
24	Called up share capital	£m	3	500.000	500.000	500.000	500.000
25	Share premium	£m	3	0.000	0.000	0.000	0.000
26	Profit and loss account	£m	3	-287.995	-355.720	-360.120	-400.480
27	Current cost reserve at 31 March	£m	3	6342.051	6560.920	6730.218	6793.708
28	Other reserves	£m	3	171.690	171.690	171.690	171.690
29	Total capital and reserves	£m	3	6725.746	6876.890	7041.788	7064.918

Table 24 – CC Balance Sheet as at 31 March 2015

The retained current cost loss for the year is £29.279m. The P&L reserves in the balance sheet decreased by £40.360m. The difference of £11.081m represents the loss on the pension fund net of deferred tax, as shown below:

Retained loss for the year	£ (29.279m)
Pension scheme loss net of deferred tax	£ (11.081m)
Movement in P&L Account	**£ (40.360m)**

- No minority interests exist.

The elements of PPP included in the table are as follows:

Line 1 - Tangible assets

	Alpha	Omega	Kinnegar	Total
	£m	£m	£m	**£m**
Gross	*142.435	20.099	3.763	**166.297**
Acc. Deprec	(26.202)	-	-	**(26.202)**
NBV	**116.233**	**20.099**	**3.763**	**140.095**

* Includes original capital value of Alpha PPP, assets passed to the concessionaire at the commencement of the contract and subsequent additions of capital maintenance all elements indexed to give a current cost value.

Line 3 - Working capital

	Alpha	Omega	Kinnegar	Total
	£m	£m	£m	**£m**
Accruals	2.965	17.977	0.223	**21.165**

Line 11 - Non-trade creditors due within one year

	Alpha
	£m
Lease obligation due < 1 yr	1.888

Line 18 - Other creditors

	Alpha
	£m
Lease obligation due > 1 yr	92.500

Line 21 - Other provisions

	Omega
	£m
Provisions	3.403

Significant features and movements

Line 1 - Tangible assets

See commentary to Table 19.

Line 2 - Third party contributions

Increased by approximately £55.8m shown as follows:

	£m
Infrastructure contributions (including £46.5m sewers adopted)	52.7
Non Infrastructure contributions (including £1.9m adoptions)	3.5
Amortisation of non-infrastructure contributions and government grants	(3.9)
Indexation	3.5
	55.8

Line 3 - Working capital

See commentary to Table 26.

Line 4 - Cash

See commentary to Table 19.

Line 5 - Short term deposits

See commentary to Table 19.

Line 17 - Borrowings

See commentary to Table 19.

Line 19 - Deferred tax provision

See commentary to Table 19.

Line 20 - Post employment asset / (liability)

See commentary to Table 19.

Line 21 - Other provisions

See commentary to Table 19.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 25 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
ANALYSIS OF FIXED ASSETS BY ASSET TYPE (TOTAL)

				1	2	3	4	5	6	7	8	9
				WATER SERVICE				SEWERAGE SERVICE				
	DESCRIPTION	UNITS	DP	INFRASTRUCTURE ASSETS	OPERATIONAL ASSETS	OTHER TANGIBLE ASSETS	SUBTOTAL	INFRASTRUCTURE ASSETS	OPERATIONAL ASSETS	OTHER TANGIBLE ASSETS	SUBTOTAL	TOTAL
A	GROSS REPLACEMENT COST											
1	Gross replacement cost at 1 April	£m	3	3358.813	1042.039	48.816	4449.668	3410.982	1623.551	48.214	5082.747	9532.415
2	AMP adjustment	£m	3				0.000				0.000	0.000
3	RPI adjustment	£m	3	30.357	8.916	0.440	39.713	30.110	14.075	0.528	44.713	84.426
4	Disposals	£m	3	0.000	-3.948	-0.506	-4.454	0.000	-3.212	-0.393	-3.605	-8.059
5	Additions	£m	3	30.713	29.593	3.846	64.152	56.379	58.314	0.553	115.246	179.398
6	Gross replacement cost at 31 March	£m	3	3419.883	1076.600	52.596	4549.079	3497.471	1692.728	48.902	5239.101	9788.180
B	DEPRECIATION											
7	Depreciation at 1 April	£m	3	53.290	278.927	34.433	366.650	2.723	417.777	37.564	458.064	824.714
8	AMP adjustment	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	AMP adjustment - gross MEA revaluation	£m	3				0.000				0.000	0.000
10	lives	£m	3				0.000				0.000	0.000
11	RPI adjustment	£m	3	0.483	2.509	0.315	3.307	0.023	3.767	0.344	4.134	7.441
12	Disposals	£m	3	0.000	-3.725	-0.488	-4.213		-2.901	-0.387	-3.288	-7.501
13	Charge for year	£m	3	0.000	32.913	4.645	37.558	0.000	61.542	5.085	66.627	104.185
14	Depreciation at 31 March	£m	3	53.773	310.624	38.905	403.302	2.746	480.185	42.606	525.537	928.839
15	Net book amount at 31 March	£m	3	3366.110	765.976	13.691	4145.777	3494.725	1212.543	6.296	4713.564	8859.341
16	Net book amount at 1 April	£m	3	3305.523	763.112	14.383	4083.018	3408.259	1205.774	10.650	4624.683	8707.701

Table 25 – Analysis of Fixed Assets by Asset Type (Total)

The following asset categories have been analysed in the table as follows:

- 'Infrastructure assets' include infrastructure assets only.
- 'Non-specialised operational assets' include active market value land, buildings and civils.
- 'Specialised operational assets' include land, buildings, civils and fixed plant.
- 'Other tangible assets' include surplus land, buildings and civils, mobile plant and IT.

Gross Replacement Cost at 1 April and Depreciation at 1 April
The total opening balances for gross replacement cost and depreciation at 1 April 2014 have been brought forward from the total closing balances for gross replacement cost and depreciation at 31 March 2014. The analysis across asset categories is based on analysis within the fixed asset register.

AMP Adjustment
There was no AMP adjustment during the year.

RPI Adjustment
In April 2014, all assets in the Fixed Asset Register (FAR) were indexed upwards using year end Retail Price Index (RPI) to be consistent with OFWAT.

Impairment
There was an impairment of surplus lands, buildings and civils during the year totalling £101.3k following a review of assets for disposal by McKibbin & Co.

Disposals
Disposals during the year mainly consisted of surplus land, buildings, mobile plants (lorries and vans) and IT assets. All disposals have depreciation in the month of disposal.

Decommissioned Assets
A number of assets (NCRC - £123,943.56) were decommissioned during the year. Decommissioned assets are assets which are no longer in use but still have a net current replacement cost (NCRC) value at the time. In order to account for this, the assets are fully depreciated in year to bring the NCRC down to nil.

Additions
Additions consisted of capital expenditure incurred during the year plus adopted sewers and sewage pumping stations and PPP assets (see below). When the assets created by the capital expenditure are commissioned they are put onto the fixed asset register and depreciation commences the following month.

In accordance with the regulatory accounting guidelines, fixed asset additions are stated gross of capital contributions but net of IRE. This gives rise to the reconciliation with the capital works programme and statutory accounts below:

	£'000
Total expenditure in CWP (incl.) Operations)	**156,492**
Add: Water and sewer connections	2,677
Add: Capital maintenance Omega and Kinnegar	1,618
Add: adopted assets – infrastructure	46,502
Add: adopted assets – non-infrastructure	1,904
Less: de-capitalised assets	(222)
Add: capitalised interest	3,886
Less: expenditure classified as opex under IFRS	(1,154)
Other adjustments	131
Total additions per statutory accounts	**211,834**
Less Capital maintenance Omega and Kinnegar	(1,618)
Add back: IRE treated as opex repairs under IFRS	1,154
Less: interest capitalised	(3,886)
Less: IRE	(31,557)
Add: PPP residual interest	3,471
Total additions per regulatory accounts	**179,398**

PPP Assets Additions
During the year, there were on-balance sheet additions to PPP assets. Therefore, there was an element in the table relating to PPP assets totalling to £271,000 relating to the Alpha capital maintenance fund.

There is also additional residual interest for PFI Kinnegar asset and Omega asset with a current cost of £3,651,000 which is included in Table 25 under specialised operational civil. The total residual interest at 31 March 2015 is £23,862,000 (31 March 2014: £20,211,000).

Depreciation Charge for Year
Current cost depreciation charge during the year was calculated based on the opening GCRC at 1 April 2014. Additions and disposals during the year were taken into account in calculating the depreciation charge.

Commentary
All assets were analysed to each of their respective asset categories and service activities to identify the water and sewerage services. The management and general service activity assets, with a GCRC of £89,078,740.57 (13/14: £93,882,592.85) as at 31 March 2015, could not be readily identified as water and sewerage services and have been split as per IFM: Water 41% and Sewerage 59%.

Table 25 has also been adjusted to include only the appointed business and exclude the unappointed business relating to vehicle maintenance carried out for third parties. This has been adjusted through Water Services – Other Assets.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 26 REGULATORY ACCOUNTS
WORKING CAPITAL

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
1	Stocks	£m	3	2.177	2.379	2.021	2.269
2	Trade debtors - measured household	£m	3	0.000	0.000	0.000	0.000
3	Trade debtors - unmeasured household	£m	3	0.000	0.000	0.000	0.000
4	Trade debtors - measured non household	£m	3	7.191	7.596	8.037	8.647
5	Trade debtors - unmeasured non household	£m	3	3.084	0.402	2.764	2.681
6	Other trade debtors	£m	3	2.084	0.612	0.383	0.364
7	Measured income accrual	£m	3	12.393	10.777	9.180	9.438
8	Prepayments and other debtors	£m	3	9.025	9.431	6.783	9.432
9	Trade creditors	£m	3	-11.711	-2.620	-6.656	-21.205
10	Deferred income - customer advance receipts	£m	3	-3.768	-1.164	-3.459	-3.546
11	Short term capital creditors	£m	3	-56.206	-56.699	-59.734	-52.101
12	Accruals and other creditors	£m	3	-44.772	-52.304	-52.351	-53.422
13	Total working capital	£m	3	-80.503	-81.590	-93.032	-97.443

Table 26 – Working Capital

Lines 2 – 6 - Trade Debtors

Trade debtors are split into the five categories shown in lines 2-6 using the information from the General Ledger and the aged debtors analysis provided in the Echo pack.

The elements of PPP included in the table are as follows:

Line 12 - Accruals and other creditors

Alpha	Omega	Kinnegar	Total
£m	£m	£m	**£m**
2.965	17.977	0.223	**21.165**

Significant movements from last year

Line 4 - Trade debtors - measured non household

This has increased from £8.0m to £8.6m (7.5%).

Line 5 - Trade debtors - unmeasured non household

This has decreased marginally from £2.8m in 2013-14 to £2.7m. The billing run for the unmeasured customers (who are billed 12 mths in advance) was completed prior to the year end in both 2013-14 and 2014-15 and there is therefore no significant movement in this balance (see also Line 10).

Line 6 - Other trade debtors

This has decreased from £0.38m to £0.36m (5.3%).

Line 7 - Measured income accrual

This has increased by £0.3m (3.3%) over the period.

Line 9 - Trade creditors

Trade creditors have risen by £14.6m (218.6%) in the period. This was the result of managing cash resources at year end with the result that a smaller than normal level of payment run was carried out at the end of March 2015.

Line 10 - Deferred income – customer advance receipts

Deferred income – customer advance receipts have risen marginally by £0.1m (2.9%) in the period. The balance is predominately related to unmeasured non-household billing and since the billing run for these unmeasured customers (who are billed 12 months in advance) was completed prior to the year end in both 2013-14 and 2014-15 there is no significant movement in this balance (see also Line 5).

Line 11 - Short term capital creditors

Capital accruals have decreased by approximately £7.6m (12.8%). This is mostly accounted for by the fall in relevant* capital additions of 6.0% from £166.4m in 2014 to £156.4m in 2015.

*relevant additions for the short-term capital creditors account exclude those relating to connections, PPP residual interest assets and adopted assets.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 27 REGULATORY ACCOUNTS
MOVEMENT ON CURRENT COST RESERVE (TOTAL)

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
1	Current cost reserve at 1 April	£m	3	6109.339	6342.051	6560.920	6730.218
2	AMP adjustment	£m	3	0.000	0.000	0.000	0.000
A	**RPI ADJUSTMENTS**						
3	Fixed assets	£m	3	273.081	260.354	202.983	76.985
4	Working capital adjustment	£m	3	-2.824	-2.641	-2.001	-0.840
5	Financing adjustment	£m	3	-30.450	-30.464	-23.962	-9.183
6	Grants and third party contributions	£m	3	-7.095	-8.380	-7.722	-3.472
7	Current cost reserve at 31 March	£m	3	6342.051	6560.920	6730.218	6793.708

Table 27 – Movement on current cost reserve

Working capital adjustment

The working capital adjustment includes opening stock at 1st April 2014 plus all the opening short – term debtors and creditors at 1st April 2014, with the following exclusions from the calculation:

- **Stock**
  - Stock relating to unappointed activities £0.007m
- **Debtors**
  - Interest receivable £0.003m
  - Debtors relating to unappointed activities £0.469m
  - Debtors relating to cash remitted to the pension fund not yet recognised £0.194m
- **Creditors**
  - Interest payable £0.386m
  - Cash bond interest payable £0.203m
  - Creditors relating to unappointed activities £0.678m
  - Deferred grants and contributions < 1yr £0.885m
  - PPP Finance lease creditor < 1yr £1.888m

The following indices have been used and applied to the opening working capital balance at 1 April 2014:

RPI	2015	2014
Year end RPI	257.1	254.8
Change in 2014-15	0.90267%	

Working capital adjustment = opening working capital at 1 April 2014 x change in RPI 2014-2015 = £93,032k x 0.90267% = £840k

Financing adjustment

The financing adjustment is calculated using opening balances at 01.04.14 as follows:

	£m
Opening net assets	7,041.788
Less Opening net fixed assets	(8,323.077)
	(1,281.289)
Add back: working capital	93.032
=Opening net finance	(1,188.257)
Less:	
Ordinary share dividends payable	0.000
Deferred tax provision	173.693
Less:	
Pension asset	(3.480)
Add back:	
Deferred tax liability on pension asset	0.696
= Revised opening net finance	(1,017.348)
X RPI	0.90267%
Financing Adjustment	**9.183**

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 28 REGULATORY ACCOUNTS
CASH FLOW STATEMENT FOR YEAR ENDING 31 MARCH (TOTAL)

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
1	Net cashflow from operating activities	£m	3	179.166	181.015	190.580	195.707
A	**RETURN ON INVESTMENTS & SERVICING OF FINANCE**						
2	Interest received	£m	3	0.114	0.134	0.114	0.080
3	Interest paid	£m	3	-39.337	-42.208	-43.723	-45.339
4	Interest in finance lease rentals	£m	3	-11.750	-11.913	-6.933	-6.824
5	Non-equity dividends paid	£m	3	0.000	0.000	0.000	0.000
6	Net cashflow from returns on investments & servicing of finance	£m	3	-50.973	-53.987	-50.542	-52.083
B	**TAXATION**						
7	Taxation (paid)/received	£m	3	0.000	0.000	0.000	-0.017
C	**CAPITAL EXPENDITURE AND FINANCIAL INVESTMENT**						
8	Gross cost of purchase of fixed assets	£m	3	-153.100	-130.590	-135.971	-134.620
9	Receipts of grants and contributions	£m	3	5.618	5.757	6.586	7.333
10	Infrastructure renewals expenditure	£m	3	-35.847	-31.368	-30.118	-31.557
11	Disposal of fixed assets	£m	3	0.304	1.177	1.164	1.046
12	Movements on long term loans to group companies	£m	3	0.000	0.000	0.000	0.000
13	Net cashflow from investing activities	£m	3	-183.025	-155.024	-158.339	-157.798
D	**ACQUISITIONS AND DISPOSALS**						
14	Acquisitions and disposals	£m	3	0.000	0.000	0.000	0.000
E	**EQUITY DIVIDENDS**						
15	Equity dividends paid	£m	3	-25.604	-26.587	-21.391	-21.562
F	**MANAGEMENT OF LIQUID RESOURCES**						
16	Net cashflow from management of liquid resources	£m	3	15.000	-5.300	4.700	0.580
17	Net cashflow before financing	£m	3	-65.436	-59.883	-34.992	-35.173
G	**FINANCING**						
18	Capital in finance lease rentals	£m	3	-3.632	-3.675	-1.473	-1.672
19	New bank loans taken out	£m	3	70.000	75.000	29.000	36.000
20	Repayment of bank loans	£m	3	0.000	0.000	0.000	0.000
21	Proceeds from share issues	£m	3	0.000	0.000	0.000	0.000
22	Net cash inflow from financing	£m	3	66.368	71.325	27.527	34.328
23	Increase/(decrease) in cash in the year	£m	3	0.932	11.442	-7.465	-0.845

Table 28 – Cashflow statement

Significant movements from last period

Line 1 - Net cashflow from operating activities

This has increased by £5.127m (2.7%). The reconciliation of operating profit to net cashflow from operating activities is shown in Table 29.

Line 3 – Interest paid

Interest paid has increased by 3.6% from £43.723m to £45.339m. This is consistent with an additional loan drawdown of £36m in 2014-2015. The balance on loans can be summarised as follows:

At 1 April 2007	£150m
At 31 March 2008	£307.56m (average for year £228.78m)
At 31 March 2009	£457.56m (average for year £382.56m)
At 31 March 2010	£627.56m (average for year £542.56m)
At 31 March 2011	£737.56m (average for year £682.56m)
At 31 March 2012	£807.56m (average for year £772.56m)
At 31 March 2013	£882.56m (average for year £845.06m)
At 31 March 2014	£911.56m (average for year £897.06m)
At 31 March 2015	£947.56m (average for year £929.56m)

Line 4 - Interest in finance lease rentals

The Alpha project during 2014-2015 gave rise to £6.824m (2014: £6.933m) interest payable on the associated finance lease. This decrease arises from the revision to the financial model that breaks the PPP unitary charge into the various Profit and Loss Account and Balance Sheet elements.

Line 8 - Gross cost of purchase of fixed assets

These have decreased by £1.351m (1.0%). This is consistent with capital expenditure plans for 2014-15 and the movement in capital creditors across the period.

Line 10 - Infrastructure Renewals Expenditure

IRE for 2014-2015 compared to 2013-2014 can be shown as follows:

IRE	2014-2015	2013-2014	Increase/(Decrease) in period	Increase/(Decrease) in period
	£m	£m	£m	%
Water	23.055	22.391	0.664	3.0
Sewerage	8.502	7.727	0.775	10.0
Total	31.557	30.118	1.439	4.8

Both Water and Sewerage IRE have increased over the period. This is consistent with the planned level of base maintenance agreed with the Regulator within PC13.

Line 16 - Net cashflow from management of liquid resources

Management of liquid resources represents the movement in monies held on short-term deposit accounts.

Monies on deposit have decreased by £0.6m from the end of 2013-2014 to the end of 2014-2015 with a consequent increase in cashflow. The balance on deposit at the end of 31st March 2015 is £0.02m.

Line 18 - Capital in finance lease rentals.
An amount of £1.672m was made in payment against the Alpha PPP finance lease.

Line 19 - New bank loans taken out
In 2014-2015 £36m of additional loan notes were drawn down from DRD. These new loans were required to part finance the ongoing capital expenditure programme with the balance of capital expenditure financed by working capital.

PPP
The elements of PPP included in the cashflow are as follows:

Line 1 - Net cashflow from operating activities.
This is summarised in Table 29 as follows:

1	Current cost operating profit	£m	59.111
2	Working capital adjustment	£m	(0.840)
3	Movement in working capital	£m	12.045
4	Depreciation	£m	104.185
5	Current cost profit on sale of fixed assets	£m	(0.488)
6	Infrastructure renewals charge	£m	32.309
7	Other non-cash profit and loss items	£m	(10.615)
8	Net cash flow from operating activities	£m	195.707

The commentary to Table 20 (Current Cost P&L Account) outlines the PPP element contained within operating costs that contributed to the current cost operating profit within Line 1 and depreciation Line 4.

The commentary for Table 26 (Working Capital) outlines the elements of PPP that are contained within working capital that feed into the movement in working capital above.

The PPP aspect to lines 4 and 18 in Table 28 are outlined in ‘significant movements from last period’ in this commentary.

Included in Line 8: Gross cost of purchase of fixed assets in Table 28 is £0.271m in respect of capital maintenance additions for Alpha PPP paid for via the unitary payments. All other capital expenditure for Alpha is accounted for through the repayment of the finance lease.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 29 REGULATORY ACCOUNTS (CURRENT COST ACCOUNTING)
RECONCILIATION OF OPERATING PROFIT TO NET CASH FLOW FROM OPERATING ACTIVITIES (TOTAL)

	DESCRIPTION	UNITS	DP	1 2011-12	2 2012-13	3 2013-14	4 2014-15
1	Current cost operating profit	£m	3	2.181	19.872	19.799	59.111
2	Working capital adjustment	£m	3	-2.824	-2.641	-2.001	-0.840
3	Movement in working capital	£m	3	-2.122	0.595	8.388	12.045
4	Receipts from other income	£m	3	0.000	0.000	0.000	0.000
5	Depreciation	£m	3	157.761	150.895	135.458	104.185
6	Current cost profit on sale of fixed assets	£m	3	0.285	-0.303	-0.208	-0.488
7	Infrastructure renewals charge	£m	3	30.069	30.761	33.409	32.309
8	Other non-cash profit and loss items	£m	3	-6.184	-18.164	-4.265	-10.615
9	Net cash flow from operating activities	£m	3	179.166	181.015	190.580	195.707

Chapter 30 – Capital investment Summary Report

Introduction

This chapter provides a consolidated report on Capital investment which draws on Chapters 32, 35, 26, 36a and 40 and associated tables.

PPP

No PPP expenditure is reported in these tables. There was no Capital spend in 2014/15 relating to PPP that is not included within the unitary charge payments. In relation to Capital additions the only Capital not included in this table is the PPP Alpha Capital maintenance charge of £0.271m.

Capital investment driver allocation (Service categorisation and purpose allocation)

The Capital Investment Driver Allocation (CIDA) methodology has remained consistent as per recent PC10/PC13 years. NI Water captures Service Categorisation, Life Categories (as reported in Table 34) and Purpose Allocation within our CIDA data capture. This data is captured within CPMR at project level and used for CIM (Table 40) and the other related AIR tables.

No apportionment has taken place during the analysis and table population stage as this was completed by Project Managers at the initiation of the project, and reviewed at appropriate gateways for EP projects.

During 2014/15 All CIM (Table 40) information has been reported directly from CPMR without the detailed manual assessment required in previous years. For the related AIR Tables M & G spend has been reported from CPMR, but Operational Capital has had to be analysed manually as per previous years as the data on CPMR is not in a format that allows for robust reporting. Further refinement planned during 2014/15 has been delayed until 2015/16 to allow for more automation for the completion of the tables. As a result the same process used in AIR 14 has been adopted for AIR 15.

Assets Adopted at Nil Cost

Sewer adoptions paid by third parties of £46.502 are included in column 4, line 7 of Table 32 within Sewerage infrastructure enhancements. Sewerage Pumping Stations paid by third parties of £1.904m are included in Col 5, line 12 within Sewerage non infrastructure enhancements.

All of the investment reported in block D of Table 36 is reported as 'Supply Demand Balance: New Development'.

The value of sewer adoptions in 2014/15 has decreased marginally when compared to 2013/14. The following is a brief explanation for this change:

- In previous years NI Water had additional focus upon (i) backlog sites and (ii) enforcement sites. The workload in these areas has begun to reduce.
- In association with DRD Roads Service work has progressed on both these areas, plus Developers are being pushed by their financial providers to reduce bonds and liability, and hence we have had an increase in the number of Article 161 sites where the developer completed works to enable adoption of site sewers.
- On another new area of the work – we have adopted several sites with over engineered pipes and flow controls to meet the conditions of Sustainable Drainage Systems – i.e. greenfield runoff as stipulated by Rivers Agency. This included large diameter pipes and e.g. Hydrobrakes which are recorded in the AIR returns. This

behaviour is driving larger costs associated with large Diameter storage solutions with shorter lengths being involved.
- The Development market has changed significantly over recent years with size of developments typically being smaller and house type returning to be predominantly of town houses rather than large semi or detached homes. The apartment development market is also beginning to make a return after a dormant period of 4 – 5 years.

The calculation of gross asset valuation for adopted sewerage assets is based on the unit costs derived for PC10 which were indexed to 14/15 prices by COPI. The unit costs are applied by diameter banding and total lengths laid. The unit costs adopted in PC10 were developed from historic actual costs of projects completed by NI Water and reported in 07/08 prices.

Total Asset Additions reconciliations

- Total asset additions – Water Service – Check to Table 25 line 5 col 4.
  For AIR 15 the reported numbers in these two tables are as follows:
  Table 25 – £64.152m
  Table 36 - £63.898m

The difference in the above 2 figures are explained as follows:

a) PPP Alpha Capital maintenance of [redacted] is not included in Table 36
b) £-17k included in Table 25 relates to Decapitalised projects in 14/15

- Total asset additions – Sewerage Service – Check to Table 25 line 5 col 8.
  For AIR 15 the reported numbers in these two tables are as follows:
  Table 25 – £115.246m
  Table 36 - £111.849m

The difference in the above 2 figures are explained as follows:

c) PPP Omega [redacted] and PPP Kinnegar [redacted] residual asset additions not included in Table 36.
d) £-204k included in Table 25 relates to Decapitalised projects in 14/15
e) Adjustment of £132k for a grant for Silent Valley not treated as an addition in 2014-15 and not included in Table 36.

Expenditure to reduce leakage

The table below provides a breakdown of the leakage expenditure in 2014/15. This includes the purpose allocations which have followed the principle as set out in PC10 Final Determination.

This is reported in the same manner as previous years. It should be noted that the figures reported do not include Leakage repair costs as these are completed by the Water Networks function. The opex costs reported in the table are the total opex costs for the Leakage Function including staff costs. The actual leakage repair cost as completed by Networks Water in 14/15 was £1.3m.

Activity	2014/15 actual spend per category £m	Purpose allocation
Leakage detection and repair costs	3.933	OPEX
Leakage detection costs - capex	0.626	Base
Leakage infra replacement repair costs - capex	0.265	Base
Leakage detection equip	0.068	Base
Leakage software upgrades and developments	0.000	Base
New leakage technology	0.000	Base
DMA studies	0.676	Base
Trunk Main studies	0.056	SDB Growth
DMA optimisation	0.012	SDB Growth
Water balance asset data assessments	0.048	Base
ELL reviews	0.000	Base
Pressure Management	0.411	SDB Growth
PRV replacements	0.220	Base
GSM Loggers/Meter studies/Meter replacement	1.067	Base
Other	0.094	Base
Total (OPEX)	**3.933**	
Total (Capex)	**3.543**	
Total Leakage investment	**7.476**	

Capital programme variance

The Capital programme for 2014/15 when compared to the PC13 final determination has under delivered in the 'Water Service' and under delivered in the 'Sewerage Service' when comparing with the variance from the FD. Overall the PC13 programme under delivered when taking COPI into account but fully invested the Public Expenditure available during the period.

NI Water successfully delivered the PE funding for 14/15 (Nominal PC13 amount of £159m). When taking into account the PC13 COPI assumptions compared with actual COPI a variance of -£8.0m (Gross) has developed over PC13 period which equates to Outputs which NI Water no longer have funding to deliver during PC13.

The main reasons for variance in 14/15 are as follows:

a) PE expenditure funding arrangements. The lack of year end flexibility means that NI Water has to manage to spend the funding within the year. In the last year of PC10 there were delays in some of the frameworks being renewed and this meant that Base Maintenance projects were advanced to achieve PE funding in 12/13. This had a significant knock on effect into 13/14 with significant funding being committed. This explains the large overspend on Wastewater non infra during PC13. Spend on Wastewater non infra was reduced during 14/15 but remained higher than the final determination. NI Water has managed its overall Base Maintenance programme in 14/15 within the determination range but used the investment in service areas required by high priority.
b) The complexity of Framework tendering within the Public expenditure guidelines is challenging and any delay in Framework renewal means that sub-programme spend can be delayed. This had an effect of delays in sub prog 17(Small WwTW) which had a late start in PC13 and Reservoir Rehabilitation.

c) NI Water is actively managed the Capital programme to minimise the effect of changes over the regulatory period and to ensure that the overall programme balance was maintained as closely as possible.

2014/15 Q4 Capital Investment Monitoring Return (Table 40)

Company Baseline
A PC13 Baseline is included in this CIM submission. This baseline is based on the Capital programme as submitted to the UR as part of the submissions prior to the PC13 Final Determination. This aligns with the final determination prior to the application of COPI adjustment to the 2010/11 price base as required by the UR.

The PC13 Baseline on this submission has been adjusted for the following:

a) The nominated MIMP projects (JI024 – JI028) now have a baseline allocation. The baseline on the Parent Rehab Project (JI053) has been reduced by the equivalent amount.
b) Ballycranbeg WwTW (KS887). On the CIM this was originally shown against KS111 (Ards South), which is the Parent Project. Baseline has been transferred to KS887 - this project is the Nominated Output for PC13.
c) Small WwTW – The baseline for the PC13 Small WwTW has been transferred from KI470 to KI542, which is the PC13 delivery project.

Additional outputs update

d) Aghagallon WwTW (KG202) was not initially a PC13 output but was added through the Change Protocol.
e) Waringsford WwTW was delivered through Sub-Programme 17 (RWwIP) but as the upgrade increased the site to over 250 pe; it has been stated as a separate nominated output. This WwTW is in addition to the 25 small WwTW delivered as the target in PC13.

Capital Expenditure Commentary
This submission is completed primarily using CPMR with full reconciliation completed to ORACLE.

The following is a summary of CAPEX expenditure in 2014/15 (excluding contributions) at the end of Q4 as per ORACLE and reconciled to the CIM submission shown in money of the day.

	£m
Total Gross Capital expenditure as per ORACLE	158.898
Capital works programme expenditure	112.509
Operations Capital from CPMR	23.960
M & G Capital from CPMR	10.657
Capitalised Salaries and overheads	11.724
Rounding from ORACLE to CAPTRAX/CPMR	0.047
Reconciled Total	158.898

During the period (April 2014 – March 2015) there has been Capital income in the form of Grants and Contributions totalling to £6.546m. This figure is not included on the CIM submission.

Additional funding of £0.63m was provided by DRD to NI Water in 2014/15 within the year.

Inflation Assumptions

The project costs reported in the 'current actual or projected' portion of the CIM are in current prices. All project costs are captured in nominal prices as no inflation assumptions are applied within CPMR. COPI has been adjusted to incorporate an update released on 13/04/2015 and an estimate for the final quarter of the 14/15 year.

	2010/11	2011/12	2012/13	2013/14	2014/15
PC13 FD assumed Indices	107.375	109.925	112.673	115.490	118.377
Current actual and Projected indices (Q4 14/15)	107.375	109.950	113.45	117.950	123.750

As COPI tracked ahead of the PC13 FD baseline the total funding available in PC13 'real prices' was reduced in excess of £8m. As a consequence, the number of projects delivered in PC13 was reduced.

Reconciliation with Table 36

Table 36 - Water service nominal expenditure

	Gross Capital expenditure - Water Service	T36 £m	CIM £m	Variance £m	Variance %
1	MNI (gross of grants and contributions)	17.891	17.241	-0.650	**-3.77**
2	Infrastructure renewals expenditure (gross)	23.055	23.312	0.257	**1.10**
3	Capex: Total quality enhancement programme	21.913	22.248	0.335	**1.51**
4	Capital expenditure - customer service	2.616	2.580	-0.036	**-1.39**
5	Capital expenditure - supply demand balance	21.478	21.642	0.164	**0.76**
6	Gross Capital expenditure - Water Service	86.953	87.023	0.070	**0.08**

Table 36 - Sewerage service nominal expenditure

	Gross Capital expenditure - Sewerage Service	T36 £m	CIM £m	Variance £m	Variance %
7	MNI (gross of grants and contributions)	30.084	29.585	-0.499	**-1.69**
8	Infrastructure renewals expenditure (gross)	8.502	8.316	-0.186	**-2.24**
9	Capex: Total quality enhancement programme	15.179	15.541	0.362	**2.33**
10	Capital expenditure: customer service	4.137	3.955	-0.182	**-4.60**
11	Capital expenditure supply demand balance	14.043	14.430	0.387	**2.68**
12	Gross Capital expenditure - Sewerage Service	71.945	71.827	-0.118	**-0.16**

The above table shows the comparison between the CIM (Table 40) and Table 36. Assets adopted at NIL cost reported in Table 36 have been excluded from this comparison. The variances shown arise because the data held for population of the AIR tables has direct links between the asset type, service area and investment driver. Where there are complex projects this detail is required to provide an accurate analysis of the expenditure. The summary detail on the CIM does not give a full transparency of this detail as the direct link between asset type, service area and investment area is lost but does give a reasonable interpretation of the investment. In addition direct comparison is difficult as Capitalised Salaries and overheads are a single line on the CIM which has had a service allocation and purpose allocation applied based on the rest of the programme. For AIR 15 the Capital salaries and overheads were applied by examining each of the 3 elements of

the programme namely, CWP, M & G and operations Capital and assigning Salaries and overheads against each of these programmes before combining into a single line. Whilst still not exact it more closely reflects the way salaries are allocated to individual projects. Within AIR the Capitalised Salaries and overhead information is included within individual project costs.

Changes on the CIM since draft submission

The following changes have been made post Q4 submission:

- Service Allocations and Purpose allocations for some of the summary lines reflecting operational Capital spend have been revised to reflect the actual project outputs over the year.
- This has had a minor effect on the 16 box summary which has been updated in this commentary.

Sixteen Box Summary

2014/15 Current Actual Projected 16 box summary showing expenditure £m (nominal)

	Quality Enhancement	Base Service provision	Enhanced service levels	Supply Demand Balance	Totals
Water Infrastructure	12.17	23.31	0.70	18.23	54.41
Water Non-Infrastructure	10.08	17.24	1.88	3.41	32.61
Sewerage Infrastructure	4.20	8.32	1.02	4.59	18.12
Sewerage Non-Infrastructure	11.34	29.59	2.93	9.85	53.71
Totals	37.79	78.46	6.54	36.07	158.85

2014/15 Current Actual Projected 16 box summary in %

	Quality Enhancement	Base Service provision	Enhanced service levels	Supply Demand Balance	Totals
Water Infrastructure	7.66%	14.68%	0.44%	11.48%	34.25%
Water Non-Infrastructure	6.35%	10.85%	1.18%	2.15%	20.53%
Sewerage Infrastructure	2.64%	5.24%	0.64%	2.89%	11.41%
Sewerage Non-Infrastructure	7.14%	18.63%	1.85%	6.20%	33.81%
Totals	23.79%	49.39%	4.11%	22.71%	100.00%

PC13 16 box Current actual (nominal) Expenditure across the PC13 programme £m

	Quality Enhancement	Base Service provision	Enhanced service levels	Supply Demand Balance	Totals
Water Infrastructure	22.87	45.70	2.29	31.04	101.90
Water Non-Infrastructure	14.20	34.60	3.58	6.17	58.55
Sewerage Infrastructure	7.98	17.23	2.63	9.01	36.84
Sewerage Non-Infrastructure	29.18	75.38	7.08	17.48	129.11
Totals	74.23	172.91	15.57	63.70	326.40

PC13 16 box Current actual summary: Expenditure by % across the PC13 programme

	Quality Enhancement	Base Service provision	Enhanced service levels	Supply Demand Balance	Totals
Water Infrastructure	7.01%	14.00%	0.70%	9.51%	31.22%
Water Non-Infrastructure	4.35%	10.60%	1.10%	1.89%	17.94%
Sewerage Infrastructure	2.44%	5.28%	0.80%	2.76%	11.29%
Sewerage Non-Infrastructure	8.94%	23.09%	2.17%	5.35%	39.56%
Totals	22.74%	52.97%	4.77%	19.51%	100.00%

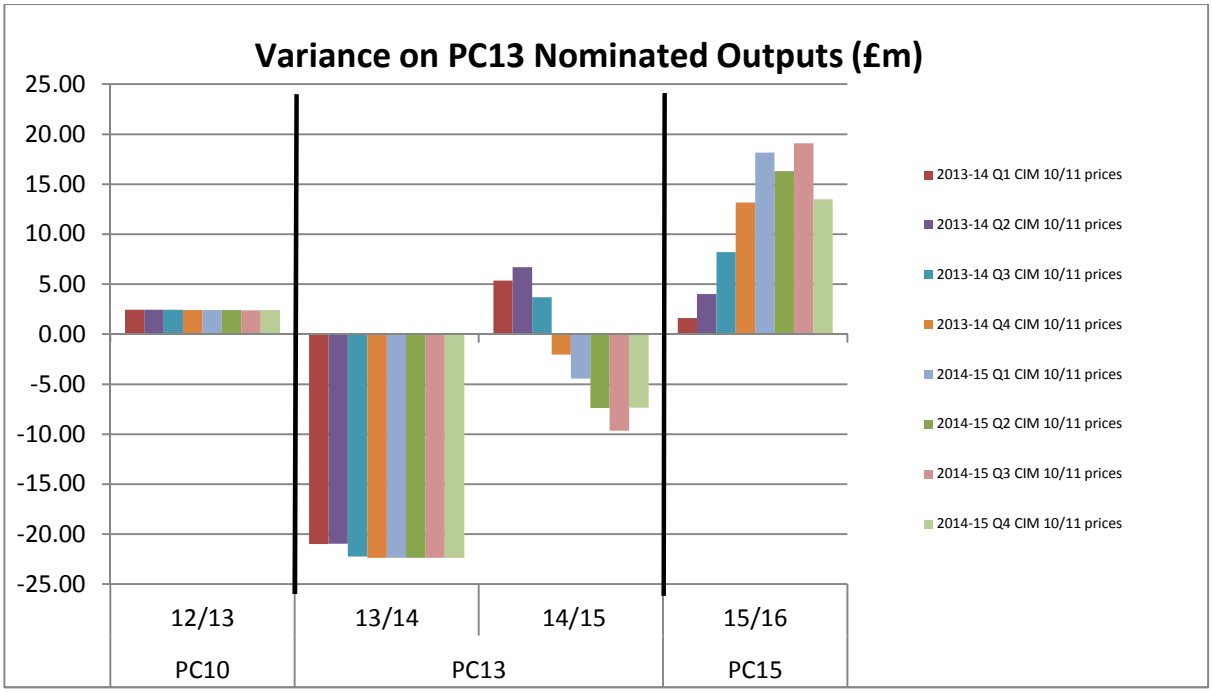
PC13 16 box FD baseline (nominal): Expenditure across the PC13 programme £m

	Quality Enhancement	Base Service provision	Enhanced service levels	Supply Demand Balance	Totals
Water Infrastructure	18.66	51.45	3.29	35.14	108.54
Water Non-Infrastructure	13.15	35.75	4.10	6.67	59.67
Sewerage Infrastructure	16.06	20.54	7.15	11.15	54.90
Sewerage Non-Infrastructure	29.31	59.99	3.87	18.15	111.32
Totals	77.18	167.74	18.40	71.10	334.42

PC13 16 box summary: Baseline expenditure by % across the PC13 programme

	Quality Enhancement	Base Service provision	Enhanced service levels	Supply Demand Balance	Totals
Water Infrastructure	5.58	15.39	0.98	10.51	32.46
Water Non-Infrastructure	3.93	10.69	1.23	1.99	17.84
Sewerage Infrastructure	4.80	6.14	2.14	3.33	16.42
Sewerage Non-Infrastructure	8.76	17.94	1.16	5.43	33.29
Totals	23.08	50.16	5.50	21.26	100.00

Due primarily to contract issues and re-alignment of PC10 budgets with an increased base maintenance carryover into PC13; base maintenance expenditure was higher than baseline.



The chart above illustrates the movement in the original list of PC13 nominated output projects with re-profiling into the PC15 period. A number of projects incurred delays in PC13 Year 1 for various reasons including procurement issues: consequently, it has not been possible to fully address this re-profiling in Year 2 of the PC13 period.

The chart does not take account of those projects which were addressed through Change Protocol #2, or those that have had scope increased resulting in increased costs.

CIM summary Table

Code	Title	Final actual 14/15 – nominal prices	Final PC13 total – nominal prices	Baseline expenditure PC13 nominal (indexed using actual COPI)
0	Staff Salaries and on-costs	11.72	23.27	20.73
1	Base maintenance (Water)	2.93	3.59	8.37*
2	Base maintenance (sewerage)	10.14	36.14	19.54
3	Water resources	2.38	4.65	2.07*
4	Water treatment works	8.81	11.90	8.52*
5	Water trunk mains	17.76	23.57	28.08
6	Service reservoirs and clear water tanks	0.79	0.85	1.69
7	Service reservoir rehabilitation	3.62	7.07	8.43
8	Water mains rehabilitation	24.95	53.65	52.45
9	Leakage	3.08	6.29	6.23
10	Ops Capital Water	7.01	14.88	16.39
12	Sewerage Maintenance, UIDs, Flooding	12.51	27.89	41.69
15	Wastewater treatment (carryover)	0.64	3.69	3.15
16	Wastewater treatment (new starts)	19.02	39.50	44.14
17	Small wastewater treatment works	3.79	5.76	7.55
18	Ops Capital Sewerage	11.40	23.74	16.05
19	Meter installation and maintenance	2.48	4.78	4.74
20	Management and general	10.49	24.89	27.10
23	Minor watermain repairs, requisitions, road schemes and public realm	0.97	2.35	6.97
24	Minor sewer repairs, requisitions, road schemes and public realm	4.36	7.94	7.89
98		0.00	0.00	2.66
Totals		158.85	326.40	334.42

* Note: Please see explanation in Section 6, Nominated Outputs, Water

Nominated Outputs

Refer to Table 40a and associated commentary for progress on nominated outputs over the full PC13 period.

Nominated outputs delivered during Q4 are listed below.
A complete review of PC13 Nominated Output delivery will be included in the AIR return.

Water

The remaining 2 nominated WTWs (Dorisland WTW – GAC and Killyhelvin WTW - GAC) achieved beneficial use during Q4 2014/15.

Crieve Service Reservoir achieved beneficial use during Q4 2014/15.

MIMP East (Major Incident Mitigation Project East Region) freeze/thaw improvements achieved beneficial use during Q4 2014/15.

Castor Bay to Belfast Trunk Main did not achieve a beneficial use date within Q4 2014/15: unforeseeable issues were encountered at a service reservoir associated with the scheme. Beneficial use is now projected for 2015/16.

* Note: Sub-programme 1 Base maintenance (Water) should be considered in conjunction with Sub-programme 3 Water resources and Sub-programme 4 Water Treatment Works. While actual expenditure in Sub-programme 1 did not match the baseline (£4.78m difference between £8.37m baseline and £3.59m outturn), this was offset by an increase in expenditure in Sub-programme 3 Water resources and Sub-programme 4 Water Treatment Works. These Sub-programmes increased their expenditure by £2.58m and £3.38m respectively: this produced a net increase in expenditure across the three sub-programmes of £1.18m.

Sewerage
The following WwTWs achieved beneficial use during Q4 2014/15:

- Aghagallon WwTW
- Annacloy WwTW
- Ardglass WwTW
- Ballycranbeg WwTW
- Ballymagorry WwTW
- Ballymartin WwTW
- Donaghmore WwTW
- Dromore WwTW
- Kilmore WwTW
- Nixons Corner WwTW
- Tempo WwTW
- Waringsford WwTW (Small WwTW programme >250pe)

Ballymartin and Blackrock WwTWs are linked in a single scheme: Ballymartin achieved beneficial use during Q4 2014/15 while Blackrock remains in progress.

Kilmore and Annacloy WwTW were merged into a single scheme for delivery: both sites achieved beneficial use during Q4 2014/15. It is significant to note that Annacloy WwTW was originally scheduled to deliver during PC15 but was successfully delivered during PC13.

Annagher sewage pumping station achieved Beneficial Use during Q4 2014/15.

Castlearchdale WwTW has been delayed due to the requirement for a wildlife survey. The proposed solution remains as an ICW with anticipated beneficial use in 2015/16.

Artigarvan WwTW did not achieve beneficial use during Q4 2014/15 due to delays previously incurred when reviewing the delivery approach: Beneficial use date anticipated 2015/16.

UWWTD MCERT compliance did not achieve beneficial use at all sites within scope during Q4 2014/15: technical issues were encountered with equipment which impacted on delivery timelines. Revised beneficial use date anticipated for 2015/16.

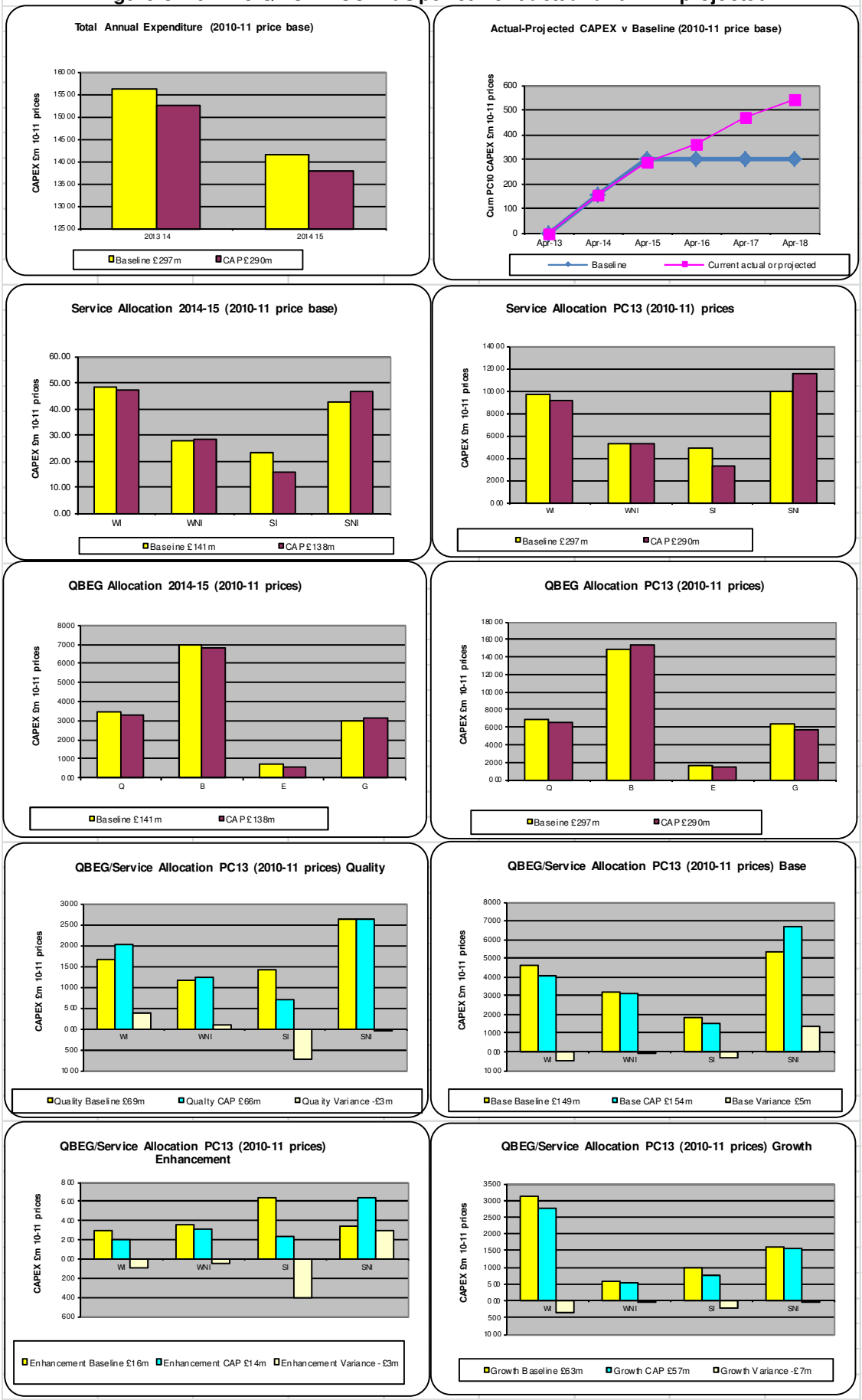
Sub programme 17 delivered 25 small WwTW's during the period plus one additional works as noted above at Waringsford with a PE of greater than 250. The investment spent on this sub-programme remained below the PC13 baseline so has delivered an efficiency during the period.

Capital expenditure commentary

This submission is completed primarily using CPMR with full reconciliation completed to ORACLE.

Regulatory Dashboard

Figure 3: 2014-15 Q4 CIM. COPI as per current actual and NIW projected



NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 32 FINANCIAL MEASURES

ANALYSIS OF FIXED ASSET ADDITIONS AND ASSET MAINTENANCE BY ASSET TYPE (CURRENT COST ACCOUNTING) (NIW Only)

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7
				WATER SERVICE			SEWERAGE SERVICE			
				INFRASTRUCTURE ASSETS	INFRASTRUCTURE ASSETS	SUBTOTAL	INFRASTRUCTURE ASSETS	NON-INFRASTRUCTURE ASSETS	SUBTOTAL	TOTAL
A	**NIW ADDITIONS -NEW ASSETS (ENHANCEMENT)**									
1	Water resource facilities	£m	3	0.018	0.254	0.272				0.272
2	Water treatment works	£m	3		9.361	9.361				9.361
3	Water distribution mains	£m	3	30.655	1.156	31.811				31.811
4	Service reservoirs and water towers	£m	3		1.261	1.261				1.261
5	Pumping stations	£m	3		1.504	1.504				1.504
6	Water management and general	£m	3	0.040	1.760	1.799				1.799
7	Sewerage	£m	3				55.959	0.307	56.266	56.266
8	Sea outfalls and headworks	£m	3				0.145	-0.002	0.143	0.143
9	Sewage treatment works	£m	3					14.903	14.903	14.903
10	Sludge treatment works	£m	3					0.212	0.212	0.212
11	Sludge disposal	£m	3				0.000	0.000	0.000	0.000
12	In-line pumping stations	£m	3					6.692	6.692	6.692
13	Terminal pumping stations	£m	3					1.829	1.829	1.829
14	Sewerage management and general	£m	3				-0.001	1.721	1.720	1.720
15	Total infrastructure additions (Enhancement)	£m	3	30.713		30.713	56.103		56.103	86.816
16	Total non-infrastructure additions (Enhancement)	£m	3		15.295	15.295		25.662	25.662	40.957
17	Total additions (Enhancement)	£m	3	30.713	15.295	46.007	56.103	25.662	81.765	127.773
B	**NIW BASE SERVICE PROVISION**									
18	Water resource facilities	£m	3	2.014	0.259	2.273				2.273
19	Water treatment works	£m	3		3.445	3.445				3.445
20	Water distribution mains	£m	3	18.804	3.649	22.453				22.453
21	Service reservoirs and water towers	£m	3		4.775	4.775				4.775
22	Pumping stations	£m	3		1.832	1.832				1.832
23	Water management and general	£m	3	2.203	3.931	6.135				6.135
24	Sewerage	£m	3				7.261	0.284	7.545	7.545
25	Sea outfalls and headworks	£m	3				0.029	0.027	0.056	0.056
26	Sewage treatment works	£m	3					20.048	20.048	20.048
27	Sludge treatment works	£m	3					0.659	0.659	0.659
28	Sludge disposal	£m	3				0.000	0.000	0.000	0.000
29	In-line pumping stations	£m	3					4.784	4.784	4.784
30	Terminal pumping stations	£m	3					1.753	1.753	1.753
31	Sewerage management and general	£m	3				1.148	2.527	3.675	3.675
32	Total infrastructure renewals (Base)	£m	3	23.022		23.022	8.438		8.438	31.460
33	Total non-infrastructure expenditure (Base)	£m	3		17.891	17.891		30.084	30.084	47.974
34	Total expenditure (Base service provision)	£m	3	23.022	17.891	40.912	8.438	30.084	38.522	79.434

Table 32 – Analysis of Fixed Asset Additions and Asset Maintenance by Asset Type (Current Cost Accounting)

Refer to Chapter 30 for detailed commentary on this table. There are no reconciling items to report.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 33 FINANCIAL MEASURES (CURRENT COST ACCOUNTING)
DEPRECIATION CHARGE BY ASSET TYPE (NIW Only)

				1	2	3	4		5	6	7	8		9	10	11	12	
				Water Service					Sewerage Service					Total				
	DESCRIPTION	UNITS	DP	2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG
A	DEPRECIATION CHARGE FOR THE YEAR																	
1	CCD as at 31 March of the year	£m	3	50.869	80.086	47.905		B3	95.693	66.802	83.520		B3	146.562	146.888	131.425		B3
2	CCD on additions (enhancement assets) post 1 April 2014	£m	3				0.161	B3				0.420	B3				0.581	B3
3	CCD on additions (MNI assets) post 1 April 2014	£m	3				0.660	B3				1.107	B3				1.767	B3
4	Total depreciation charge for the year	£m	3				0.821	B3				1.527	B3				2.348	B3
5	Total depreciation charged	£m	3	50.869	80.086	47.905	33.476	B3	95.693	66.802	83.520	66.627	B3	146.562	146.888	131.425	100.103	B3

				2	3	4	5		7	8	9	10		12	13	14	15	
	DESCRIPTION	UNITS	DP	Actual 2011-12	Actual 2012-13	Actual 2013-14	Actual 2014-15	CG	Actual 2011-12	Actual 2012-13	Actual 2013-14	Actual 2014-15	CG	Actual 2011-12	Actual 2012-13	Actual 2013-14	Actual 2014-15	CG
B	EXPENDITURE AND PROVISION																	
6	Infrastructure renewals expenditure	£m	3	26.803	22.593	22.391	23.055	B2	9.044	8.775	7.727	8.502	B2	35.847	31.368	30.118	31.557	B2
7	Infrastructure renewals charges	£m	3	19.454	19.902	23.935	22.488	C5	10.615	10.859	9.474	9.821	C5	30.069	30.761	33.409	32.309	C5
8	Infrastructure renewals prepayment/ (accrual)	£m	3	9.443	12.134	10.590	11.157	C5	-8.228	-10.312	-12.059	-13.378	C5	1.215	1.822	-1.469	-2.221	C5

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 33 FINANCIAL MEASURES (CURRENT COST ACCOUNTING)
DEPRECIATION CHARGE BY ASSET TYPE (PPP Only)

				1	2	3	4		5	6	7	8		9	10	11	12	
				Water Service					Sewerage Service					Total				
	DESCRIPTION	UNITS	DP	2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG
A	DEPRECIATION CHARGE FOR THE YEAR																	
1	CCD as at 31 March of the year	£m	3	11.199	4.007	4.033		B3	0.000	0.000	0.000		B3	11.199	4.007	4.033		B3
2	CCD on additions (enhancement assets) post 1 April 2014	£m	3				0.000	B3				0.000	B3				0.000	B3
3	CCD on additions (MNI assets) post 1 April 2014	£m	3				0.039	B3				0.000	B3				0.039	B3
4	Total depreciation charge for the year	£m	3				0.039	B3				0.000	B3				0.039	B3
5	Total depreciation charged	£m	3	11.199	4.007	4.033	4.082	B3	0.000	0.000	0.000	0.000	B3	11.199	4.007	4.033	4.082	B3

				2	3	4	5		7	8	9	10		12	13	14	15	
	DESCRIPTION	UNITS	DP	Actual 2011-12	Actual 2012-13	Actual 2013-14	Actual 2014-15	CG	Actual 2011-12	Actual 2012-13	Actual 2013-14	Actual 2014-15	CG	Actual 2011-12	Actual 2012-13	Actual 2013-14	Actual 2014-15	CG
B	EXPENDITURE AND PROVISION																	
6	Infrastructure renewals expenditure	£m	3	0.000	0.000	0.000	0.000	B2	0.000	0.000	0.000	0.000	B2	0.000	0.000	0.000	0.00	B2
7	Infrastructure renewals charges	£m	3	0.000	0.000	0.000	0.000	C5	0.000	0.000	0.000	0.000	C5	0.000	0.000	0.000	0.00	C5
8	Infrastructure renewals prepayment/ (accrual)	£m	3	1.519	1.519	1.519	1.519	C5	0.000	0.000	0.000	0.000	C5	1.519	1.519	1.519	1.519	C5

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 33 FINANCIAL MEASURES (CURRENT COST ACCOUNTING)

DEPRECIATION CHARGE BY ASSET TYPE (Total)

	DESCRIPTION	UNITS	DP	1	2	3	4		5	6	7	8		9	10	11	12	
				Water Service					Sewerage Service					Total				
				2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG
A	**DEPRECIATION CHARGE FOR THE YEAR**																	
1	CCD as at 31 March of the year	£m	3	62.068	84.093	51.938		B3	95.693	66.802	83.520		B3	157.761	150.895	135.458		B3
2	CCD on additions (enhancement assets) post 1 April 2014	£m	3				0.161	B3				0.420	B3				0.581	B3
3	CCD on additions (MNI assets) post 1 April 2014	£m	3				0.699	B3				1.107	B3				1.806	B3
4	Total depreciation charge for the year	£m	3				0.860	B3				1.527	B3				2.387	B3
5	Total depreciation charged	£m	3	62.068	84.093	51.938	37.558	B3	95.693	66.802	83.520	66.627	B3	157.761	150.895	135.458	104.185	B3

	DESCRIPTION	UNITS	DP	2	3	4	5		7	8	9	10		12	13	14	15	
				Actual 2011-12	Actual 2012-13		Actual 2013-14	CG	Actual 2011-12	Actual 2012-13		Actual 2013-14	CG	Actual 2011-12	Actual 2012-13		Actual 2013-14	CG
B	**EXPENDITURE AND PROVISION**																	
6	Infrastructure renewals expenditure	£m	3	26.803	22.593	22.391	23.055	B2	9.044	8.775	7.727	8.502	B2	35.847	31.368	30.118	31.557	B2
7	Infrastructure renewals charges	£m	3	19.454	19.902	23.935	22.488	C5	10.615	10.859	9.474	9.821	C5	30.069	30.761	33.409	32.309	C5
8	Infrastructure renewals prepayment/ (accrual)	£m	3	10.962	13.653	12.109	12.676	C5	-8.228	-10.312	-12.059	-13.378	C5	2.734	3.341	0.050	-0.702	C5

Table 33 – Depreciation Charge by Asset Type & Infrastructure Renewals Charge

Current Cost Depreciation (CCD) Charge

The depreciation charge for the year has been populated using the same methodology used to populate Table 25. Current cost depreciation was calculated using the Fixed Asset Register (Real Asset Management). The Fixed Asset Register holds two sets of books (HCA and CCA books) which calculate depreciation using different gross book value (GBV) and gross current replacement cost (GCRC) figures. The CCA books have been used for both Table 25 and Table 33.

The final depreciation report from the CCA book was then analysed to each of their respective asset categories and service activities to identify the water and sewerage services. The management and general service activity could not be readily identified as water and sewerage services and have used the following percentages split as per IFM: Water 41% and Sewerage 59%.

Columns 2 and 4 (Block A) and 8 and 10 (Block B) have been populated using the actual depreciation values presented in the 2014/15 accounts. Columns 1 and 3 (Block A) and 7 and 9 (Block B) have been populated using the actual depreciation values presented in the 2013/14 accounts.

With respect to Confidence Grades this is reported as B3. This is applied given the close link with the CIDA allocations data source which has been reported as B3 in the capital expenditure tables 35 and 36.

Assets to be decommissioned or written off resulted in accelerated depreciation in the year. Assets with a NCRC of £123,943.56 were decommissioned in 2014/2015 – the corresponding accelerated depreciation is included in Table 33.

There are three main PPP Projects – Alpha, Omega and Kinnegar. When these projects were established each was examined to determine whether the risks and rewards were transferred to the provider or remained with NIW. Findings are as follows:

> *Alpha Project* - for Alpha it was determined that the risks and rewards remained with NIW and therefore the assets were owned by the company and should be capitalised and depreciated. An associated finance lease should also be established with an initial liability equivalent to the value of the assets capitalised.
>
> *Omega and Kinnegar Projects* – it was determined that in both cases the risks and rewards were transferred to the operator and thus the assets would not be capitalised and all charges would be debited to the P&L as incurred. However an element of these charges would be credited from P&L to Balance Sheet to establish a residual interest asset since ultimately the assets would come back into NIW ownership and would have a residual value at this time. These residual assets would not be depreciated during the life of the contracts.

Depreciation for the year in relation to the PPP Alpha Project (which is on balance sheet) was £4.082m for 2014/15 (2013/14: £4.033m). This is shown separately in the second table for PPP only.

The asset lives used in calculating depreciation are consistent with those that have been used to populate Table 34. The asset lives used to calculate depreciation in the Fixed Asset Register are the same in both the HCA and CCA books.

Table 33 has also been adjusted to include only the appointed business and exclude the unappointed business relating to vehicle maintenance carried out for third parties. The depreciation charge (£138k) relating to this has been adjusted through Water Services – CCD on MNI assets. This is the only adjustment made in populating Table 33.

There are some limitations to the CCD process namely it was based on the last asset management plan (AMP) survey of existing assets as at 1 September 2001. If required by the Utility Regulator, and specified in the PC15 final determination, NI Water will undertake a MEA valuation during the PC15 period.

There were no MEA revaluations during the year and therefore no impact on CCD charge in the year.

During the year, decommissioned assets with a net current replacement cost (NCRC) of £123,943.56 were included within the current year depreciation charge.

	Water (14/15)	**Sewerage (14/15)**	**Total (14/15)**
CC Depreciation in year	£37,477,413.01	£66,482,070.14	£103,959,483.15
Accelerated Depreciation	£50,816.86	£73,126.70	£123,943.56
Impairment 14/15	£30,017.18	£71,296.64	£101,313.82
Total (2014/2015)	£37,558,247.05	£66,626,493.48	£104,184,740.53

	Water (13/14)	**Sewerage (13/14)**	**Total (13/14)**
CC Depreciation in year	£36,961,001.63	£72,794,951.41	£109,755,953.04
Accelerated Depreciation	£14,939,807.72	£10,672,254.61	£25,612,062.33
Impairment 13/14	£36,799.90	£52,955.96	£89,755.86
Total (2013/2014)	£51,937,609.25	£83,520,161.98	£135,457,771.23

The total depreciation charge for 14/15 (£104,185k) is £31,273k less than 13/14 (£135,458k). The difference is mainly due to fewer assets being decommissioned in 2014/15. Normal decommissioning in the course of the business amounted to £124k for the year, compared to £25.6m in 2013/14. There was also an impairment of £101k during the year which went through the depreciation line. Also, 14/15 included a full year's depreciation (£4,082k) of the Alpha PPP asset which was £49k higher than the previous year.

Infrastructure Renewals accounting

The IRC calculation for 14/15 is based on the final determination arising from PC13. The Regulator determined that the IRC and IRE will be the same for the two year period of PC13. The projected IRE forms part of the PC13 capital expenditure plans.
The difference between the actual out-turn IRE and the IRC is treated as an accrual or prepayment.

2014-2015 IRC

The IRC for 2014-15 based on PC13 can be summarised as follows:

Water - £22.488m
Sewerage - £ 9.821m
Total - £32.309m

The out-turn IRE for 2014-2015 can be shown as follows:

Water - £23.055m
Sewerage - £8.502m
Total - £31.557m

The prepayment /accrual at 31 March 2015 can be shown as follows:

	W TOTAL £m	S TOTAL £m	Total TOTAL £m
IRE	23.055	8.502	31.557
IRC	(22.488)	(9.821)	(32.309)
In year prepayment / (accrual)	0.567	(1.319)	(0.752)
c/f prepayment / (accrual)	12.109	(12.059)	0.050
Cumulative prepayment / (accrual)	12.676	(13.378)	(0.702)

At the end of the year to 31 March 2015 an accrual balance of £0.702m was evident. This balance arose as the in-year accrual of £0.752m for 2014-15 was added to the cumulative brought forward prepayment balance of £0.050m, which existed at 31st March 2014.

In line with the underlying principles of infrastructure renewals accounting it is anticipated that the cumulative level of IRE and IRC should broadly match over the longer term. The water prepayment and sewerage accrual at 31st March 2015 will be monitored to ensure that the level of IRC charged in the future to the profit and loss account is appropriate given actual levels of IRE.

PPP

Alpha PPP has not given rise to any IRE for this year and therefore no IRC has been allocated to the PPP services.

The SBP and PC13 columns could not be populated for PPP elements as the Financial Model supporting the SBP and PC13 did not allocate IRE and IRC separately to the Alpha Project.

The Statutory accounts are prepared under IFRS and infrastructure renewals accounting is not applied. Infrastructure depreciation is charged in the statutory accounts and the value of this differs from the IRC in the regulatory accounts.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 34 FINANCIAL MEASURES (CURRENT COST ACCOUNTING)
ANALYSIS OF NON-INFRASTRUCTURE FIXED ASSET ADDITIONS BY LIFE CATEGORIES - NI WATER ONLY

	DESCRIPTION	UNITS	DP	1	2	3	4		5	6	7	8	
				Water Service					Sewerage Service				
				2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG
A	**ACCOUNTING FIXED ASSET ADDITIONS NON-INFRASTRUCTURE ASSET ADDITIONS (ENHANCEMENT) BY ASSET LIFE**												
1	Very Short	£m	3	0.729	0.108	0.702	0.135	B3	0.836	-0.005	0.473	0.088	B3
2	Short	£m	3	0.504	2.457	3.136	2.779	B2	2.999	3.923	3.506	4.763	B2
3	Medium	£m	3	2.843	2.610	2.425	7.433	B2	12.546	10.142	9.775	9.873	B2
4	Medium long	£m	3	0.000	0.000	0.383	0.014	B2	0.000	0.000	0.000	0.010	B2
5	Long	£m	3	1.713	2.640	1.566	4.926	B2	12.839	14.217	13.256	10.907	B2
6	Land	£m	3	-0.018	0.000	0.000	0.007	B2	-0.129	0.102	0.050	0.021	B2
7	Land Disposals	£m	3	-0.001	-0.111	-0.351	-0.066	B2	-0.022	-0.160	-0.190	-0.079	B2
8	Total	£m	3	5.562	7.530	7.509	15.229	B2	29.133	28.093	26.598	25.583	B2
B	**NON-INFRASTRUCTURE ASSET ADDITIONS (BASE SERVICE) BY ASSET LIFE**												
9	Very Short	£m	3	2.229	2.119	1.948	0.950	B3	2.097	1.916	1.886	2.390	B3
10	Short	£m	3	4.182	3.285	5.839	3.416	B2	5.117	4.859	6.151	5.762	B2
11	Medium	£m	3	9.128	6.817	3.874	7.652	B2	26.744	24.145	30.514	14.642	B2
12	Medium long	£m	3	0.000	0.000	0.134	0.506	B2	0.000	0.000	0.250	0.137	B2
13	Long	£m	3	4.523	3.688	5.029	5.366	B2	14.049	10.338	12.185	7.153	B2
14	Total	£m	3	20.062	15.909	16.825	17.891	B2	48.006	41.258	50.986	30.084	B2
C	**NON-INFRASTRUCTURE ADDITIONS AVERAGE LIFE (YEARS)**												
15	Very Short	years	0										
16	Short	years	0										
17	Medium	years	0										
18	Medium long	years	0										
19	Long	years	0										

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 34 FINANCIAL MEASURES (CURRENT COST ACCOUNTING)
ANALYSIS OF NON-INFRASTRUCTURE FIXED ASSET ADDITIONS BY LIFE CATEGORIES - PPP

	DESCRIPTION	UNITS	DP	1	2	3	4		5	6	7	8	
				Water Service					Sewerage Service				
				2011-12	2012-13	2013-14	2014-15	CG	2011-12	2012-13	2013-14	2014-15	CG
A	ACCOUNTING FIXED ASSET ADDITIONS NON-INFRASTRUCTURE ASSET ADDITIONS (ENHANCEMENT) BY ASSET LIFE												
1	Very Short	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
2	Short	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
3	Medium	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
4	Medium long	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
5	Long	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
6	Land	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
7	Land Disposals	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
8	Total	£m	3	0.000	0.000	0.000	0.000	n/a	0.000	0.000	0.000	0.000	n/a
B	NON-INFRASTRUCTURE ASSET ADDITIONS (BASE SERVICE) BY ASSET LIFE												
9	Very Short	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	n/a	[redacted]	[redacted]	[redacted]	[redacted]	n/a
10	Short	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	n/a	[redacted]	[redacted]	[redacted]	[redacted]	n/a
11	Medium	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	B3	[redacted]	[redacted]	[redacted]	[redacted]	n/a
12	Medium long	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	n/a	[redacted]	[redacted]	[redacted]	[redacted]	n/a
13	Long	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	B3	[redacted]	[redacted]	[redacted]	[redacted]	n/a
14	Total	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	B3	[redacted]	[redacted]	[redacted]	[redacted]	n/a
C	NON-INFRASTRUCTURE ADDITIONS AVERAGE LIFE (YEARS)												
15	Very Short	years	0										
16	Short	years	0										
17	Medium	years	0										
18	Medium long	years	0										
19	Long	years	0										

Table 34 – Financial Measures (Current Cost Accounting) - Analysis of Non-Infrastructure Fixed Asset Additions by Life Categories

Commentary and Methodology

All the capital expenditure tables have been populated using project data extracted from the company's core project control system (CPMR), as well as ORACLE (Financial management system).

Internal training and mentoring has been ongoing with key staff mainly with Engineering Procurement, Operations, Asset Management, PPP and Finance and Regulation directorates. A specific Master Class was developed and presented to Engineering Procurement, Operations and Asset Management staff in December 2009 and January 2010 to help staff understanding of CIDA definitions and allocations as well as awareness of the use of CIDA data for various business and regulatory needs including common framework and benchmarking. This training has been delivered to external consultants where requested each year since 2010/11. Feedback from these sessions has been very positive. Further training will be provided in future to provide refresher training for existing staff.

Methodology NIW Table

Capital expenditure is analysed in 3 separate streams as follows:

a) Capital Works Programme delivered by Engineering Procurement Directorate
b) Operations Capital
c) Management & General (M & G).

The methodology is explained in detail under these 3 areas as follows.

Capital Works Programme

Capital investment driver allocation (CIDA) processes have continued as per previous years.

a) CAPTRAX – CAPTRAX continues to be reconciled on a monthly basis with ORACLE so the final reports can be run directly from CAPTRAX. Two CIDA reports are generated from CAPTRAX as follows:
    - CIDA non lands – This reports the accrual in 2014/15 against each project, excluding land acquisition, with a full CIDA output.
    - CIDA lands – This reports the accrual in 2014/15 against land acquisition and the associated CIDA output.
b) CWP AIR reporting Model – The model developed in Excel for AIR09 and subsequent years has been adopted for AIR15 reporting. The model takes the outputs from the above reports from CAPTRAX and completes the tables 32, 34, 36 and 36a with the CWP element of Capital expenditure.

M & G

As commenced in AIR14 CPMR M&G has been used to report M & G investment directly from the system in a similar way to the Capital Works Programme. A single report provides all the information from the CPMR system.

Operating Capital

This area captures all Capital expenditure which is not managed via the CWP or included within M & G. For all Capital projects not on the CWP (herein referred to Operating Capital expenditure) the CIDA information has been captured at project level within CPMR Coptrax. This has been used in AIR14 for completion of Table 40. Unfortunately the

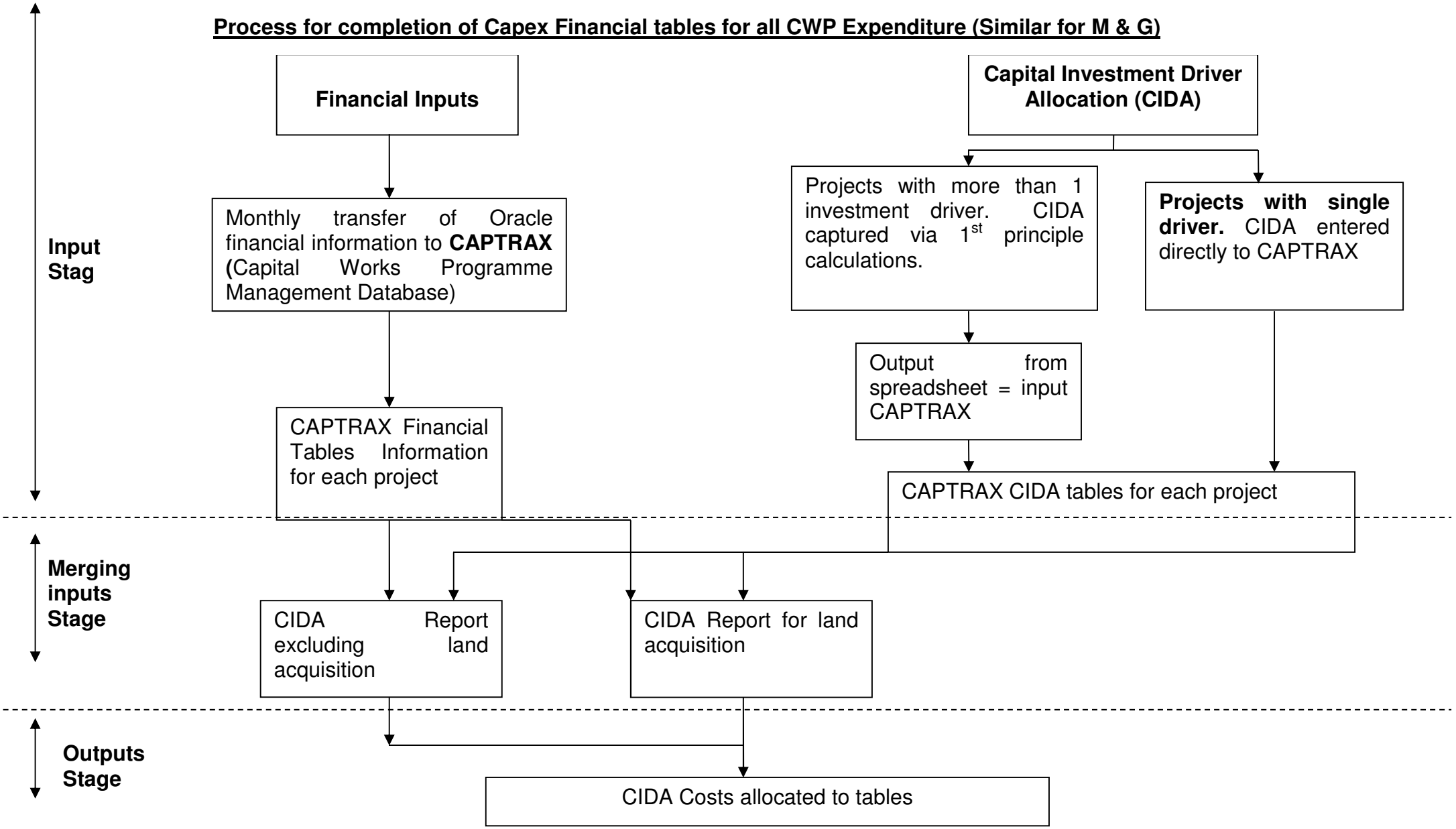
system needs further refinement to enable reporting information for Tables 32, 34, 36 and 36a accurately as there is significant number of contracts within each project with combinations of a number of service areas, asset types and financial categories. For reporting in AIR15 each of the contacts was verified manually to ensure accurate information was used for the population of the AIR tables in a similar way to recent years using the AICC database and ORACLE provide the data.

Table Population

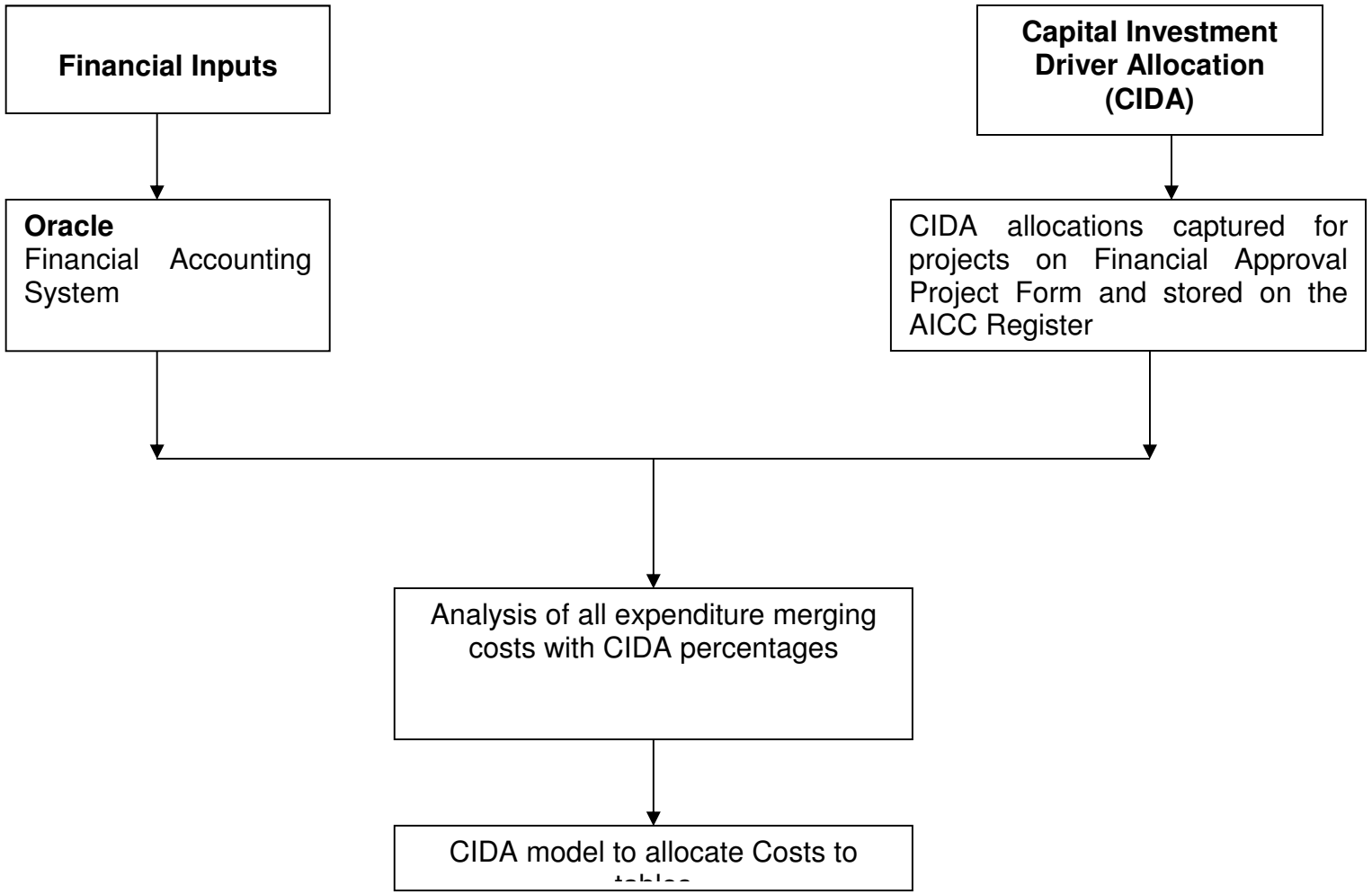
Data used in the population of the table is based on data extracted from the company's core systems and no assumptions are made in the allocation of project expenditure to the lines in the tables for all the expenditure with CIDA directly attributed. For the small rounding figure of £2k of CWP expenditure (due to CATPRAX rounding finance to the nearest £k), this is apportioned in each table in equal portions to the allocated expenditure.

Process diagrams below show the process for completing the tables.

Process for completion of Capex Financial tables for all CWP Expenditure (Similar for M & G)



Process for Completion of Capex financial tables for Operating Capital



Asset lives

The last comprehensive review of asset lives was completed as part of NIAMP2 in 2001. An interim review was completed in 2011/12 following the reporter recommendations in AIR11 and 8 new financial categories have been added to list used in NI Water. The new financial categories added and in use from April 2012 are as follows:

Table 1: New financial categories

Financial Category	Definition	Life in years
Fences	All fences around sites	40
Meters	Domestic Water Meters	17
Batteries	Batteries for loggers, toughbooks etc.	4
Filter Media	Media in Biological filters, Sand filters etc.	20
MBR Membranes	MBR membranes	5
Rotating Biological Filters	RBC package plants	20
Kiosks	All kiosk type structures including small control kiosks and prefabricated control buildings	20
Steel Tanks	All Steel tanks for storage and processes	40

Following reporter review of the PC15 plan a change for AIR15 has been applied to the life for Meters which will be changed to 17 years to align with PC15 Business plan assumptions. Expenditure for meters has been moved from Short life to Medium life for AIR 15 report. No changes have been made to previous year's data in respect of Meter expenditure reporting.

The above categories have been added to CPMR/Captrax for CIDA allocation. The availability of the financial category is dependent on the asset type selected so for example MBR membranes is only available for selection within WwTW. The definitions have also been uploaded within the selection process, as a reminder to the project manager when selections are being made.

Methodology PPP table

Figures for PPP Alpha Capital maintenance have been taken directly from the PPP Model and apportioned between Fixed Plant and Civils as per the PPP Model. This is the same process as adopted since AIR09.

PPP - Omega

No PPP OMEGA capital has been reported in the AIR15 financial tables for the following reasons:

- The Capital Cost split between Civils and M & E has been extracted from the PPP Model. This does not distinguish between infra and non infra elements and unlike ALPHA no valid assumptions can be made to define individual projects as some of the projects contain both infra and non infra elements.
- QBEG information has been captured on each project within OMEGA in a similar basis as was captured for the SBP submission which includes backlog base. In order to maintain consistency within all the tables we have not populated any of the OMEGA capital expenditure within the tables.

PPP - Kinnegar

No PPP Kinnegar residual interest finance has been populated as NIW have no information on either the QBEG or the Asset Life categories for this project.

NIW Table

The asset lives adopted for Regulatory reporting are consistent with those in the Fixed Asset Register (FAR). The links for reporting purposes is outlined in the Capital investment Driver allocation manual.

The last comprehensive review of asset lives was completed as part of NIAMP2 in 2001. An interim review was completed in 2011/12 and new financial categories have been added to NI Water systems for application from April 2012.

Expenditure is charged to individual projects and these are assigned individual asset lives for regulatory reporting.

This table is consistent with the analysis in Table 32. All expenditure reported in Table 34 is in outturn prices, gross of grants and contributions.

PPP Table

The expenditure of [redacted] on this table relates to the Capital Maintenance element of PPP Alpha expenditure for 2014/15. [redacted] is reported in Section B of the table and is split using the Asset lives split assumed in the PPP Model. There is no PPP Capital on Sewerage.

Land Disposal

NI Water has updated the figures in the former years for this line. The reason for the correction was due to incorrect understanding of the definition. In prior years the figures reported were the actual disposal receipts rather than the HCA book value. The HCA book value is determined from the Fixed Asset Register based upon the Asset Mgt plan completed in 2001. The figures stated are the HCA book values for all disposals in the stated year.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 35 FINANCIAL MEASURES
CAPITAL INVESTMENT - PUBLIC EXPENDITURE RECONCILIATION

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	2 REPORTING YEAR 2012-13	3 REPORTING YEAR 2013-14	4 REPORTING YEAR 2014-15	5 REPORTING YEAR 2015-16
A	**Available PE capital budget in nominal prices**							
1	Public Expenditure capital budget available	£m	3	0.000	0.000	165.800	155.629	
B	**Capital budget statement in nominal prices**							
2	Public Expenditure capital budget used	£m	3	0.000	0.000	165.540	154.946	
3	Alpha PPP maintenance	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	
4	Residual interest in off-balance sheet PPP	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	
5	IFRS infrastructure renewal charge adjustment	£m	3	0.000	0.000	0.988	1.154	
6	*Further adjustments……*	£m	3	0.000	0.000	0.000	0.000	
6a	Unwinding of capital provision	£m	3	0.000	0.000	0.000	0.000	
6b	Rounding	£m	3	0.000	0.000	0.013	-0.006	
6c	Decapitalised assets	£m	3	0.000	0.000	0.000	0.238	
7	Capital grants and contributions	£m	3	0.000	0.000	6.586	7.331	
8	Capital grants and contributions transferred to deferred credits	£m	3	0.000	0.000	-0.693	-1.025	
9	NI Water gross capital budget	£m	3	[redacted]	[redacted]	[redacted]	[redacted]	

Table 35 – Financial Measures – Capital Investment – Public Expenditure Reconciliation

Introduction

This table provides a statement of the capital budget available and capital budget utilised in Public Expenditure terms and the gross capital expenditure by NI Water, all expressed in nominal terms. The table follows the content and structure of Table 3.2 of the PC15 information requirements to facilitate comparison between the Business Plan submission and actual expenditure.

Block A reports the available Public Expenditure capital budget agreed with the Department for Regional Development, DRD, for the relevant financial year. Block B provides reconciliation between the Public Expenditure capital budget used and NI Water's gross capital expenditure, identifying differences arising from changes due to the treatment of PPP unitary charge, different accounting treatments and the impact of income from capital grants and contributions.

Section A – Available PE capital budget in nominal prices (line 1)

Entries to line 1 represent the total budget 'Capital DEL Acquisitions' agreed with the DRD for each financial year and includes movements to funding resulting from in-year monitoring rounds. This is all expenditure which DRD classifies as 'capital DEL' and includes normal capital expenditure (both base & enhancement), PPP capital maintenance on on-balance sheet PPP contracts and residual interest on off-balance sheet PPP contracts.

As DRD have adopted IFRS as an accounting framework, the available PE will also be stated on an IFRS basis.

In the 2013/14 and 2014/15 years the PE capital DEL budget available at the start of the financial year reconciled directly to the capital expenditure allowance contained within the PC13 Final Determination (PC13 FD). This is set out in the table below converted into a capital DEL allowance.

	2013/14	2014/15
	£m	£m
Capital Additions	168.0	155.9
less: capital contributions	-5.7	-5.8
less: IFRS adjustment	-1.0	-1.0
PPP Capital Maintenance	[redacted]	[redacted]
PPP Residual Interest	[redacted]	[redacted]
	[redacted]	[redacted]

In terms of movements in funding within the current year, 'Capital DEL Acquisitions' was increased by £2.0m due to a successful bid in the 2014/15 June Monitoring Round for Ballyclare membranes and increased by a further £0.629m in the 2014/15 January Monitoring Round as additional funding was made available from other agencies.

The PE capital DEL funding at the end of the 2013/14 and 2014/15 years is therefore as follows:

	2013/14	2014/15
	£m	£m
PE Capital DEL budget at start of year	166.300	153.000
June MR	-	2.000
October MR	-0.500	-
January MR	-	0.629
PE Capital DEL budget at end of year	**165.800**	**155.629**

Given the level of change to available PE capital budget within the reporting year was minimal, we do not consider there to have been any impact on the efficient delivery of the programme or the choice of projects or categories of work delivered.

Section B - Capital budget statement in nominal prices (lines 2-9)

Line 2 – PE capital budget used
Represents total 'Capital DEL Acquisitions' calculated as line 9 minus the sum of lines 3 – 8 inclusive.

The overspend from the original capital budget available is calculated as £1.946m (£154.946m less £153.0m). Taking into account the additional funding received in the June and January monitoring rounds (£2.0m & £0.629m respectively), there was an underspend on available 'Capital DEL Acquisitions' of £0.683m (circa 0.4%). This was an intentional underspend intended to offset a shortfall in asset disposals of £0.679m (target of £1.2m, actual disposals of £0.521m). The variance on total Capital DEL (including disposals) is therefore only £0.004m.

Note the PE capital used has been agreed to our 2014/15 'provisional outturn' return submitted to DRD on the 28th April 2015. The 2014/15 'final outturn' will be provided to DRD mid-July. At this time we are not aware of any potential change to the provisional figure we have used but will update the Utility Regulator of any change post submission.

Line 3 – Alpha PPP maintenance
This represents the capital maintenance carried out at Alpha sites during the year by Dalriada water [redacted].

Following an accounting treatment change implemented in 2013/14, the capital maintenance element of the unitary charge is now allocated straight line across the life of the contract. This correctly reflects that the unitary charge does not fluctuate with changes in the capital maintenance spend in any year. This change now means that AIR15 Table 42 line 14 now represents an accrued amount of capital maintenance and no longer represents actual capital maintenance. The difference between the two figures is held in NL account 1521 – PPP deferred capital maintenance.

Line 4 – Residual interest in off-balance sheet PPP
This represents the element of the Omega and Kinnegar PPP unitary payments which is allocated against residual interest in the relevant year.

For Regulatory accounting purposes, Omega & Kinnegar assets are held off-balance sheet. Each year a portion of the unitary charge is debited against a 'residual interest asset' on the balance sheet with the aim of building up an asset which can be transferred

to NI Water at end of the PPP contract term. The value of this asset would equal the forecast residual value of the relevant assets at the time of transfer.

Values for residual interest are sourced directly from the original contractors' financial models. The breakdown between Omega & Kinnegar is shown below.

	2013/14
Kinnegar Residual Interest	[redacted]
Omega Residual Interest	[redacted]
Total	[redacted]

Entries to this line reconcile directly to AIR15 Table 42 line 15.

Line 5 – IFRS infrastructure renewals charge adjustment
This line represents a transfer of expenditure which is treated differently under IFRS and our current Regulatory Accounting Guidelines, RAG's.

DRD have adopted IFRS and require certain types of repair, which we currently classify as capital expenditure under the RAG's, to be reported as operational expenditure under IFRS and therefore under PE reporting.

The table summarises expenditure currently decapitalised under IFRS.

	2014-15
	£
IFRS Adjustment on De-capitalised Repairs	
LN067101 - Leakage Detection SE 14/15	383,301
LN068101 - Leakage Detection NW 14/15	242,899
LN070101 - Repair of Defects identified as a result of leakage detection activities	265,244
LN079104 - High Volume DMA's NW	85,472
LN079105 - High Volume DMA's SE	176,849
TOTAL	**1,153,765**

Line 6 – Further adjustments
Minor rounding differences (-£6k)

Capital grants received (different treatment in PE) - in 2014/15, we received capital grants of £238,435 as set out in the table below:

	£
Silent Valley Park Enhancement	56,574
ANSWER (Agricultural Need for Sustainable Willow Effluent Recycling)	139,533
Mourne Wall Towers	42,328
Total	**238,435**

For statutory accounting purposes, these grants, although received in 2014/15, are deferred and released over a 60 year life. They are therefore included in AIR15 Table 37 lines 17 and 18 on this basis.

Although these grants are deferred for statutory accounting purposes, the PE treatment adopted is different. We are allowed to offset the full grant for PE purposes and therefore maximise available capital spend. We have therefore included an adjustment which reflects the full offset of these grants in 2014/15.

Line 7 – Capital grants and contributions
This represents the total of capital grants and contributions received in nominal prices.

Entries to this line are consistent with AIR15 Table 37 line 17.

Line 8 – Capital grants and contributions transferred to deferred credits
An element of the capital grants and contributions received is assumed to relate to non-infrastructure assets with an associated useful life. Adoption of the financial 'matching' principle, i.e. the process of linking revenue to associated costs means that we must match the amortisation of the contribution against the depreciation charge on the assets over their useful economic life.

We currently assume 30% of infrastructure charges relate to non-infrastructure and is transferred to a deferred capital contribution account and released to the P&L over a 20 year period.

We have also received and deferred a number of capital grants in 2014/15. These are being released over a period of 60 years. As noted above, a different approach has been adopted in PE for these grants.

Entries to this line are consistent with AIR15 Table 37 line 18.

Line 9 – NI Water gross capital expenditure
Represents gross capital expenditure as per AIR15 Table 36.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 36 FINANCIAL MEASURES
CAPITAL INVESTMENT - GROSS CAPITAL INVESTMENT SUMMARY

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	2 REPORTING YEAR 2012-13	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG	5 REPORTING YEAR 2015-16	CG
A	**Water service**										
1	Non-infrastructure maintenance (gross of grants and contributions)	£m	3	20.062	15.909	16.825	B3	17.891	B3		
2	Infrastructure renewals expenditure (gross)	£m	3	26.803	22.593	22.391	B3	23.055	B3		
3	Capital expenditure - quality enhancement programme	£m	3	12.278	9.972	14.396	B3	21.913	B3		
4	Capital expenditure - customer service	£m	3	5.759	3.126	3.262	B3	2.616	B3		
5	Capital expenditure - supply demand balance	£m	3	19.197	17.782	15.049	B3	21.478	B3		
5a	Capex - new development	£m	3	10.163	8.323	4.777	B3	4.628	B3		
5b	Capex - growth	£m	3	0.317	0.244	0.309	B3	0.634	B3		
5c	Capex - security of supply	£m	3	8.717	9.214	9.842	B3	16.099	B3		
5d	Capex - free meters	£m	3	0.000	0.000	0.121	B3	0.117	B3		
6	Gross capital expenditure - water service	£m	3	84.099	69.382	71.923	B3	86.953	B3		
B	**Sewerage Service**										
7	Non-infrastructure maintenance (gross of grants and contributions)	£m	3	48.006	41.258	50.986	B3	30.084	B3		
8	Infrastructure renewals expenditure (gross)	£m	3	9.044	8.775	7.727	B3	8.502	B3		
9	Capital expenditure - quality enhancement programme	£m	3	28.730	21.626	21.238	B3	15.179	B3		
10	Capital expenditure - customer service	£m	3	4.251	2.899	3.955	B3	4.137	B3		
11	Capital expenditure - supply demand balance	£m	3	17.914	18.318	11.736	B3	14.043	B3		
11a	Capex - new development	£m	3	16.950	17.871	11.579	B3	14.013	B3		
11b	Capex - sewage treatment	£m	3	0.963	0.447	0.158	B3	0.030	B3		
12	Gross capital expenditure - sewerage service	£m	3	107.945	92.876	95.643	B3	71.945	B3		
C	**Gross capital expenditure total**										
13	Gross capital expenditure total	£m	3	192.044	162.258	167.566	B3	158.898	B3		
D	**Adopted assets, nil cost assets**	£m	3								
14	Water service assets adopted at nil cost	£m	3	0.000	0.000	0.000	B3	0.000	B3		
15	Water service assets adopted in return for an payment	£m	3	0.000	0.000	0.000	B3	0.000	B3		
16	Sewerage service asset adopted at nil cost	£m	3	48.034	48.233	59.566	B3	48.406	B3		
17	Sewerage service assets adopted in return for a payment.	£m	3	0.000	0.000	0.000	B3	0.000	B3		
18	Total adopted assets and nil cost assets	£m	3	48.034	48.233	59.566	B3	48.406	B3		
E	**Infrastructure renewals expenditure (net)**										
19	Water service infrastructure renewals expenditure (net) (NIW only)	£m	3	26.771	22.514	22.277	B3	23.022	A2		
20	Sewerage service infrastructure renewals expenditure (net) (NIW only)	£m	3	9.044	8.609	7.632	B3	8.438	A2		
21	Total infrastructure renewals expenditure (net) (NIW only)	£m	3	35.815	31.123	29.909	B3	31.460	A2		
F	**Total asset additions**										
22	Water service total asset additions	£m	3	57.296	46.788	49.532	B3	63.898	B3		
23	Sewerage service total asset additions	£m	3	146.936	132.334	147.482	B3	111.849	B3		
24	Total asset additions	£m	3	204.232	179.122	197.014	B3	175.747	B3		

Table 36 - Capital Investment - Gross Capital Investment Summary

Refer to Chapter 30 for detailed commentary on this table. There are no reconciling items to report.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 36A FINANCIAL MEASURES
CAPITAL INVESTMENT - GROSS CAPITAL INVESTMENT VARIANCE

	DESCRIPTION	UNITS	DP	1	2	3	4	5	6	7	8	9	10	11	12
				PC13 OUTTURN (£M)			PC13 FINAL DETERMINATION (£M)			PC13 VARIANCE FROM FD (£M)			PC13 VARIANCE FROM FD (%)		
				REPORTING YEAR 2013-14	REPORTING YEAR 2014-15	TOTAL TO DATE PC13	REPORTING YEAR 2013-14	REPORTING YEAR 2014-15	TOTAL TO DATE PC13	REPORTING YEAR 2013-14	REPORTING YEAR 2014-15	TOTAL TO DATE PC13	REPORTING YEAR 2013-14	REPORTING YEAR 2014-15	TOTAL TO DATE PC13
A	**Water service**														
1	Non-infrastructure maintenance (gross of grants and contributions)	£m	3	16.825	17.891	34.716	18.271	19.686	37.957	-1.446	-1.796	-3.242	-7.9	-9.1	-8.5
2	Infrastructure renewals expenditure (gross)	£m	3	22.391	23.055	45.446	24.441	23.455	47.896	-2.050	-0.400	-2.450	-8.4	-1.7	-5.1
3	Capital expenditure - quality enhancement programme	£m	3	14.396	21.913	36.309	13.680	13.692	27.371	0.716	8.222	8.938	5.2	60.0	32.7
4	Capital expenditure - customer service	£m	3	3.262	2.616	5.878	3.278	3.841	7.119	-0.016	-1.224	-1.240	-0.5	-31.9	-17.4
5	Capital expenditure - supply demand balance	£m	3	15.049	21.478	36.527	20.048	27.632	47.680	-4.998	-6.154	-11.152	-24.9	-22.3	-23.4
6	Gross capital expenditure - water service	£m	3	71.923	86.953	158.876	79.717	88.305	168.022	-7.794	-1.352	-9.146	-9.8	-1.5	-5.4
B	**Sewerage Service**														
7	Non-infrastructure maintenance (gross of grants and contributions)	£m	3	50.986	30.084	81.070	32.647	26.494	59.140	18.340	3.590	21.930	56.2	13.6	37.1
8	Infrastructure renewals expenditure (gross)	£m	3	7.727	8.502	16.229	9.657	9.914	19.571	-1.930	-1.412	-3.342	-20.0	-14.2	-17.1
9	Capital expenditure - quality enhancement programme	£m	3	21.238	15.179	36.417	26.579	23.208	49.787	-5.341	-8.029	-13.370	-21.0	-34.6	-26.9
10	Capital expenditure - customer service	£m	3	3.955	4.137	8.092	6.560	5.078	11.637	-2.605	-0.940	-3.545	-39.7	-18.5	-30.5
11	Capital expenditure - supply demand balance	£m	3	11.736	14.043	25.779	16.389	9.956	26.344	-4.653	4.088	-0.565	-28.4	41.1	-2.1
12	Gross capital expenditure - sewerage service	£m	3	95.643	71.945	167.588	91.832	74.648	166.480	3.811	-2.703	1.108	4.2	-3.6	0.7
C	**Gross capital expenditure total**														
13	Gross capital expenditure total	£m	3	167.566	158.898	326.464	171.549	162.953	334.503	-3.983	-4.055	-8.038	-2.3	-2.5	-2.4
D	**CAPITAL CONTRIBUTIONS NET OF DEFERRED CREDITS**														
14	Capital contributions for new connections	£m	3	5.684	6.209	11.893	5.762	6.040	11.802	-0.078	0.169	0.091	-1.3	2.8	0.8
15	Other capital contributions	£m	3	0.209	0.097	0.306	0.000	0.000	0.000	0.209	0.097	0.306	0.0	0.0	0.0
16	Total capital contributions net of deferred credits	£m	3	5.893	6.306	12.199	5.762	6.040	11.802	0.131	0.266	0.397	2.3	4.4	3.4
E	**TOTAL CAPITAL EXPENDITURE (NET)**														
17	Total capital expenditure (net)	£m	3	161.673	152.592	314.265	165.787	156.913	322.701	-4.114	-4.321	-8.436	-2.5	-2.8	-2.6

Table 36a – Capital Investment – Expenditure comparison by service and purpose

Refer to Chapter 30 for detailed commentary on this table. There are no reconciling items to report.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 37 FINANCIAL MEASURES
CAPITAL INVESTMENT - CAPITAL GRANTS AND CONTRIBUTIONS

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	2 REPORTING YEAR 2012-13	3 REPORTING YEAR 2013-14	4 REPORTING YEAR 2014-15	5 REPORTING YEAR 2015-16
A	**Water Service - Maintenance grants and contributions**							
1	MNI - grants and contributions.	£m	3	0.000	0.000	0.000	0.000	
2	Infrastructure renewals grants and contributions.	£m	3	0.032	0.079	0.114	0.033	
3	Total maintenance grants and contributions	£m	3	0.032	0.079	0.114	0.033	
B	**Water Service - Enhancement grants and contributions**							
4	Infrastructure charge receipts - new connections	£m	3	1.153	1.127	1.272	1.426	
5	Enhancement requisitions, grants and contributions	£m	3	1.840	2.031	2.054	2.387	
6	*Other categories of capital grants and contributions to be added by NI Water*	£m	3	0.000	0.000	0.000	0.000	
7	Total enhancement capital grants and contributions	£m	3	2.993	3.158	3.326	3.813	
C	**Water Service - Deferred credits**							
8	Capital grants and contributions transferred to deferred credits	£m	3	0.364	0.500	0.382	0.666	
D	**Sewerage Service - Maintenance grants and contributions**							
9	MNI - grants and contributions.	£m	3	0.000	0.000	0.000	0.000	
10	Infrastructure renewals grants and contributions.	£m	3	0.000	0.166	0.095	0.064	
11	Total maintenance grants and contributions	£m	3	0.000	0.166	0.095	0.064	
E	**Sewerage Service - Enhancement grants and contributions**							
12	Infrastructure charge receipts - new connections	£m	3	0.897	0.911	1.036	1.195	
13	Enhancement requisitions, grants and contributions	£m	3	1.696	1.443	2.015	2.226	
14	*Other categories of capital grants and contributions to be added by NI Water*	£m	3	0.000	0.000	0.000	0.000	
15	Total enhancement capital grants and contributions	£m	3	2.593	2.354	3.051	3.421	
F	**Sewerage Service - Deferred credits**							
16	Capital grants and contributions transferred to deferred credits	£m	3	0.283	0.404	0.311	0.359	
G	**Totals for the Water and Sewerage Services**							
17	Total enhancement capital grants and contributions	£m	3	5.618	5.757	6.586	7.331	
18	Total capital grants and contributions transferred to deferred credits	£m	3	0.647	0.904	0.693	1.025	

Table 37 – Capital Investment - Capital Grants and Contributions

Line 2 – Water service maintenance grants and contributions

This line shows £0.033m and represents contributions from developers towards the cost of watermains diversions.

Line 4 – Water service infrastructure charge receipts - new connections

This line shows £1.426m and represents the receipts from developers for water infrastructure charges. This is stated gross prior to accounting for the element that is deemed to contribute to non infrastructure expenditure.

Line 5 – Water service enhancement requisitions, grants and contributions

This line can be summarised as follows:

New water connections	£ 2,074m
Water requisitions	£ 0.075m
Grants	£ 0.238m
Total Line 5	**£ 2.387m**

The grants can be summarised as follows:
Silent Valley Park Enhancement (Grantor DARD)
£0.057m
ANSWER (Agricultural Need for Sustainable Willow Effluent Recycling) (SEUPB)
£0.139m
Mourne Wall Towers (Mourne Heritage/Craigavon Council)
£0.042m.

Line 6 – Water service other categories of capital grants and contributions

Nil for 2014-15.

Line 8 – Water service deferred credits

This line shows £0.666m and represents:

(i) the element of the receipts from developers for water infrastructure charges that are deemed to contribute to non infrastructure expenditure.

This is calculated as follows:
Line 4 £1.426m x 30% = £0.428m

The 30% used in this calculation is based on an estimate of the future capital expenditure that relates to growth.

(ii) (ii) the grants of £0.238 noted at Line 5 that are for non-infrastructure projects so are deferred and amortised over the life of the associated project (for these projects 60 years).

Line 10 – Sewerage service - maintenance grants and contributions

This line shows £0.064m and represents contributions from developers towards the cost of realignment of sewers.

Line 12 – Sewerage service - Infrastructure charge receipts - new connections

This line shows £1.195m and represents the receipts from developers for sewerage infrastructure charges. This is stated gross prior to accounting for the element that is deemed to contribute to non infrastructure expenditure.

Line 13 – Sewerage service - enhancement requisitions, grants and contributions

This can be summarised as follows:

New sewerage connections	£0.768m
Sewerage requisitions	£0.802m
Sewers for adoption –application fees	£0.656m
Total Line 13	**£2.226m**

Line 14 – Sewerage service - other categories of capital grants and contributions

Nil for 2014-15.

Line 16 – Sewerage service deferred credits

This line shows £0.359m and represents the element of the receipts from developers for sewerage infrastructure charges that are deemed to contribute to non infrastructure expenditure.

This is calculated as follows:
Line 12 £1.195m x 30% = £0.359m

The 30% used in this calculation is based on an estimate of the future capital expenditure that relates to growth.

Comparison of 2014-15 to PC13

The following table shows a comparison of the actual contributions for 2014-15 compared to PC13.

	2014-15	**2014-15**	**2014-15**	**2014-15**
	Actual	**PC13**	**Variance**	**Variance**
	£m	**£m**	**£m**	**%**
Water				
Infrastructure – base	0.033	-	0.033	N/A*
Infrastructure charges - gross	1.426	1.687	(0.261)	(15.5)
Connections	2.074	2.632	(0.558)	(21.2)
Requisitions	0.075	0.142	(0.067)	(47.1)
Grants	0.238	-	0.238	N/A*
Total	**3.846**	**4.461**	**(0.615)**	**(13.8)**
Included in the gross Infrastructure charges above the non infrastructure element - 30%	0.428	0.506	(0.078)	(15.4%)
Sewerage				
Infrastructure – base	0.064	-	0.064	N/A*
Infrastructure charges – gross	1.195	1.401	(0.206)	(14.7)
Connections	0.768	0.492	0.276	56.2
Requisitions	0.802	0.142	0.660	465.2
Sewers for adoption	0.656	0.210	0.446	212.2

Total	**3.485**	**2.244**	**1.241**	**55.3**
Included in the gross Infrastructure charges above the non infrastructure element - 30%	0.359	0.420	(0.061)	(14.6)
Total contributions	**7.331**	**6.705**	**0.626**	**9.3**
Which includes: *non-infrastructure contributions*	**0.787**	**0.926**	**(0.139)**	**(15.0)**

* no base infrastructure contributions or new grants were assumed in PC13.

The level of activity around developer contributions is very difficult to project. During 2014-2015 the development market generally showed a slower recovery than anticipated in PC13 and the market is regarded by observers as still being in a vulnerable position. Activity however in the sewer approval / adoptions section remains high, as financial providers place pressure on developers to complete sites and release bonds and additionally residents groups supported by public representatives raise the profile of unadopted sites. The nature of the new developments being progressed in the year has also given rise to a higher than anticipated increase in sewer connections and sewer requisitions. This emerging trend was again very difficult to predict in PC13.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 38 FINANCIAL MEASURES
CAPITAL INVESTMENT - ADDITIONAL OPEX FROM CAPEX

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	2 REPORTING YEAR 2012-13	3 REPORTING YEAR 2013-14	4 REPORTING YEAR 2014-15	5 REPORTING YEAR 2015-16
A	**OPEX from CAPEX**							
1	Additional OPEX arising from Water Service projects	£m	3			0.215	0.004	
2	Additional OPEX arising from Sewerage Service projects	£m	3			1.483	0.403	
3	Total additional OPEX	£m	3			1.698	0.407	

Table 38 - Capital investment - additional opex from capex

A list of sites with CAR ID's is obtained and the Opex costs for 2014/15 are calculated for these sites through various reports.

The Opex from Capex costs have been calculated by taking the difference between the total 2013/14 costs and the 2014/15 costs.

Line 1 Additional OPEX arising from water service projects

The total of water pumping stations and water treatment plants has been used to populate Line 1 in Table 38 which is £0.004M.

Line 2 - Additional OPEX arising from sewerage service projects

The total of the sewage pumping stations and the wastewater treatment works have been used to populate Line 2 in Table 38 which is £0.403M.

Line 3 - Total additional OPEX

The total figure is £0.407M.

PC13 Monitoring
Quarterly Capital Investment Monitoring Submission

Year 14 15 | Quarter 4

Project Identif cation												Baseline Milestone Da es						Baseline Serv ce Cost Allocation				Baseline Expenditure Profile (£m 2010 11 pr ces)					Baseline Purpose Al ocation				Current Actual or Projected Milestone Da es								Current Actual or Projected Service Cost A location				Current Actual or Projec ed Cap tal Expend ture Profile (£m money of the day)					Current Actual or Projec ed Purpose Allocation (%)				Current Actual or Projected IRE (%)		Nominated outputs (PC Pe ted)
Acct Ref	CIM Submission Reference	Project ID Reference	Parent Project ID	Subst tute Project ID	Primary Asset Category	PC10 Programme	Regulato y Sign Off Required	Baseline A l Date	Base ine Project Approval Date	Base ine Sta t on S te Date	Base ine Sane Use Date	Baseline Regulato y sign off Date	Baseline Completion of Const uction Date	Base ine End of Maintenance Period Date	Base ine Service A ea ion Water ast ructure	Baseline Se vice A loca ion Waste Non Infrastructure	Base ine Service A loca ion Sewerage nfrastructure	Base ine Service Allocation Sewerage Non nf ast ucture	Baseline CAPEX 2010 11 £m	Base ine CAPEX 2011 12 £m	Base ine CAPEX 2012 13 £m	Baseline CAPEX 2013 14 £m	Baseline CAPEX 2014 15 £m	Base ine Pu pose A loca ion Qua ty	Baseline Purpose Allocation Base	Baseline Purpose A location ESL	Baseline Purpose Allocation EGB	Current Actual or Projected Project Approval Date	Cu rent Actual or Projected Start on Site Date	Current Actual or Projected Bane ficial Use Date	Current Actual or Projected Regulato y sign off Date	Current Actual or Projected Comple ion of Construc ion Date	Current Actual or P ojected End of Maintenance Period Date	Cu rent Actual or Projected Service A ea ion Water nfrastructu e	Current Actual or Projected Service A location Water Non infrast uctu e	Current Actual or Projected Service A location Sewe age nf astructure	Cu rent Actual or Projected Service A location Sewerage Non Infrastructure	Current Actual or Projected CAPEX Year to date £m	Current Actual or Projected CAPEX 2011 12 £m	Cur ent Actual or Projected CAPEX 2012 13 £m	Current Actual or Projected CAPEX 2013 14 £m	Current Actual or Projected CAPEX 2014 15 £m	Current Actual or Projected CAPEX 2015 16 £m	Cur ent Actual or Projected Purpose Allocation Quality	Current Actual or Projected Purpose Allocation A loca ion Base	Current Actual or Projected Purpose Allocation ESL	Cur ent Actual or Projected Purpose Allocation EGB	Current Actual or Projected IRE Allocation Water	Current Actual or Projected IRE A location Sewerage	
Text	Text	Text	Text	Text	Text	Text	Text	Date	Date	Date	Date	Date	Date	Date	Text	Text	Text	Text	£m	£m	£m	£m	£m	Text	Text	Text	Text	Date	Date	Date	Date	Date	Date	Text	Text	Text	Text	£m	£m	£m	£m	£m	£m	%	%	%	%	%	%	%	%	Text
CALC			Total capital expenditure reported																37 197	48 691	60 325	156 126	141 399																	158 850	108 390	143 930	135 416	157 550	158 850									
Acct Ref	WC Sub	Project_ID	Parent_ID	Subst tute Project_ID	Asset_Cat	PC Prog	Regulat y Sign Off	Base ine_Servi ce_Area_Ion_Water_ast ructure	Base ine_Servi ce_Area_Ion_Waste_Non_Infrastructure	Base ine_Servi ce_Area_Ion_Sewerage_nfrastructure	Base ine_Servi ce_Area_Ion_Sewerage_Non_nf ast ucture	Baseline_CAPEX_2010_11_£m	Baseline_CAPEX_2011_12_£m	Baseline_CAPEX_2012_13_£m	Baseline_CAPEX_2013_14_£m	Baseline_CAPEX_2014_15_£m	Base ine_Pu pose_A loca ion_Qua ty	Baseline_Purpose_Allocation_Base	Baseline_Purpose_A location_ESL	Baseline_Purpose_Allocation_EGB	Current_Actual_or_Projected_Project_Approval_Date	Cu rent_Actual_or_Projected_Start_on_Site_Date	Current_Actual_or_Projected_Bane ficial_Use_Date	Current_Actual_or_Projected_Regulato y_sign_off_Date	Current_Actual_or_Projected_Comple ion_of_Construc ion_Date	Current_Actual_or_P ojected_End_of_Maintenance_Period_Date	Current_Actual_or_Projected_Service_A ea ion_Water_nfrastructu e	Current_Actual_or_Projected_Service_A location_Water_Non_infrast uctu e	Current_Actual_or_Projected_Service_A location_Sewe age_nf astructure	Cu rent_Actual_or_Projected_Service_A location_Sewerage_Non_Infrastructure	Current_Actual_or_Projected_CAPEX_Year_to_date_£m	Current_Actual_or_Projected_CAPEX_2011_12_£m	Cur ent_Actual_or_Projected_CAPEX_2012_13_£m	Current_Actual_or_Projected_CAPEX_2013_14_£m	Current_Actual_or_Projected_CAPEX_2014_15_£m	Current_Actual_or_Projected_CAPEX_2015_16_£m	Cur ent_Actual_or_Projected_Purpose_Allocation_Quality	Current_Actual_or_Projected_Purpose_Allocation_A loca ion_Base	Current_Actual_or_Projected_Purpose_Allocation_ESL	Cur ent_Actual_or_Projected_Purpose_Allocation_EGB	Current_Actual_or_Projected_IRE_Allocation_Water	Current_Actual_or_Projected_IRE_A location_Sewerage	Nominated_Output
Text	Text	Text	Text	Text	Text	Text	Text	Date	Date	Date	Date	Date	Date	Date	Text	Text	Text	Text	£m	£m	£m	£m	£m	Text	Text	Text	Text	Date	Date	Date	Date	Date	Date	Text	Text	Text	Text	£m	£m	£m	£m	£m	£m	%	%	%	%	%	%	%	%	Text
team	Mark1	project	no project_name	pc_period	Parent_Id	Mark2	CA P/Hmar	pc_project	pc_PC10_Prog	pc_regulat	Column15	Column2	Column3	Column4	Column5	Column6	Column7	Base_line_servi	baseline_	servi	baseline_	servi	baseline_	servi	baseline_	cap	baseline_	cap	baseline_	cap	baseline_	cap	baseline_	cap	baseline_	cap	baseline_	purpo	baseline_	purpo	baseline_	purpo	baseline_	purpo	CA A1_	CA A1_	proj	CA A1_	mano	Column8	Column9	blank18	blank19	blank17	CASA_W%	CASA_W% %	CASA_S%	CASA_S% %	CAP_Capex	CAP_Capex	CAP_Capex	CAP_Capex	CAP_Capex	CAP_Capex	CAPPA_Quality	CAPPA_Base	CAPPA_ESL	CAPPA_Ese %	CAPPA_Sub%	Column10	Column11	Column12	
1	2014 15 Op	K59027	Wth techurch Road Ballwas ter Sewage Scheme	00		KS113		07	12	DRD																																																
2	2014 15 Op	JA264	Crosskennan SR Antr m Water Pumping Station	00				05	06	DWI		26 02 2010	12 04 2010	31/05/2010	28/04/2011		28 04 2011	27/04/2012	0	0	0

| ASSET | Pre-Id_ID | Pre-id_ID | P_AC_Date wd | P_AUDIT_TUVD_Period_ID | P_Cv_Asset_Cd | P_PCG_Reg | P_Reg_Urgncy | Pre-id_Name | DEM_A1 | DEM_P ment_Approva | DEM_SUS | DEM_SU | DEM_RSID | DEM_CoC | DEM_EMP | BEA_M% | BEA_WS% | BEA_S% | BEA_SH% | BEA_D% | BEA_EL% | BEA_EL% | BEA_EL

| AGRT | | |

| AGR? | [illegible] | [illegible] | [illegible]

SORT	Eng_Sys_No	P_Proj_ID	P_Proj_Name	P_Cat_Type_id	P_SUBSET_TYPE_Proj_ID	P_Type_Cat_id	P_Proj_Reg	Reg_Engref	BLM_A1	BLM_P_rvsd_Approva	BLM_SubS	BLM_BU	BLM_RSO	BLM_CoC	BLM_SubP	BLA_W%	BRA_W%	BSA_S%	BSA_SW%	BL_Capex_2010-11_Sm	BL_Capex_2011-12_Sm	BL_Capex_2012-13_Sm	BL_Capex_2013-14_Sm	BL_Capex_2014-15_Sm	BCA_Q%	BCA_S%	BCA_W%	BCA_Q%	OAM_A1	OAM_Pre-startApprov	OAM_SubS	OAM_BU	OAM_RSO	OAM_CoC	OAM_SubP	OAM_W%	OAM_S%	OAM_Q%	OAM_Capex_YTD_Sm	OAP_Capex_2010-11_Sm	OAP_Capex_2011-12_Sm	OAP_Capex_2012-13_Sm	OAP_Capex_2013-14_Sm	OAP_Capex_2014-15_Sm	QRA_Q%	QRA_S%	QRA_W%	QRA_Q%	QRP_RE_W%	QRP_RE_S%	QRP_RE_Q%	NDA_Order1
841	2014	15	QKV130	Newry Road Mayobr dge Storm Foul Sewer Extens on	00		KIS38	07	24	NIEA			04/05/2009	31/07/2009		31/07/2009	31/07/2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16/01/2008	22/07/2008								0	0	0	0	0	0	0	100	0	0	
842	2014	15	QKV156	Cr eve Road Newry Foul & Storm Sewer Extens ons	00		KIS38	07	24	NIEA	16 08 2010	08 09/2010	31/10/2011	17/02/2012		17/02/2012	16/02/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16/08/2010	08 09 2010	31 10/2011	03/08/2012		06/08/2012	21/12/2012			0	0	100	0	0	0	0	0	0	100	0	0	
843	2014	15	QKV160	Fa ry Glen Crossmaglen Storm Sewer Extension	00		KIS38	07	24	NIEA	19 10 2010	04 11/2010	13/12/2010	17/01/2011		17/01/2011	17/01/2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19/10/2010	04 11 2010								0	0	100	0	0	0	0	100	0	0	
844	2014	15	QKV167	Main Street Scarva Storm Sewer Extension	00		KIS38	07	24	NIEA	27 05 2011	03 06/2011	01/04/2011	31/03/2014		31/03/2014	31/03/2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27/05/2011	03 06 2011	01 04/2011	27/03/2013		28/03/2014	21/05/2013			0	0	100	0	0	0	0	0	0	100	0	0	
845	2014	15	QKV169	Bann dge Road Knallen Sewer Relay rig	00		KIS38	07	24	NIEA	14 04 2011	21 04/2011	01/04/2011	14/10/2011		13/10/2012	13/10/2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14/04/2011	21 04 2011	01 04/2011	14/10/2011		01/04/2011				0	0	100	0	0	0	0	0	0	100	0	0	
846	2014	15	QKV170	Glassdrumman Road Annalong Foul Sewer Exten ons	00		KIS38	07	24	NIEA	02 12 2011	08 12/2011	01/04/2013	10/06/2013		10/06/2013	10/06/2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	02/12/2011	08 12 2011								0	0	100	0	0	0	0	100	0	0	
847	2014	15	QKV175	Old Lotus Shoe Factory Old Newry Rd Banbridge Sewerage Scheme	00		KIS38	07	24	NIEA	17 01 2012	19 01/2012	01/03/2011	31/03/2014		31/03/2014	31/03/2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17/01/2012	19 01 2012	01 07/2013	26/02/2014		21/10/2013	26/02/2014			0	0	100	0	0	0	0	0	0	100	0	0	
848	2014	15	QKV179	Ba lygonnen Road Banbridge Foul & Storm Extension	00		KIS38	07	24	DRD			03/09/2012	31/03/2014		31/03/2014	30/03/2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28/02/2012	06 03 2012								0	0	100	0	0	0	0	100	0	0	
849	2014	15	QKV183	St Ol ver Plunke t Pr mary School Foul Sewer Extens on	00		KIS38	07	24	DRD			01/04/2011	31/03/2014		31/03/2014	31/03/2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22/11/2011	25 11 2011								0	0	100	0	0	0	0	100	0	0	
850	2014	15	QKV184	Newton Wa ters Roadworks Foul Extension	00		KIS38	07	24	DRD			02/07/2012	13/08/2012		13/08/2012	13/08/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29/03/2012	06 04 2012	02 07/2012	19/09/2012		13/08/2012				0	0	100	0	0	0	0	0	0	100	0	0	
851	2014	15	QKV188	Villawood Dromore Sewage Scheme	00		KIS38	07	24	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0								0	0	100	0	0	0	0	100	0	0	
852	2014	15	QKV197	Monteith Road Annaclone Foul & Storm Sewer Extensions	00		KIS38	07	24	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0	20/01/2014	14 02 2014								0	0	100	0	0	0	0	100	0	0	
853	2014	15	QKV205	Courtney Hill Newry Storm Sewer Extension	00		KIS38	07	24	DRD																					27/11/2014	27 11 2014								0	0	100	0	0	0	0	72	28	0	0	28
854	2014	15	QKV213	Cullnor View Lane Storm Sewer Extens on	00		KIS38	07	24																						29/11/2014	29 11 2014	04 03/2015			10/04/2015				0	0	100	0	0	0	0	100	0	0	
855	2014	15	QKV060	G ligcolley Road Omagh Sewerage Scheme	00		KIS38	07	24									0	0	0	0	0	0	0	0	0	0	0	0	0	0								0	59	41	0	0	0	0	0	0	100	0	0	
856	2014	15	QKV089	Strabane Road Castlederg Storm Sewer	00		KIS38	07	24	NIEA		14/01/2008	20/08/2012			20/08/2012	20/08/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31/01/2008	08 02 2008								0	100	0	0	0	0	0	0	100	0	0	
857	2014	15	QKV839	PC15 Pro ects Cluster of Sept c Tanks causing Pollution	04			09	16	NIEA																														0	100	0	0	0	0	0	0	100	0	0	
858	2014	15	QKV540	Wastewater treatment works belong ng to bankr upt developers which NI Water may be required 04				07	17	NIEA																														0	0	100	0	0	0	0	0	0	100	0	0	
859	2014	15	QKV541	Sewerage Infrastructure Appra sal(s) for adopt on from bankrupt developers	04			07	24	NIEA																														0	0	100	0	0	0	0	0	0	100	0	0	
860	2014	15	QKV542	Small Rural WWTW P ogramme PC13	00			09	17	NIEA								0	0	0	100	0	0	0	0	4 942	1 837	10	40	0	50	08/07/2013	19 07 2013	03 01/2014	31/03/2015		27/03/2015				0	0	100	0	0	0	0	0	0	100	0	0 PC13	
861	2014	15	QKV543	Pump Away Scheme Removal Appra sal	00			05	02	DRD																														0	0	100	0	0	0	0	0	0	100	0	0	
862	2014	15	QKV544	Non UWWTW MCert Compliance	00			09	16	NIEA																														0	0	100	0	0	0	0	0	0	100	0	0	
863	2014	15	QKV545	Sub Metering at selected WwTW	00			07	02	DRD																														0	0	100	0	0	0	0	0	0	100	0	0	
864	2014	15	QKV547	CSO Mon to ing PC15	04			07	12	NIEA																														0	0	100	0	0	0	0	0	0	0	0	0	
865	2014	15	QKV549	Non Infrastructure Major Works	04			09	16																															0	30	70	0	0	0	0	0	0	100	0	0	
866	2014	15	QKV553	Energy Efficiency at Wastewater Pumping Stat ons	00			12	02																															0	0	100	0	0	0	0	0	0	0	0	0	
867	2014	15	QKV554	Energy Efficiency at WwTW's Screw Pumps	00			09	02																															0	0	100	0	0	0	0	0	0	100	0	0	
868	2014	15	QKV556	Small Rural WWTW P ogramme PC15(2015 2021)	04			09	17	NIEA																														0	0	100	0	0	0	0	0	0	100	0	0	
869	2014	15	QKV558	Engineering Spec ications Standards	04			09	19																															10	25	25	40	0	025	0	0	100	0	0	25	0	
870	2014	15	QKV559	PC15 Year 1 WWTW Base Ma ntenance East Regi on	06			09	02																						06/01/2015	08 01 2015								0	0	100	0	0	0	0	040	0	0	100	0	0	
871	2014	15	QKV560	PC15 Year 1 WWTW Base Ma ntenance South Region	06			09	02																						06/01/2015	08 01 2015								0	0	100	0	0	0	0	040	0	0	100	0	0	
872	2014	15	QKV561	PC15 Year 1 WWTW Base Ma ntenance North Region	06			09	02																						06/01/2015	08 01 2015								0	0	100	0	0	0	0	249	0	0	100	0	0	
873	2014	15	QKV562	PC15 Year 1 WwTS Base Ma ntenance	06			12	02																						09/03/2015	10 03 2015								0	0	100	0	0	0	0	033	0	0	100	0	0	
874	2014	15	QKV563	Base Ma ntenance Assoc ated to DGS Investigations	00			07	24																						27/11/2014	01 12 2014	02 03/2015			31/03/2015				0	0	100	0	0	0	0	069	0	0	089	0	30	70	0	0	30	
875	2014	15	QKL300	Dungiven WwTW	01			09	15	NIEA		14/05/2009	11/11/2010	11/11/2011		11 11/2010	11/11/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18/12/2008	02 01 2009	14 05/2009	10/11/2010		28/04/2011				0	0	100	0	0	0	0	040	0	0	100	0	37	29	0	34	0	0 PC10
876	2014	15	QKL345	Dromahaw WWTW	01			09	15	NIEA		31/03/2009	15/12/2009	15/12/2010		15/12/2010	15/12/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16/02/2009	27 02 2009	31 03/2009	06/01/2010		21/08/2012				0	0	100	0	0	0	0	067	0	0	100	0	67	20	0	13	0	3 PC13
877	2014	15	QKL350	Benone A ea Sewerage	01			09	16	NIEA		12/12/2011	31/10/2013	31/12/2014		31 12/2013	31/12/2014	0	0	18	62	0 254	1 306	4 044	0 945	0 000	46	18	0	36	05/06/2009	11 06 2009	01 04/2011	16/09/2013		26/09/2014				0	18	82	027	0 254	1 337	4 558	1 356	027	46	18	0	36	0	3 PC13	
878	2014	15	QKL363	Feeny WwTW	01			09	15	NIEA		01/05/2009	29/03/2010	29/03/2010		29 03/2010	29/03/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	07/01/2009	11 02 2009	01 05/2009	30/12/2010		25/11/2011				0	0	100	0	0	0	0	147	0	0	001	0	66	0	0	34	0	2 PC13
879	2014	15	QKL384	Pennyburn Pumping Station	01			13	12	NIEA		11/09/2006	02/04/2008	02/04/2008		02 04/2008	02/04/2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0		11 09/2006		28/07/2008							0	0	100	0	0	0	0	008	0	0	003	0	36	20	0	44	0	0
880	2014	15	QKL386	Gortnaha vey WwTW	05			09	16				01/04/2011	30/03/2014		30/03/2014	30/06/2016	0	100	0	100	0	0	1 272	0 025	45	39	0	0	0	16	30/07/2012	21 08 2012	12 08/2013	24/07/2014		27/11/2014	26/03/2015			0	0	100	0	0	0	0	216	0	0	015	0	0	0	0	0	0	0 PC13
881	2014	15	QKL393	Ba lymorse WwTW	01			09	15	NIEA			07/09/2009	27/09/2010		27/09/2010	27/09/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20/03/2009	23 04 2009								0	0	100	0	0	0	0	458	0	0	038	0	39	0	0	0	0	0 PC10
882	2014	15	QKL394	Drumsurn WwTW	06			09	16	NIEA			01/07/2011	28/02/2015		31 03/2015	30/06/2016	0	100	0	100	0	0	0 092	1 215	15	67	0	0	0	18	30/07/2012	21 08 2012	03 02/2014	16/12/2014		16/02/2015				0	0	100	0	0	0	0	070	0	0	075	0	18	0	0	0	0	0 PC13
883	2014	15	QKL444	Londonderry DAP Bluncrana Road Work Package	02			07	12	NIEA			23/01/2012	11/05/2012		11 05/2012	11/05/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12/12/2011	23 12 2011	16 07/2010	15/11/2012		16/07/2010	10/12/2012			0	0	100	0	0	0	0	021	0	0	585	0	33	0	18	PC10		
884	2014	15	QKL455	Londonderry DAP Waterside Phase1	02			07	12	NIEA	13 01 2010	27 01/2010	08/02/2010	10/10/2011		10/10/2011	10/10/2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13/01/2010	27 01 2010	08 02/2010			28/05/2012	3			0	0	100	0	0	0	0	079	1 872	119	008	0	5	57	33	5	0	57
885	2014	15	QKL465	Limavady WWTW	01			09	16	NIEA			25/07/2011	30/03/2012		30 03/2012	30/03/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16/05/2011	18 05 2011	25 07/2011	25/02/2013		26/03/2012				0	0	100	0	0	0	0	215	0 011	0 000	000	0	92	0	8	0	0	PC10
886	2014	15	QKL473	M&E Capital Maintenance Cullmore WWTW	01		21 06 2011	04 07/2011	03/10/2011	25/09/2012			25/09/2012	25/09/2013		25 09/2012	25/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21/06/2011	04 07 2011	03 10/2011	24/09/2012		15/10/2012				0	0	100	0	0	0	0	000	0	0	000	0	100	0	0	0	0	
887	2014	15	QKL480	Faughan Crescent WWPS Londonderry Pump ng stat on and Pump ng ma n upgrade	01			12	12	NIEA								0	0	0	0	0	0	0	0	0	0	0	0	0	0								0	0	100	0	0	0	0	002	0	0	004	0	60	0	40	0	0	
888	2014	15	QKL481	Dungiven WWTW Inlet Sewer Hydraulic Assessmen /Upgrade	04			07	02	NIEA								0	0	0	0	0	0	0	0	0	0	0	0	0	0								0	40	60	0	0	0	0	026	0 019	0 005	000	0	100	0	0	0	0	40
889	2014	15	QKL482	Tamnaherin WWTW Feas b ity Study	04			09	16	NIEA		30/01/2012	28/02/2013			28 02/2013	28/02/2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30/11/2011	09 12 2011	30 01/2012	28/01/2013		21/10/2013	04/11/2014			0	0	100	0	0	0	0	000	0	0	000	0	31	0	32	0	0	PC10
890	2014	15	QKL496	Feeny WwTW Replacement of Secondary Treatment	05			09	16	DRD		03/12/2012	01/12/2013			31 03/2014	30/03/2015	0	100	0	000	0	038	1 385	0 026	30	37	0	33	30/07/2012	21 08 2012	03 12/2012	29/07/2014		12/03/2015	26/03/2015			0	0	100	0	0	0	0	499	0	0	581	0	499	403	30	36	0	34	0	0 PC13
891	2014	15	QKL498	Foreglen Road Dennys ope Dungiven Storm Sewer Extension	00			07	24	DRD		15/10/2012	09/11/2012			09 11/2012	09/11/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	04/09/2012	17 09 2012	07 01/2013	01/03/2013		26/01/2013	13/03/2013			0	0	100	0	0	0	0	000	0	0	000	0	100	0	0	0	0	0
892	2014	15	QKL502	Gortinre d Bridge WWPS Pumping Main Upgrade	02			12	02	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0	27/08/2013	29 08 2013								0	51	49	009	0	000	0	0	100	0	0	0	0	0	0	
893	2014	15	QKL504	Londonderry DAP Bluncrana Road Work Package Stage 2	02			07	12	NIEA								0	0	0	0	0	0	0	0	0	0	0	0	0	0	06/12/2013	11 12 2013	08 09/2014			31/08/2015				0	46	54	230	0	069	0	0	231	0	0	0	0	0	0	26 PC15
894	2014	15	QKL505	Ard Na Smolt Dungiven Storm Sewer Extension	00			07	24	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0	14/12/2012	21 12 2012								0	100	0	000	0	000	0	0	000	0	0	0	0	100	0	0
895	2014	15	QKL506	Donnybrewer WWTW's Phase 2 Base Ma ntenance	00			09	02	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0	19/11/2012	21 11 2012	29 03/2013	28/03/2014		27/06/2014	03/11/2014			0	0	100	0	0	0	0	148	0	0	026	0	148	0	100	0	0	
896	2014	15	QKL507	Limavady WWTW's phase 2 Base Ma ntenance	00			09	02	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0								0	0	100	0	0	0	0	003	0	0	003	0	100	0	0	0	0	
897	2014	15	QKL508	Cullnore WWTW's Phase 2 Base Ma ntenance	00			09	02	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0	21/11/2012	28 11 2012	30 11/2012	03/11/2014		28/03/2014	03/11/2014			0	0	100	0	0	0	0	312	0	0	312	0	76	20	0	0	0	
898	2014	15	QKL509	Longfield (Eglington) WWTW Phase 2 Base Maintenance	00			09	02	DRD								0	0	0	0	0	0	0	0	0	0	0	0	0	0	19/11/2012	22 11 2012		30/01/2014		09/09/2013	19/03/2014			0	0	100	0	0	0	0	039	0 007	0 000	000	0	100	0	0	0	0	
899	2014	15	KL512	Benone WWTW Modelling of Outfall Discharge	02			08	16																															0	0	100	0	0	0	0	000	0	0	000	0	100	0	0	0	0	
900	2014	15	QKL515	Demesne WWTWs Feasibility Study	04			09	16	NIEA																														0	0	100	0	0	0	0	025	0 012	0	000	0	69	0	31	0	0	
901	2014	15	QKL517	Fort George Science Park Derry Foul Sewer Ext	00			07	24	DRD																														0	100	0	0	0	0	0	0	000	0	0	0	100	0	0	0	0	
902	2014	15	QKL521	Clooney WwPS Upgrade Mag flow	06			07	02	DRD																														0	0	100	0	0	0	0	010	0	0	000	0	100	0	0	0	0	
903	2014	15	QKL524	Bleachgreen WWPS Londonderry Upgrade Replacement	04			12	12	NIEA																														0	0	100	0	0	0	0	010	0	0	052	36	12	0	0		
904	2014	15	QKL526	Caw WWPS Londonderry Pump ng Ma n Replacement	05			07	02																															0	100	0	0	0	0	0	0	057	0	0	0	100	0	0	0	0	100
905	2014	15	QKL527	Manorwood WWPS Replacement	06			07	02																															0	100	0	0	0	0	0	0	007	0	0	0	100	0	0	0	0	100
906	2014	15	QKL528	Drumahoe Court Rehab/station Drumahoe/s Limavady	00			07	24	DRD																														0	0	100	0	0	0	0	003	0	0	003	0	100	0	0	0	0	
907	2014	15	QKN145	Drumtegagh	01			09	02																						31/01/1991		01 04/2003			06/01/2004				0	35	65	000	0	000	0	0	000	0	0	100	0	0	0	0	
908	2014	15	QKN157	Cranagh WwTW	01			09	15	NIEA		26/10/2009	13/04/2010			13 04/2010	13/04/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21/01/2009	28 01 2009	26 10/2009	12/04/2010		21/06/2010				0	0	100	0	0	0	0	000	0	0	000	0	69	0	31	0	0	PC10
909	2014	15	QKN558	Slon Mi k WwTW	01			09	02			03/04/2006	19/10/2007			19 10/2007	18/10/2008	0	0	0	0	0	0	0	0	0	0	0	0	0	0		03 04/2006	28/03/2012			15/10/2007				0	0	100	0	0	0	0	004	0	0	002	0	002	0	045	32	0	23	0	0
910	2014	15	QKN096	BALLYMAGORRY WwTWs	04			14	16	NIEA		01/04/2013	19/01/2015			28 03/2016	28/03/2016	0	0	0	0	0	0	20	0 006	1 097	0 726	40	40	0	20	09/08/2013	19 08 2013		30/03/2015		30/03/2015				0	0	100	0	0	0	0	287	0	0	252	0	023	032	0	045	0	0 PC13
911	2014	15	QKN599	Donaghmore WwTW Upgrade	06			14	16	NIEA		01/04/2012	30/09/2014			31 12/2014	31/12/2015	0	0	100	0	0 016	0 013	1 790	1 328	40	40	0	20	25/07/2013	05 08 2013		19/03/2015		20/03/2007				0	0	100	0	0	0	0	714	0	0	016	0	014	0	089	1 714	15	30	55	0	0 PC13
912	2014	15	QKN622	Omagh WWTW New Outfall Construc n Reduction	01			09	16	NIEA		25/07/2011	30/03/2012			30 03/2012	30/03/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16/05/2011	18 05 2011	25 07/2011	25/02/2013

Project	Financial Year	Budget Period	Budget Period ID	Budget Period Name	Budget Period Type	Budget Period Type ID	Budget Period Type Name	Budget Period Type Group ID	Budget Period Type Group Name	BMA_A1	BMA_P mod_Approva	BMA_SubS	BMA_BU	BMA_RSIO	BMA_CoC	BMA_EoMP	BMA_W,%	BMA_WN,%	BMA_S,%	BMA_SN,%	BMA_Opex_2010-11_Bn	BMA_Opex_2011-12_Bn	BMA_Opex_2012-13_Bn	BMA_Opex_2013-14_Bn	BMA_Opex_2014-15_Bn	BMA_Opex_2015-16_Bn	BMA_O,%	BMA_SN,%	BMA_S,%	BMA_O,%	OAM_A1	OAM_Pmo ntoApprov	OAM_SubS	OAM_BU	OAM_RSIO	OAM_CoC	OAM_EoMP	OAM_S,%	OAM_SN,%	OAM_S,%	OAM_SN,%	OAM_O,%	OAP_Capex_YTD_Bn	OAP_Capex_2010-11_Bn	OAP_Capex_2011-12_Bn	OAP_Capex_2012-13_Bn	OAP_Capex_2013-14_Bn	OAP_Capex_2014-15_Bn	OAP_Capex_2015-16_Bn	OAPA,%	OAPA,%	OAPA,%	OAPA,%	OAP_RE_WN	OAP_RE_SN	NOA_Order1
1056	2014	15 Q4	KS914	Scraibo Road Newtownards WWPS Upgrade	02			12	16	NIEA																																										
1057	2014	15 Q4	KS915	Downpatrick WWPS, Quoile Road Site	01			12	02	DRD	01 05 2012	10 05 2012	02/04/2012	29/03/2013		29 03/2013	29/03/2014																		01/05/2012	10 05 2012																					
1058	2014	15 Q4	KS916	Flying Horse Rd Downpatrick Sewer Extens on	00			07	24	DRD																									27/01/2014	10 02 2014																					
1059	2014	15 Q4	KS918	Greyabbey WWTW Phase 2 Base Maintenance	00			09	02	DRD																																													
1060	2014	15 Q4	KS921	Kircubbin WWTW Phase 2 Base Maintenance	00			09	02	DRD																																													
1061	2014	15 Q4	KS922	Ballywa ter WWTW's Phase 2 Base Maintenance	00			09	02	DRD																									13/11/2012	14 11 2012	30 11 2012	19/09/2013				29/11/2013	13/03/2014																		

ID07	Yr_Beg	Yr_End_Q	Yr_End_Name	P_AC_Dte_id	P_PARENT_Powd_ID	P_SUBST_TYPE_Powd_ID	P_Fr_Asset_Cat	P_PCG_Reg	P_Reg_Engulf	BUM_A1	BUM_P_Invst_Approva	BUM_SubS	BUM_BU	BUM_RSID	BUM_CoC	BUM_EoMP	BSA_W%	BSA_WN%	BSA_S%	BSA_SN%	IL_Opex_2010-11_Bn	IL_Opex_2011-12_Bn	IL_Opex_2012-13_Bn	IL_Opex_2013-14_Bn	IL_Opex_2014-15_Bn	BOPA_Ch%	BOPA_Bn%	BOPA_Bn%	BOPA_Ch%	CAM_A1	CAM_Fin+enApprov	CAM_SubS	CAM_BU	CAM_RSID	CAM_CoC	CAM_EoMP	QSAA_W%	QSAA_WN%	QSAA_S%	QSAA_SN%	QAF_Capex_YTD_Bn	QAF_Capex_2010-11_Bn	QAF_Capex_2011-12_Bn	QAF_Capex_2012-13_Bn	QAF_Capex_2013-14_Bn	QAF_Capex_2014-15_Bn	QRPR_Ch%	QRPR_Bn%	QRPR_K%	QRPR_K2%	QAF_RE_WN%	QAF_RE_Bn%	NEW_Orderl
1271	2014	15 Q4	NA027	Enhancement of L MS random customer address select on	03		06	20																							12/03/2015	12 03 2015						0	100	0	0	0 005	0	0	0	0	0 005	0	0	100	0	0	0	0	
1272	2014	15 Q4	OP026	Emergency Plann ng PC13	03		06	20																					03/09/2013	04 09 2013						0	100	0	0	0 418	0	0	0	0	0 418	0	0	100	0	0	0	0	
1273	2014	15 Q4	OP032	works control centre	01		15	20																					03/08/2012	03 08 2012						0	49	0	51	0 005	0	0	0	0	0 005	0	0	100	0	0	0	0	
1274	2014	15 Q4	OP033	TMG	01		15	20																					02/01/2013	02 01 2013						0	55	0	45	0	0	0	0	0 804	0 903	0	0	100	0	0	0	0	
1275	2014	15 Q4	OP041	Meter Reading Hand Held Uni s & So tware	05		06	20																					24/02/2014	24 02 2014						0	100	0	0	0 079	0	0	0	0	0 216	0 079	0	70	30	0	0	0	
1276	2014	15 Q4	OP042	TMG Fleet Purchases 13/14	03		15	20	DRD																				19/09/2013	23 09 2013						0	62	0	38	0	0	0	0	0	1 885	0	0	100	0	0	0	0	
1277	2014	15 Q4	OP046	Water Turbine Upgrade	05		01	20																					26/02/2013	21 03 2013						0	100	0	0	0 007	0	0	0	0 009	0 071	0 007	0	100	0	0	0	0	
1278	2014	15 Q4	OP048	Toughbook Refresh Project Cradle pu chase & instalation	03		15	20	DRD																				30/10/2013	04 11 2013						0	50	0	50	0 098	0	0	0	0	0 45	0 098	0	0	100	0	0	0	
1279	2014	15 Q4	OP050	MIP Silver and Bronze Room upgrades	03		15	20																					12/12/2013	17 12 2013						0	51	0	49	0	0	0	0	0 071	0	0	0	0	100	0	0	0	
1280	2014	15 Q4	OP051	TMG Fleet Purchases 14/15	03		15	20																					20/08/2014	21 08 2014						0	62	0	38	0 201	0	0	0	0	0 201	0	0	100	0	0	0	0	
1281	2014	15 Q4	OP055	Emergency Plann ng 14/15	03		15	20																					29/10/2014	19 11 2014						0	100	0	0	0 038	0	0	0	0	0 038	0	0	100	0	0	0	0	
1282	2014	15 Q4	OP057	WCC RESOURCING INFORMATION FLOWS 2	03		15	20																					25/06/2014	30 06 2014						0	100	0	0	0 033	0	0	0	0	0 033	0	0	100	0	0	0	0	
1283	2014	15 Q4	QC012	Laboratory Equipment 13/14 & 14/15	03		15	20	DWI																				05/06/2013	12 06 2013						0	51	0	49	0 234	0	0	0	0	0 223	0 234	0	100	0	0	0	0	
1284	2014	15 Q4	QC015	Defibrillators for N W depots & Hubs	03		06	20																					05/08/2013	12 08 2013						0	50	0	50	0	0	0	0	0	0 015	0	0	0	100	0	0	0	
1285	2014	15 Q4	CS0000	Cap talised Salaries and On Costs	00			00									30	15	16	39	9 06148856	9 21454081	10 0068383	9 34639255	9 08197083	21	49	6	24								34	21	11	34	11 7243703	9 06148856	9 4355207	11 097	11 543	11 7243703	24	49	4	23			
1286	2014	15 Q4	LEA000	Leakage	00		03	09									55	45	0	0	3 19871009	3 30092192	2 9154456	2 84928502	2 68803399	0	63	0	37																												
1287	2014	15 Q4	OWB000	Ops Capital Water) BSP	00			10									30	70	0	0	2 77723156	4 73948693	4 20834092	3 59157448	3 48996413	1	99	0	0																												
1288	2014	15 Q4	OWG000	Ops Capital (Water) SDB	00			10									100	0	0	0	4 79872443	4 16688366	3 33180172	3 7944362	3 58709662	7	0	0	93																												
1289	2014	15 Q4	OSB000	Ops Capital (Sewerage) BSP	00			18									0	0	19	81	5 49	8 03697448	6 47114592	6 76728245	6 57582714	0	100	0	0																												
1290	2014	15 Q4	OSG000	Ops Capital (Sewerage) SDB	00			18									0	0	100	0	0 89952442	0 72893542	0 35919052	0 47764713	0 44800596	0	0	0	100																												
1291	2014	15 Q4	WM5000	Insta lat on of water mete s and separations	00		03	19									0	100	0	0	2 28791464	2 06756563	2 10178856	2 13558062	2 07516224	0	89	0	11																												
1292	2014	15 Q4		Leakage Detection	00		03	09																												100	0	0	0	0 541				0 538	0 541	0	100	0	0			
1293	2014	15 Q4		Leakage Repa rs	00		03	09																												100	0	0	0	0 229				0 229	0 229	0	100	0	0			
1294	2014	15 Q4		Leakage Other	00		03	09																												24	76	0	0	2 309				2 442	2 309	0	81	0	19			
1295	2014	15 Q4		Water Supply	00		02	10																												3	97	0	0	1 425				1 3736	1 425	0	100	0	0			
1296	2014	15 Q4		Wastewater	00		09	18																												0	1	53	46	3 693				4 191	3 693	0	100	0	0			
1297	2014	15 Q4		Customer Field Services	00		03	19																												0	100	0	0	2 477				2 301	2 477	0	91	0	9			
1298	2014	15 Q4		DSCT Water	00		03	10																												100	0	0	0	1 211				1 419	1 211	0	0	0	100			
1299	2014	15 Q4		DSCT Sewerage	00		07	18																												0	0	84	16	0 561				0 46	0 561	0	1	0	99			
1300	2014	15 Q4		M & E	00		09	18																												0	2	0	98	6 298				6 92290181	6 298	0	100	0	0			
1301	2014	15 Q4		Networks Water	00		03	10																												52	48	0	0	2 171				2 30028556	2 171	5	94	1	0			
1302	2014	15 Q4		Lead Pipe	00		03	10																												100	0	0	0	0 368				0 331	0 368	100	0	0	0			
1303	2014	15 Q4		Cost of connect ons sewerage	00		07	18																												0	0	100	0	0 827				0 67701958	0 827	0	0	0	100			
1304	2014	15 Q4		Cost of connections water	00		03	10																												100	0	0	0	1 797				1 73955456	1 797	0	0	0	100			
1305	2014	15 Q4		Cost of waterma ns rel gnment	00		03	10																												100	0	0	0	0 045				0 11005353	0 045	0	100	0	0			
1306	2014	15 Q4		Cost of Sewer realignment	00		07	18																												0	0	100	0	0 018				0 09635935	0 018	0	100	0	0			
1307	2014	15 Q4	xd999	EP Management Adjustment	04		03	08									0	0	0	0	0	0	0	0	0	0	0	0	0							96	4	0	0	0 04	0	0	0	0	0 04	50	34	2	14			

Table 40 – Capital Investment Monitoring (CIM)

Refer to chapter 30 for detailed commentary.

- The data reported in this table reconciles to the other AIR Tables.
- The table has been populated following the column definitions.
- Capitalised Salaries have been allocated by examining each of the 3 main investment areas as follows:
  - Capital works Programme
  - Management and General
  - Operations Capital

  The total Capitalised Salaries and overheads were pro-rated against each project on the CIM to arrive at a Salaries and overheads allocation for the single line on the CIM (Table 40) using the same method as applied in AIR 14.

- The variance between Table 40 (Q4 CIM) and other associated AIR tables is reported in Chapter 30. The main reason for variance is on complex projects which contain a blend of infra and non infra as well as a blend of purpose allocations which does not allow for creating a robust 16 component summary. The AIR tables data is more reliable than table 40 for accuracy.

- Total asset additions – Water Service – Check to Table 25 line 5 col 4.
  For AIR 15 the reported numbers in these two tables are as follows:
  Table 25 – £64.152m
  Table 36 - £63.898m

The difference in the above 2 figures are explained as follows:

a) PPP Alpha capital maintenance of [redacted] is not included in Table 36.
b) £-17k included in Table 25 relates to Decapitalised projects in 14/15.

- Total asset additions – Sewerage Service – Check to Table 25 line 5 col 8.
  For AIR 15 the reported numbers in these two tables are as follows:
  Table 25 – £115.246m
  Table 36 - £111.849m

The difference in the above 2 figures are explained as follows:

c) PPP Omega [redacted] and PPP Kinnegar[redacted] residual asset additions not included in Table 36.
d) £-204k included in Table 25 relates to Decapitalised projects in 14/15
e) Adjustment of £132k for a grant for Silent Valley not treated as an addition in 2014-15 and not included in Table 36.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 40A
Nominated outputs delivered by PC13 Capital Projects and Programmes of Work

A					B								
Project Information					Project Outputs								
Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Water Treatment Base Maintenance												
JA271	Killylane WTW	1		31/12/2014	7	nr					1		
	Water Treatment Works												
JN390	Lough Bradan WTWs Upgrade	4		02/03/2011	7	nr	1						
JL723	Carmoney Water Treatment Works Upgrade	4		30/03/2011	7	nr	1						
JP669	Killyhevlin WTW - Enforcement Order	4		31/03/2015	7	nr					1		
JR463	Dorisland WTW GAC plant	4		27/03/2015	7	nr					1		
	Trunk Mains												
JR416	CTM Extension - Barnetts Park to Purdysburn	5		29/11/2010	6	nr	1						
JG036	Castor Bay to Dungannon Strategic Trunk Mains	5		24/05/2011	6	nr	1						
JG035	Ballydougan to Newry Main Link Reinforcement Phase 1	5		04/12/2012	6	nr			1				
JG035	Ballydougan to Newry TM - Phase 2A	5		17/12/2012	6	nr			1				
JR460	Gravity II McVeighs Well to Oldpark SR	5		30/11/2014	6	nr					1		
JG035	Ballydougan to Newry TM - Phase 2B	5		28/08/2015	6	nr						1	
JR342	Castor Bay to Belfast TM	5		08/05/2015	6	nr						1	
	Service Reservoirs												
JB665	Tullaghans SR, Dunloy, New Reservoir	6		13/08/2010	8	nr	1						
JC381	Altnahinch WTP, Ballymoney, New CWB.	6		10/11/2010	8	nr	1						
JC378	Glenlough SR, Ballymoney, New SR	6		20/12/2010	8	nr	1						
JR151	West Belfast/ North Lisburn (Crew Hill)	6		18/01/2011	8	nr	1						
JB648	Dungonnell Command Service Reservoir	6		31/03/2011	8	nr	1						
JF583	Carland Service Reservoir	6		11/04/2011	8	nr		1					
JS179	Ballykine Gravity Distribution	6		20/04/2011	8	nr		1					
JV827	Tullyhappy SR	6		09/12/2011	8	nr		1					
JB649	Tully SR	6		06/12/2012	8	nr			1				
JV830	Crieve SR	6		27/03/2015	8	nr					1		
	Major Incident Mitigation Water Main Projects												
JI024	MIMP West (Major Incident Mitigation Project West Region) Freeze Thaw Improvements	8		14/02/2014	15	nr				1			
JI025	MIMP South (Major Incident Mitigation Project West Region) Freeze Thaw Improvements	8		24/01/2014	15	nr				1			
JI027	MIMP Central (Major Incident Mitigation Project Central Region) Freeze Thaw Improvements	8		28/03/2014	15	nr				1			
JI028	MIMP East (Major Incident Mitigation Project East Region) Freeze Thaw Improvements	8		09/02/2015	15	nr					1		
JI026	MIMP North (Major Incident Mitigation Project North Region) Freeze Thaw Improvements	8		18/08/2014	15	nr					1		
	Unsatisfactory Intermittent Discharges												
KR403	Whitehouse DAP Phase 1	11		13/04/2010	12	nr	3						
KR402	Joymount WWPS	11		01/06/2010	12	nr	1						
KR400	Lukes Point DAP Phase 1	11		23/06/2010	12	nr	1						
KL450	Londonderry DAP : Strathfoyle & Drmahoe Work Package : Caw WWPS	11		01/07/2010	12	nr	1						
KB428	Draperstown DAP	11		02/07/2010	12	nr	2						
KG153	Gilford Road, Portadown, Sewerage Upgrades	11		10/08/2010	12	nr	3						
KL449	Londonderry DAP : Strathfoyle & Drmahoe Work Package : Drumahoe Old WWPS	11		02/09/2010	12	nr	1						
KR440	Ballywalter DAP Phase 1	11		30/09/2010	12	nr	1						
KL445	Londonderry DAP: Victoria road Work Package - UID's	11		11/10/2010	12	nr	1		1				
KL448	Londonderry DAP : Victoria Road Work Package : CSO Rationalisation	11		29/10/2010	12	nr	3						
KL428	Londonderry Sewer Imps Stage 2 - Duke St PS Group Schemes - UID's	11		28/03/2011	12	nr	3						
KR441	Montgomery Rd, Flood Alleviation - UID's	11		27/04/2012	12	nr		4					
KS807	Kilkeel Harbour SPS and Sewerage Improvements - UID's	12		04/06/2012	12	nr			2				
KS379	Murlough SPS Upgrade & Network Improvements - UID's	12		29/04/2011	12	nr		8	1				
KR452	Baroda Street/Ormeau Park, Belfast CSO	12		07/09/2011	12	nr		2					
KT138	Beechlawn SPS Hillsborough Upgrade - UID's	12		30/11/2011	12	nr		1					
KL443	Londonderry DAP Duke Street Work Package - UID's	12		02/12/2011	12	nr		4					
KR432	Beechmount Avenue/Gortfin Street Belfast Hydraulic Upgrade. - UID's	12		02/12/2011	12	nr		4					
KL444	Londonderry DAP, Buncrana Road, Work Package Stage 1- UID's	12		07/05/2012	12	nr			2				
KL446	Londonderry DAP, Duke Street Work Package, Flood Alleviation	12		13/12/2011	12	nr		3					

A					B								
Project Information					Project Outputs								
Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KS377	Downs Road/Castle Park Sewer Upgrade/ Attenuation - UID's	12		23/01/2012	12	nr		4					
KC404	Coleraine DAP Phase 1 - UID's	12		31/01/2012	12	nr		5					
KR434	Annadale Flats, Belast	12		30/03/2012	12	nr		4					
KS878	Bangor DAP Work Package 7: WWPS - UID'S	12		28/03/2012	12	nr		3					
KA201	Ballyeaston, Sewerage System Upgrade	12		23/04/2012	12	nr		1					
KL447	Londonderry DAP: Foyle Road Work Package: CSO Rationalisation - UID's	12		24/09/2012	12	nr			10				
KS373	Church Street, SPS Upgrade, Downpatrick - UID's	12		06/05/2013	12	nr							
KS373	UID046 Meadowlands CSO3	12		06/05/2013	12	nr				1			
KS373	UID047 Church Street CSO1	12		06/05/2013	12	nr				1			
KS373	UID048 Scotch Street CSO4	12		06/05/2013	12	nr				1			
KS373	UID049 Scotch Street CSO11	12		06/05/2013	12	nr				1			
KS373	UID050 Rathkeltair Terr CSO12	12		06/05/2013	12	nr				1			
KS835	South Street Newtownards WWPS Refurbishment - UID'S	12		28/01/2013	12	nr			1				
KG184	Portadown Drainage Area Network Improvements - Obins Street and Park Road - UID's	12		31/08/2012	12	nr			4				
KR488	Linen Gardens Belfast CSO Screening - UID's	12		01/01/2014	12	nr				1			
KN595	Brookmount Road, Hunters Cresent, Omagh	12		31/05/2011	12	nr			5				
KS812	Greyabbey DAP Phase 1 - UID's	12		24/09/2012	12	nr			2				
KV014	Castlewellan DAP - UIDs	12		19/08/2010	12	nr			2				
KG178	Annaghanoon Road WWPS, Waringstown	12		05/09/2011	12	nr			1				
KL451	Londonderry DAP, Strathfoyle + Drumahoe Package: CSO Abandonments - UID's	12		24/09/2012	12	nr			3				
KR439	Millisle DAP 1	12		29/11/2012	12	nr			1				
KV063	Newry Rehab	12		05/09/2011	12	nr			1				
KV159	Water Street/Horners Lane Rostrevor	12		24/06/2011	12	nr			1				
KN646	Winters Lane, CSO Upgrade - UID	12		27/03/2013	12	nr			1				
KT415	Glenmore WwPS Lisburn CSO upgrade	12			12	nr							
KT415	UID065 Glenmore SPS CSO 22	12		25/06/2013	12	nr				1			
KS939	Central Promenade, Newcastle CSO Upgrade (Pattons Bridge)	12			12	nr							
KS939	UID 259 Pattons Bridge (Blackrock WwPS	12		31/03/2018	12	nr							
KV154	Newry Road SPS Warrenpoint - UID's	12			12	nr							
KV154	UID095 Newry Road TPS CSO	12		14/01/2014	12	nr				1			
KV154	UID234 Drumsesk Road Header Tank CSO	12		14/01/2014	12	nr				1			
KS372	Market Street SPS Upgrade, Downpatrick - UID's	12			12	nr							
KS372	UID044 Market Street SPS Upgrade, Downpatrick - UID's	12		06/07/2015	12	nr						1	
KF037	Annagher Sewage Pumping Station and Rising Main - UID's	12			12	nr							
KF037	UID245 Annagher SPS	12		28/03/2014	12	nr				1			
KF037	UID246 Campbells Garage WwPS CSO	12		28/03/2014	12	nr				1			
KF037	UID247 Washing bay Road WwPS CSO	12		28/03/2014	12	nr				1			
KF037	UID359 Canal Quay WWPS	12			12	nr				x			
KV161	Castlewellan DAP Stage 1 - UIDs	12			12	nr							
KV161	UID033 Mill Hill CSO 04	12		31/03/2014	12	nr				1			
KV161	UID031 Ballylough CSO 04	12		31/03/2014	12	nr				1			
KV161	UID036 Annesborough Park CSO 01	12		31/03/2014	12	nr				1			
KS937	Annesborough Park WWPS Upgrade	12			12	nr							
KS937	UID032 Annesborough Park WwPS	12		02/11/2015	12	nr						1	
KT403	Drumbeg Drive, Lisburn WWPS Enhancement	12			12	nr							
KT403	Maralin Ave CSO 02	12		30/09/2014	12	nr					1		
KS875	Bangor DAP Works Package 6: Lukes Point WWPS UIDs	12			12	nr							
KS875	UID189 Bangor DAP Works Package 6: Lukes Point WWPS UIDs	12		30/09/2014	12	nr					1		
KT391	Lisburn DAP Stage 1 - UID's	12			12	nr							
KT391	UID066 Waterside 2 CSO 07	12		12/03/2015	12	nr					1		
KT391	UID067 B Hilden PS CSO 13B	12		30/03/2015	12	nr					1		
KT391	UID068 Hilden PS CSO 13A	12		30/10/2015	12	nr						1	
KT391	UID069 Antrim St CSO 25	12		30/10/2015	12	nr						1	
KT391	UID072 New Holland WWT	12		01/01/2015	12	nr					x		
KT391	UID073 Duncans Rd CSO 15	12		01/01/2015	12	nr					x		
KT391	UID074 Laws Yard CSO 14	12		30/10/2015	12	nr						1	
KT391	UID221 Waterside 1 CSO 01	12		12/03/2015	12	nr					1		
KT391	UID222 Linenhall Street CSO 03	12		30/03/2015	12	nr					1		

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Project Information					Project Outputs								
Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KT391	UID223 Antrim Street CSO 05	12		30/10/2015	12	nr						1	
KT391	UID224 Clonevin Park CSO 10	12		30/10/2015	12	nr						1	
KT391	UID225 Sprucefield WWPS Screen CSO 20	12		30/03/2015	12	nr					1		
KT391	UID226 Antrim Road CSO 24 + flooding	12		30/10/2015	12	nr						1	
KT391	UID227 Bow Street CSO 26	12		30/10/2015	12	nr						1	
KT391	UID228 Ballynahinch Rd 2 CSO 27	12		18/03/2015	12	nr					1		
KT391	UID229 Grand Street Screen CSO 28	12		30/10/2015	12	nr						1	
KT391	UID423 Eglantine WWPS CSO 16	12		30/03/2015	12	nr					1		
KT391	UID424 Culcavy WWPS CSO 17	12		30/03/2015	12	nr					1		
KT391	UID425 Ballinderry WWPS CSO 23	12		30/03/2015	12	nr					1		
KT391	UID421 Edgewater WWPS	12		30/10/2015	12	nr						1	
KT391	UID422 Hoggs Weir CSO 04	12		30/10/2015	12	nr						1	
KS873	Bangor DAP Work Package 2: Rathmore Stream UIDs	12			12	nr							
KS873	UID013 Westburn Cresc. CSO 3A	12		29/04/2016	12	nr							1
KS873	UID014 Crawfordsburn Rd CSO 03B	12		29/04/2016	12	nr							1
KS873	UID015 Crawfordsburn Rd CSO 03C	12		29/04/2016	12	nr							1
KR480	Holywood Sewer Catchment Investigations - UIDs	12			12	nr							
KR480	UID218 Palace Barracks CSO 110	12		18/01/2016	12	nr						1	
KR480	UID219 Jackson Road CSO 52	12		06/10/2014	12	nr					1		
KR480	UID220 Strathearn Court CSO 53	12		18/01/2016	12	nr						1	
KS930	Millisle DAP Stage 2 Phase 2	12			12	nr							
KS930	UID076 Millisle SPS CSO 02	12		31/03/2016	12	nr						1	
KR417	Ormeau Avenue Sewer investigation and feasibility study for pollution resolution - UID's	12			12	nr							
KR417	UID191 Cromac Street CSO 95	12		30/06/2016	12	nr							1
KR417	UID192 Outside Holiday Inn CSO97	12		30/06/2016	12	nr							1
KR417	UID193 Dublin Road Cinema CSO 96	12		30/06/2016	12	nr							1
KR417	UID194 Bankmore Street / Dublin Road CSO 81	12		30/06/2016	12	nr							1
KR417	UID265 Sandy Row CSO 94	12		30/06/2016	12	nr							1
KG183	Portadown Drainage Area Network Improvements - Meadow Lane and Bann Street - UID's	12			12	nr							
KG183	UID081 Meadow Lane CSO 06	12		27/03/2017	12	nr							1
KG183	UID082 Meadow Lane CSO 07	12		27/03/2017	12	nr							1
KG183	UID083 Portmore Street CSO 08	12		27/03/2017	12	nr							1
KG183	UID085 Clonavon Avenue CSO 11	12		27/03/2017	12	nr							1
KG183	UID233 Meadow Lane WWPS CSO 32	12		27/03/2017	12	nr							1
KG183	UID086 Meadow Lane CSO 12	12		27/03/2017	12	nr							1
KF330	Armagh DAP Stage 1 - UID's	12			12	nr							
KF330	UID001 Scotch Street CSO. 2	12		22/02/2016	12	nr						1	
KF330	UID002 Scotch Street. CSO 1	12		18/12/2015	12	nr						1	
KF330	UID003 Courthouse 1 CSO	12		31/08/2015	12	nr						1	
KF330	UID005 The Mall East CSO	12		31/05/2016	12	nr							1
KF330	UID006 English St CSO. Scheme 2	12		31/12/2015	12	nr						1	
KF330	UID007 Drumcairn SPS. Scheme 3	12		30/03/2015	12	nr					1		
KF330	UID431 Ballycrummy WWPS	12		30/03/2015	12	nr					1		
KF330	UID430 Longstone WWPS	12		30/03/2015	12	nr					1		
KF330	UID010 Newry Road SPS	12		29/04/2016	12	nr							1
KF330	UID173 Mall West CSO	12		01/09/2015	12	nr						1	
KF330	UID175 Alexender Road CSO	12		30/06/2015	12	nr						1	
KF330	UID176 Gillis Lane CSO	12		30/03/2015	12	nr					1		
KF396	UID008 Milford SPS	12		30/03/2018	12	nr							
KF397	UID009 Killylea SPS	12		30/03/2018	12	nr							
KS879	Bangor DAP Work Package 4: Bangor Marina UIDs	12			12	nr							
KS879	UID018 Somerset Ave. CSO 11	12		27/08/2014	12	nr					1		
KS879	UID019 Bridge St CSO 13	12		27/08/2014	12	nr					1		
KS879	UID020 Quay St CSO 14	12		27/08/2014	12	nr					1		
KS879	UID021 Tennyson CSO 10	12		27/08/2014	12	nr					1		
KS879	UID022 Queens parade CSO 12	12		27/08/2014	12	nr					1		
KS877	Bangor DAP Works Package 5 - Clandeboye Stream UIDs	12			12	nr							
KS877	UID023 Castle Park CSO 07	12		27/10/2016	12	nr							1

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Project Information					Project Outputs								
Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KS877	UID179 13 Rugby Avenue CS0 8A	12		27/10/2016	12	nr							1
KS877	UID180 11 Brunswick Road CSO 8B	12		27/10/2016	12	nr							1
KS877	UID181 104 Abbey Street CSO 8F	12		27/10/2016	12	nr							1
KS877	UID182 114 Abbey Street CSO 8E	12		27/10/2016	12	nr							1
KS877	UID183 Railway View Street CSO 8G	12		27/10/2016	12	nr							1
KS877	UID184 Abbey Park CSO 9	12		27/10/2016	12	nr							1
KS877	UID263 57 Belfast Road CSO 8C	12		27/10/2016	12	nr							1
KS877	UID264 17 Belfast CSO 8D	12		27/10/2016	12	nr							1
KS958	Bangor DAP Works Package 5 Clandeboye Stream UIDs Phase 2	12			12	nr							
KS958	UID185 Avonlea Park CSO 6	12		30/10/2015	12	nr						1	
KS958	UID186 Rosemary Crescent / Inglewood Pk CSO 5	12		30/10/2015	12	nr						1	
KS958	UID187 Clandeboye Road CSO 5B	12		30/10/2015	12	nr						1	
KS902	Dundrum DAP, UID Upgrades - UID's	12			12	nr							
KS902	UID237 Parochial House CSO 02	12		21/08/2017	12	nr							
KS902	UID238 Main Street CSO 04	12		21/08/2017	12	nr							
KS902	UID239 Flynn's WWPS CSO 05	12		21/08/2017	12	nr							
KT114	Hillsborough WWTW	16			12	nr							
KT114	UID071 Magherageery PS CSO 18	16		18/03/2014	12	nr				1			
KS848	Newcastle WwTW	16			12	nr							
KS848	UID 260 Harbour WwPS	16		09/12/2013	12	nr				1			
KR501	Carrickfergus WWTW Upgrade	2			12	nr							
KR501	UID272 Carrickfergus CSO	2		19/03/2015	12	nr					1		
KL468	Strathfoyle, Londonderry Syphon Inlet Screen	02			12	nr							
KL468	UID114 Caw Park CSO 023	02		29/04/2016	12	nr							1
KL468	UID380 Gransha Park WwPS No. 2	02		29/04/2016	12	nr							1
KC415	Coleraine	12			12	nr							
KC415	UID043 Screen Road CSO	12		30/03/2015	12	nr					1		
KC415	UID040 Ballysally CSO	12		30/11/2016	12	nr							1
KA248	Ballygally Sewer Rehabilitation	12			12	nr							
KA248	UID190 Brustin Lee WWPS	12		30/03/2015	12	nr					1		
KA248	UID319 Croft Manor WWPS	12		30/03/2015	12	nr					1		
KA248	UID320 Ballygalley Slipway WWPS	12		30/03/2015	12	nr					1		
KA248	UID321 Ballygalley North WWPS	12		30/03/2015	12	nr					1		
KA248	UID322 Ballygalley Coast Road CSO	12		30/03/2015	12	nr					1		
KI488	Removal of Inlet Screens and Installation of Solid Handling Pumps	02			12	nr							
KI488	UID400 Braeside WWPS	02		01/08/2013	12	nr				1			
KI488	UID401 Cloughy Road WWPS	02		01/09/2013	12	nr				1			
KI488	UID402 Old Mill Race WWPS	02		01/08/2013	12	nr				1			
KI488	UID403 Glen Park WWPS	02		01/09/2013	12	nr				1			
KI488	UID404 Kerries Glen	02		01/01/2014	12	nr				1			
KI488	UID405 Carnesure Terrace WWPS	02		01/04/2014	12	nr					1		
KI488	UID406 Hillside WWPS	02		01/10/2013	12	nr				1			
KI488	UID407 Chimera Wood WWPS	02		01/12/2013	12	nr				1			
KI488	UID408 Ballystockart WWPS	02		01/11/2014	12	nr					1		
KI488	UID409 Milltown WWPS	02		01/10/2014	12	nr					1		
KI488	UID419 Ratalla WWPS	02		01/04/2013	12	nr				1			
KS374	Hunter's Mill Storm Attenuation and Network Improvements	12			12	nr							
KS374	UID045 Downpatrick - Stream St CSO	12		19/02/2015	12	nr					1		
KS374	UID124 Hunters Mill Attenuation Stream Street CSO2	12		19/02/2015	12	nr					1		
KA251	Umry Lodge CSO	12			12	nr							
KA251	UID394 Clotworthy House CSO	12		22/01/2014	12	nr				1			
KT139	River Road SPS Upgrade	02			12	nr							
KT139	UID276 River Road WWPS	02		09/04/2014	12	nr					1		
KS867	Copeland Road, Comber, Tank Sewer	12			12	nr							
KS867	UID343 Copeland Road CSO 61	12		30/10/2014	12	nr					1		
KA252	Glynn WWPS	02			12	nr							
KA252	UID398 Glynn WWPS	02		19/02/2015	12	nr					1		
KS900	WwPS Upgrades at Groomsport, Killinchy & Craigavad	12			12	nr							

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Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KS900	UID410 Glencraig WWPS	12		01/05/2014	12	nr					1		
KF354	Dernagh WWPS Upgrade	02			12	nr							
KF354	UID416 Dernagh WWPS	02		01/09/2014	12	nr					1		
KN644	Dernagh WWPS Upgrade	02			12	nr							
KN644	UID417 Greenbridge WWPS	02		14/11/2013	12	nr				1			
KF360	Blackwater Town WWPS Upgrade	02			12	nr							
KF360	UID418 Blackwatertown WWPS	02		31/03/2014	12	nr				1			
KN628	Carrickmore WWPS Upgrade	02			12	nr							
KN628	UID427 Carrickmore WWPS	02		27/08/2014	12	nr					1		
KL504	Londonderry DAP : Buncrana Road Work Package, Stage 2	12			12	nr							
KL504	UID273 Knockalla New WWPS	12		31/08/2015	12	nr						1	
KL504	UID274 Upper Galliagh Road WWPS	12		31/08/2015	12	nr						1	
KL504	UID275 Glen Road CSO	12		31/08/2015	12	nr						1	
KS872	Bangor DAP Work Package 1	12			12	nr							
KS872	UID011 Carnalea Golf Club CSO 1	12		30/07/2018	12	nr							
KS872	UID012 KillaneyWWPS 3	12		30/07/2018	12	nr							
KS872	UID177 Killaire WWPS 1	12		30/07/2018	12	nr							
KS874	Bangor DAP Works Package 3	12			12	nr							
KS874	UID016 Maxwell CSO 4	12		03/06/2019	12	nr							
KS874	UID017 Stricklands Glen WWPS	12		03/06/2019	12	nr							
KS874	UID178 Brompton Road SPS (PS06)	12		03/06/2019	12	nr							
KG177	Portadown DAP Stage 2	12			12	nr							
KG177	UID090 Annagh Catchment CSO 20	12		04/12/2017	12	nr							
KG177	UID091 Annagh SPS CSO 20	12		04/12/2017	12	nr							
KG177	UID092 Chambers Park CSO 01	12		04/12/2017	12	nr							
KG177	UID093 Ballynacor CSO21	12		04/12/2017	12	nr							
KR489	Glenmachan Strategic Project Phase 1a	12			12	nr							
KR489	UID411 Balmoral Avenue CSO63	12		19/06/2017	12	nr							
KR489	UID412 Balmoral Court CSO54	12		19/06/2017	12	nr							
KR489	UID413 Lisburn Road Golf Club CSO58	12		19/06/2017	12	nr							
KR489	UID414 Park Royal CSO57	12		19/06/2017	12	nr							
KR489	UID415 Priory Park CSO55	12		19/06/2017	12	nr							
KR504	Portaferry Road, N,Ards WWPS Upgrade	02			12	nr							
KR504	UID351 Portaferry Road WWPS	02		31/03/2017	12	nr							1
KB486	Galgorm WWPS Upgrade	12			12	nr							
KB486	UID399 Galgorm Raphael WWPS	12		31/03/2017	12	nr							1
	Wastewater Treatment Works												
KT102	Dunmurry WwTW Modifications	15		19/03/2012	13	nr		1					
KB436	Whitehead, Ballystruder & Ballycarry Rationalisation	15		16/02/2012	13	nr		1					
KR389	Ballyhalbert WwTW Interim Solution	15		28/03/2013	13	nr			1				
KA195	Mullaghboy WWTW	15		04/04/2011	13	nr		1					
KR391	Portavogie WwTW Interim Solution	15		24/09/2012	13	nr			1				
KS253	Drumaness WwTW	15		31/08/2010	13	nr	1						
KB282	Magherafelt WwTW	15		28/03/2011	13	nr	1						
KT125	Hook's Corner WwTW	15		28/03/2011	13	nr	1						
KL393	Ballymonie WwTW	15		18/03/2011	13	nr	1						
KB269	Toome (Creagh) Sewerage Scheme	15		22/03/2011	13	nr	1						
KS307	Loughries WWTW	15		25/01/2011	13	nr	1						
KB281	Maghera WwTW	15		03/02/2011	13	nr	1						
KL363	Feeny WwTW	15		25/11/2011	13	nr		1					
KR310	Newtownbreda WwTW	15		04/02/2011	13	nr	1						
KG145	Derrytrasna WwTW Upgrade	15		29/11/2010	13	nr	1						
KB333	Cargan WwTW	15		30/11/2010	13	nr	1						
KC284	Cloughmills WwTW	15		30/11/2010	13	nr	1						
KB322	Martinstown WwTW	15		13/12/2010	13	nr	1						
KF005	Coalisland WwTW	15		01/12/2010	13	nr	1						
KC299	Bushmills + Portballintrae WwTW	15		06/12/2010	13	nr	1						
KB279	Stewartstown WwTW Improvements	15		10/11/2010	13	nr	1						

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Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KB284	Coagh WwTW Improvements	15		10/11/2010	13	nr	1						
KL300	Dungiven WwTW	15		10/11/2010	13	nr	1						
KV064	Lurganare WwTW	15		30/09/2010	13	nr	1						
KN533	Rousky Sewerage Scheme	15		09/09/2010	13	nr	1						
KB278	Moneymore STW Imps	15		18/08/2010	13	nr	1						
KS224	Downpatrick WwTW	15		14/12/2009	13	nr	1						
KF319	Annaghmore WwTWs	15		27/09/2010	13	nr	1						
KS225	Ardglass WWTW	15		20/03/2015	13	nr					1		
KT377	New Holland WwTW	16		28/03/2011	13	nr	1						
KS374	Darragh Cross WwTW	16		07/09/2010	13	nr	1						
KC338	Causeway/Aird (New Pumping Station)	16		23/08/2011	13	nr		1					
KC416	Glenstall WwTW - Nutrient Reduction	16		25/02/2013	13	nr			1				
KN622	Omagh WwTW - Nutrient Reduction	16		25/02/2013	13	nr			1				
KL465	Limavady WwTW - Nutrient Reduction	16		25/02/2013	13	nr			1				
KF329	Ardress WWPS Upgrade	16		31/03/2012	13	nr		1					
KS857	Glassdrumman WWTW	16		23/12/2011	13	nr		1					
KS216	Dunmore Sewerage - EC Compliance	16		30/06/2011	13	nr		1					
KF320	Bush WwTW	16		03/06/2010	13	nr	1						
KF028	Keady Wwtw	16		29/11/2012	13	nr			1				
KL482	Tamnaherin Wwtw	16		28/01/2013	13	nr			1				
KV105	Newry WwTW Extension Phase 1	16		28/01/2013	13	nr			1				
KF060	Brockagh Terrace/Mountjoy WtWT	16		13/08/2012	13	nr			1				
KV125	Forkhill WwTW	16		28/03/2013	13	nr			1				
KV045	Mullaghbane WwTW	16		28/03/2013	13	nr			1				
KB287	Swatragh WwTW	16		21/03/2013	13	nr			1				
KB314	Gulladuff WwTW	16		16/12/2013	13	nr				1			
KT114	Hillsborough WWTW	16		18/03/2014	13	nr				1			
KS848	Newcastle WwTW	16		09/12/2013	13	nr				1			
KR501	Carrickfergus WWTW Upgrade	2		31/03/2014	13	nr				1			
KR530	Belfast WwTW Base Maintenance Phase 2	2		18/03/2014	13	nr				1			
KN631	Strabane WWTW's Refurbishment	2		20/12/2013	13	nr				1			
KL350	Benone Area Sewerage	16		16/09/2013	13	nr							
KL350	Decommission Benone WwTW & construct WwPS	16		16/09/2013	13	nr				1			
KL350	Decommission Drumavelly WwTW & construct WwPS	16		16/09/2013	13	nr				1			
KL350	Decommission Aughil WwTW & construct WwPS	16		16/09/2013	13	nr				1			
KL350	Decommission MoD WwTW & construct WwPS	16		16/09/2013	13	nr				1			
KL350	Decommission NIPS WwTW & construct WwPS	16		16/09/2013	13	nr				1			
KL350	Provision of new Magilligan WwTW	16		16/09/2013	13	nr				1			
KP672	Tempo WwTW	16		06/01/2015	13	nr					1		
KS844	Ballyhornan Outfall - NIEA Enforcement	16		31/12/2013	13	nr				1			
KL424	Magheramason Wwtw	16		20/03/2015	13	nr					1		
KR409	Moneyreagh WwTW (Storm Pumping station)	16		12/12/2013	13	nr				1			
KP586	Clabby Wwtw	16		31/03/2017	13	nr							1
KN599	Donaghmore Wwtw	16		19/03/2015	13	nr					1		
KL487	Nixon's Corner	16		30/01/2015	13	nr					1		
KL386	Gortnahey Wwtw	16		24/07/2014	13	nr					1		
KS389	Ballymartin & Blackrock WwTWs	16			13	nr							
KS389	Ballymartin WwTW	16		31/03/2015	13	nr					1		
KS389	Blackrock WwTW	16		31/03/2016	13	nr						1	
KS355	Ballynahinch Wwtw	16		21/03/2014	13	nr				1			
KS905	Kilmore & Annacloy WwTW	16			13	nr							
KS906	Kilmore WwTW	16		10/03/2015	13	nr					1		
KS907	Annacloy WwTW	16		11/03/2015	13	nr					1		
KS887	Ards South (Ballycranbeg WwTW load reduction)	16		31/03/2015	13	nr					1		
KL496	Feeny WwTW - Replacement Secondary Treatment	16		08/08/2014	13	nr					1		
KF346	Robinsonstown WwTW	16		30/06/2019	13	nr							
KN596	Ballymagory WWTW	16		30/03/2015	13	nr					1		
KL493	Artigarvin WwTW	16		08/05/2015	13	nr						1	

A					B								
Project Information					Project Outputs								
Project ID Reference	Project Name	PC13 Programme	Quality Regulator Date (if appropriate)	BU Date (if appropriate)	PC13 Output Ref Code	Output Units	PC10			PC13		PC15	
PI_Project_ID	PI_Project_Name	PI_PC13_Prog					2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14
KN640	Dromore (Tyrone) WWTW	16		20/03/2015	13	nr					1		
KT402	Dunmurry WWTW Sludge Facility	16		18/03/2014	13	nr				1			
KB459	Maghera WwTW: Phase 2	16		04/02/2014	13	nr				1			
KL394	Drumsurn Wwtw	16		16/12/2014	13	nr					1		
KP668	Lisnarrick Wwtw	16		01/12/2014	13	nr					1		
KT126	Stoneyford Wwtw	16		28/11/2014	13	nr					1		
KI508	UWWTR MCERT compliance	16		31/01/2016	13	nr						1	
KC296	Ballycastle Wwtw	16		30/12/2017	13	nr							
KN656	Castle Archdale WwTW	16		30/03/2016	13	nr						1	
KG202	Aghagallon WwTW	16		31/03/2015	13	nr					1		
	Waringsford	17		30/09/2014	13	nr					1		
	Small Wastewater Treatment Works												
	Small Wastewater Treatment Works - PC10 Programme >250pe to be detailed												
KI486	Annahugh WwTW	17		2010/2011	13	nr	1						
KI486	Galbally WwTW	17		2010/2011	13	nr	1						
KI486	Maghery WwTW	17		2010/2011	13	nr	1						
KI486	Montieth WwTW	17		2011/2012	13	nr		1					
KI486	Orritor WwTW	17		2011/2012	13	nr		1					
KI486	Garvaghy WwTW	17		2011/2012	13	nr		1					
KI486	Donagheady WwTW	17		2010/2011	13	nr	1						
KI486	Attical Tullyframe WwTW	17		2011/2012	13	nr		1					
KI486	Donagh WwTW	17		2011/2012	13	nr		1					
KI486	Glack WwTW	17		2012/2013	13	nr			1				
KI486	Teemore WwTW	17		2011/2012	13	nr		1					
	Small Wastewater Treatment Works - PC10 Programme <250pe to be detailed	17		2010-2013	14	nr	11	23	14				
	Small Wastewater Treatment Works - PC13 Programme <250pe to be detailed	17		2013-2015	14	nr				7	18		

	Water Outputs		2013-14	2014-15	2015-16	2016-17
19	Completion of nominated trunk main schemes	6	0	1	2	0
20	Completion of nominated water treatment works schemes	7	0	3	0	0
21	Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks	8	0	1	0	0

	Sewerage Outputs		2013-14	2014-15	2015-16	2016-17
8	Delivery of improvements to nominated UIDs as part of a defined programme of work	12	28	39	27	30
9	Delivery of improvements to nominated WwTWs as part of a defined programme of work	13	17	18	4	1
10	Small wastewater treatment works delivered as part of the rural wastewater investment programme	14	7	18	0	0

Table 40a – Nominated Outputs

The following tables identify those PC13 nominated outputs delivered during the programme. The information aligns with that claimed in the relevant AIR Tables and also endeavours to update the status of the nominated outputs yet to complete.

The information is presented by Sub-Programme and reflects the layout as submitted in Table 40A.

NIW project Code	Project title	Year claimed	Outstanding outputs
Sub programme 1 – Base Maintenance Water			
JA271	Killylane WTW	2014/15	
Sub programme 4 – WTW			
JP669	Killyhelvin WTW – GAC	2014/15	
JR463	Dorisland WTW - GAC	2014/15	
Sub programme 5 – Trunkmains			
JR460	Gravity 2 – McVeighs Well to Oldpark SR	2014/15	
JG035	Ballydougan to Newry TM – Phase 2B		Under construction. Operational target 2015/16. See note a.
JR432	Castor Bay to Belfast TM		Under construction. Operational target 2015/16. See note b.
Sub programme 6 – Service Reservoirs and Towers			
JV830	Crieve SR	2014/15	
Sub-programme 8 – Watermains Rehabilitation			
JI024	MIMP West Freeze Thaw Improvements	2013/14	
JI025	MIMP South Freeze Thaw Improvements	2013/14	
JI026	MIMP North Freeze Thaw Improvements	2014/15	
JI027	MIMP Central Freeze Thaw Improvements	2013/14	
JI028	MIMP East Freeze Thaw Improvements	2014/15	

Note:

a) Ballydougan to Newry TM – Phase 2B: AIR 14 had projected achievement of beneficial use during 2014/15 but procurement process had longer duration than anticipated in order to achieve Value for Money. Beneficial use anticipated within 2015/16.

b) Castor Bay to Belfast TM – whilst the trunk main pipeline was complete by the end of March, the new pumps associated with the scheme could not be installed by the PPP contractor without first emptying the Magheraliskmisk service reservoir. This could not be done due to the risk of industrial action. Once the risk of industrial action had ended, the new pumps were installed and the trunk main achieved beneficial use by May 2015.

Summary (Sub programme 12 – UIDs)

Each UID has been assigned one of a number of delivery categories. The delivery categories are not official regulatory reporting designations and have been developed simply to provide clarity when presenting the PC13 UID programme.

		UIDs in delivery category				
Delivery category	**Delivery category code**	12/13	13/14	14/15	PC15	Total
PC10 scope, delivered in PC13	**1**			1		1
PC13 FD scope, delivered in PC10	**2**	1				1
PC13 FD scope, delivered in PC13	**3**		11	16		27
PC13 extra scope approved by ORG, delivered in PC13	**4**		16	15		31
PC13 extra scope, delivered in PC13	**5**		1	6		7
PC15 FD scope, delivered in PC13	**6**			1		1
PC13 extra scope approved by ORG, carried to PC15	7				5	5
PC13 FD scope, carried to PC15	8				18	18
PC13 extra scope, carried to PC15	9				2	2
PC15 FD scope, originally identified in PC13 FD	10				35	35
PC15 FD scope, not previously identified in PC13 FD	11				18	18
Sub Total		**1**	**28**	**39**	**76**	**146**
PC13 FD scope, removed following investigation	*12*					**2**
PC13 additional scope, removed following investigation	*13*					**1**
Total						**149**

The table below presents performance against the PC13 FD list of UIDs.

PC13 FD UIDs	2012/13	2013/14	2014/15	Not delivered	Total
PC13 FD UIDs delivered by end of PC13 (delivery categories 2, 3, 6)	1	11	17	N/A	29
PC13 FD UIDs not delivered by end of PC13 (delivery categories 8,10)	N/A	N/A	N/A	53	53
PC13 FD UIDs removed from scope (delivery category 12)	N/A	N/A	N/A	2	2
PC13 FD UIDs total	**1**	**11**	**17**	**55**	**84**

The table below presents overall UID delivery by the end of the PC13 period.

All PC13 UIDs delivered by end of PC13 period	2012/13	2013/14	2014/15	Total
PC13 FD UIDs delivered by end of PC13 (delivery categories 2,3,6)	1	11	17	29
PC13 extra scope delivered by end of PC13 (delivery categories 1,4,5)	0	17	22	39
Total UIDs delivered by end of PC13 period (delivery categories 1,2,3,4,5,6)	**1**	**28**	**39**	**68**

Sub programme 12 - UIDs						
Sort ref	**NIW Project Code**	**Nominated outputs reference**	**Title**	**Year claimed**	**Delivery category**	**PC13 FD Nom. Output?**
1	**KT415**	**UID065**	**Glenmore WwPS Lisburn CSO Upgrade**	**2013/14**	**3**	Y
2	KS939	UID259	Pattons Bridge (Blackrock WwPS)		8	Y
	KV154		Newry Road SPS Upgrade Warrenpoint			
3		**UID095**	**Newry Road SPS Warrenpoint**	**2013/14**	**3**	Y
4		**UID234**	**Drumsesk Road Header Tank CSO**	**2013/14**	**3**	Y
	KS372		Market Street SPS Upgrade Downpatick			
5		UID044	Market Street SPS		8	Y
	KF037		Annagher SPS and Rising Main			
6		**UID245**	**Annagher SPS**	**2013/14**	**3**	Y
7		**UID246**	**Campbells Garage WwPS**	**2013/14**	**3**	Y
8		**UID247**	**Washing Bay Road WwPS**	**2013/14**	**3**	Y
85		UID359	Canal Quay		*13*	
	KV161		Castlewellan DAP Stage 1			
9		**UID031**	**Ballylough Rd. CSO 02**	**2013/14**	**3**	Y
10		**UID033**	**Mill Hill CSO 04**	**2013/14**	**3**	Y
11		**UID036**	**Annsborough Park CSO 01**	**2013/14**	**3**	Y
	KS937		Annsborough Park WwPS Upgrade			
12		UID032	Annesborough Park SPS CSO 05		10	Y
	KT403		Drumbeg Drive Lisburn WwPS Enhancement			
13		**UID070**	**Maralin Avenue CSO 02**	**2014/15**	**3**	Y
	KS875		Bangor Work Package 6 Lukes Point WwPS			
14		**UID189**	**Lukes Point SPS 11**	**2014/15**	**3**	Y
	KT391		Lisburn Dap Stage 1			
15		**UID066**	**Waterside 2 CSO 07**	**2014/15**	**3**	Y
16		**UID067**	**Hilden PS CSO 13B**	**2014/15**	**3**	Y
17		UID068	Hilden PS CSO 13A		8	Y
18		UID069	Antrim Street CSO 25		10	Y
19		*UID072*	*New Holland WwTW*		*12*	Y
20		*UID073*	*Duncans Road CSO 15*		*12*	Y
21		UID074	Laws Yard CSO 14		10	Y
22		**UID221**	**Waterside 1 CSO 01**	**2014/15**	**3**	Y
23		**UID222**	**Linenhall Street CSO 03**	**2014/15**	**6**	Y
24		UID223	Antrim Street CSO 05		10	Y
25		UID224	Clonevin Park CSO 10		10	Y
26		**UID225**	**Sprucefield WwPS Screen CSO 20**	**2014/15**	**3**	Y
27		UID226	Antrim Road CSO 24 + Flooding		10	Y
28		UID227	Bow Street CSO 26		10	Y

Sub programme 12 - UIDs						
Sort ref	**NIW Project Code**	**Nominated outputs reference**	**Title**	**Year claimed**	**Delivery category**	**PC13 FD Nom. Output?**
29		**UID228**	**Ballynahinch Road 2 CSO 27**	**2014/15**	**3**	Y
30		UID229	Grand Street Screen CSO 28		8	Y
86		**UID423**	**Eglantine WWPS CSO 16**	**2014/15**	**5**	
87		**UID424**	**Culcavy WWPS CSO 17**	**2014/15**	**5**	
88		**UID425**	**Ballinderry WWPS CSO 23**	**2014/15**	**5**	
89		UID421	Edgewater WWPS		9	
90		UID422	Hoggs Weir CSO 04		9	
	KS873		Bangor DAP WP 2 Rathmore Stream UIDs			
31		UID013	Westburn Crescent CSO 3A		8	Y
32		UID014	Crawfordsburn Road CSO 03B		8	Y
33		UID015	Crawfordsburn Road CSO 03C		8	Y
	KR480		Holywood Sewer Catchment Investigations			
34		UID218	Palace Barracks CSO 110		10	Y
35		**UID219**	**Jacksons Road CSO 52**	**2014/15**	**3**	Y
36		UID220	Strathearn Court CSO 53		10	Y
	KS930		Millisle DAP Stage 2 Phase 2			
37		UID076	Millisle SPS CSO 02		10	Y
	KR417		Ormeau Avenue Sewer Investigations and feasibility Study for Pollution Resolution			
38		UID191	Cromac Street CSO 95		10	Y
39		UID192	Outside Holiday Inn CSO 97		10	Y
40		UID193	Dublin Road Cinema CSO 96		10	Y
41		UID194	Bankmore Street/Dublin Road CSO 81		10	Y
42		UID265	Sandy Row CSO 94		10	Y
	KG183		Portadown DA Network Improvements – Meadow Lane and Bann Street			
43		UID081	Meadow Lane CSO 06		10	Y
44		UID082	Meadow Lane CSO 07		10	Y
45		UID083	Portmore Street CSO 08		10	Y
46		UID085	Clonavon Avenue CSO 11		10	Y
47		UID233	Meadow Lane WwPS CSO 32		10	Y
48		UID086	Meadow Lane CSO 12		10	Y
	KF330		Armagh DAP Stage 1 UIDs			
49		UID001	Scotch Street CSO 2		10	Y
50		UID002	Scotch Street CSO 1		10	Y
51		UID003	Courthouse 1 CSO		8	Y
52		UID005	The Mall East CSO		10	Y
53		UID006	English Street CSO Scheme 2		8	Y
54		**UID007**	**Drumcairn SPS Scheme 3**	**2014/15**	**3**	Y

Sub programme 12 - UIDs						
Sort ref	**NIW Project Code**	**Nominated outputs reference**	**Title**	**Year claimed**	**Delivery category**	**PC13 FD Nom. Output?**
148		**UID431**	**Ballycrummy WWPS**	**2014/15**	**5**	
149		**UID430**	**Longstone WWPS**	**2014/15**	**5**	
57		UID010	Newry Road SPS		10	Y
58		UID173	Mall West CSO		10	Y
59		UID175	Alexander Road CSO		8	Y
60		**UID176**	**Gillis Lane CSO**	**2014/15**	**3**	Y
55	KF396	UID008	Millford SPS		8	Y
56	KF397	UID009	Killylea SPS		8	Y
	KS879		Bangor DAP Work Package 4 Bangor Marina CSOs			
61		**UID018**	**Somerset Avenue CSO 11**	**2014/15**	**3**	Y
62		**UID019**	**Bridge Street CSO 13**	**2014/15**	**3**	Y
63		**UID020**	**Quay Street CSO 14**	**2014/15**	**3**	Y
64		**UID021**	**Tennyson CSO 10**	**2014/15**	**3**	Y
65		**UID022**	**Queens Parade CSO 12**	**2014/15**	**3**	Y
	KS877		Bangor DAP Work Package 5 Clandeboye Stream UIDs			
66		UID023	Castle Park CSO 07		10	Y
67		UID179	Rugby Avenue CSO 8A		8	Y
68		UID180	Brunswick Road CSO 8B		10	Y
69		UID181	Abbey Street CSO 8F		10	Y
70		UID182	Abbey Street CSO 8E		10	Y
71		UID183	Railway View Street CSO 8G		8	Y
72		UID184	Abbey Park CSO 9		10	Y
76		UID263	Belfast Road CSO 8C		8	Y
77		UID264	Belfast Road CSO 8D		8	Y
	KS958		Bangor DAP Works Package 5 Clandeboye Stream UIDs Phase 2			
73		UID185	Avonlea Park CSO 6		10	Y
74		UID186	Rosemary Crescent /Inglewood Park CSO 5		8	Y
75		UID187	Clandeboye Road CSO 5B		8	Y
	KS902		Dundrum DAP UIDs			
78		UID237	Parochial House CSO 02		10	Y
79		UID238	Main Street CSO 04		10	Y
80		UID239	Flynn's WwPS CSO 05		10	Y
	KT114		Hillsborough WwTW			
81		**UID071**	**Magherageery PS CSO 18**	**2013/14**	**3**	Y
	KS848		Newcastle WwTW			
82		**UID260**	**Harbour WwPS**	**2013/14**	**3**	Y
	KR501		Carrickfergus WwTW Upgrade			
83		**UID272**	**Carrickfergus CSO**	**2014/15**	**3**	Y

Sub programme 12 - UIDs						
Sort ref	**NIW Project Code**	**Nominated outputs reference**	**Title**	**Year claimed**	**Delivery category**	**PC13 FD Nom. Output?**
84/101	**KN646**	**UID244**	**Winters Lane CSO**	**2012/13**	**2**	Y
91	**KR488**	**UID052**	**Woodcot Ave/Linen Gardens CSO 24**	**2013/14**	**4**	
	KL468		Strathfoyle, Londonderry Syphon Inlet Screen			
92		UID114	Caw Park CSO 023		7	
93		UID380	Gransha Park WwPS No. 2		7	
	KC415		Coleraine			
94		**UID043**	**Screen Road CSO**	**2014/15**	**1**	
95		UID040	Ballysally CSO		11	
	KS373		Church Street SPS Upgrade			
96		**UID046**	**Meadowlands CSO3**	**2013/14**	**4**	
97		**UID047**	**Church Street CSO1**	**2013/14**	**4**	
98		**UID048**	**Scotch Street CSO4**	**2013/14**	**4**	
99		**UID049**	**Scotch Street CSO11**	**2013/14**	**4**	
100		**UID050**	**Rathkeltair Terr CSO12**	**2013/14**	**4**	
	KA248		Ballygally Sewer Rehabilitation			
101		**UID190**	**Brustin Lee WWPS**	**2014/15**	**4**	
102		**UID319**	**Croft Manor WWPS**	**2014/15**	**4**	
103		**UID320**	**Ballygalley Slipway WWPS**	**2014/15**	**4**	
104		**UID321**	**Ballygalley North WWPS**	**2014/15**	**4**	
105		**UID322**	**Ballygalley Coast Road CSO**	**2014/15**	**4**	
	KI488		Removal of Inlet Screens and Installation of Solid Handling Pumps			
106		**UID400**	**Braeside WWPS**	**2013/14**	**4**	
107		**UID401**	**Cloughy Road WWPS**	**2013/14**	**4**	
108		**UID402**	**Old Mill Race WWPS**	**2013/14**	**4**	
109		**UID403**	**Glen Park WWPS**	**2013/14**	**4**	
110		**UID404**	**Kerries Glen**	**2013/14**	**4**	
111		**UID405**	**Carnesure Terrace WWPS**	**2014/15**	**4**	
112		**UID406**	**Hillside WWPS**	**2013/14**	**4**	
113		**UID407**	**Chimera Wood WWPS**	**2013/14**	**4**	
114		**UID408**	**Ballystockart WWPS**	**2014/15**	**4**	
115		**UID409**	**Milltown WWPS**	**2014/15**	**4**	
116		**UID419**	**Ratalla WWPS**	**2013/14**	**5**	
	KS374		Hunter's Mill Storm Attenuation and Network Improvements			
117		**UID045**	**Downpatrick - Stream St CSO**	**2014/15**	**4**	
118		**UID124**	**Hunters Mill Attenuation Stream Street CSO2**	**2014/15**	**4**	
	KA251		Umry Lodge CSO			
119		**UID394**	**Clotworthy House CSO**	**2013/14**	**4**	

Sub programme 12 - UIDs						
Sort ref	**NIW Project Code**	**Nominated outputs reference**	**Title**	**Year claimed**	**Delivery category**	**PC13 FD Nom. Output?**
	KT139		River Road SPS Upgrade			
120		**UID276**	**River Road WWPS**	**2014/15**	**4**	
	KS867		Copeland Road, Comber, Tank Sewer			
121		**UID343**	**Copeland Road CSO 61**	**2014/15**	**4**	
	KA252		Glynn WWPS			
122		**UID398**	**Glynn WWPS**	**2014/15**	**4**	
	KS900		WwPS Upgrades at Groomsport, Killinchy & Craigavad			
123		**UID410**	**Glencraig WWPS**	**2014/15**	**4**	
	KF354		Dernagh WWPS Upgrade			
124		**UID416**	**Dernagh WWPS**	**2014/15**	**4**	
	KN644		Greenbridge WWPS Upgrade			
125		**UID417**	**Greenbridge WWPS**	**2013/14**	**4**	
	KF360		Blackwatertown WWPS Upgrade			
126		**UID418**	**Blackwatertown WWPS**	**2013/14**	**4**	
	KN628		Carrickmore WWPS Upgrade			
127		**UID427**	**Carrickmore WWPS**	**2014/15**	**5**	
	KL504		Londonderry DAP : Buncrana Road Work Package, Stage 2			
128		UID273	Knockalla New WWPS		7	
129		UID274	Upper Galliagh Road WWPS		7	
130		UID275	Glen Road CSO		7	
	KS872		Bangor DAP Work Package 1			
131		UID011	Carnalea Golf Club CSO 1		11	
132		UID012	KillaneyWWPS 3		11	
133		UID177	Killaire WWPS 1		11	
	KS874		Bangor DAP Works Package 3			
134		UID016	Maxwell CSO 4		11	
135		UID017	Stricklands Glen WWPS		11	
136		UID178	Brompton Road SPS (PS06)		11	
	KG177		Portadown DAP Stage 2			
137		UID090	Annagh Catchment CSO 20		11	
138		UID091	Annagh SPS CSO 20		11	
139		UID092	Chambers Park CSO 01		11	
140		UID093	Ballynacor CSO21		11	
	KR489		Glenmachan Strategic Project Phase 1a			
141		UID411	Balmoral Avenue CSO63		11	
142		UID412	Balmoral Court CSO54		11	
143		UID413	Lisburn Road Golf Club CSO58		11	
144		UID414	Park Royal CSO57		11	
145		UID415	Priory Park CSO55		11	

Sub programme 12 - UIDs						
Sort ref	**NIW Project Code**	**Nominated outputs reference**	**Title**	**Year claimed**	**Delivery category**	**PC13 FD Nom. Output?**
	KR504		Portaferry Road, N,Ards WWPS Upgrade			
146		UID351	Portaferry Road WWPS		11	
	KB486		Galgorm WWPS Upgrade			
147		UID399	Galgorm Raphael WWPS		11	

Notes (Sub programme 12 – UIDs)

Scheme KS958 - Bangor DAP Works Package 5 Clandeboye Stream UIDs Phase 2
Scheme KS958 was not stated in AIR14 but includes three UIDs (UID185, UID186, UID187) taken from KS877.

PC13 scope, carried to PC15
A decision was taken during PC13 to transfer a number of UIDs into the scope of PC15: these were listed in the PC15 business case and form category 10. Several UIDs had been retained in PC13 scope (category 8 and 9) but have been carried forward into PC15. An additional group of UIDs (category 11) are formed from those which were separately identified as PC15 outputs and were not previously identified in the PC13 FD. It is currently assumed that they will be delivered, subject to limitations imposed by PE budgetary restrictions.

Cross-reference with December 2014 UR view of scope
The UR issued a list of UIDs (titled "W123_90_36 = UID check notes 01.00 - Issued to NIEA and NIW") on 05/12/2014.
This list has been cross-referenced with NI Water's UID data as of June 2015.
Nine discrepancies were found between the two lists, with explanations provided in the table below.

UID	Explanation of difference between UR list and Table 40a Commentary
UID420	UID420 actually refers to Bleachgreen WwPS but an error occurred in a previous report and it was incorrectly linked to Edgewater WwPS in the spreadsheet "W123_90_36 = UID check notes 01.00 - Issued to NIEA and NIW". Edgewater WwPS is actually UID421. Bleachgreen WwPS is not profiled for delivery by NI Water until PC21.
UID395	The AIR 14 return included UID359 Canal Quay WwPS (the UID reference was previously incorrectly stated as UID395: correct reference is UID359). This UID was added to scheme KF037 Annagher Sewage Pumping Station and Rising Main as part of network rationalisation and considered appropriate to claim following discussion with NIEA. Adverse ground conditions prevented delivery of the element of scope to which it was linked. An automated function was however triggered at the scheme level within the CPMR system which incorrectly applied a completion date to UID359. UID359 was claimed in error in 2013/14 along with the other UIDs within scheme KF037 which had been successfully completed and correctly claimed.
UID043	UID043 was listed twice in the UR spreadsheet.

UID	Explanation of difference between UR list and Table 40a Commentary
UID421	UID421 refers to Edgewater WwPS but an error occurred in a previous report and Edgewater WwPS was incorrectly linked to UID420 in spreadsheet "W123_90_36 = UID check notes 01.00 - Issued to NIEA and NIW". UID420 is actually Bleachgreen WwPS. Edgewater WwPS (UID421) is extra scope carried through to PC15, listed as category 9 in Table 40a commentary.
UID422	Not listed in UR spreadsheet: extra scope carried through to PC15, listed as category 9 in Table 40a commentary.
UID423	Not listed in UR spreadsheet: extra scope delivered during PC13, listed as category 5 in Table 40a commentary.
UID424	Not listed in UR spreadsheet: extra scope delivered during PC13, listed as category 5 in Table 40a commentary.
UID425	Not listed in UR spreadsheet: extra scope delivered during PC13, listed as category 5 in Table 40a commentary.
UID427	Not listed in UR spreadsheet: extra scope delivered during PC13, listed as category 5 in Table 40a commentary.

Sub-programme 15 and 16 WwTW			
NI Water project Code	**Project title**	**Year claimed**	**Outstanding outputs**
KS225	**Ardglass**	**2014/15**	
KL350	**Benone WwTW**	**2013/14**	6 nominated outputs (see note b)
KS848	**Newcastle WwTW**	**2013/14**	
KB314	**Gulladuff WwTW**	**2013/14**	
KV045	Mullaghbane WwTW	2012/13	See note c
KV125	Forkhill WwTW	2012/13	See note c
KT114	**Hillsborough WwTW**	**2013/14**	
KS389	**Ballymartin and Blackrock WwTW's**	**2014/15**	See note d
KS355	**Ballynahinch WwTW**	**2013/14**	
KR409	**Moneyreagh WwTW**	**2013/14**	
KT126	**Stoneyford WwTW**	**2014/15**	
KT402	**Dunmurry WwTW Sludge Facility**	**2013/14**	
KS905	**Kilmore WwTW**	**2014/15**	See note e
KS905	**Annacloy WwTW**	**2014/15**	See note e
KS844	**Ballyhornan Outfall Screen**	**2013/14**	
KS887	**Ards South (Ballycranbeg)**	**2014/15**	
KR530	**Belfast WwTW Base Maintenance Phase 2**	**2013/14**	
KR501	**Carrickfergus Base Maintenance**	**2013/14**	
KP672	**Tempo WwTW**	**2014/15**	
KP668	**Lisnarrick WwTW**	**2014/15**	
KN640	**Dromore (Tyrone) WwTW**	**2014/15**	
KN631	**Strabane WwTW**	**2013/14**	
KN599	**Donaghmore WwTW**	**2014/15**	
KN596	**Ballymagorry WwTW**	**2014/15**	
KL496	**Feeny WwTW Replacement of Secondary Treatment**	**2014/15**	
KL493	Artigarvan WwTW		Under construction. Delays previously incurred when reviewing the delivery approach. Operational target 2015/16.
KL487	**Nixon's Corner WwTW Londonderry**	**2014/15**	
KL424	**Magheramason WwTW**	**2014/15**	
KL394	**Drunsurn WwTW**	**2014/15**	
KL386	**Gortnahey WwTW**	**2014/15**	
KI508	UWWTW MCert Compliance		Under construction. Technical issues were encountered with equipment which impacted on delivery timelines. Operational target 2015/16.

Sub-programme 15 and 16 WwTW			
NI Water project Code	**Project title**	**Year claimed**	**Outstanding outputs**
KB459	**Maghera WwTW Upgrade Phase 2**	**2013/14**	
KN656	Castle Archdale WwTW		See note f
KG202	**Aghagallon WwTW**	**2014/15**	See note g
	Waringsford	**2014/15**	See note h

Note

a) Rows in **bold** claimed in 2013/14 and 2014/15 – 35 WwTW in total (17 Nominated WwTW 2013/14, 16 Nominated WwTW 2014/15, 1 PC15 WwTW delivered early – see note e and 1 additional WwTW added from Sub-programme 17- see note h).
b) Scheme KL350 Benone Area Sewage included 6 nominated outputs.
c) Mullaghbane WwTW and Forkhill WwTW PC13 nominated outputs delivered in PC10.
d) Ballymartin achieved beneficial use 2014/15 with Blackrock anticipated in 2015/16.
e) Land issues necessitated combined Kilmore/ Annacloy solution. It is significant to note that Annacloy WwTW was originally scheduled to deliver during PC15 but was successfully delivered during PC13.
f) Castlearchdale WwTW was added to PC13 scope through change control but carried through into PC15: re-profiling into PC15 was due to the requirement for a wildlife survey. The proposed solution remains as an ICW with anticipated beneficial use in 2015/16.
g) Aghagallon WwTW was added to PC13 scope through Change Protocol and delivered in PC13. Significant to note that this scheme has successfully piloted the use of the Moving Bed Biological Reactors (MBBR) process and proven that this has the potential to address issues encountered at Membrane Bioreactor (MBR) sites, delivering improvements in operational performance and efficiency.
h) Waringsford WwTW was delivered through Sub-Programme 17 (RWwIP) but as the upgrade increased the site to over 250 pe, it has been stated as a separate nominated output.

Delivery of improvements to Nominated WwTWs	2012/13	2013/14	2014/15	PC13 Total	PC15 2015/16
PC13 / PC15 FD Nominated WwTWs				**38**	**3**
Impact of CCP02:					
Removals					
Robinsonstown WwTW				-1	
Clabby WwTW				-1	
Additions					
Castle Archdale WwTW				+1	
Aghagallon WwTW				+1	
PC13 Nominated WwTWs after CCP02				**38**	
PC13 nominated WwTW delayed from PC13, now forecast to be delivered in 15/16.					
Castle Archdale WwTW				-1	+1
Artigarvin WwTW				-1	+1
2014/15 MCERT target not achieved				-1	
PC13 nominated WwTW delivered	**2**	**17**	**16**	**35**	
Additional output delivered in PC13 Waringsford WwTW				1	
PC15 nominated output delivered early Annacloy WwTW				+1	-1
Total WwTW in PC13 / Forecast in 2015/16				**37**	**4**

Sub programme 17 – Small Wastewater Treatment Works			
CAR Site Reference	Project title	Year claimed	Outstanding outputs
S00284	Thorney Glen	2013/14	
S00902	Rathlin Island	2013/14	
S03111	Fincarn	2013/14	
S0145	Procklis	2013/14	
S01179	Capecastle	2013/14	
S01456	Mountfield	2013/14	
S02999	Arney	2013/14	
S02136	Katesbridge	2014/15	
S03143	Kileen	2014/15	
S02267	Dorsey	2014/15	
S03085	Dromore	2014/15	
S01146	Culcrow	2014/15	
S02268	Drumilly	2014/15	
S01169	Priestland	2014/15	
S03030	Bolea	2014/15	
S00321	Legacurry	2014/15	
S02150	McCandless Terrace	2014/15	
S01167	Moneydig	2014/15	
S02586	Lisnadill	2014/15	
S02692	Bankside Shinn	2014/15	
S03947	Abbacy Road	2014/15	
S02712	Mountain View	2014/15	
S01632	Noones Vale	2014/15	
S02858	Edencrannon	2014/15	
S03148	Kilskeery	2014/15	

Note
25 sites delivered (7 in 2013/14, 18 in 2014/15). This 25 omits Waringsford claimed separately in Sub-programme 15 and 16 WwTW).

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN- TABLE 41 KEY OUTPUTS
HEALTH & SAFETY INFORMATION (NIW only)

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**OCCUPATIONAL ILL HEALTH**										
1	Employee total	nr	0	1,317	A2	1,304	A2	1,250	A2	1,240	A2
2	Total days lost due to sickness, accident and occupational ill health	nr	0	8,510	A2	9,081	A2	9,962	A2	9,767	A2
3	Total days lost - rate per 1000 employees	nr	2	6,461.66	A2	6,963.96	A2	7,969.60	A2	7,876.61	A2
4	Number of incidents of occupational ill health	nr	0	144	A2	137	A2	142	A2	131	A2
5	Incidents of occupational ill health - rate per 1000 employees	nr	2	109.34	A2	105.06	A2	113.60	A2	105.65	A2
B	**RIDDOR REPORTS**										
6	Total RIDDOR incidents	nr	0	4	A1	10	A1	6	A1	5	A1
7	RIDDOR - rate per 1000 employees	nr	2	3.03	A1	7.67	A1	4.8	A1	4.03	A1
8	3-day accident rate per 1000 employees	nr	2	3.03	A1	7.67	A1	4.8	A1	5.00	A1
9	Major/fatal accident rate per 1000 employees	nr	2	0.00	A1	0.00	A1	0.00	A1	0.00	A1
C	**INCIDENCE OF OCCUPATIONAL ILL HEALTH**										
10	Contractors' employees total	nr	0	No data		No data		No data		NA	0
11	Total days lost due to sickness, accident and occupational ill health	nr	0	No data		No data		No data		NA	0
12	Total days lost - rate per 1000 employees	nr	2	No data		No data		No data		0.00	0
13	Number of incidents of occupational ill health	nr	0	No data		No data		No data		NA	0
14	Incidents of occupational ill health - rate per 1000 employees	nr	2	No data		No data		No data		0.00	0
D	**CONTRACTORS' RIDDOR REPORTS**										
15	Total RIDDOR incidents	nr	0	2	B2	6	B2	6	B2	5	BX
16	RIDDOR - rate per 1000 contractors' employees	nr	2	No data		No data		No data		0.00	0
17	3-day accident rate per 1000 contractors' employees	nr	0	No data		No data		No data		NA	0
18	Major/fatal accident rate per 1000 contractors' employees	nr	2	0.00	B2	0.00	B2	0.00	B2	0.00	A2

Table 41 – Health and Safety Information (NIW only)

Lines 1 - 5 - Lost time

In 2014/15 financial year NI Water lost a total of 9767 working days due to sickness which was equivalent to 7.7 working days lost per employee. The KPI attendance in 14/15 was 96.8% and NI Water delivered an actual rate of 96.5%.

Work continued to ensure that headcount targets contained within the PC13 Determination were achieved. One strand of this work involved the release of 7 employees under the terms of the company's voluntary severance schemes.

HR Advisors in conjunction with Line Managers continued to meet with staff that breached sick absence trigger points to highlight the importance of good attendance and corrective action was taken where appropriate. In 2014/15 we delivered line management training on attendance management and as a result of this line managers now have more accountability in managing the attendance of their staff.

Human Resources also continue to work in partnership with Line Managers, the NI Water Employee Support Officer, Independent Occupational Health, Carecall (our counselling provider) and employees to assist those on long term sick to return to work and to facilitate reasonable adjustments where required.

Our attendance rate has increased marginally from 96.4% in 13/14 to 96.5% in 14/15. A particular trend that has been noted during 2014/2015 was an increase in staff absence with Cold/Flu/Respiratory illnesses in particular during the winter months (716 working days were lost to these illnesses during 2014/2015). As a result of this, and as part of NI Water's overall Health and Wellbeing offering, we are reviewing a proposal to offer flu jabs to staff in 2015/2016.

We also had 1 Death in Service during this year and 5 medical retirements after periods of long-term absences.

Frontline Operators have been attending yearly medical assessments where they are assessed for Hand Arm Vibration, Audio and working in confined spaces. NI Water also provides medical assessment for driving and HGV which is currently carried out by Independent Occupational Health.

Psychiatric/psychological was the highest reason for days lost due to sickness in 2014/15 at 22.4%. This has increased from 2013/14 when the percentage of total working days lost was 18.6%.

NI Water set up a Health and Wellbeing Hub called 'Wellbeing Works' on 1st May 2015. The 'Wellbeing Works' website will provide a range of insightful and supportive information on general Health and Wellbeing topics, as well as news about ongoing internal Health and Wellbeing events and initiatives.

NI Water is also working with Independent Occupational Health to hold Heath checks for staff, which it is hoped will be rolled out in the first instance at two of our work locations during May 2015. In dedicating time and resource to Health and Wellbeing it is hoped that NI Water will improve the health and wellbeing offering for staff to enhance their physical and mental capacity

NI Water's reason for absence reporting differs to the occupational reasons as listed by the Utility Regulator. Our current reporting systems do not specifically record Hand Arm Vibration or work related reasons for absence. In addition to this, work related stress is recorded under the general heading of anxiety/stress/depression.

Due to our failure to meet our KPI, there is a renewed emphasis at both EC and Board to improve our attendance figure but also further develop and implement a number of initiatives to improve the health and well-being for all our staff.

Line 6 – Total RIDDOR incidents

The NIW procedure for reporting accidents and incidents is set out in Procedure PRO 008 within the NIW H&S Manual, revised August 2014. All accidents and incidents must be reported to line management as soon as practical. The independent electronic Risk Reporting System, capable of "tracking accidents" has been in place since 1 April 2009.

It is the relevant Line Manager's responsibility to ensure all accident details are recorded on DATIX.

DATIX entries are examined by the H&S Team and statistical trends are presented monthly by the Head of H&S at Board for discussion.

There were 5 RIDDOR reportable incidents within NIW in 2014/15 and all of these relate to more than 3-day accident-related absences.

NB: While NI Water reports all over 3 day incidents under the RIDDOR Regs.

Line 7 – RIDDOR Rate per 1000 employees

The DATIX process, as described for Line 6 above, provides the total number of RIDDOR incidents while the denominator, the total number of employees has been calculated within the HR Directorate as 1240. This gives the RIDDOR rate per 1000 employees as 4.03 for 2014/15.

Line 8 – 3 day accident Rate per 1000 employees

As all the RIDDOR incidents refer to accident-related absence (ref. line 6 commentary), the information in Line 8 mirrors that of Line 7.

Line 9 – Major Fatal accident Rate per 1000 employees

The information gathering process is again as described for Line 6 above. No fatal injuries occurred in 2014/15.

Lines 10 – 14 - Contractors' lost time

Contractors continue to be engaged in a wide range of work across NIW. However, core activity, from a Health and Safety perspective relates only to the assistance given by contractors in relation to the provision of Water and Sewage services and this includes contractors engaged in the construction of new works (ref. line 15 commentary). NIW has, throughout 2014/15, been engaged in a continuing process of change, regarding the numbers of contractors assisting in the delivery of this core activity, as efficiency measures continue to be put in place,

Given the changing nature of contract provision as outlined above and the variety of work undertaken, NIW has no ready method of calculating the number of contractors' staff engaged in core activity and this is unlikely to change in the short term.

Line 15 – Contractors' RIDDOR reports

The NI public regards all work related with Water and Sewage services, including design and build work, to be closely associated with NIW. NIW, in turn, recognises its duty of care to all of its contractors as "Client", when they are carrying out any works, and therefore see its duty as one of "leadership". NIW therefore keeps a record of all contractor and subcontractor "incidents", which will include any incidents relating to transient workers. NIW encourages the reporting of "near-misses" by contractors to facilitate a shared learning experience.

All Contractor and subcontractor incidents are recorded on DATIX and for 2014/15 the total number of RIDDOR incidents reported to NIW by all of its contractors was 5. Contractor performance is monitored by the NIW Executive Committee and Board at their monthly meetings.

Lines 16 - 17 – Contractor RIDDOR and 3 day accident rates

Information is not collected for this line as NIW, in this period of transition, has no ready method of calculating the numbers of contractors' employees working on NIW contracts.

Line 18 – Contractor major fatal accident rate per 1000 employees

There were no major or fatal accidents connected with NIW's contractors or sub-contractors, including transient workers. This allows this rate to be calculated as zero.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN- TABLE 42 PPP REPORTING
PPP REPORTING
REPORTING YEAR 2014-2015

	DESCRIPTION	UNITS	DP	CG	Corresponding Report	Calculation	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
A	**PROJECT DESCRIPTION**																											
1	PPP Concession	text	na		na		Alpha	Alpha	Alpha	Alpha	Alpha	Alpha	Alpha	Kinnegar	Omega	Omega	Omega	Omega	Omega	Omega	Omega	Omega	Omega	Alpha	Kinnegar	Omega	Water Service	Sewerage Sevice
2	Service Area	text	na		na		WT	WT	WT	WT	WD/WT	WD	WD	WWT	WWT	WWT	WWT	WWT	WWT	WWS	WWS	WWS	WWS	All	All	All		
3	Name of works	text	na		na		Balinrees	Castor Bay	Dunore Point	Moyola	DBFO LM & FKd BDG Cont TK	Ballymoney LM	Limavady LM	Kinnegar	Richhill	Armagh	Ba lynacor	North Down	Ballyrickard	Ballynacor Lagoons	Ballynacor	Duncrue	Sludge Service	Total	Total	Total	Total	Total
4	Commencement date	date	na		na		10/10/2008	09/12/2008	11/12/2008	16/09/2008	16/12/2008	########	15/10/2008	24/05/2001	08/04/2009	########	########	########	########	N/A	31/03/2010	31/03/2010	31/03/2010					
5	Service duration	yrs	0		na		23	23	23	23	23	N/A	N/A	23	23	23	22	24	23	N/A	22	22	22					
6	Service completion date	date	na		na		30/05/2031	30/05/2031	30/05/2031	30/05/2031	30/05/2031	N/A	N/A	23/04/2024	07/03/2032	########	########	########	########	07/03/2032	07/03/2032	07/03/2032	07/03/2032					
B	**PAYMENT TO PPP CONCESSIONAIRE**																											
7	Unitary Charge Capacity	£m	3		na																			16.608			16.608	
8	Unitary Charge Variable	£m	3		na																							
9	Unitary Charge Deductions	£m	3		na																							
10	Atypical expenditure	£m	3		na																							
11	Efficiency Gains, included in 7 & 8	£m	3		na																							
12	Total PPP Payments (7to 10)	£m	3		na	Sum 7 to 10																						
13	Capital repayment	£m	3		na																							
14	Maintenance	£m	3		na																							
15	Residual interest	£m	3		na																							
16	Atypical payments capitalised	£m	3		na																							
17	Total capitalised (13 to 16)	£m	3		na	Sum 13 to 16																						
18	Total PPP Expensed (12-17)	£m	3		na	Lines 12-17																						
19	Interest	£m	3		na																							
20	Total PPP Opex (18-19)	£m	3		na	Line 18-19																						
C	**WATER DISTRIBUTION DATA**																											
21	Distribution input	Mld	2	B2	Table 10 Line 26		30.54	101.00	94.79	14.49														240.82			240.82	
21a	Water Treatment Works Capacity	Mld	0	A1			50.00	147.00	180.00	19.00														396.00			396.00	
22	Length of mains	km	2	A2	Table 11 Line 12						16.42	0.00	0.00											16.42			16.42	
D	**WATER RESOURCE AND TREATMENT DATA**																											
23	Turbidity 95%ile greater or equal to 0.5NTU	1/0	0	A2			0	0	0	0	0													0			0	
24	Turbidity 95%ile less than 0.5NTU	1/0	0	A2			1	1	1	1	1													5			5	
25	Source Type	text		A1	Table 12 Block A		IR x 2 + River	River	River	River	N/A												2 x I.R. 4 x River			2 x I.R. 4 x River	
26	Treatment type	text		A1	Table 12 Block B		W4	W4	W4	W4	N/A													4 x W4			4 x W4	
27	Average pumping head	m.hd	1	B3	Table 12 Block A		127.60	146.60	169.20	149.40	N/A													153.40			153.40	
E	**SEWERAGE DATA**																											
28	Total length of sewer	km	2	B2										0.00	0.00	0.00	10.50	10.63	0.00						0.00	21.13		21.13
29	Total length of critical sewer	km	2	B2										0.00	0.00	0.00	10.50	10.63	0.00						0.00	21.13		21.13
F	**SEWAGE TREATMENT AND DISPOSAL DATA**																											
30	Population equivalent of total load received	000	0	B3	Table 17b line 2									77.55	2.61	17.05	119.98	63.04	40.87						78.000	244.000		322.000
31	Load received by STW's	kg BOD/day	0	B3	Table 17d									4653.00	156.00	1023.00	7199.00	3783.00	2452.00						4653.000	14613.000		19266.000
32	Suspended solids consent	mg/l	0	A1	Table 17b line 3									45/150	20/50	20/50	35/-	35/90	10/30						0.000	0.000		0.000
33	BOD5 consent	mg/l	0	A1	Table 17b line 4									25/80	07/30	08/30	25/50	25/50	10/35						0.000	0.000		0.000
34	COD consent	mg/l	0	A1	Table 17b line 5									125.00	125.00	125.00	125.00	125.00	125.00						0.000	0.000		0.000
35	Ammonia consent	mg/l	0	A1	Table 17b line 6									N/A	02/10	02/10	7.5/32	N/A	N/A						0.000	0.000		0.000
36	Phosphates consent	mg/l	0	A1	Table 17b line 7									N/A	N/A	<1 Ann Avg	<1 Ann Avg	N/A	N/A						0.000	0.000		0.000
37	Classification of Treatment Works	text		A1	Table 17b line 8									SAS	TA1	TA2	TA2	TA2	TA2						0.000	0.000		0.000
38	Size band of sewage treatment works	nr	0	B3	Table 17c									6.00	4.00	5.00	6.00	6.00	6.00						0.000	0.000		0.000
G	**SLUDGE TREATMENT AND DISPOSAL DATA**																											
39	Total sludge imported from NI Water	ttds	3	B2										N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.88	27.71	32.59		N/A	32.591		32.591
40	Sludge produced by the PPP facility	ttds	3	B2										0.67	0.06	0.58	2.27	1.63	1.34	N/A	N/A	N/A	0.00		0.668	5.881		6.549
41	Sludge exported to Duncrue Incinerator	ttds	3	B2										0.67	0.06	0.58	2.27	1.63	1.34	N/A	N/A	N/A	0.00		0.668	5.881		6.549
42	Sludge exported to other PPP facilities	ttds	3	A1										N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00		N/A	0.000		0.000
43	Sludge exported to NI Water	ttds	3	A1										N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00		N/A	0.000		0.000
44	Sludge disposed of from site to - Farmland Untreated	ttds	3	A1	Table 17G Col 1									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00		N/A	0.000		0.000
45	Sludge disposed of from site to - Farmland Convestiona	ttds	3	A1	Table 17G Col 2									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00		N/A	0.000		0.000
46	Sludge disposed of from site to - Farmland Advanced	ttds	3	B3	Table 17G Col 3									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.56		N/A	1.559		1.559
47	Sludge disposed of from site to - Incineration	ttds	3	B2	Table 17G Col 4									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37.50		N/A	37.497		37.497
48	Sludge disposed of from site to - Landfill	ttds	3	B3	Table 17G Col 6									0.06	0.00	0.02	0.02	0.02	0.01	0.00	0.00	0.01	0.08		0.057	0.083		0.140
49	Sludge disposed of from site to - Composted	ttds	3	A1	Table 17G Col 7									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00		N/A	0.000		0.000
50	Sludge disposed of from site to - Land Reclamation	ttds	3	B3	Table 17G Col 8									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.08		N/A	0.084		0.084
51	Sludge disposed of from site to - Other (Willow Coppice	ttds	3	A1	Table 17G Col 9									N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00		N/A	0.000		0.000
52	Sludge disposed of from site - Total	ttds	3	B2										0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.057	39.223		39.279

Table 42 – PPP Reporting

Contracted Adjustments to Payment Mechanisms

Omega: The Company has notified a change in the requirements for Faecal Coliform performance at North Down Ards WWTW in line with its contractual entitlement. This has resulted in the predetermined [redacted] in Unitary Charge on every day outside of the regulatory Bathing Season coming into effect since September 2011.

The Company and the Contractor have agreed the outcome of the mandatory process to correct Ballynacor tariffs and tariff bands in the event that the actual DWF encountered was similar to that determined in the pre contract Flow surveys, and not as low as that upon which the Contractor conditioned his bid tariffs upon. The result of the process is that the tariff for Ballynacor flows is marginally reduced for the remainder of the contract with effect from 1st January 2014

Alpha: The EIB Step Down clause has become effective in the Alpha contract, with a resultant reduction in European Investment Bank interest charging to Dalriada Water, and the Unitary Charge being reduced by the predetermined contractual amounts for the remainder of the EIB loan period (2027). The amounts are, by agreement, deducted monthly from invoices rather than driving a new Unitary Charge tariff at considerable project expense (and loss of benefit).

Changes to the Contracts

Omega: Supplemental Agreement 3

This was executed on August 2011 to clarify the sludge performance requirements and deal with commercial matters surrounding uncertainty of sludge services performed in AIR11 period.

Omega: Supplemental 4

This was executed on 6th April 2012. It clarified the wastewater treatment flow management requirements to a measurable output and in so doing dealt with the commercial issues surrounding disputed underperformance and payment entitlements in this area since May 2008. The Agreement also enabled the Company to reduce its monthly unitary charge liability by [redacted] (indexed) for the remainder of the contract term. A further passing down of rights and obligations in respect of NIE easements was included.

Omega: Change in Contractors Proposals – Duncrue St Centrifuge

In December 2012 the Company accepted a change in the contractor's asset base at Duncrue St, whereby the Contractor installed a Centrifuge in preference to the four belt presses inherited at Service Commencement. Whilst this improvement was funded by the Contractor and not the Company, the Company established an estimated change in electricity consumption liability and the Contractor agreed to fund the additional consumption at current tariffs (+ indexation), through a new payment Clause in the contract – consistent with the risk allocation at contract award.

Omega: Ballynacor Sludge Dewatering Plant Change

A pre-determined Change in the sludge disposal tariff arising from the underperformance of the Company's new Ballynacor Sludge Dewatering Facility following its initial commissioning in 2006/ 2007 during contract negotiations.

The Omega contract was awarded on the understanding the new plant would be capable of producing >22% DS content in the years preceding Service Commencement.

As was the case, records demonstrated the Company was only capable of achieving 19.6% DS operation during this period.

The pre-determined (as agreed at Contract Award) cost reimbursement mechanism applies with the result that a schedule of semi-annual additional payments take place, dating back to Service Commencement in March 2010.

Whilst the Contractor initially disputed the sums due, they finally conceded Company's valuation of such historical and future payments in September 2013.

The cost of this mandatory change is approximately [redacted] every semi-annual period until contract expiry in 2032.

Omega: Duncrue St Weighbridge Calibration Change

The weighbridge is integral to the determination of tonnes dry solid sludge for disposal and thus payment. The weighbridge is calibrated weekly and has never been outside calibration since first used in March 2010. The parties have agreed a cost reduction measure reducing the calibration to every 3 months. The cost saving to the Contractor is [redacted] and is shared 50:50 with the Company. The arrangements have been in effect since 3 December 2013.

Omega: Duncrue St Condenser Change

An Authority Change issued in advance of Service Commencement in 2009 to deal with a defective existing asset. Whilst the work was completed in 2009 the costs were only agreed in late 2013, with payment by the Company in 2014/15

Omega Small Works NDA Access Change

A [redacted] Change to pay for securing alternative access road at North Down Ards; a legacy from Water Service Deed of purchase of NDA lands in 2005 where the seller had the **right to close up existing NDA access and provide alternative access and a Deed of** Easement. Work is complete but not yet invoiced by the Contractor.

Richill DWF Change

The DWF into Richill WWTW is lower than anticipated at commercial close, resulting in an unjust negative payment to the contractor at low flows due to a pre-agreed constant value for 0.8DWF. The parties have agreed an alternative value for the constant in the payment mechanism.

Kinnegar Supplemental Agreement 2

This commercial agreement resolved historical disputed payments, along with affecting a new odour model for the works, and creating new contractor obligations in terms of regulatory reporting and sampling consistent with current Company obligations not envisaged at the time of procurement.

Kinnegar Clause 10 Payment

A Variation was required in relation to the provision of the Holywood C Pumping Station by NI Water E&P, requiring part of the Leased Premises being returned to Company occupation, and the reimbursement of the Contractors costs with altering the necessary

sewerage infrastructure. These costs amounted to [redacted] value was paid to the Contractor on 30th January 2015.

Alpha Deed of Variation No.3

Amended and restated the contract in respect of all previous changes and corrections made to date.

Alpha Contractor Notice of Change (June 2012)

Reduced the scope of service (i.e. frequency and range of analytical tests) to achieve cost reduction in Unitary charge for the remaining contract period (Deriving [redacted] reduction in Company costs).

Alpha Contractor Change: Standby Generator Capacity for NI Power Grid

A contract change has been put in place to allow the Contractor to make the site generators at two WTW's available to an Aggregated Generation Unit (AGU) company in return for an 'availability charge'. The annual availability charge is estimated to be worth up to [redacted], with 50% of this revenue being netted off the Unitary Charge payable by NIW for the period of the AGU agreement (currently 5 years).

Alpha: Authority Change – Castor Bay to Belfast Pumping Station Upgrade.

To support the increased output to Magheraliskmisk arising from the Castor Bay to Belfast Strategic link main project

Contractual Performance Failures during AIR15 Period
Alpha Performance Deductions

Water Quantity failures are detailed (on a monthly basis) in the Payment Calculation Schedule Tab 5 spreadsheet under the column heading 'CRF' for each Facility. *Total deductions:* [redacted]

Water Quality Failures are detailed on Payment Calculation Tab 9 under the column headed 'QRF' for each Facility. Further details of the exact water quality parameter failed result are detailed on the monthly Exceedance Reports derived from the Company's LIMS system *Total deductions:* [redacted]

Kinnegar Performance Deductions 2014/15

The Company has not applied any performance deductions for the period 2014/15.

Omega Performance Deductions 2014/15

The Company has determined and the Contractor has accepted the following failures on the Wastewater services during the period:

- Overtopping Inlet Screens at Bullay's Hill PS: [redacted]
- Spill of Inlet Flow to Environment at Richhill WWTW: [redacted]
- Odour Failures at Duncrue Sludge Disposal Odour Control Stack: [redacted]
- Emissions Failure at Duncrue Incinerator Stack: [redacted]

The Company has determined and the Contractor has not accepted the following failures on Sludge Services during the period:

- Incinerator Stack Emission Failures: [redacted]
- Failure to receive Authority Liquid Sludge: [redacted]
- Flow Management Failure at Seagoe PS: [redacted]
- Odour Exceedance at Ballynacor WWTW: [redacted]

The Contractor disputes the application of these deductions and the Company has accrued the sums until the disputes are settled.

The Company has withheld sludge payments pending further investigations for the following potential failure events:

- Odour compliant in relation to Sludge disposal: [redacted] The Contractor disputes the application of this withholding and the Company has accrued the sums until conclusive evidence is established.

Contractual Deductions made

- Project Alpha as per Line 9 reporting for each Facility, based on the outputs of the monthly Payment Calculation Schedules. There are no disputed deductions to require an accrual.

- Project Omega; The undisputed deductions listed above totalling [redacted] have been included in this line, as credit notes have been received accordingly. The remaining disputed sums, and those of previous AIR periods, totalling [redacted].12 have not been credited and are not therefore reflected in Line 9.

- Project Kinnegar; there are no disputed deductions to require an accrual.

Equipment breakdowns

- The Company does not hold this level of operational detail as the risk has been transferred to the Contractors and passed down to the Operating sub-contractor.

Changes to the Descriptive Reports on the PPP Contracts

There have been no material changes to the PPP Facilities during the period.

Lines 7-20

Note: As the atypical expenditure, efficiencies, performance deductions (Omega) and residual interest (Omega) were not divisible by site the cross tots on lines 9,10, 11, 12, 15, 17, 18 and 20 will not agree to the figures in the total column – the figures included in the total columns are correct for each concession.

Line 7 - Unitary charge capacity

The Unitary Charge Capacity Charge applies to Alpha only. The data used is derived from the invoices received from the Contractor, which separates the Unitary Charge Capacity Charge from the Unitary Variable Charge and the relevant Unitary Charge Performance Deductions, all in accordance with the Payment Mechanism Schedule of the Contract. Costs on this line have increased by an inflationary amount from 2013/14.

Line 8 - Unitary charge variable

The Unitary Charge Variable Charge applies to all three PPP Contracts. The data used is derived from the invoices received from the Contractor which set out the Unitary Charge Variable Charge claimed. There are no payments in respect of the Ballynacor Sludge Facility and the Duncrue St Sludge Facility, rather a payment in respect of the Sludge Disposal Services. In total, costs on this line have [redacted] from 2013/14 driven by a combination of inflation and flow variations in the year.

Line 9 - Unitary charge deductions

By contract definition, where the PPP Contractors invoice to an amount higher than the amount payable in accordance with the relevant Payment Mechanisms, the variance becomes a disputed amount. The Company recognises the disputed amount as an outstanding liability until such time as the Parties choose to have the dispute determined, or agree an amount for payment with credit note issued for closure as appropriate.

Alpha

The Alpha Contractor, through engagement, invoices to the agreed amount which includes the relevant Performance Deductions. These Deductions are in accordance with the Payment Mechanism for failure events identified and can be separated by Facility (Scheme) as per the Payment Mechanism. Performance deductions in 2014/15 were [redacted]

Omega

During 2014/15 [redacted] of performance deductions were recognised by the contractor and credit notes were issued. The details behind each of these are as follows:

Wastewater Services Performance Deductions:
The Company has determined Odour Performance Deductions at Ballyrickard (Jul 13), North Down (Jan 14) and Bullay's Hill (Aug and Nov 14) totalling [redacted]
The company has determined a Flow Management Failure at Richhill in Jul 14 with a [redacted] deduction made and accepted by the Contractor.

Sludge Services Performance Deductions:
The Company applied deductions of [redacted] for odour performance failures in Aug and Sept 14 and [redacted] for sludge disposal failures in Dec 13 and Sept 14 at the Duncrue St Sludge Facility.

Kinnegar

No credits for performance deductions at Kinnegar have been received in the 2014/15 year.

Line 10 - Atypical expenditure

Alpha [redacted]

An agreement is in place to provide for a change in unitary charge arising from the lower number of TUPE transferees than that anticipated at financial close. The parties have agreed to reflect the variance in semi-annual Project Costs as per the Financial Model by making adjustments in the monthly invoice at the end of each Semi Annual Period. To this extent the repayments made in 2014/15 were [redacted]

As a result of the Quality Monitoring Change to the Contract an amount is deducted from the Alpha monthly invoice to reflect the reduced costs from lab services being carried out in house by NIW. The deduction amounted to [redacted] in 2014/15.

In 2014/15 a reduction of [redacted] was realised in the unitary charge tariffs resulting from the EIB step-down. This was a pre-set change in the [redacted] finance provided by EIB, conditional upon achieving operational performance and Special Purpose Company (SPC) debt cover ratio targets.

An amount of [redacted] was deducted from the Alpha invoices in 2014/15 to reflect NIW's share of a third party payment for making generator facilities available to an Aggregated Generator Unit (AGU).

Kinnegar [redacted]

In 2014/15 [redacted] was paid to Coastal Clearwater for the variation of leased lands and accommodating capital works to enable NIW construction of a new wastewater pumping station on land previously part of the Kinnegar site.

Omega [redacted]

The North Down Disinfection Change implemented in Sept 2011 resulted in a [redacted] efficiency saving in 2014/15. This was a Service Level Adjustment change in treated effluent performance requirements to reflect the lower standards of the Water Order Consent.

As a result of Omega Supplemental Agreement 4, executed in 2011/12, an amount is deducted from the monthly invoice to reflect the change in wastewater flow management performance requirements. The deduction amounted to [redacted] in 2014/15.

During 2013/14 a service level change was implemented relating to the frequency of calibration of the Sludge Cake Weighbridge at Duncrue St. This resulted in a [redacted] in 2014/15.

[redacted] was accrued in 2014/15 for additional Omega costs associated with the industrial action in Dec 14/Jan 15. This has been based on claims submitted by the contractor.

[redacted] was accrued for an NIW agreed liability to pay for a revised access road entrance at North Down and Ards WWTW.

Line 11 - Efficiency Gains

The Company has transferred the cost risk of service provision (other than where relating to a Change in Law) to the Concessionaires, excluding the cost of electricity in Alpha and Omega. In so doing, the Concessionaires carry the downside risk of costs materializing and the benefits where they do not. The Company does not have the right to cost savings for **the same level of service** where the contractor has internally identified means of securing such savings.

Post procurement any reduction in the Company PPP Unitary charge costs (whether identified by the Company or the Concessionaires) emanate only from a Change in the level of service.

The following Changes for cost reduction have resulted in efficiency gains in 2014/15 against the baseline contract at award:

Alpha

The reorganisation costs [redacted] quality monitoring change [redacted] and [redacted] for the AGU payment [redacted] all detailed above are efficiency gains arising in the 2014/15 year.

Omega

The North Down Disinfection Change implemented in Sept 2011 resulted in a [redacted] in 2014/15.

Supplemental Agreement 4 executed in 2011/12 reflecting a change in wastewater flow management performance requirements resulted in a [redacted] in 2014/15.

The change in weighbridge calibration frequency implemented in 2013/14 resulted in [redacted] this year.

Kinnegar

No Contract Changes for cost reduction have been implemented during the Reporting Period.

Line 13 - Capital repayments

This line reflects the element of Alpha payments paying off the finance lease creditor. The data is consistent with the Company's financial accounts. The site split of the capital repayment is calculated as follows:

Capital Repayment and Interest	Capacity Charge by Site	Capital Maint	Interest/ Capital	Pro Rata Interest	Pro Rata Capital
Dunore Point	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Castor Bay	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Moyola	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Ballinrees	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Ballymoney LM	[redacted]		[redacted]	[redacted]	[redacted]
Limavady LM	[redacted]		[redacted]	[redacted]	[redacted]
CB to FB LM	[redacted]		[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

(The above table is an extract from an excel spreadsheet with totals based on rounded values)

Line 14 - Capital maintenance

Capital maintenance is allocated straight line across the life of the contract following a change implemented in 2013/14. This correctly reflects that the unitary charge does not fluctuate with changes in the capital maintenance spend in any year. This straight line amount has been allocated to the sites on the basis of the total amounts included in the original Alpha financial model as follows:

Capital Maintenance	To End per Fin Model	After Indexation	2014/15
Dunore Point	[redacted]	[redacted]	[redacted]
Castor Bay	[redacted]	[redacted]	[redacted]
Moyola	[redacted]	[redacted]	[redacted]
Ballinrees	[redacted]	[redacted]	[redacted]5
	[redacted]	[redacted]	[redacted]

(The above table is an extract from an excel spreadsheet with totals based on rounded values)

Line 15 - Residual interest

As Kinnegar and Omega are off balance sheet an element of the unitary charge is capitalised to reflect residual value in NIW accounts at the end of the contract – figures taken from Contractors Financial Models. The total for Omega is not divisible by Facility (Scheme).

Line 16 - Atypical payments capitalised

Nil

Line 19 - Interest

As Alpha is an on-balance sheet PFI contract the Company has recognised a finance lease creditor on its balance sheet - this figure represents the notional interest on the finance lease. The data is consistent with the Company's financial accounts. See point 13 above for site allocation workings.

The Company's statutory accounts have been prepared on an IFRS basis in 2014/15. The amounts disclosed in lines 12, 13, 14, 15, 19 and 20 are all consistent with the figures in the Company's financial accounts pre IFRS adjustments.

A breakdown of the accruals included in the year end accounts in relation to each of the PPP contracts is as follows:

	Alpha	Omega	Kinnegar	Total
	£m	£m	£m	£m
Unitary Charge	[redacted]	[redacted]	[redacted]	[redacted]
Disputed Amts	[redacted]	[redacted]	[redacted]	[redacted]
Claims	[redacted]	[redacted]	[redacted]	[redacted]
Other	[redacted]	[redacted]	[redacted]	[redacted]

An amount of [redacted] included in unitary charge accruals of [redacted] relates to the outstanding monthly invoices for February and March unpaid at 31 March 2015. Also included in this amount is [redacted] of additional unitary charge arising from the Ballynacor TDS mandatory contract change which became effective from 1 April 2010 and was agreed during 2013/14.

The [redacted] of disputed amounts arise from 2013/14 and 2014/15 Omega disputes in relation to performance deductions.

The [redacted] is unchanged from the 2013/14 accrued amount.

The other accruals include [redacted] for contractor claims for additional costs associated with the industrial action during the year and [redacted] for NIW's agreed liability for a new access gate at North Down and Ards WWTW.

Line 21 - Distribution input

Data has been updated to reflect the methodology in Table 10 Line 26, where the variance in demand from the PPP sites placed by the Company, along with the variation in total water into distribution delivered by the Company contrive to give a new calculated figure for the individual sites and the Alpha contract as a whole.

Line 21a – Water treatment works capacity

There has been no change to the minimum required capacity of the Alpha WTW under the contract.

Lines 23 – 24 - Turbidity

Background – Year on Year

During the period 2005 to date, a number of non-compliant water treatment works (WTWs) and small sources have either been completely replaced with new works, or else taken out of service as and when a replacement supply is available. During 2008, 5 existing major WTWs were replaced/upgraded as part of the Alpha PPP project. This contributed to the closure during 2009 of 6 non-compliant small water treatment works/sources.

During 2010 a further 2 non-compliant small water treatment works/sources were also closed. However, these were temporarily reinstated during the 2010-11 freeze/thaw incident to supplement strained water supplies.

During 2011 a further 3 non-compliant small water treatment works/sources were also closed.

For 2013, the WTWs in service have now stabilised with 20 NIW sites and 5 PPP.

The guidance now requires that the PPP sites are solely assessed in this table.

The calculations were carried using the following data criteria:

- Only scheduled audit final water samples lifted to meet Water Supply regulatory requirements during the calendar year were used, and using accredited laboratory analyses rather than onsite analyses.
- Only those WTWs which had more than 11 months' worth of data or had temporary out of service gaps were included. This led to no PPP sites being excluded.

2014 PPP WTW Included in calculations

WTW Code	WTW Name	Turbidity 95 %ile	>= 0.5 NTU
W1301P	Moyola PPP	0.162	0
W1701P	Ballinrees PPP	0.209	0
W2308P	Castor Bay PPP	0.226	0
W3301P	Dunore Point PPP	0.187	0
W3315P	Forked Bridge PPP	0.204	0

Line 25 – Source type

This data had changed in AIR13 to reflect the NI Water opinion that Ballinrees WTW should define three sources i.e. Ballinrees IR, Altikeeragh IR and an intake from the River Bann. All other WTW defined Sources remain unchanged from AIR 13. The changes have been reflected in Table 12.

Line 27 – Average pumping head

The APH for 'Alpha Total' and 'Water Services Total' has complied with the requirements of Table 42 Line 27 guidance notes, wherein the Company use the PPP Distribution Input utilised in AIR15.

Line 30 – population equivalent of total load received

Variation in calculated pe stems from variation in the measured sewage loads delivered to the sites by the Company, being the only variable part of the pe calculation.

Line 31 - Load received by STW's

Variation in calculated load stems from variation in the measured sewage loads delivered to the sites through the Company's sewer network.

Line 39 - Total sludge imported from NI Water

From the 31 March 2010 the Omega Contractor has assumed responsibility for disposal of all NI Water sludges. The total Sludge imported from NI Water operated WWTW is recorded as 32.591 TTDS for the AIR15 period (last year the figure was 31.687 TTDS).

Lines 40 - Sludge produced by the PPP facility

Whilst the total sludge production recorded against each PPP contract and PPP as a whole is broadly consistent with last year's records, the records for each of the individual Omega sites are different from those recorded in AIR14.

The variations are tabulated below;

PPP Production	AIR15	AIR14	AIR13	AIR12	AIR11	AIR10
Armagh WWTW	0.579	0.547	0.535	0.570	0.759	0.84
Richhill WWTW	0.063	0.071	0.065	0.066	0.213	0.21
Ballynacor WWTW	2.269	2.007	2.069	3.330	2.468	2.29
Ballyrickard WWTW	1.337	1.126	1.158	1.225	1.627	1.717
NDA WWTW	1.633	1.920	1.628	1.559	1.753	1.654
Kinnegar WWTW	0.668	0.643	0.726	0.823	0.792	0.7
Omega Screenings and Grit	0.083	0.088	0.106			
Kinnegar Screenings and Grit	0.057	0.047	0.022			
Totals	6.689	6.449	6.309	7.573	7.612	7.411

The change in Kinnegar is potentially the return to a more standardised loading profile as in earlier years; additionally the figure collated has utilised the %DS obtained by Glen Water in relation to the imports from Kinnegar which standardises the overall Sludge calculation but is at variance with the Kinnegar self-calculation. This differential would account for 0.032 TTDS.

The changes in sludge production records data for Omega reflect a probable combination of

(i) Cumulative tolerances in the representative nature of dry solids sampling and flowmeter accuracy (particularly on smaller sites)
(ii) a mix of improved methodologies and record keeping systems for liquid and cake movements (as demanded by the Omega contract payment processes) implemented by end of AIR11, and
(iii) the loads delivered to the PPP contractor from the NI Water sewer network, outside the PPP contractor's control, and
(iv) The timing of data capture, where prolonged dry periods can have a fluctuating effect from year to year on absolute values

Line 41 - Sludge exported to Duncrue Incinerator

Variances are accounted for in Line 40 commentary above.

Lines 44 - Sludge disposed of from site to - Farmland Untreated

Nil disposals arising from the Contractor's choice of alternative compliant disposal routes.

Lines 45 - Sludge disposed of from site to - Farmland Convestional

Nil disposals, arising from the Contractor's choice of alternative compliant disposal routes.

Lines 46 - Sludge disposed of from site to - Farmland Advanced

A full year service resulted in 1.559 TTDS arising from the Contractor's choice of alternative compliant disposal routes. This is at variance from the 0.384 TTDS report in AIR14.

Lines 47 - Sludge disposed of from site to - Incineration

A full year service resulted in 37.497 TTDS being incinerated as the contractor's preferred method of disposal, this being a larger amount than reported in AIR14.

Lines 48 - Sludge disposed of from site to - Landfill

A full year service resulted in 0.140 TTDS arising from the Contractor's choice of alternative compliant disposal routes. The value represents only both PPP Contractors sludges arising from grit and/or screenings removed directly from the sites to landfill; which is larger than that 0.128TTDS reported in AIR14. 0 TTDS of dewatered sludge cake was disposed to landfill.

Lines 49 - Sludge disposed of from site to - Composted

A full year service resulted in 0 TTDS arising from the Contractor's choice of alternative compliant disposal.

Lines 50 - Sludge disposed of from site to - Land Reclamation

A full year service resulted in 0.084 TTDS arising from the Contractor's choice of alternative compliant disposal routes. AIR14 reported a disposal of 0.409 TTDS.

Lines 51 - Sludge disposed of from site to - Other (Willow Coppice)

A full year service resulted in 0 TTDS arising from the Contractor's choice of alternative compliant disposal routes. Air 14 reported a disposal of 0.657 TTDS.

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN- TABLE 43 PPP REPORTING
PPP REPORTING - OPERATIONAL COSTS
REPORTING YEAR 2014-2015

	DESCRIPTION	UNITS	DP	Corresponding Report	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	SCHEME	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
A	**PROJECT DESCRIPTION**				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	PPP Concession			na	Alpha	Alpha	Alpha	Alpha	Alpha	Alpha	Alpha	Kinnegar	Omega	Omega	Omega	Omega	Omega	Omega	Omega	Omega	Alpha	Kinnegar	Omega	Water Service	Sewerage Service
2	Service Area			na	WT	WT	WT	WT	WD	WD	WD	WWT	WWT	WWT	WWT	WWT	WWT	WWS	WWS	WWS	All	All	All	All	All
3	Name of works			na	Balinrees	Castor Bay	Dunore Point	Moyola	DBFO LM	Ballymoney LM	Limavady LM	Kinnegar	Richhill	Armagh	Ballynacor Craigavon	North Down	Ballyrickard	Ballinacor Lagoons	Ballynacor	Duncrue	Total	Total	Total	Total	Total
B	**PPP INFORMATION**																								
4	Payment to Concessionaire	£m	3	Table 42 Line 12	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
5	Payment by Concessionaire to Operating Company	£m	3		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
C	**DIRECT COSTS TO NI WATER**																								
6	Power	£m	3		0.804	2.142	2.112	0.416	0.000			0.000	0.043	0.153	0.581	0.984	0.278	0.000	0.216	1.385	5.474	0.000	3.640	5.474	3.640
7	Other direct costs	£m	3		0.055	0.009	0.009	0.008													0.081	0.000	0.000	0.081	0.000
8	Total direct costs	£m	3	sum 6 + 7	0.859	2.151	2.121	0.424	0.000	0.000	0.000	0.000	0.043	0.153	0.581	0.984	0.278	0.000	0.216	1.385	5.555	0.000	3.640	5.555	3.640
9	General and support expenditure	£m	3		0.008	0.009	0.009	0.008	0.008	0.008	0.008	0.036	0.026	0.026	0.027	0.027	0.027		0.026	0.027	0.058	0.036	0.186	0.058	0.222
10	Total functional expenditure	£m	3	sum 8 + 9	0.867	2.160	2.130	0.432	0.008	0.008	0.008	0.036	0.069	0.179	0.608	1.011	0.305	0.000	0.242	1.412	5.613	0.036	3.826	5.613	3.862
D	**OPERATING EXPENDITURE - NI WATER**																								
11	Scientific services	£m	3		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.004	0.004	0.012	0.004	0.007	0.000	0.000	0.000	0.000	0.044	0.031	0.000	0.075
12	Rates	£m	3		0.410	1.360	1.354	0.198	0.000	0.000	0.000	0.294	0.009	0.076	0.309	0.091	0.073	0.000	0.056	0.103	3.322	0.294	0.717	3.322	1.011
13	Estimated terminal pumping costs	£m	3									0.000	0.000	0.000	0.180	0.268	0.000	0.000	0.000	0.000		0.000	0.448		0.448
14	Estimated sludge costs	£m	3									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.298	7.265		0.000	7.563		7.563
E	**TOTAL PPP OPERATING EXPENDITURE**																								
15	Total PPP operating expenditure	£m	3	Sum 5, 10, 11 and 12	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Table 43 - PPP Reporting – Operational Costs

Note: As the atypical expenditure, efficiencies and performance deductions (Omega) were not divisible by site the cross tot on line 4 for Alpha and Omega will not agree – the total included in the total column is correct for the Payments to the Concessionaire.

Line 4 – Payment to concessionaire

The figures on this line are taken directly from line 12 of table 42 and any significant changes from AIR14 have been commented on in the commentary to that table.

Alpha

The data is derived from the Contractors monthly invoice and can be split on a site-by-site basis and in each case represents the sum of the Unitary Charge payments (Capacity + Variable – Deductions) agreed with the Contractor.

It also includes atypical amounts as follows:

Quality Monitoring Change credit	[redacted]
EIB Step-down	[redacted]
Refund in respect of reorganisation costs	[redacted]
Aggregated Generator Unit credit	([redacted]
Total	[redacted]

Kinnegar

The data is provided as an aggregate of the monthly invoiced amounts by the Contractor to the Company. It includes an atypical amount of [redacted] paid to Coastal Clearwater for the variation of leased lands and accommodating capital works to enable NIW construction of a new wastewater pumping station on land previously part of the Kinnegar site.

Omega

The data is provided as an aggregate of the monthly invoiced amounts by the Contractor to the Company in respect of the Services. It includes the disputed amounts where the Contractor has not recognised the Performance Deductions made by the Authority and has not provided a credit note to the original invoice. During 2014/15 [redacted] of performance deductions were recognised by the contractor.

In addition this line includes atypical amounts as follows:

North Down and Ards Disinfection Change	[redacted]
Omega Service Level Adjustment (Supplemental 4)	[redacted]
Change in Weighbridge Calibration Frequency	[redacted]
Costs associated with Industrial Action	[redacted]
NIW Payment for Access Gate at NDA	[redacted]
Total	[redacted]

Line 5 - Payment by concessionaire to operating company

Alpha

This figure is equal to the figure quoted in Line 22a of Table 21. This figure will vary from year to year depending upon volumes of water dispatched, changes in the volumetric charge, deductions incurred and indexation.

Omega

This figure is equal to the figure quoted within Line 21a of Table 22. This figure will vary from year to year depending upon volumes of wastewater delivered, change in sludge volumes delivered for disposal, deductions incurred and indexation.

Kinnegar

This figure is equal to the figure quoted within Line 21a of Table 22. This figure will vary from year to year depending upon volumes of wastewater delivered, change in load delivered, deductions incurred and indexation.

Line 6 - Power

Power costs reported on this line reflect a facility breakdown of the power costs included in tables 21 and 22. This is taken directly from location codes in the Oracle system. [redacted]

Line 7 - Other direct costs

This line includes the cost of abstraction licences at each of the PPP Alpha sites. There are no other direct costs for Kinnegar or Omega.

Line 9 - General and support expenditure

General and support costs have been arrived at by running a report on P101 cost centre. Costs were allocated by scheme on the basis of percentage time spent by each staff member working on each scheme and in the case of consultancy based on actual invoices received. Costs were then allocated straight line across the number of sites included within each concession. No work giving rise to a general and support expenditure allocation was carried out on the Ballynacor Lagoons site during the year hence no costs have been attributed to this site.

Line 11 - Scientific services

Scientific services costs have been allocated to PPP sites on the basis of the percentage of samples attributable to each PPP site, an allocation of staff costs based on actual hours and operational contractor costs on the basis of estimated cost per site visit.

Line 12 - Rates

Alpha

Rates at water supply sites are based on water volumes. In order to allocate a proportion of the rates bill to the Alpha sites the volume of water supplied at each PPP site was taken as a percentage of the total NIW water supplied and this figure was multiplied by the total NIW rates cost.

Kinnegar

Kinnegar rates charge was taken directly from the rates bill.

Omega

The rates figure for each of the Omega sites was taken directly from the rates bills. The bill for the Duncrue site was allocated between PPP and NIW in line with the total area of the site occupied by PPP. PPP occupy 15% of the Duncrue site. The Ballynacor site rates have been split on a 65:35 wastewater to sludge split.

Line 13 - Estimated terminal pumping costs

This line reflects the power costs associated with Seagoe, Bullay's Hill (Ballynacor facility) and Briggs Rock, Millisle and Donaghadee (North Down Facility). These were derived from the Oracle system using the location code for each site.

Line 14 - Sludge costs

This line reflects the costs associated with the PPP sludge facilities at Duncrue Street and Ballynacor.

NORTHERN IRELAND WATER LIMITED- ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 44 OPA INPUT DATA
OVERALL PERFORMANCE ASSESSMENT

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2011-12	CG	2 REPORTING YEAR 2012-13	CG	3 REPORTING YEAR 2013-14	CG	4 REPORTING YEAR 2014-15	CG
A	**WATER SUPPLY**										
	DG2 PROPERTIES RECEIVING PRESSURE/FLOW BELOW REFERENCE LEVEL										
1	Total connected properties at year end	000	1	810.4	A2	818.0	A2	825.0	B2	828.1	A2
2	Properties below reference level at end of year	nr	0	1,748	B3	1,420	B3	1,257	B3	1,082	B3
3	% of total properties at risk of low pressure (OPA Low pressure value)	%	2	0.22	B3	0.17	B3	0.15	B3	0.13	B3
	DG3 PROPERTIES AFFECTED BY UNPLANNED INTERRUPTIONS										
4	More than 6 hours	nr	0	7,023	B3	10,487	B3	6,742	B3	43,767	B3
5	More than 12 hours	nr	0	765	B3	2,607	B3	1,195	B3	25,693	B3
6	More than 24 hours	nr	0	18	B3	1,554	B3	12	B3	13,788	B3
7	Total connected properties at year end	nr	0	810,367	A2	817,960	A2	824,974	B2	828,060	A2
8	OPA supply interruption value	nr	2	0.97	B3	1.98	B3	0.97	B3	11.72	B3
	DRINKING WATER QUALITY										
9	% MZC Iron	%	2	98.15	A1	97.36	A1	98.28	A2	98.90	A2
10	% MZC Managanese	%	2	99.87	A1	99.83	A1	99.79	A2	99.82	A2
11	% MZC Aluminium	%	2	98.77	A1	99.59	A1	99.60	A2	99.80	A2
12	% MZC Turbidity	%	2	99.92	A1	99.70	A1	99.84	A2	99.85	A2
13	% MZC Faecal Coliforms	%	2	99.96	A1	99.89	A1	99.86	A2	99.99	A2
14	% MZC Trihalomethanes	%	2	99.29	A1	97.50	A1	98.50	A2	99.00	A2
15	Average Overall MZC figure (Drinking Water Quality OPA value)	nr	2	99.33	A1	98.98	A1	99.31	A2	99.56	A2
B	**SEWERAGE SERVICE**										
	DG5 SEWER FLOODING - OVERLOADED										
16	Flooding incidents in the year (overloaded sewers)	nr	0	15	B2	189	B2	6	B2	29	B2
17	Flooding incidents (overloaded sewers attributed to severe weather)	nr	0	1	B2	181	B2	5	B2	3	B2
18	Number of domestic properties connected to sewerage system	000	1	618.5	A2	623.3	A2	628.3	B2	630.0	A2
19	% of domestic properties flooded by overloaded sewers (Overloaded sewers OPA value)	%	4	0.0023	B2	0.0013	B2	0.0002	B2	0.0041	B3
	DG5 SEWER FLOODING - OTHER CAUSES										
20	Flooding incidents (other causes - equipment failures)	nr	0	4	B2	15	B2	14	B2	2	B2
21	Flooding incidents (other causes - blockages)	nr	0	17	B2	22	B2	36	B2	36	B2
22	Flooding incidents (other causes - collapses)	nr	0	2	B2	4	B2	5	B2	12	B2
23	Number of domestic properties connected to sewerage system	000	1	618.5	A2	623.3	A2	628.3	B2	630.0	A2
24	% of domestic properties flooded by other causes (Other causes OPA value)	%	4	0.0037	B2	0.0066	B2	0.0088	B2	0.0079	B3
	DG5 PROPERTIES ON THE FLOODING REGISTER										
25	2 in 10 register at end of year	nr	0	17	B2	30	B2	62	B2	48	A2
26	Removed by company action	nr	0	23	A1	20	A1	3	B2	5	A2
27	1 in 10 register at end of year	nr	0	10	B2	10	B2	8	B2	8	A2
28	Number of domestic properties connected to sewerage system	000	1	618.5	A2	623.3	A2	628.3	B2	630.0	A2
29	% of domestic properties considered to be at risk of flooding by sewage (At risk OPA value	%	4	0.0073	B2	0.0088	B2	0.0110	B2	0.0090	A2
C	**SECURITY OF SUPPLY**										
	DG4 HOSEPIPE RESTRICTIONS										
30	Hosepipe retrictions (OPA value)	%	0	0	A1	0	A1	0	A1	0	A1
	LEAKAGE										
31	Leakage (Target)	nr	2	171.00		168.00		169.00		165.00	
32	Leakage (Actual)	nr	2	168.32	B4	161.75	B4	167.21	B3	165.99	B3
33	% of leakage target not met (Leakage OPA value)	nr	2	1.34	B4	0.00	B4	0.00	A1	0.00	B3
	SECURITY OF SUPPLY - ABSOLUTE PERFORMANCE										
34	Security of supply index – company's actual based on planned level of service (Absolute performance OPA value)	nr	0	100	A2	100	A2	100	A2	100	A2
	SECURITY OF SUPPLY - PERFORMANCE AGAINST TARGET										
35	Security of supply index - planned (target) levels of service	nr	0	100	A2	97	A2	97	A2	100	A2
36	Security of supply index - company's actual based on planned level of service	nr	0	100	A2	100	A2	100	A2	100	A2
37	% of target not met (Performance against target OPA value)	%	2	0.00	A2	0.00	A2	0.00	A2	0.00	A2
D	**CUSTOMER SERVICE**										
	DG6 - RESPONSE TO BILLING CONTACTS										
38	Number dealt with within 5 working days	nr	0	92,808	B2	77,118	B2	78,398	B2	75,520	B2
39	Total billing contacts	nr	0	92,832	B2	77,051	B2	78,463	B2	75,545	B2
40	% of billing contacts answered within 5 working days (DG6 OPA value)	%	2	99.97	B2	100.09	B2	99.92	B2	99.97	B2
	DG7 - RESPONSE TO WRITTEN COMPLAINTS										
41	Total written complaints	nr	0	2,340	B2	3,173	B2	2,505	B2	2,364	B2
42	Number dealt with within 10 working days	nr	0	2,323	B2	3,166	B2	2,498	B2	2,363	B2
43	% of written complaints answered within 10 working days (DG7 OPA value)	%	2	99.27	A1	99.78	A1	99.72	A1	99.96	A1
	DG8 - BILLING METERED CUSTOMERS										
44	Company or customer readings (or both)	nr	0	66,057	A1	66,622	A1	66,840	A1	66,916	A1
45	Total metered accounts	nr	0	103,876	A1	110,164	A1	115,227	A1	118,732	A1
46	Metered accounts excluded from indicator	nr	0	36,388	A1	42,688	A1	47,784	A1	51,214	A1
47	% of metered accounts which have meter based bills (DG8 OPA value)	%	2	97.88	A1	98.73	A1	99.11	A1	99.11	A1
	DG9 TELEPHONE CONTACT										
48	Total of calls not abandoned	nr	0	229,270	A2	216,006	A2	223,256	A2	226,204	A2
49	Total calls received on customer contact lines	nr	0	231,245	A2	219,399	A2	226,881	A2	230,847	A2
50	% calls not abandoned (0.25 of DG9 OPA value)	%	2	99.15	A2	98.45	A2	98.40	A2	97.99	A2
51	All lines busy	nr	0	0	A2	0	A2	0	A2	32	A2
52	% calls not engaged (0.25 of DG9 OPA value)	%	2	100.00	A2	100.00	A2	100.00	A2	99.99	A2
53	Call handling satisfaction (0.5 of DG9 OPA value)	nr	2	4.57	A1	4.54	A1	4.63	A1	4.65	A1
E	**ENVIRONMENTAL PERFORMANCE**										
	POLLUTION INCIDENTS										
54	Number of High & Medium category pollution incidents (Sewage)	nr	0	44	A1	18	A1	26	A1	25	A1
55	Equivalent population served (resident)	000	2	2,126.74	C5	2,107.96	C5	2,131.81	C5	2,110.77	C5
56	Number of High and Medium sewage incidents per million resident population equivalent (pe) served (H&M sewage incidents OPA value)	nr	2	20.69	C5	8.54	C5	12.20	C5	11.84	C5
57	Number of Low category pollution incidents (Sewage)	nr	0	202	A1	163	C5	188	A1	136	A1
58	Number of Low sewage incidents per million resident population equivalent (pe) served (Low sewage incidents OPA value)	nr	2	94.98	C5	77.33	C5	88.19	C5	64.43	C5
59	Number of High & Medium category pollution incidents (Water)	nr	0	0	A1	0	A1	0	A1	0	A1
60	Winter population	000	2	1,823.89	C2	1,842.61	C2	1,850.54	C2	1,862.72	C2
61	Number of High and Medium water incidents per million resident population served (H&M water incidents OPA value)	nr	2	0.00	C5	0.00	C5	0.00	C5	0.00	C5
	SEWAGE - SLUDGE DISPOSAL										
62	Percentage unsatisfactory sludge disposal (Sludge disposal OPA value)	%	2	0.00	A2	0.00	A2	0.00	A1	0.00	A1
	SEWERAGE SERVICE - BREACH OF CONSENT										
63	WWTW Discharge consent % compliance (WWTW compliance OPA value)	%	2	3.56	C5	1.10	C5	1.89	C5	1.54	C5

NORTHERN IRELAND WATER LIMITED - ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN- TABLE 45 KEY OUTPUTS
ENERGY CONSUMPTION AND GREENHOUSE GAS ACCOUNTING

	DESCRIPTION	UNITS	DP	1 NIW	CG	2 PPP	CG	3 NIW Total	CG
A	**ELECTRICITY CONSUMPTION**								
1	Grid electricity purchased (excluding renewable energy)	MW.hr	0	130453.3	A1	11779.2	A1	142,232	A1
2	Grid electricity purchased - renewable energy	MW.hr	0	64367.63	A1	84701.9	A1	149,070	A1
3	Non-renewable electricity generated and used	MW.hr	0	0	A1	0	A1	0	A1
4	Renewable electricity generated and used	MW.hr	0	359	A1	1,267	A1	1,627	A1
5	Total electricity consumption	MW.hr	0	195180.3	A1	97748.34	A1	292,929	A1
6	Non-renewable electricity generated and exported to the grid	MW.hr	0	0	A1	0	A1	0	A1
7	Renewable electricity generated and exported to the grid	MW.hr	0	2,386	A1	0	A1	2,386	A1
8	Total renewable enegry generated	MW.hr	0	2,745	A1	1,267	A1	4,012	A1
B	**GROSS ANNUAL OPERATIONAL GHG EMISSIONS**								
B.1	**Scope 1 Emissions**								
9	Direct emissions from burning fossil fuels (including natural gas CHP generation on si	$t.CO_2 e$	0	2,999	B6	2,609	C3	5,607	C3
10	Process and fugitive emissions	$t.CO_2 e$	0	4,031	DX	4,658	C5	8,689	C3
11	Transport: company owned or leased vehicles	$t.CO_2 e$	0	2,602	A2	222	D6	2,824	B3
B.2	**Scope 2 Emissions**								
12	Total grid energy used (including CHP electricity purchased).	$t.CO_2 e$	0	96,290	A1	47,686	A1	143,976	A1
B.3	**Scope 3 Emissions**								
13	Business travel on public transport and private vehicles used for company business	$t.CO_2 e$	2	608.81	A2	0.00	NA	608.81	A2
14	Outsourced activities (if not included in Scope 1 or 2) Energy and other	$t.CO_2 e$	2	0.00	NA	12804.48	C3	12804.48	C3
15	Not used								
16	Not used								
17	Gross operational emissions	$t.CO_2 e$	0	106,530	A2	67,979	B2	174,509	A2
C	**Net annual operational emissions**								
18	Exported renewables (generated on-site and exported)	$t.CO_2 e$	2	-1091.50	A1	0.00	NA	-1091.50	A1
19	Green tariff electricity purchased	$t.CO_2 e$	2	0	NA	0	NA	0	NA
20	Net operational emissions	$t.CO_2 e$	0	105438.5	A2	67978.88	B2	173417.4	A2
D	**ANNUAL OPERATIONAL GHG INTENSITY RATIO VALUES**								
21	Operational GHG per Ml of treated water	$t.CO_2 e/Ml$	3	332.710	A2	366.540	C3	346.990	A2
22	Operational GHG per Ml of sewage treated (flow to full treatment)	$t.CO_2 e/Ml$	3	1906.400	CX	844.910	C3	898.350	C3
23	Operational GHG per Ml of sewage treated (based on water distribution input)	$t.CO_2 e/Ml$	3	608.580	CX	551.190	C3	586.050	CX
E	**RENEWABLE INCENTIVES**								
24	Revenue from renewable energy sales and incentives	£000	3	218.330	A1	0.000	0	218.330	A1

Table 45 – Energy Consumption and Greenhouse Gas Accounting

Definition

Table 45 contains data relevant to the Company's energy consumption and greenhouse gas accounting as requested for the AIR15 return.

Processing rule:

Table 45 has been populated in line with guidance provided by NIAUR and contains data sets both internal and external as required and as set out within the sections detailed below.

Table 45 reports emissions generated by the Company and outsourced PPP concessions working for the appointed business in carrying out any part of its regulated activities.

Table 45 reports emissions generated by the Company and by outsourced PPP concessions in separate columns and also calculates a Company total.

Reporting outputs

Table 45 has been populated in line with the reporting requirements outlined in the methodology statement for this table and this is detailed further below.

Data has been provided in Table 45 for energy consumption, gross and net tonnes CO_2e of operational emissions, GHG intensity ratios and revenue from the sale of renewable electricity and other incentives.

Lines 1 – 8 - Electricity consumption

This section provides data relevant to the total electricity consumption within NI Water and PPP concessions, a breakdown by renewable and non-renewable energy sources and data related to company generated renewable electricity.

The Company has purchased and self-generated circa 52.26% of its total electricity consumption from renewable sources within the reporting period.

Self-generated renewable electricity has been via hydro and solar schemes across several sites and a steam turbine at the Incinerator. The outputs are detailed in Table 1.

Table 1

Site	kWhrs
Fofanny	334,164
Oaklands	177,236
Silent Valley	2,208,401
Incinerator	1,267,244
Antrim	9,569
Lisnaskea	10,581
Newry	5,115

Further investigatory work is ongoing to enable installation of hydro and wind turbine systems at other sites. These will likely occur within the next Regulatory period.

The level of self-generation is further complemented by procurement of renewable electricity from the SEM. NI water has built into the electricity contract that around 25% of

consumption would be from good quality climate change levy exempt renewable sources. This is achieved by placing a specific schedule of c26 sites on a green supply. In addition a supplier for another schedule of 4 sites, c25%, has also provided green energy therefore currently 50% of electricity supplied to NI Water is green.

Lines 9 – 17 - Gross annual operational GHG emissions (Lines 15 and 16 not used)

This section provides gross annual operating GHG emissions in tonnes CO_2e within NI Water and PPP concessions, broken down as follows:

- direct emissions from burning fossil fuels;
- process and fugitive emissions and
- transport emissions

Emissions have been reported under Scope 1, 2 and 3 headings and these are detailed further below.

Scope 1 (lines 9-11) report on all emissions emitted directly from the company's appointed activities. This includes direct emissions from burning of fossil fuels, direct process emissions and transport owned or leased by the company.

Scope 2 (line 12) reports on all emissions indirectly emitted as a result of electricity usage.

Scope 3 (lines 13 - 14) reports on all other indirect emissions not included in scope 2. Scope 3 emissions will be those from business travel on public transport and private vehicle usage for company business (line 13)

Lines 18 – 20 - Net annual operation emissions

This section reports on net annual operational emissions derived from renewable energy generated onsite and then exported (line 18) and green energy purchased (line 19). These reductions have been subtracted from the gross emissions value (line 17) to provide a net operational emissions figure in (line 20).

Lines 21 – 23 - Annual operating GHG intensity ratio values

This section provides annual operating GHG intensity ratios in tonnes CO_2e per mega litre for the provision of water and sewerage service using water and waste flows as a denominator. Two intensity ratios have been provided for sewerage service, one using table 14 data as a denominator and one using additional road drainage in-flow. Confidence grading around the latter figure is at CX as the accuracy is not verifiable. Details of intensity ratios are included in Table 2

Table 2

Description	Unit	NIW	PPP	TOTAL	CG
Annual operational emissions intensity ratio per Ml of treated water	tonnes CO_2e/ ML	332.71	366.54	346.99	A2
Annual operational emissions intensity ratio per Ml of treated sewage (FFT)	tonnes CO_2e/ ML	1906.40	844.91	898.35	C3
Annual operational emissions intensity ratio per Ml of treated sewage (DI Input)	tonnes CO_2e/ ML	608.58	551.19	586.05	CX

Calculations for the tonnes CO_2e/ML intensity ration have been generated from the UK Water Industry Carbon Accounting Workbook V9.11 (March 2015) outputs using data from AIR15 Table 10 and Table 14. The confidence grading for the FFT is at CX due to uncertainty over the accuracy of the data provided.

Line 24 - Renewable incentives

This section provides data relevant to Company income from renewable electricity sales and associated incentives such as ROC revenue.

Confidence grades

Confidence grades have been assigned for each line of data and these are based on the criteria set out in the Introduction to the Annual Information Return Reporting Requirements and guidance within the UK Water Industry Carbon Accounting Workbook V9.11

Processing rules and emissions conversion factors

The Company has provided output data within Table 45 as calculated using the Water UK Carbon Accounting Workbook Version 9.11 (March 2015) for greenhouse gas emissions associated with the provision of water, wastewater, sludge disposal, administrative function and transport in its AIR15 return.

Data sources for the AIR15 return have been generated from supplier's monthly consumption figures associated with the use of electricity, gas and other fuels where data is attainable. Estimations have only been used where there is deemed material impact and enough historical information is available with which to estimate quantities.

All energy conversions have been derived from the Carbon Accounting Workbook V9.11 and are aligned to the DECC/Defra guidelines using the relevant emissions factor for kg of CO_2 per measured unit of energy. The calculations are carried out within locked cells in the Carbon Accounting Workbook V9.11

Gross operational emissions reported in Table 45 are the company's total carbon emissions resulting from operational activities.

Nett operational emissions reported in Table 45 are a calculation of gross operational emissions taking into account emissions reductions for on-site renewable energy that is exported and renewable energy that has been purchased.

The t.CO_2e/ML GHG intensity output figure for treated water emissions includes all carbon emissions from the abstraction, treatment and distribution of water, associated administrative and transport emissions divided by the volume of treated water.

The t.CO_2e/ML GHG intensity output figure for treated waste water includes all carbon emissions from waste water pumping, waste water treatment, sludge treatment and disposal, and associated administrative and transport emissions divided by the volume of waste water treated.

The GHG intensity figures for treated water and waste water for the calculations above have been derived from the volumes of water and waste water as reported in tables 10 and 14 of the Company's AIR15 data.

Assumptions

The Company has assumed that the boundary for data collection is any activity associated with the operation of the appointed business. This will include all areas where the company has direct management responsibility such as the PPP concessions.

Additional commentary

The Company can provide details of planned future work in carbon accounting, carbon management, mitigation and adaptation. This development is linked to the Company's developing climate change strategy and in particular it is aligned to Company reporting under the new UK Government Legislation, the Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES).

Assistance to the auditor and reporter

The Company has assisted the Auditor to enable informed judgments about the validity of energy usage and carbon emissions return data.

The Company has assisted the Auditor to confirm that the reporting methodology has been applied correctly and has assisted in the audit process as required to confirm that:

- the Company has adhered to the correct carbon accounting boundaries;
- the Company has used appropriate greenhouse gas conversion factors;
- the Company has appropriate and documented systems, management responsibly and sign off, for its carbon accounting submissions;
- the Company can validate the assumptions made and the reasons behind any omissions; and

The Company will assist the Reporter to enable informed judgments about the validity and necessity of returned data.

Omissions

The following areas have been omitted from the AIR15 submission due to inability to source or lack of access to data.

- Supply chain, embedded and 'short cycle' emissions or those from non-appointed business activities have not been included in the return.
- Outsourced activities from call centres and maintenance contractors.
- Company air travel (estimated at 50 tonnes CO^2e based on AIR10, but not included in the AIR11, AIR12, AIR13 or AIR14 returns).
- Emissions from leakage/maintenance of refrigerant gases from refrigeration and air conditioning equipment.

The GHG emissions associated with the omissions above are believed to be a very small part of the overall GHG emissions reported and as such have no material impact on the data provided.

The GHG omissions above will be addressed in year to enable a fuller return for AIR15 reporting only if deemed in further discussion to have a material impact on the emissions level.

NORTHERN IRELAND WATER LIMITED -ANNUAL INFORMATION RETURN

ANNUAL INFORMATION RETURN - TABLE 46 SERVICEABILITY

SERVICEABILITY RETURN

	DESCRIPTION	UNITS	DP	1 REPORTING YEAR 2004-05	2 REPORTING YEAR 2005-06	3 REPORTING YEAR 2006-07	4 REPORTING YEAR 2007-08	5 REPORTING YEAR 2008-09	6 REPORTING YEAR 2009-10	7 REPORTING YEAR 2010-11	8 REPORTING YEAR 2011-12	9 REPORTING YEAR 2012-13	10 REPORTING YEAR 2013-14	11 REPORTING YEAR 2014-15	12 REPORTING YEAR 2015-16
A	**WATER INFRASTRUCTURE**														
1	Water population	000	2	1,710.06	1,735.00	1,732.85	1,748.53	1,775.11	1,790.16	1,798.48	1,808.82	1,819.47	1,827.79	1,840.54	
2	Total connected properties at year end	000	1		786.1	794.7	800.0	804.4	798.7	806.4	810.4	818.0	825.0	828.1	
3	Total length of mains	km	2		27,114.59	25,972.00	26,067.07	26,349.22	26,435.45	26,441.81	26,499.03	26,700.79	26,710.55	26,712.44	
4	Number of mains bursts (incl Active leakage)	nr	0			5,054	3,611	3,764	3,910	3,634	2,665	2,474	2,299	2,266	
5	Mains bursts per 1000km	nr	1		-	194.6	138.5	142.9	147.9	137.4	100.6	92.7	86.1	84.8	
6	Interruptions to supply greater than 3 hours resulting from equipment failure	nr	0	35,700	24,995	30,360	39,883	36,882	39,040	518,065	44,960	40,697	44,499	111,081	
7	DG3 Properties affected by interruptions >12 hrs (unplanned & unwarned)	nr	0	1,676	1,670	767	1,839	2,010	3,675	214,274	765	2,607	1,195	25,693	
8	DG3 Percentage properties affected by interruptions >12 hrs (unplanned & unwarned)	%	2	0.22	0.21	0.10	0.23	0.25	0.46	26.57	0.09	0.32	0.14	3.10	
9	Number of regulatory samples taken for Iron at customer taps	nr	0	1,962	1,971	1,928	2,012	2,124	2,036	1,736	1,732	1,710	1,876	1,896	
10	Number of regulatory Iron samples exceeding the drinking water standard PCV	nr	0	46	41	45	34	41	43	35	30	47	36	20	
11	Number of regulatory Iron samples exceeding 75% of the drinking water standard PCV	nr	0	108	72	71	64	66	76	55	50	74	62	43	
12	Percentage of regulatory Iron samples exceeding 75% of the drinking water standard PCV	%	2	5.50	3.65	3.68	3.18	3.11	3.73	3.17	2.89	4.33	3.30	2.27	
13	Customer contacts (Discoloured water)	nr	0					4,085	3,840	3,010	2,344	2,464	3,465	2,744	
14	Customer contacts per 1000 population (Discoloured water)	nr	2				-	2.30	2.15	1.67	1.30	1.35	1.90	1.49	
15	Distribution losses	Ml/d	2	141.90	127.76	118.74	111.38	131.49	140.55	130.66	122.02	115.44	127.31	126.08	
16	Company's overall serviceability assessment for water infrastructure	Text	N/A								Stable	Stable	Stable	Stable	
B	**WATER NON-INFRASTRUCTURE**														
17	Number of regulatory samples taken for Turbidity at WTWs	nr	0	9,570	9,884	9,703	9,471	8,949	7,751	7,563	6,927	6,617	6,617	6,460	
18	Number of regulatory samples taken for Turbidity at WTWs which exceed 1.0 NTU	nr	0	254	153	114	50	42	41	29	28	11	18	11	
19	Number of regulatory samples taken for Turbidity at WTWs which exceed 0.8 NTU	nr	0	533	334	169	90	68	65	50	38	16	38	26	
20	Percentage of regulatory samples taken for Turbidity at WTWs which exceed 0.8 NTU	%	2	5.57	3.38	1.74	0.95	0.76	0.84	0.66	0.55	0.24	0.57	0.40	
21	Number of regulatory samples taken for THMs at customer taps	nr	0	1,057	952	704	752	765	784	432	408	392	396	391	
22	Number of regulatory THM samples exceeding the drinking water standard PCV	nr	0	358	239	150	243	141	30	8	3	10	6	4	
23	Number of regulatory THM samples exceeding 75% of the drinking water standard PCV	nr	0	578	439	280	441	289	57	32	21	52	31	34	
24	Percentage of regulatory THM samples exceeding 75% of the drinking water standard PC	%	2	54.68	46.11	39.77	58.64	37.78	7.27	7.41	5.15	13.27	7.83	8.70	
25	Events at WTW resulting from treatment difficulties or ineffective treatment categorised as 'significant' or higher	nr	0				14	27	28	12	28	26	15	23	
26	Number of regulatory samples taken at Service Reservoirs for coliform bacteria	nr	0	18,258	18,232	17,914	17,581	17,408	17,429	16,966	16,862	16,690	16,118	15,640	
27	Number of regulatory samples taken for coliform bacteria at Service Reservoirs exceeding the drinking water standard PCV	nr	0	59	86	68	43	22	24	8	22	27	26	17	
28	Percentage of regulatory samples taken for coliform bacteria at Service Reservoirs exceeding the drinking water standard PCV	%	2	0.32	0.47	0.38	0.24	0.13	0.14	0.05	0.13	0.16	0.16	0.11	
29	Unplanned (reactive) maintenance	%	1										96.4	97.4	
30	Company's overall serviceability assessment for water non-infrastructure	Text	N/A								Stable	Stable	Stable	Stable	
C	**SEWERAGE INFRASTRUCTURE**														
31	Total length of sewers	km	2		13,911.23	14,263.62	14,319.50	14,465.23	14,745.61	14,904.68	15,090.35	15,254.37	15,410.44	15,581.51	
32	Total number of rising main failures	nr	0					25	25	37	26	41	16	11	
33	Total number of gravity sewer collapses	nr	0					1,368	988	1,229	1,191	1,081	1,104	1,325	
34	Total number of sewer collapses	nr	0				677	1,393	1,013	1,266	1,217	1,122	1,120	1,336	
35	Sewer collapses per 1,000km	nr	1			-	47.3	96.3	68.7	84.9	80.6	73.6	72.7	85.7	
36	Total number of sewer blockages	nr	0				16,912	28,010	26,409	26,230	24,444	20,801	18,062	16,729	
37	Sewer blockages per 1,000km	nr	1			-	1,181.0	1,936.4	1,791.0	1,759.8	1,619.8	1,363.6	1,172.1	1,073.6	
38	sewers)	nr	0						38	34	30	14	14	17	
39	Number of H, M and L pollution incidents from sewer network (CSOs, rising mains and foul sewers)	nr	0						244	221	199	137	149	126	
40	Properties flooded in the year (other causes)	nr	0				366	23	5	28	23	41	55	50	
41	Areas flooded externally in the year (other causes)	nr	0				4,283	7,968	6,872	1,314	Not reported	3,212	3,348	4,379	
42	Total number of equipment failures repaired	nr	0				11,715	10,965	10,882	11,492	11,476	10,333	10,899	11,245	
43	Number of pumping station emergency overflows triggered by equipment failure	nr	0									21	18	22	
44	Number of sewer repairs	nr	0						1,013	1,266	1,217	1,122	1,120	1,336	
45	Company's overall serviceability assessment for sewerage infrastructure	Text	N/A								Stable	Stable	Stable	Stable	
D	**SEWERAGE NON-INFRASTRUCTURE**														
46	% WwTW discharges not compliant with numeric consents	%	1	20.0	18.0	16.0	16.0	12.0	12.0	11.7	6.9	6.9	8.2	7.8	
47	% of total p.e. served by WwTWs not compliant with numeric consents excluding upper tier failures	%	2	37.00	33.20	23.10	15.50	9.80	8.60	5.08	4.80	1.68	2.40	1.85	
48	Number of BOD, SS and Ammonia sample results recorded for compliance reporting at WwTWs with numeric consents	nr	0	11,234	11,251	11,461	11,524	9,088	8,747	8,585	8,863	9,161	8,938	8,528	
49	Number of BOD, SS and Ammonia compliance sample results which exceeded their numeric consent value	nr	0	652	817	444	297	363	333	361	279	302	370	299	
50	Percentage of BOD, SS and Ammonia compliance sample results which exceeded their numeric consent value	%	2	5.80	7.26	3.87	2.58	3.99	3.81	4.21	3.15	3.30	4.14	3.51	
51	Number of WwTWs with one or more compliance sample result (BOD, SS or Ammonia) exceeding the numeric consent value	nr	0	104	132	115	99	103	98	102	91	76	87	60	
52	Small WwTW compliance measure	%	2										77.20	79.15	
53	Unplanned (reactive) maintenance	%	1										94.5	96.4	
54	Company's overall serviceability assessment for sewerage non-infrastructure	Text	N/A								Stable	Stable	Stable	Stable	

Table 46 – Serviceability

Line 1 - Water Population

The population data used by NIW has been derived from 2012 based Population Projections obtained from NISRA (Northern Ireland Statistics & Research Agency) website at http://www.nisra.gov.uk/archive/demography/population/projections/wni12cc.xls

NISRA Population Projection figures are based on births, deaths and migration information gathered by NISRA between 1st July and 30th June for each year. Net migration is the overall difference between the in-migration and out-migration for Northern Ireland and is calculated using health card registration and deregistration data for Northern Ireland.

The water population is calculated by deducting the assessed population residing in those properties not connected to the water distribution network.

The population for unconnected properties has been calculated from two sources:

1. The gross number of unconnected household properties is provided by Customer Services
2. The unconnected occupancy is sourced from the NIHE Housing Condition Survey 2011 (statistical annex – Table 5.6)
   http://www.nihe.gov.uk/2011_house_condition_survey_annex_tables__published_october_2012_.pdf

The number of unconnected properties is 7,981 and an occupancy rate is calculated at 0.474 (rounded) to determine a total population for unconnected properties of 3,783. The total supplied population for all connected properties is calculated as 1,840.54 (x1000).

Line 2 – Total Connected Properties at Year End

Table 46 Line 2 has been copied from AIR15 Table 2 Line 1 – Total Connected Properties at Year End

Northern Ireland Water's (NIW) property data is provided via a data download of the property database tables held within the RapidXtra billing system. The data is then manipulated within Microsoft SQL to produce the Rapid Property Summary Report.

The automated Property Model is used to populate the figures within Tables 2, 3, 4, 7, 13, 17a, 44 & 46 - (Rapid Property Summary as the input).

Line 3 - Total length of mains

This figure has been extracted from the Corporate Asset Register. There has been no change to the structure of the data reported on this year from the previous years that would directly affect the total provided. The confidence grade of the data will remain the same as the previous year. There have been no significant improvements in data quality since the AIR14 reports. Any new data will have adhered to the NIW Code of Practice for the submission of asset data ensuring that data quality levels have been maintained throughout the year.

As per the reporters recommendation during the AIR14 audit this figure includes trunk mains that are marked as "Out of Service" on the Corporate Asset Register. This recommendation was made as although these mains are currently out of service they are not abandoned and could potentially come back into service in the future.

Line 4 – Number of mains burst (incl Active leakage)

Mains bursts include all physical repair work to mains from which water is lost which is attributable to pipes, joints or joint material failures or movement, or caused or deemed to be caused by conditions or original pipe laying or subsequent changes in ground conditions (such as changes to a road formation, loading, etc. where the costs of repair cannot be recovered from a third party). Include ferrule failures that are attributable to mains material condition or local ground movements, but not incidents of ferrule failure due to ferrule materials or poor workmanship, or associated with the communication pipe connection.

Exclude maintenance work on valve packings, hydrant seals, air valves etc. For the avoidance of doubt, all leakage occurring at locations or through joint or material failures which would have been designed for the life of the main (irrespective of whether earlier failure occurs) should be regarded as mains bursts. Failure of consumable or maintainable items (valve packings etc.) should be excluded. Exclude valve, hydrant, washout and air valve replacements.

Include incidents of over-pressure or pressure cycling, and surge failures etc., which reflect the system operating conditions, even where these failures are accidental rather than associated with weaknesses in pipe condition.

All third party damage should be excluded where costs are potentially (rather than actually) recovered from a third party. If these incidents are significant they should be reported in the commentary.

Line 6 - Interruptions to supply greater than 3 hours resulting from equipment failure

This serviceability measure was introduced for the first time in AIR13. As a result, the AIR13 commentary covered the historical period 2003/04 to 2011/12 as well as 2012/13. NI Water's AIR14 commentary focused on 2013/14 with references to historical trends. The Company's AIR15 commentary focuses on 2014/15, again with references to historical trends.

1. Limitations in quality or availability of submission

The outturns for the period 2007/08 to 2014/15 should be viewed as more reliable and accurate than the outturns for the period 2003/04 to 2006/07.

The explanatory comments accompanying 'other cause' interruptions for the period 2007/08 to 2012/13 i.e. interruptions not assigned to one of eleven standard causes, varied in terms of both availability and clarity.

2. Assumptions made in the assessment process

As the definition of 'equipment failure' is open to interpretation, NI Water has summarised its interpretation as follows:

Interruptions can be caused by:

- company employees
- contractors working for, or on behalf of the company
- third parties

For the purposes of this assessment, all properties affected by interruptions caused by third parties and company contractors have been excluded.

	Reason for Exclusion
Third Parties	Such interruptions are the result of third party damage/interference and not equipment failures
Engineering Procurement Contractors	The majority of interruptions *(those that are planned and warned)* are the result of mains rehabilitation and not equipment failures
	The small number of interruptions that are unplanned and unwarned are normally the result of human error and not equipment failures
Customer Field Services Contractors	The majority of interruptions are of too short a duration to report
	The small number of reportable interruptions are normally the result of human error and not equipment failures

NI Water has been capturing information on the cause of interruptions since February 2007 to date by assigning one of eleven standard causes to each interruption record *(to June 14)* and one of eighteen standard causes *(from July 14)*. During this time, when an interruption was not attributed to one of the standard causes, for example, main abandoned / altered / diverted, it was assigned to the 'other' causes category and in the majority of cases, explanatory comments were provided although the level of clarity varies.

The following table lists the nineteen standard causes of interruption under which all interruption records are currently categorised since the introduction of the Central Incident Management System (CIMS) in July 2014.

	Standard Cause	**Assessment**	**Reason**
1	Burst Main/Main Repair	Include	'Below Ground' Infrastructure Failure
2	Electricity Supply Failure	Exclude	Electricity Company Responsible
3	Hydrant Abuse	Exclude	Third Party Responsible
4	Install New Fitting	Exclude	New work
5	Leakage Detection	Exclude	Proactive work
6	Mains Rehabilitation	Exclude	Proactive work
7	New Mains Tie In	Exclude	New work
8	Other	Review comments and reassign cause	
9	Replacement Fitting	Include	'Below Ground' Infrastructure Failure
10	Routine Maintenance	Exclude	Proactive work
11	Service Pipe Repair	Include	'Below Ground' Infrastructure Failure
12	Water Supply Failure	Review comments and reassign cause	
13	Airlock in Main	Include	'Below Ground' Infrastructure Failure
14	Broken/Jammed/Misaligned Fitting	Include	'Below Ground' Infrastructure Failure
15	Human Error	Exclude	Human Error
16	Low SR (Distribution Issue)	Include	'Below Ground' Infrastructure Failure
	Low SR (Supply Failure)	Exclude	'Above Ground' Infrastructure Failure
17	Pump Equipment M&E Failure	Include	'Below Ground' Infrastructure Failure
18	Telemetry Failure	Include	'Below Ground' Infrastructure Failure
19	Planned Restriction	Review comments and reassign cause	

The decision has been taken to exclude from the assessment, all properties affected by interruptions attributed to proactive work, new work and third party interference. In the case of electricity supply failures, it is assumed that the interruptions were unrelated to a failure of the Company's standby generation facilities and therefore, the assessment excludes all properties affected by such events.

For the purposes of reporting on Table 46 Line 6, the Company has reviewed its greater than 3 hours interruption records assigned to the 'Other' and 'Water Supply Failure'

standard causes along with available information listed in the 'Comments' field or additional comments sought from the Field Managers and where possible, has identified interruptions caused by equipment failures.

The decision has been taken to further exclude from the assessment:

- all properties affected by planned and warned interruptions where it was not been possible to positively ascertain the precise cause of interruption from the comments provided
- all properties affected by interruptions attributed to human error
- all properties affected by interruptions to facilitate third parties/NI Water contractors
- all properties affected by interruptions involving the 'above ground' infrastructure since this is the subject of a separate assessment in Table 46

The following table lists a further 12 causes of interruption, identified as a result of this exercise.

	Cause of Interruption	**Assessment**	**Reason for Exclusion**
1	Restriction in Main	Include	'Below Ground' Infrastructure Failure
2	Cause Unknown – Planned & Warned	Exclude	Most planned and warned interruptions are not the result of equipment failure
3	Cause Unknown – Unplanned, Unwarned	Include	Most unplanned, unwarned interruptions are the result of equipment failure
4	Control / Sensor Failure	Include	'Below Ground' Infrastructure Failure
5	Failure to Re-valve Following Step Testing	Exclude	Human Error
6	Frozen Service Pipe	Include for purposes of table completion but discuss impact of exclusion in commentary	
7	Increased Demand	Include for purposes of table completion and unless third party responsibility has been confirmed	
8	Main Abandoned / Altered / Diverted	Exclude	'Below Ground' Infrastructure Change
9	New Connection	Exclude	New Work
10	To Facilitate Third Party/ NIW Contractor	Exclude	Requested Interruption
11	Water Quality Issues	Include, only if related to a distribution issue	
12	Water Treatment Works Failure	Exclude	'Above Ground' Infrastructure Failure

The following table lists the annual numbers of DG3 properties affected by interruptions greater than 3 hours resulting from equipment failure as reported in AIR15 Table 46 Line 6.

	03/04	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**
Properties	**45,064**	**35,700**	**24,995**	**30,360**	**39,883**	**36,882**	**39,040**	**518,065**	**44,960**	**40,697**	**44,499**	**111,081**

Methodology used to Calculate Outturn for 2014/15

The AIR15 outturn has been calculated using the same methodology previously used to calculate the outturns for 2007/08 to 2013/14.

The following table shows how the Master Data Set is consistent with the figures reported in AIR15 Table 2 Lines 5, 9 and 13 and how the figures for Table 46 Line 6 have been derived from the Master Data Set.

		Properties
Unplanned Interruptions: More than 3 hours	OMIS CIMS EP Return Sub Total	7,611 104,687 355 **112,653**
Planned and Warned Interruptions: More than 3 hours	OMIS CIMS EP Return Sub Total	10,689 14,180 22,347 **47,216**
Interruptions Caused by Third Parties: More than 3 hours	OMIS CIMS EP Return Sub Total	524 3,585 601 **4,710**
Overruns: More than 3 hours	OMIS CIMS EP Return Sub Total	458 1,244 1,809 **3,511**
Total *(Master Data Set of All Interruption Records >3 Hours)*		**= 168,090**
Third Party Interruptions *(Removed)*		-4,710
EP Interruptions *(Removed)*		-32,992
Non Equipment Failures *(Removed)*	OMIS CIMS	-4,633 -14,674
Total *(AIR14 Table 46 Line 6)*		**= 111,081**
Airlock in Main	OMIS CIMS	0 708
Burst Main/Main Repair	OMIS CIMS	5,015 57,906
Telemetry Failure	OMIS CIMS	7 0
Replacement Fittings (e.g. SV, FH)	OMIS CIMS	235 9,140
Service Pipe Repair/Replacement	OMIS CIMS	21 3,881
Pump Equipment Failure	OMIS CIMS	26 2,126
Broken/Jammed/Misaligned Fitting	OMIS CIMS	0 1,465
Low SR	OMIS CIMS	302 30,154
Restriction in Main/Camera Survey	OMIS CIMS	85 10
Total Properties Affected by Equipment Failures > 3 Hours		**= 111,081**

3. Changes in methodology used to capture or report data

Cause of Interruption

Information on the cause of interruptions was not captured prior to 2007/08. The reported outturns for the period 2003/04 to 2006/07 are estimates based on the historical relationship between unplanned interruptions and interruptions resulting from equipment failure for the period 2007/08 to 2014/15 with the impact of significant freeze/thaw events, adverse weather events and industrial action removed.

The reported outturns for the period 2007/08 to 2014/15 are based on any available information on the cause of interruptions and where the cause of interruptions could not be determined, an assumption was made that only unplanned interruptions were the result of equipment failure. The reported outturns are based on the inclusion of significant freeze/thaw events, adverse weather events and industrial action as this is consistent with the approach that has previously been adopted by NI Water for AIR Table 2 Lines 5 to 8.

For the purposes of AIR14 and AIR15, where the precise cause of interruption could not be identified from the comments provided as part of the DG3 interruption record, additional comments were sought from the Field Managers and any requirement to make an assumption regarding the cause of an interruption was removed.

Central Incident Management System (CIMS)

In 2014/15, the following change in methodology occurred. On 4 July 2014, the Operations Management Information System (OMIS) was replaced by the Central Incident Management System (CIMS) for recording details relating to supply interruptions. As CIMS was only in operation for nine of the twelve months of 2014/15 and during two of the months, industrial action was responsible for atypical performance, it is not yet possible to fully assess the impact that CIMS has had on the accuracy of reported outturns. However, based on an assessment of data captured by the new system from July to November and February to March, early indications are that there has been an increase in the number of unplanned interruptions captured with durations of more than 3 hours. The Company is confident of this claim and can rule out other possible factors which have been known in the past to account for a rise in the outturn.

4. Impact of methodology changes on reported figures and data trends

Cause of Interruption

In order to assess the impact of methodology changes on reported figures and data trends, the Company has analysed and compared the trendlines for the periods 2007/08 to 2014/15 and 2003/04 to 2014/15, excluding the impact of significant freeze/thaw events, adverse weather events and industrial action.

When the calculated outturns for the period 2007/08 to 2014/15 are based on the exclusion of significant freeze/thaw events, adverse weather events and industrial action, the trendline equation is $y = 31{,}618e^{0.0669x}$ and the trendline values are as follows:

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Trendline Value	**33,806**	**36,145**	**38,645**	**41,319**	**44,178**	**47,235**	**50,503**	**53,997**

When the estimated outturns for the period 2003/04 to 2006/07 are combined with the calculated outturns for the period 2007/08 to 2014/15, the trendline equation becomes $y = 33{,}415e^{0.0304x}$ and the trendline values are as follows:

	03/04	04/05	05/06	06/07	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**
Trendline Value	34,446	35,510	36,606	37,736	**38,900**	**40,101**	**41,339**	**42,615**	**43,930**	**45,286**	**46,684**	**48,125**

The inclusion of estimated outturns for the period 2003/04 to 2006/07 causes a decrease in the rate at which numbers of affected properties have risen from 2007/08 to 2014/15 i.e. 20,191 properties (trendline range: 33,806 to 53,997) compared to 13,679 properties (trendline range: 34,446 to 48,125).

Central Incident Management System (CIMS)

It is not thought that CIMS has had an impact on the outturns for higher time bands since interruptions with longer durations have always been subject to added scrutiny and are therefore less likely to have gone unreported by the Company. As the accuracy of the outturn for unplanned interruptions lasting more than 3 hours appears to have improved with the introduction of CIMS, it does inevitably mean that the historical outturns for this measure and any associated trends should now be viewed as less accurate. When more data has been captured using CIMS, it should be possible to calculate the percentage increase in interruptions captured and to factor up the historical outturns accordingly. For the present and until more data is available, the Company has opted not to apply a factor to the historical outturns but instead, to let the trendline deal with any differences in accuracy.

5. Performance which the company considers to be atypical

NI Water's KPI targets are based on typical performance less reductions that are considered to be both challenging and achievable through changing work and management practices, a greater understanding of the root cause of interruptions and through investment in infrastructure. When the Company fails a target, it is therefore an indication of atypical performance.

The following table shows NI Water's KPI targets for properties affected by unplanned and unwarned interruptions together with the corresponding outturns. Figures in bold text indicate instances where an outturn was worse than a target.

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
>6 hr Target	16,000*	9,653*	7,987*	8,089	7,864	7,673	7,473	7,273
Outturn *(AIR T2 L6)*	10,828*	8,801*	**10,378***	**476,289**	7,023	**10,487**	6,742	**43,767**
>12 hr Target	2,000*	1,206*	1,198*	1,750	1,700	1,650	1,600	1,500
Outturn *(AIR T2 L7)*	1,960*	**2,086***	**3,947***	**214,274**	765	**2,607**	1,195	**25,693**
>24 hr Target	240*	80*	79*	80	80	80	80	80
Outturn *(AIR T2 L8)*	78*	**621***	**2,295***	**40,959**	18	**1,554**	12	**13,788**

***Note:** Targets and outturns included third party interruptions & overruns*

Although Table 46 Line 6 relates to interruptions >3 hours, the above statistics still provide

an indication of when performance was atypical i.e. instances when a target was missed. Based on the above statistics, the Company considers its performance to have been atypical in 2009/10, 2010/11, 2012/13 and 2014/15 as on these four occasions, all three outturns were worse than the corresponding targets.

6. Cause of atypical performance and basis of assessment

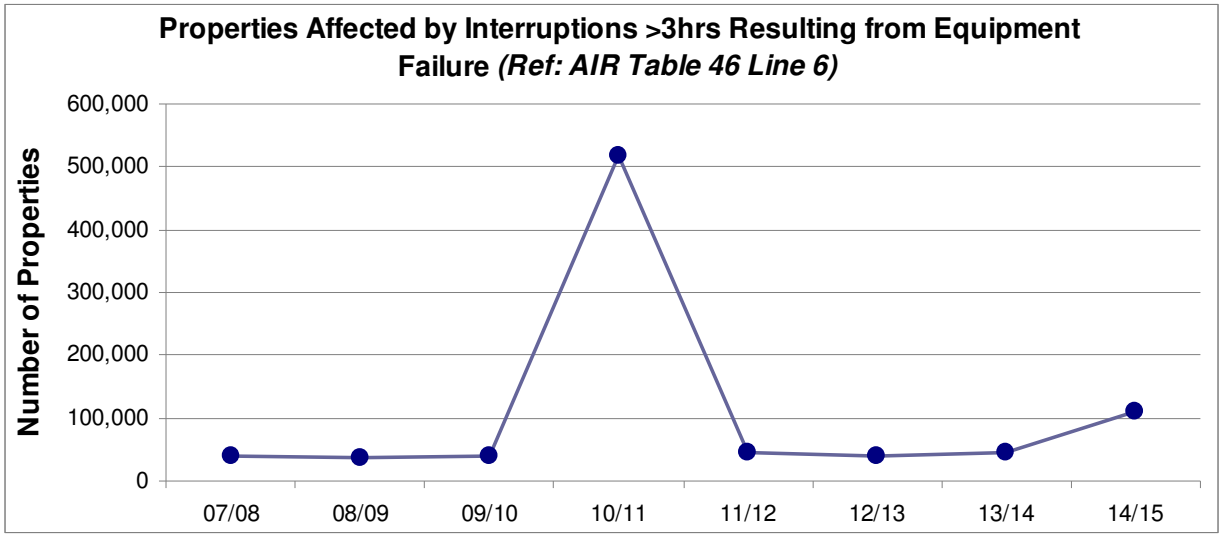
NI Water's atypical performance in 2009/10, 2010/11, 2012/13 and 2014/15 can be largely attributed to the following significant freeze/thaw events, adverse weather events and industrial action:

- Freeze/Thaw Event from 24 December 2009 to 21 January 2010
- Adverse Weather Event from 30 March to 5 April 2010
- Freeze/Thaw Event from 8 to 12 December 2010
- Freeze/Thaw Event from 21 December 2010 to 6 January 2011
- Adverse Weather Event from 22 to 27 March 2013
- Industrial Action from 22 December 2014 to 21 January 2015

Atypical performance can also be attributed to a small number of other events involving more than 2,000 properties. The following table provides a list of all such events for the period 2007/08 to 2014/15.

Interrupt No.	Description of Equipment Failure	Date of Failure	Affected Properties
No Ref	Burst main, Omagh Town Centre	26 Jan 08	3,155
12920, etc.	Burst main, Saintfield Road, Ballygowan	25 Jun 10	3,175
15132, etc.	Burst 500mm trunk main, Head Road, Kilkeel	2 Feb 11	4,264
16737	Conlig telemetry fault	16 Aug 11	7,937
17474	Burst main, Moneymore Road, Magherafelt	30 Nov 11	2,247
19209	Burst 12 inch trunk main, Victoria Terrace, Portadown	25 Jun 12	2,142
22417	Burst 12 inch trunk main, Cambrai Street, Belfast	27 Jul 13	3,200
24137	Burst trunk main, Stiles Way, Antrim	5 Feb 14	5,669
Event 51; DG3 30	Service pipe repair, Queens Avenue, Cookstown	8 Jul 14	2,906
Event 11813; DG3 1561	Low service reservoir, Carn Road, Seafin, Meigh	14 Dec 14	3,055
Event 23093; DG3 12728	Replacement fitting, Lislea Drive, Malone Lower, Belfast	25 Mar 15	2,681
Event 23126; DG3 12733	Burst main, Racecourse Hill, Downpatrick	28 Mar 15	3,752

The following graph shows the numbers of properties affected by supply interruptions >3 hours resulting from equipment failure for the period 2007/08 to 2014/15.



The graph clearly shows the impact of the early and late freeze/thaw events of 2010/11

and the industrial action of 2014/15. The inclusion of equipment failures associated with freeze/thaw events and industrial action makes it difficult to determine the year-on-year trend as such events are atypical in terms of both frequency and severity.

7. Quantification of impact on performance

The company has examined the impact of the removal of interruptions attributed to the freeze/thaw events of 2009/10 and 2010/11, the adverse weather events of March 2010 and March 2013, and the industrial action of 2014/15.

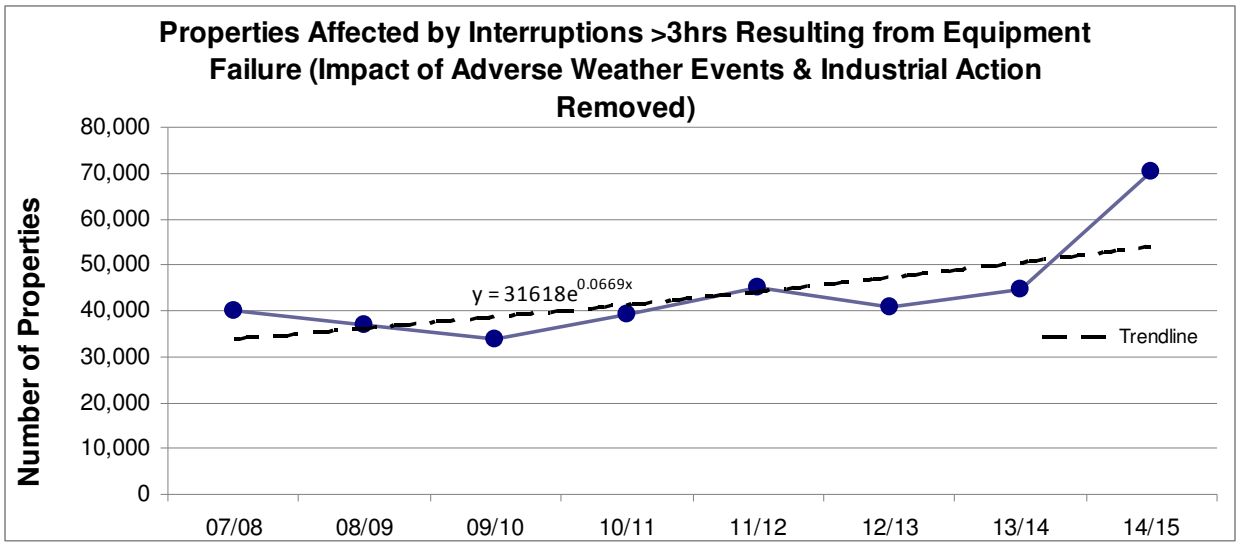
The following table provides a summary of the numbers of properties affected by interruptions >3 hours resulting from equipment failure together with an estimate of performance excluding the impact of significant freeze/thaw events, adverse weather events, industrial action, and interruptions involving more than 2,000 properties.

Properties Affected by Interruptions >3hrs Resulting from Equipment Failure	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**
Data Source: AIR13 Table 46 Line 6	39,883	36,882	39,040	518,065	44,960	40,697	44,499	111,081
2009/10 Freeze/Thaw – Frozen Pipes *(Removed)*	N/A	N/A	-1,564	N/A	N/A	N/A	N/A	N/A
2010/11 Freeze/Thaw – Supply Rotation *(Removed)*	N/A	N/A	N/A	-442,767	N/A	N/A	N/A	N/A
2010/11 Freeze/Thaw – SR Drain Down *(Removed)*	N/A	N/A	N/A	-25,439	N/A	N/A	N/A	N/A
Actual Dec + Jan Unplanned Interruptions *(Removed)*	N/A	N/A	-14,589	-21,395	N/A	N/A	N/A	-51,528
Typical Dec + Jan Unplanned Interruptions*	N/A	N/A	*+10,719*	*+10,719*	N/A	N/A	N/A	*+10,719*
Estimate of Performance Excluding Significant Freeze/Thaw and Adverse Weather Events	**39,883**	**36,882**	***33,606***	***39,183***	**44,960**	**40,697**	**44,499**	***70,272***
Burst main, Omagh Town Centre on 26/01/08	-3,155	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Burst main, Saintfield Road, Ballygowan on 25/06/10	N/A	N/A	N/A	-3,175	N/A	N/A	N/A	N/A
Burst 500mm trunk main, Head Road, Kilkeel on 02/02/11	N/A	N/A	N/A	-4,264	N/A	N/A	N/A	N/A
Conlig telemetry fault on 16/08/11	N/A	N/A	N/A	N/A	-7,937	N/A	N/A	N/A
Burst main, Moneymore Road, Magherafelt on 30/11/11	N/A	N/A	N/A	N/A	-2,247	N/A	N/A	N/A
Burst 12 inch trunk main, Victoria Terrace, Portadown on 25/06/12	N/A	N/A	N/A	N/A	N/A	-2,142	N/A	N/A
Burst 12 inch trunk main, Cambrai Street, Belfast on 27/07/13	N/A	N/A	N/A	N/A	N/A	N/A	-3,200	N/A
Burst trunk main, Stiles Way, Antrim on 05/02/14	N/A	N/A	N/A	N/A	N/A	N/A	-5,669	N/A
Service pipe repair, Queens Avenue, Cookstown on 08/07/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2,906
Low service reservoir, Carn Road, Seafin, Meigh on 14/12/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3,055
Replacement fitting, Lislea Drive, Malone Lower, Belfast on 25/03/15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2,681
Burst main, Racecourse Hill, Demesne Of Down Acre, Downpatrick on 28/03/15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3,752
Estimate of Performance Excluding Unplanned Interruptions Involving >2,000 Properties	**36,728**	**36,882**	***33,606***	***31,744***	**34,776**	**38,555**	**35,630**	***60,933***

**Estimate based on average Dec + Jan unplanned interruptions (07/08, 08/09, 11/12, 12/13 & 13/14)*

8. Estimate of performance excluding impact of extreme or atypical events

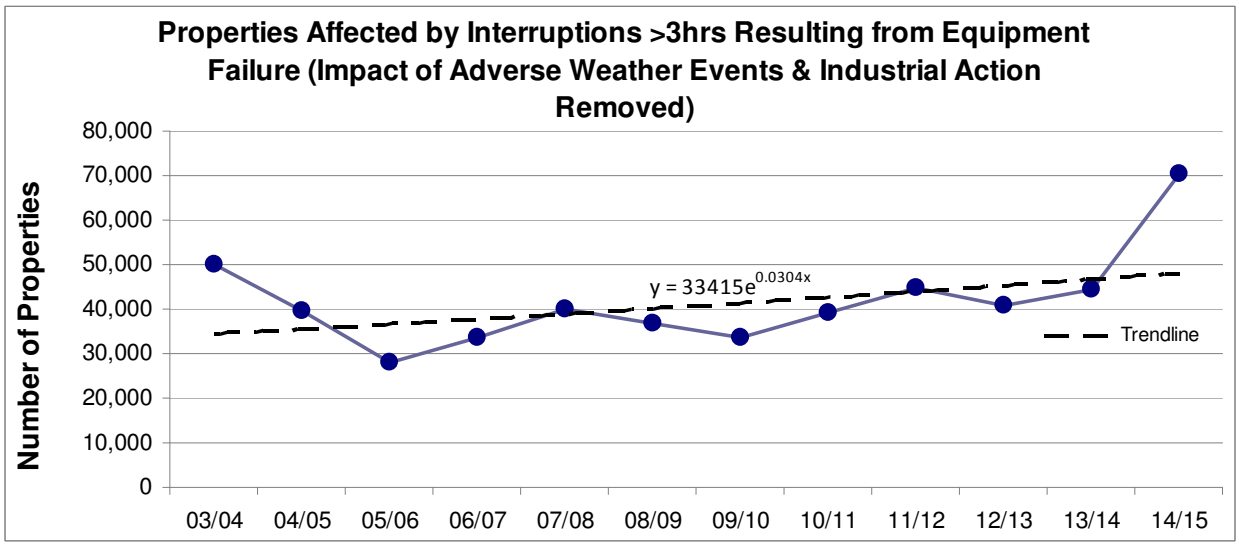
The following graph shows the numbers of properties affected by supply interruptions greater than 3 hours resulting from equipment failure with the impact of significant freeze/thaw events, adverse weather events and industrial action removed.



When the calculated outturns for the period 2007/08 to 2014/15 are based on the exclusion of significant freeze/thaw events, adverse weather events and industrial action, the trendline equation is $y = 31{,}618e^{0.0669x}$ and the trendline values are as follows:

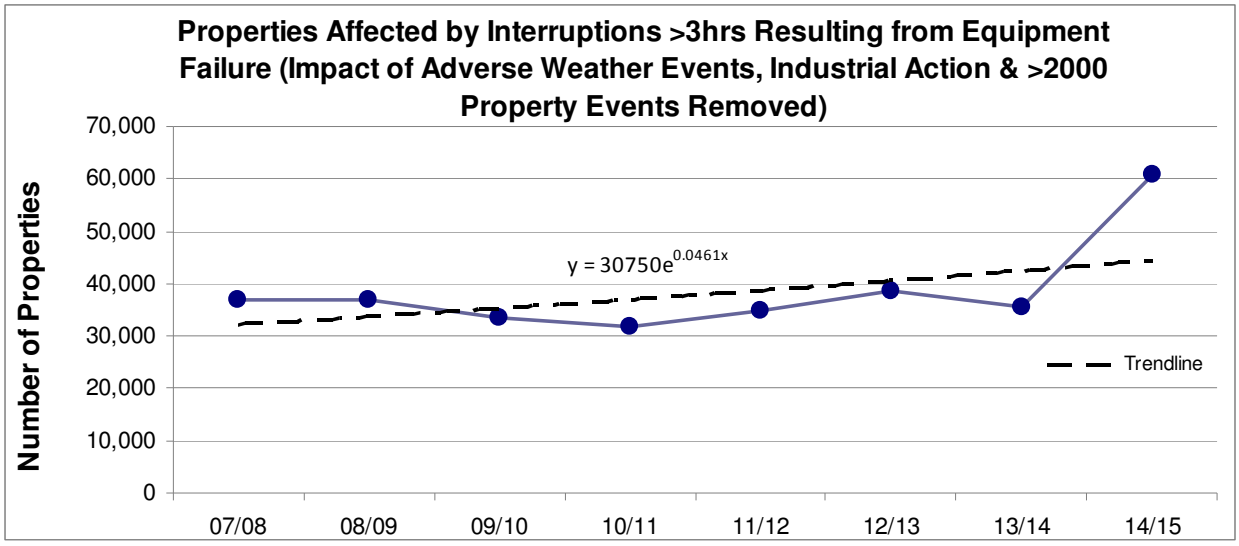
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Trendline Value	**33,806**	**36,145**	**38,645**	**41,319**	**44,178**	**47,235**	**50,503**	**53,997**

The following graph is similar to the previous graph, except for the inclusion of the estimated outturns for the period 2003/04 to 2006/07.



9. Explanation of revised assessment

The final graph in the series shows the numbers of properties affected by supply interruptions greater than 3 hours resulting from equipment failure with the impact of significant freeze/thaw events, adverse weather events and industrial action removed, as well as the impact of interruptions involving more than 2,000 properties.



When the calculated outturns for the period 2007/08 to 2014/15 are based on the exclusion of significant freeze/thaw events, adverse weather events, industrial action **and** the further exclusion of the twelve interruptions involving more than 2,000 properties, the trendline equation is $y = 30{,}750e^{0.0461x}$ and the trendline values are as follows:

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Trendline Value	**32,201**	**33,720**	**35,311**	**36,977**	**38,721**	**40,548**	**42,461**	**44,464**

The exclusion of the twelve interruptions involving more than 2,000 properties causes a further decrease in the rate at which numbers of affected properties have risen from 2007/08 to 2014/15 i.e. 20,191 properties (trendline range: 33,806 to 53,997) compared to 12,263 properties (trendline range: 32,201 to 44,464).

10. Overall assessment of serviceability - 'improving', 'stable', 'marginal' or 'deteriorating'

The final graph does not represent the reported outturns for the period 2007/08 to 2014/15 *(for the purposes of consistency, these have been reported including the impact of significant freeze/thaw events, adverse weather events and industrial action)*. And as previously stated in the section of the commentary 'Changes in the methodology used to capture or report data', since the introduction of CIMS on 4 July 2014 there has been an increase in the number of unplanned interruptions captured with durations of more than 3 hours. As the outturn for 2014/15 is not in keeping with the historical trend and is likely to point to an improvement in the accuracy of the outturn as opposed to a sudden deterioration in performance, the Company believes the assessment for 2013/14 to be more reflective of the true data trend for this measure, i.e. a horizontal trendline indicating '**stable'** performance year on year.

11. Explanation of 'marginal' or 'deteriorating' assessment and action planned to restore stable serviceability

As the Company has arrived at a '**stable**' assessment for this measure, an explanation of 'marginal' or 'deteriorating' assessment and action planned to restore stable serviceability is not required.

Line 7 - DG3 Properties affected by interruptions > 12hrs (unplanned & unwarned)

This serviceability measure was introduced for the first time in AIR13. As a result, the AIR13 commentary covered the historical period 2003/04 to 2011/12 as well as 2012/13. NI Water's AIR14 commentary focused on 2013/14 with references to historical trends. The Company's AIR15 commentary focuses on 2014/15, again with references to historical trends.

Note: The following commentary should be read in relation to Table 46 Line 8 as the Line 7 outturns are used to calculate the Line 8 outturns.

1. Limitations in quality or availability of submission

The outturns for the period 2007/08 to 2014/15 should be viewed as more reliable and accurate than the outturns for the period 2003/04 to 2006/07.

2. Changes to historical outturns

The historical outturns remain as they were reported for AIR13, AIR14 and PC15.

3. Assumptions made in the assessment process

Unlike Table 46 Line 6 where a number of assumptions have been made regarding the interpretation of an 'equipment failure', no such assumptions have been made regarding this assessment process.

4. Changes in methodology used to capture or report data

The AIR14 outturn and the outturn for the first three months of 2014/15 were calculated using the same methodology used to calculate the outturns for 2007/08 to 2012/13.

Central Incident Management System (CIMS)

In 2014/15, the following change in methodology occurred. On 4 July 2014, the Operations Management Information System (OMIS) was replaced by the Central Incident Management System (CIMS) for recording details relating to supply interruptions. As CIMS was only in operation for nine of the twelve months of 2014/15 and during two of the months, industrial action was responsible for atypical performance, it is not yet possible to fully assess the impact that CIMS has had on the accuracy of reported outturns. However, based on an assessment of data captured by the new system from July to November and February to March, early indications are that there has been no impact on the number of unplanned interruptions captured with durations of more than 12 hours.

2014/15 Data Capture and Reporting: The figures were derived from AIR15 Table 2 Line 7. The following table lists the annual numbers of DG3 properties affected by unplanned and unwarned interruptions greater than 12 hours.

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
Number of Properties *(Ref: AIR T2 L7)*	**1,610**	**1,676**	**1,670**	**767**	**1,839**	**2,010**	**3,675**	**214,274**	**765**	**2,607**	**1,195**	**25,693**

5. Impact of methodology changes on reported figures and data trends

Central Incident Management System (CIMS)

It is not thought that CIMS has had an impact on the outturns for higher time bands since interruptions with longer durations have always been subject to added scrutiny and are therefore less likely to have gone unreported by the Company.

6. Performance which the company considers to be atypical

NI Water's KPI targets are based on typical performance less reductions that are considered to be both challenging and achievable through changing work and management practices, a greater understanding of the root cause of interruptions and through investment in infrastructure. When the Company fails a target, it is therefore an indication of atypical performance.

The following table shows NI Water's KPI targets for properties affected by unplanned and unwarned interruptions together with the corresponding outturns. Figures in bold text indicate instances where an outturn was worse than a target.
**Note:* *Targets and outturns included third party interruptions & overruns*

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
>6 hr Target	16,000*	9,653*	7,987*	8,089	7,864	7,673	7,473	7,273
Outturn *(AIR T2 L6)*	10,828*	8,801*	**10,378***	**476,289**	7,023	**10,487**	6,742	**43,767**
>12 hr Target	2,000*	1,206*	1,198*	1,750	1,700	1,650	1,600	1,550
Outturn *(AIR T2 L7)*	1,960*	**2,086***	**3,947***	**214,274**	765	**2,607**	1,195	**25,693**
>24 hr Target	240*	80*	79*	80	80	80	80	80
Outturn *(AIR T2 L8)*	78*	**621***	**2,295***	**40,959**	18	**1,554**	12	**13,788**

Table 46 Line 7 relates to interruptions >12 hours and the above statistics provide an indication of when performance was atypical i.e. instances when a target was missed. Based on the above statistics, the Company considers its performance to have been atypical in 2009/10, 2010/11, 2012/13 and 2014/15 as on these four occasions, all three outturns were worse than the corresponding targets.

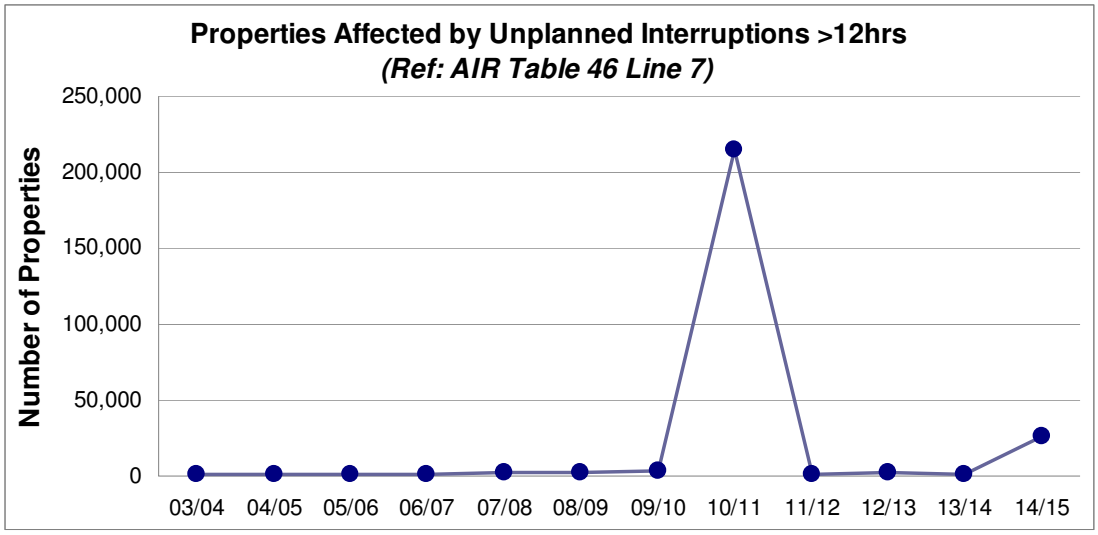
7. Cause of atypical performance and basis of assessment

NI Water's atypical performance in 2009/10, 2010/11, 2012/13 and 2014/15 can be largely attributed to the following significant events:

- Freeze/Thaw Event from 24 December 2009 to 21 January 2010
- Adverse Weather Event (30 March to 5 April 2010)
- Freeze/Thaw Event from 8 to 12 December 2010
- Freeze/Thaw Event from 21 December 2010 to 6 January 2011
- Adverse Weather Event (22 to 27 March 2013)
- Industrial Action from 22 December 2014 to 21 January 2015

The Company's atypical performance in 2010/11 can also be attributed to an incident involving a burst trunk main on the Head Road, Kilkeel in early February. A review of the cause of this interruption reveals that the repair equipment failed and replacement equipment had to be sourced, resulting in an atypical delay.

The following graph shows the numbers of properties affected by unplanned, unwarned supply interruptions >12 hours for the period 2003/04 to 2014/15.



The graph clearly shows the impact of the early and late freeze/thaw events of 2010/11 and also, the industrial action of 2014/15. The inclusion of unplanned and unwarned interruptions associated with these events makes it difficult to determine the year-on-year trend as such events are atypical in terms of both frequency and severity.

8. Quantification of impact on performance

The Company has examined the impact of the removal of interruptions attributed to the freeze/thaw events of 2009/10 and 2010/11, the adverse weather events of March 2010 and March 2013 and also, the industrial action of 2014/15. The following table provides a summary of the numbers of properties affected by unplanned and unwarned interruptions >12 hours during these events, together with an estimate of performance excluding their impact.

Properties Affected by Unplanned and Unwarned Interruptions >12 Hours	**03/04**	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**
Data Source: AIR Table 2 Line 7	**1,610**	**1,676**	**1,670**	**767**	**1,839**	**2,010**	**3,675**	**214,274**	**765**	**2,607**	**1,195**	**25,693**
09/10 Freeze/Thaw – Frozen Pipes *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	-1,564	N/A	N/A	N/A	N/A	N/A
10/11 Freeze/Thaw – Supply Rotation *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-181,140	N/A	N/A	N/A	N/A
10/11 Freeze/Thaw & 14/15 Industrial Action – SR Drain Down *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-25,439	N/A	N/A	N/A	-19,586
Other Dec + Jan Unplanned Interruptions *(Removed))*	N/A	N/A	N/A	N/A	N/A	N/A	-764	-3,756	N/A	N/A	N/A	-5,380
Typical Dec + Jan Unplanned Interruptions*	N/A	N/A	N/A	N/A	N/A	N/A	*+202*	*+202*	N/A	N/A	N/A	*+202*
Adverse Weather *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	-300	N/A	N/A	-1,588	N/A	N/A
Performance Excluding Significant Freeze/Thaw Events, Adverse Weather Events & Industrial Action	**1,610**	**1,676**	**1,670**	**767**	**1,839**	**2,010**	***1,288***	***4,180***	**765**	**1,019**	**1,195**	***929***

**Estimate based on average Dec + Jan unplanned interruptions (07/08, 08/09, 11/12, 12/13 & 13/14)*

The Company has also examined the impact of the further removal of an incident involving a burst 500mm trunk main on the Head Road, Kilkeel in early February 2011.

The following table provides a summary of the number of properties affected by this incident together with an estimate of performance excluding its impact.

	03/04	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**
Number of Properties before exclusion	1,610	1,676	1,670	767	1,839	2,010	*1,288*	*4,180*	765	1,019	1,195	*929*
Burst 500mm trunk main, Head Road, Kilkeel on 02/02/11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3,440	N/A	N/A	N/A	N/A
Number of Properties following exclusion	**1,610**	**1,676**	**1,670**	**767**	**1,839**	**2,010**	***1,288***	***740***	**765**	**1,019**	**1,195**	***929***

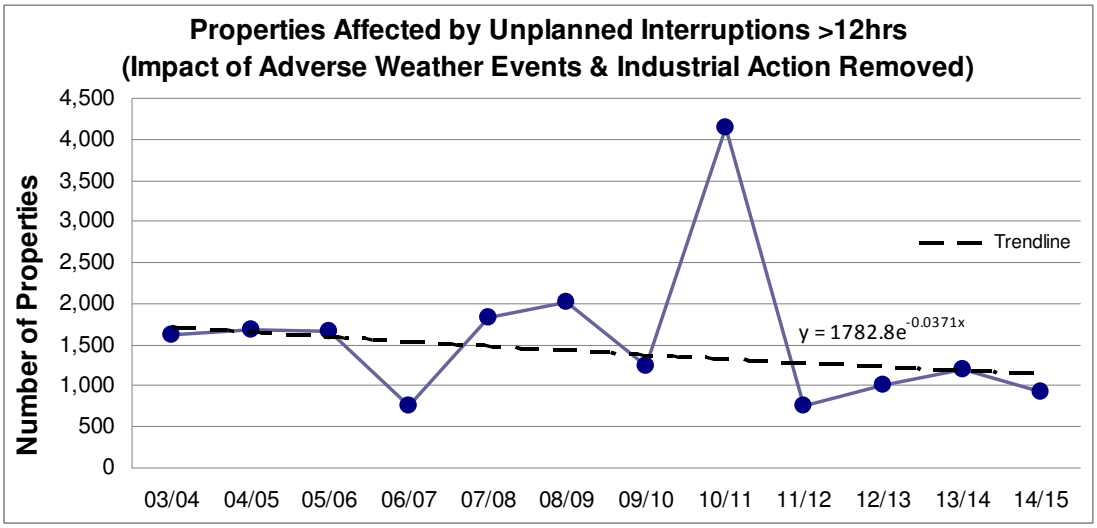
And the Company has examined the impact of the further removal of interruptions where the cause of interruption was unrelated to equipment failure.

The following table provides a summary of the numbers of properties affected by such interruptions together with an estimate of performance excluding their impact.

	07/08	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**
Number of Properties before exclusion	1,839	2,010	*1,288*	*740*	765	1,019	1,195	*929*
Non Equipment Failures	-184	-652	-25	-43	-102	-2	-90	-1
Number of Properties following exclusion	**1,655**	**1,358**	***1,263***	***697***	**663**	**1,017**	**1,105**	***928***

9. Estimate of performance excluding impact of extreme or atypical events

The following graph shows the numbers of properties affected by unplanned and unwarned supply interruptions greater than 12 hours with the impact of the freeze/thaw event of 2009/10 and the early and late freeze/thaw events of 2010/11 removed, as well as the impact of the adverse weather events of March 2010 and March 2013 and the industrial action of 2014/15.

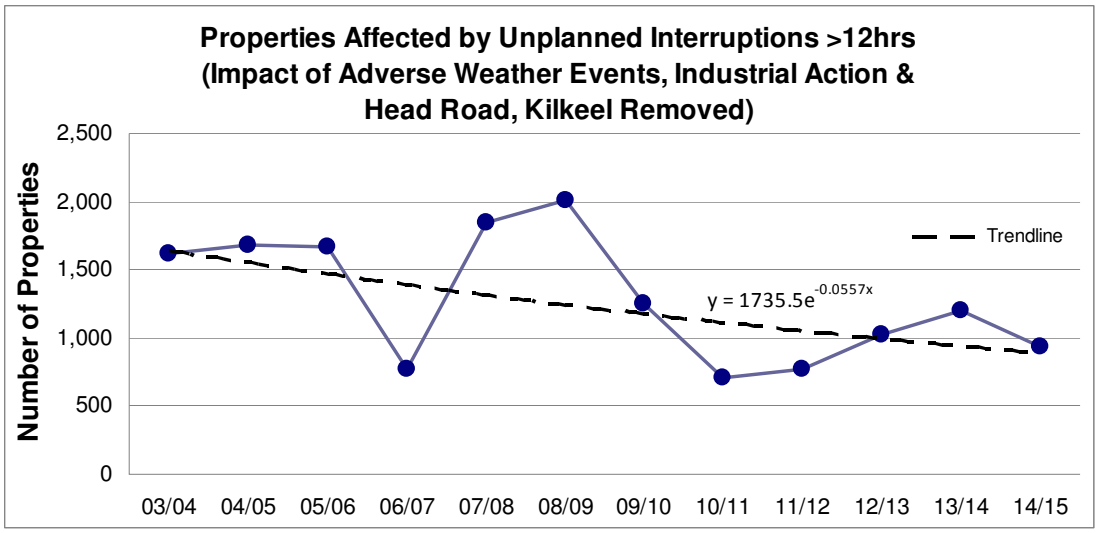


When the calculated outturns are based on the exclusion of significant freeze/thaw events, adverse weather events and industrial action alone, the trendline equation is $y = 1{,}782.8e^{-0.0371x}$ and the trendline values are as follows:

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
Trendline Value	**1,718**	**1,655**	**1,595**	**1,537**	**1,481**	**1,427**	**1,375**	**1,325**	**1,277**	**1,230**	**1,185**	**1,142**

The performance profile is still irregular, indicating that other atypical factors may be masking the true year-on-year data trend for this performance measure. The graph clearly shows the impact of the burst trunk main on the Head Road, Kilkeel in February 2011.

The following graph shows the numbers of properties affected by unplanned and unwarned supply interruptions greater than 12 hours with the impact of significant freeze/thaw events, adverse weather events and industrial action removed, as well as the impact of the Head Road incident.



When the calculated outturns are based on the exclusion of significant freeze/thaw events, adverse weather events, industrial action **and** the further exclusion of the Head Road incident, the trendline equation is $y = 1{,}735.5e^{-0.0557x}$ and the trendline values are as follows:

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
Trendline Value	**1,641**	**1,553**	**1,468**	**1,389**	**1,314**	**1,242**	**1,175**	**1,111**	**1,051**	**994**	**940**	**889**

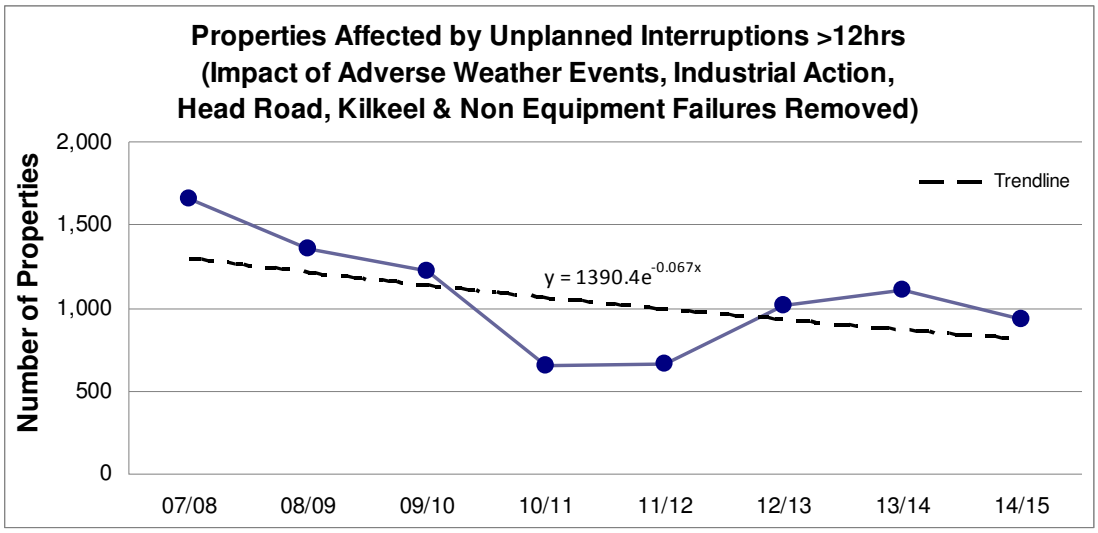
Based on trendline analysis, the exclusion of the Head Road incident further increases the rate at which numbers of affected properties have fallen from 2003/04 to 2014/15 i.e. 576 properties (trendline range: 1,718 to 1,142) compared to 752 properties (trendline range: 1,641 to 889).

10. Explanation of revised assessment

There is still a possibility that other atypical factors may be masking the true year-on-year data trend for this performance measure. Therefore, NI Water has considered a fourth graph, based on the further exclusion of interruptions where the cause was unrelated to equipment failure. Examples include proactive work, new work, human error and other

issues unrelated to asset performance. As these examples are not associated with a deterioration of the infrastructure, there is a greater likelihood of inconsistency.

The final graph in the series shows the numbers of properties affected by unplanned and unwarned supply interruptions greater than 12 hours for the period 2007/08 to 2014/15 with the impact of significant freeze/thaw events, adverse weather events and industrial action removed, as well as the impact of the Head Road incident and interruptions where the cause was unrelated to equipment failure.



When the calculated outturns are based on the exclusion of significant freeze/thaw events, adverse weather events, industrial action, the Head Road incident **and** the further exclusion of interruptions where the cause was unrelated to equipment failure, the trendline equation is $y = 1{,}390.4e^{-0.067x}$ and the trendline values are as follows:

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Trendline Value	**1,300**	**1,216**	**1,137**	**1,064**	**995**	**930**	**870**	**814**

Based on trendline analysis, the exclusion of interruptions where the cause was unrelated to equipment failure further increases the rate at which numbers of affected properties have fallen from 2007/08 to 2014/15 i.e. 425 properties (trendline range: 1,314 to 889) compared to 486 properties (trendline range: 1,300 to 814).

Although the graph does not represent the reported outturns for the period 2003/04 to 2014/15 *(for the purposes of consistency, these have been reported including the impact of significant freeze/thaw events, adverse weather events and industrial action)*, the Company deems this graph to be the best representation of the true data trend for this performance measure. The trendline conforms to an exponential curve with performance improving year on year but at a decreasing rate with time.

With the impact of atypical events removed, the trendline helps to highlight true instances of asset over and under performance.

Asset over performance in 2011/12 is attributed to the mild winter weather and an associated reduction in the number of bursts.

Asset under performance in 2012/13 is attributed to an incident on 15 February 2013 involving a burst on the 12 inch inlet to Greenhill Gauge Tank affecting supplies to Craigstown, Killylane and Craigadoo DMAs in Ballymena. 201 properties experienced an unplanned interruption of 14 hours as a result of the incident. *(Ref: Interrupt No. 21283)*

Asset under performance in 2013/14 is attributed to an incident on 8 March 2014 involving a burst on a 14 inch main adjacent to the 27 inch Carmoney – Dupont trunk main. 499 properties in Londonderry experienced an unplanned interruption of 21.25 hours as a result of the incident. *(Ref: Interrupt No. 24404).*

Asset under performance in 2014/15 is attributed to an incident on 21 and 22 June 2014 involving a burst main and faulty pumps affecting supplies to Ballykeel Drumlough DMA. 122 properties in the Dromore/Dromara area experienced an unplanned interruption of between 13.75 hours and 18.75 hours as a result of the incident. *(Ref: Interrupt Nos. 24979 to 24984)*

11. Overall assessment of serviceability - 'improving', 'stable', 'marginal' or 'deteriorating'

The conclusion is that based on an analysis of all properties affected by unplanned and unwarned supply interruptions greater than 12 hours over the last eleven years and with the impact of extreme and atypical events excluded, NI Water's performance against this measure has been '**improving**'.

This overall assessment of serviceability is based on the series of performance graphs produced for this measure which indicate a decreasing trend in the numbers of properties affected by unplanned and unwarned supply interruptions greater than 12 hours.

12. Explanation of 'marginal' or 'deteriorating' assessment and action planned to restore stable serviceability

As the Company has arrived at an '**improving**' assessment for this measure, an explanation of 'marginal' or 'deteriorating' assessment and action planned to restore stable serviceability is not required.

Line 8 - DG3 Percentage properties affected by interruptions >12 hrs (unplanned & unwarned)

Note: The commentary for Table 46 Line 7 should be read in relation to Table 46 Line 8 as the Line 7 outturns are used to calculate the Line 8 outturns.

The following table lists the annual DG3 percentage properties affected by unplanned and unwarned interruptions greater than 12 hours. The figures are based on the following information:

- DG3 properties affected by unplanned and unwarned interruptions greater than 12 hours, as reported in AIR Table 46 Line 7 *(originally reported in AIR Table 2 Line 7)*
- Total connected properties at year end, as reported in AIR Table 46 Line 2 *(originally reported in AIR Table 2 Line 1)*

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
Properties Affected by Unplanned & Unwarned Interruptions *(AIR T46 L7)*	1,610	1,676	1,670	767	1,839	2,010	3,675	214,274	765	2,607	1,195	25,693
Total Connected Properties *(AIR T46 L2 x 1,000)*	777,000	779,300	786,128	794,710	800,018	804,418	798,740	806,444	810,367	817,960	824,974	828,060
Percentage *(AIR T46 L8)*	**0.21%**	**0.22%**	**0.21%**	**0.10%**	**0.23%**	**0.25%**	**0.46%**	**26.57%**	**0.09%**	**0.32%**	**0.14%**	**3.10%**

Percentages are based on the following calculation:
[Line 7 divided by (Line 2 multiplied by 1,000)] multiplied by 100

Atypical Performance (2003/04 to 2014/15)

The commentary for AIR15 Table 46 Line 7 identifies atypical performance in 2009/10, 2010/11, 2012/13 and 2014/15 attributed to the following significant events:

- Freeze/Thaw Event from 24 December 2009 to 21 January 2010
- Adverse Weather Event from 30 March to 5 April 2010
- Freeze/Thaw Event from 8 to 12 December 2010
- Freeze/Thaw Event from 21 December 2010 to 6 January 2011
- Adverse Weather Event from 22 to 27 March 2013
- Industrial Action from 22 December 2014 to 21 January 2015

The commentary for AIR15 Table 46 Line 7 also identifies atypical performance attributed to an incident involving a burst 500mm trunk main at Head Road, Kilkeel on 02/02/11 as well as proactive work, new work, human error and other issues unrelated to asset performance.

The following table was first provided for AIR13 and has been updated for AIR15 to provide a quantification of annual performance excluding the impact of:

- significant events
- the Head Road, Kilkeel incident
- interruptions where the cause was unrelated to equipment failure

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
Properties Affected by Unplanned and Unwarned Interruptions (AIR T46 L7)	1,610	1,676	1,670	767	1,839	2,010	3,675	214,274	765	2,607	1,195	25,693
09/10 Freeze/Thaw – Frozen Pipes *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	-1,564	N/A	N/A	N/A	N/A	N/A
10/11 Freeze/Thaw – Supply Rotation *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-181,140	N/A	N/A	N/A	N/A
10/11 Freeze/Thaw – SR Drain Down *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-25,439	N/A	N/A	N/A	N/A
Actual Dec + Jan Unplanned Interruptions *(Removed))*	N/A	N/A	N/A	N/A	N/A	N/A	-764	-3,756	N/A	N/A	N/A	-24,965
Typical Dec + Jan Unplanned Interruptions*	N/A	N/A	N/A	N/A	N/A	N/A	*+202*	*+202*	N/A	N/A	N/A	*+202*
Adverse Weather *(Removed)*	N/A	N/A	N/A	N/A	N/A	N/A	-300	N/A	N/A	-1,588	N/A	N/A

Performance Excluding Significant Freeze/Thaw Events, Adverse Weather Events & Industrial Action	1,610	1,676	1,670	767	1,839	2,010	*1,288*	*4,180*	765	*1,019*	1,195	*930*
Total Connected Properties *(AIR T46 L2 x 1,000)*	777,000	779,300	786,128	794,710	800,018	804,418	798,740	806,444	810,367	817,960	824,974	828,060
Performance Excluding Significant Freeze/Thaw Events, Adverse Weather Events & Industrial Action	**0.21%**	**0.22%**	**0.21%**	**0.10%**	**0.23%**	**0.25%**	***0.16%***	***0.52%***	**0.09%**	***0.12%***	**0.14%**	***0.11%***
Burst 500mm trunk main, Head Road, Kilkeel on 02/02/11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3,440	N/A	N/A	N/A	N/A
Performance following the further exclusion of the Head Road, Kilkeel incident	**0.21%**	**0.22%**	**0.21%**	**0.10%**	**0.23%**	**0.25%**	***0.16%***	***0.09%***	**0.09%**	***0.12%***	**0.14%**	***0.11%***
Proactive work, new work, human error and other issues unrelated to asset performance	The cause of interruptions was not captured prior to 2007/08				-184	-652	-25	-43	-102	-2	-90	0
Performance following the further exclusion of interruptions where the cause was unrelated to equipment failure					***0.21%***	***0.17%***	***0.16%***	***0.09%***	***0.08%***	***0.12%***	***0.13%***	***0.11%***

**Estimate based on average Dec + Jan unplanned interruptions (07/08, 08/09, 11/12, 12/13 & 13/14)*

Lines 9 – 12 - Iron at Customer Tap

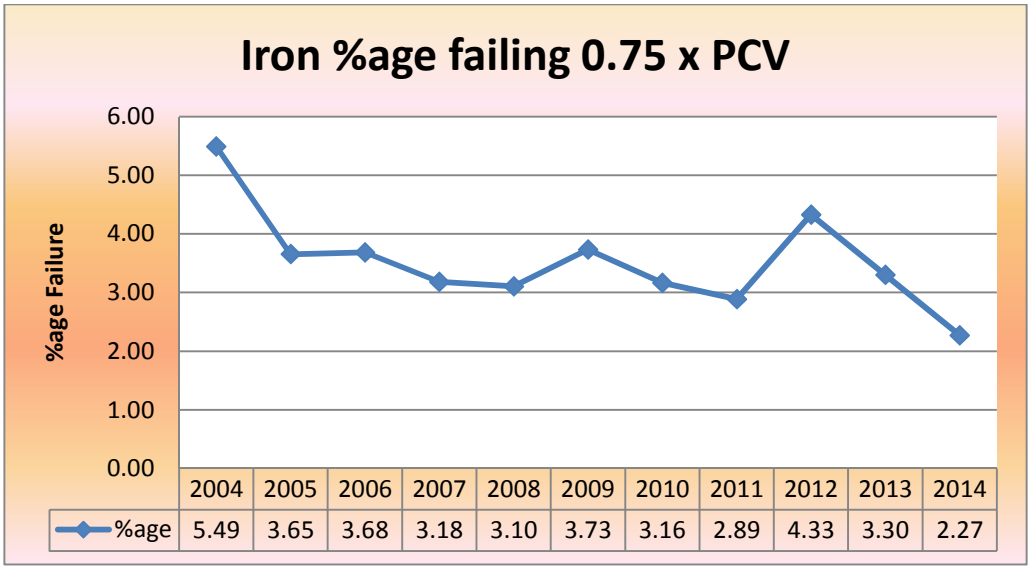
The calculations were carried out using the following data criteria:

- Prior to the calendar year to be tested, NIW determines the boundaries and populations of the water supply zones for that year, and provides a copy of that information to the Drinking Water Inspectorate (DWI).
- Only scheduled audit customer tap samples lifted to meet regulatory requirements from these zones during the calendar year are used, and using accredited laboratory analyses rather than onsite analyses.

Excluded from calculations

There were no zones excluded from the calculations.

Iron %age 0.75 x PCV Exceedance Chart



Line 15 – Distribution Losses

Distribution Losses for NI Water are calculated by subtracting Lines 16 (DSOU) and 20 (Water Delivered) from Line 26 (Distribution Input). Distribution Losses for AIR15 are estimated to be 126.08 Ml/d. This is a decrease on the AIR14 figure of 127.31 Ml/d.

Lines 17 - 20 Turbidity at Water Treatment Works

The calculations were carried out using the following data criteria:

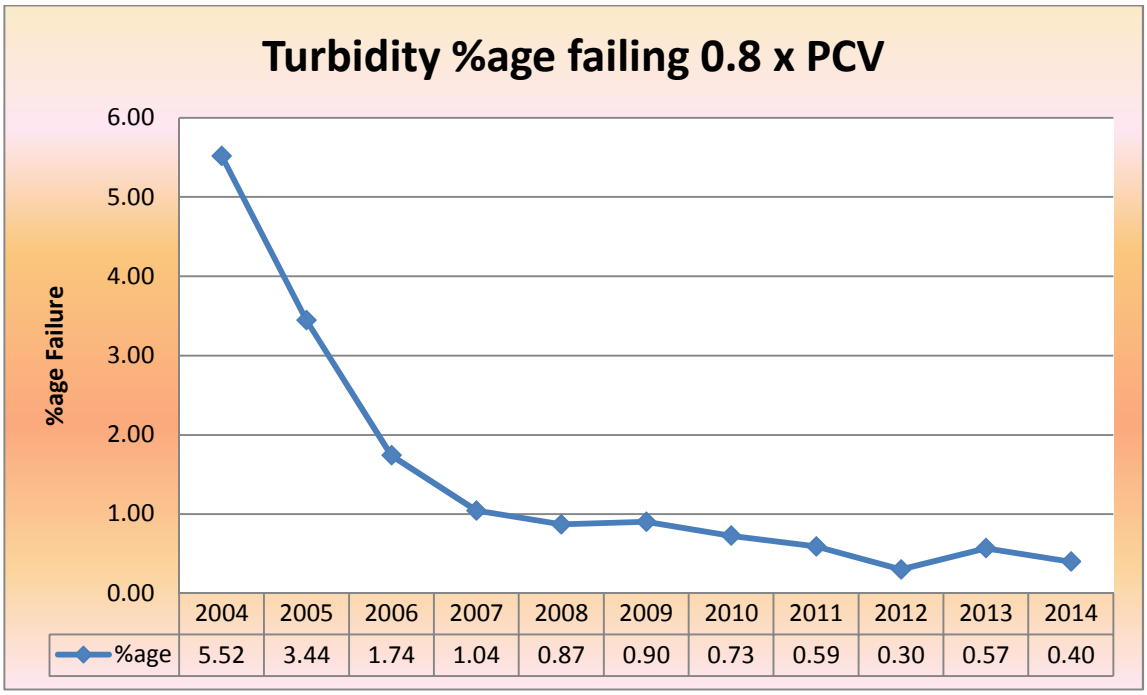
- Only scheduled audit final water samples lifted to meet Water Supply regulatory requirements during the calendar year were used, and using accredited laboratory analyses rather than onsite analyses.

NIW v PPP

No WTWs were excluded, however whilst the return shows all relevant turbidity results, much of NIW's water is produced by PPP concessionaires. The breakdown of numbers between NIW and PPP is shown in the table below.

	Year	2007	2008	2009	2010	2011	2012	2013	2014
All	Count	9482	8964	7749	7561	6928	6638	6617	6460
	>PCV	52	45	47	35	32	12	18	10
	0.8	99	78	70	55	41	20	38	26
NIW	Count	9482	8728	5925	5737	5103	4813	4792	4635
	>PCV	52	45	44	34	31	12	14	11
	0.8	99	78	67	54	40	20	34	25
PPP	Count	0	236	1825	1825	1825	1825	1825	1825
	>PCV	0	0	3	1	1	0	4	1
	0.8	0	0	3	1	1	0	4	1

Combined WTW Turbidity %age 0.8 x PCV Exceedances Chart



Lines 13 – Customer Contacts (discoloured water)

No customer contact data was excluded from the calculations.

Line 14 – Customer Contacts per 1000 population (discoloured water)

The population figure used in the calculation was provided by Network Water.

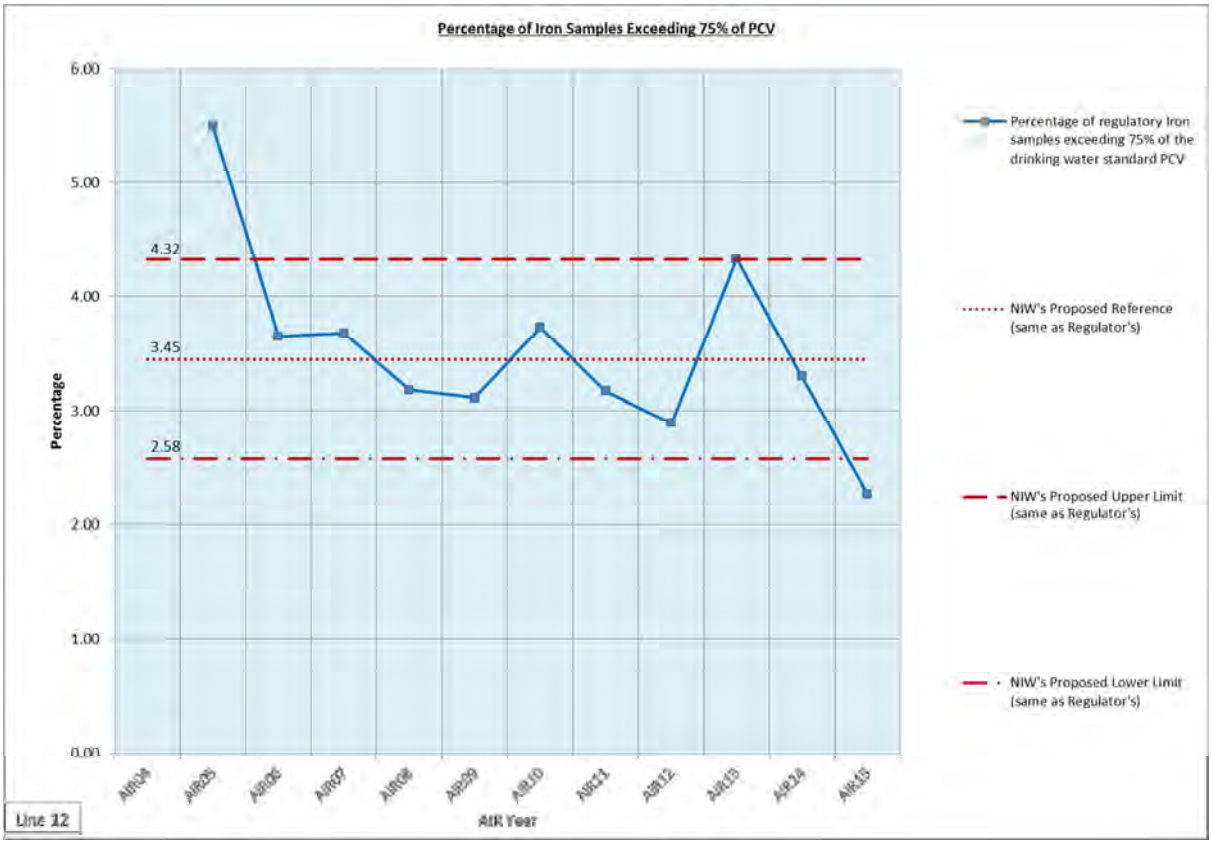
Commentary for Table 46 Line 16

The trend for Water Infrastructure performance is Stable for NIW, taking into account the Graph trends below.

A new system was introduced in July last year for interruptions to supply greater than 3 hrs. This has improved the accuracy capturing more interruptions. There is no evidence that this trend is deteriorating but more time is required to review if there is a deteriorating pattern as the new method has only been in operation for 6 months.

The trend for the performance of the Water Infrastructure Network for 2014-2015 year as "stable" continues to apply.

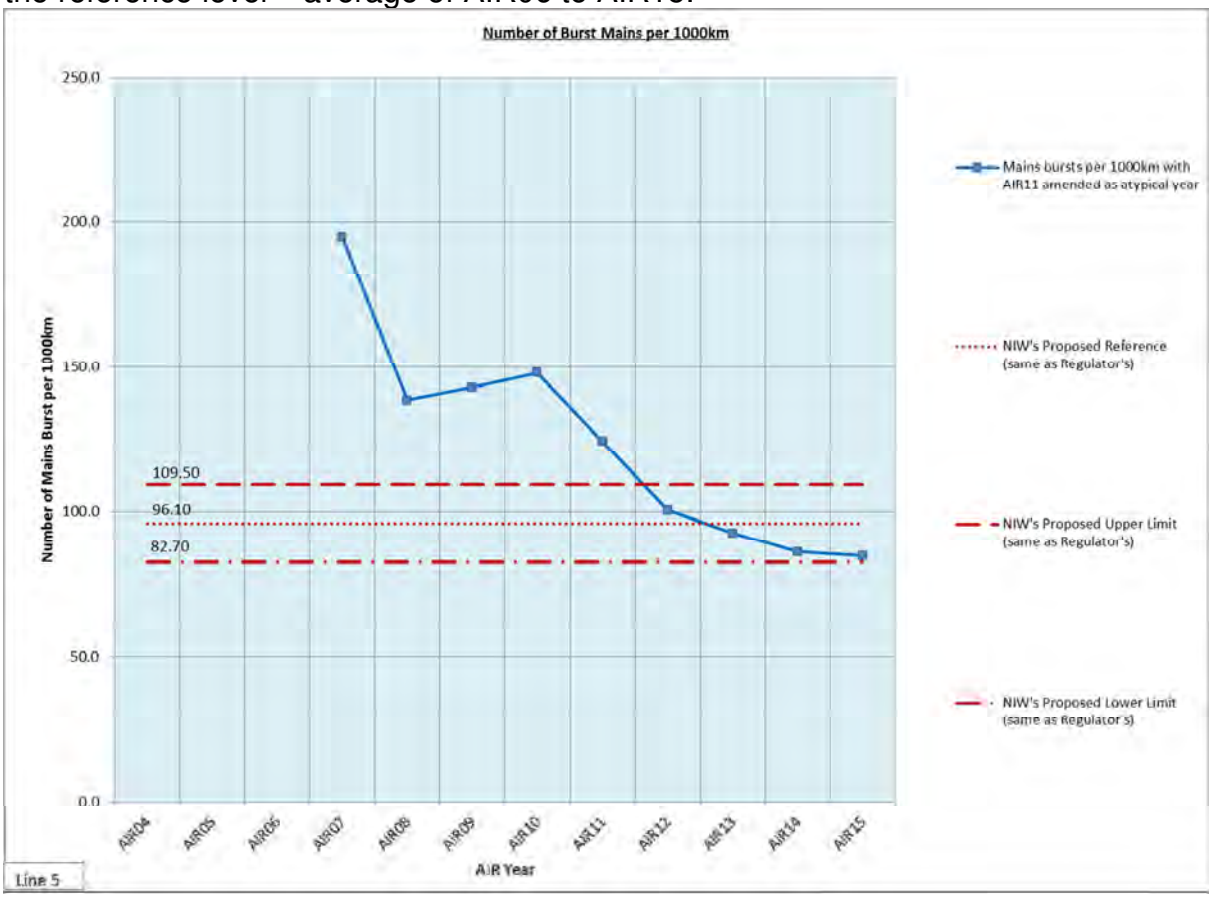
Serviceability Indicators for Water Infra 2014 to 2015



The default method for calculating the reference for Iron performance was the average of AIR11 and AIR15. The control limits have been based on 1.75 standard deviation. Atypical Performance was not applicable.

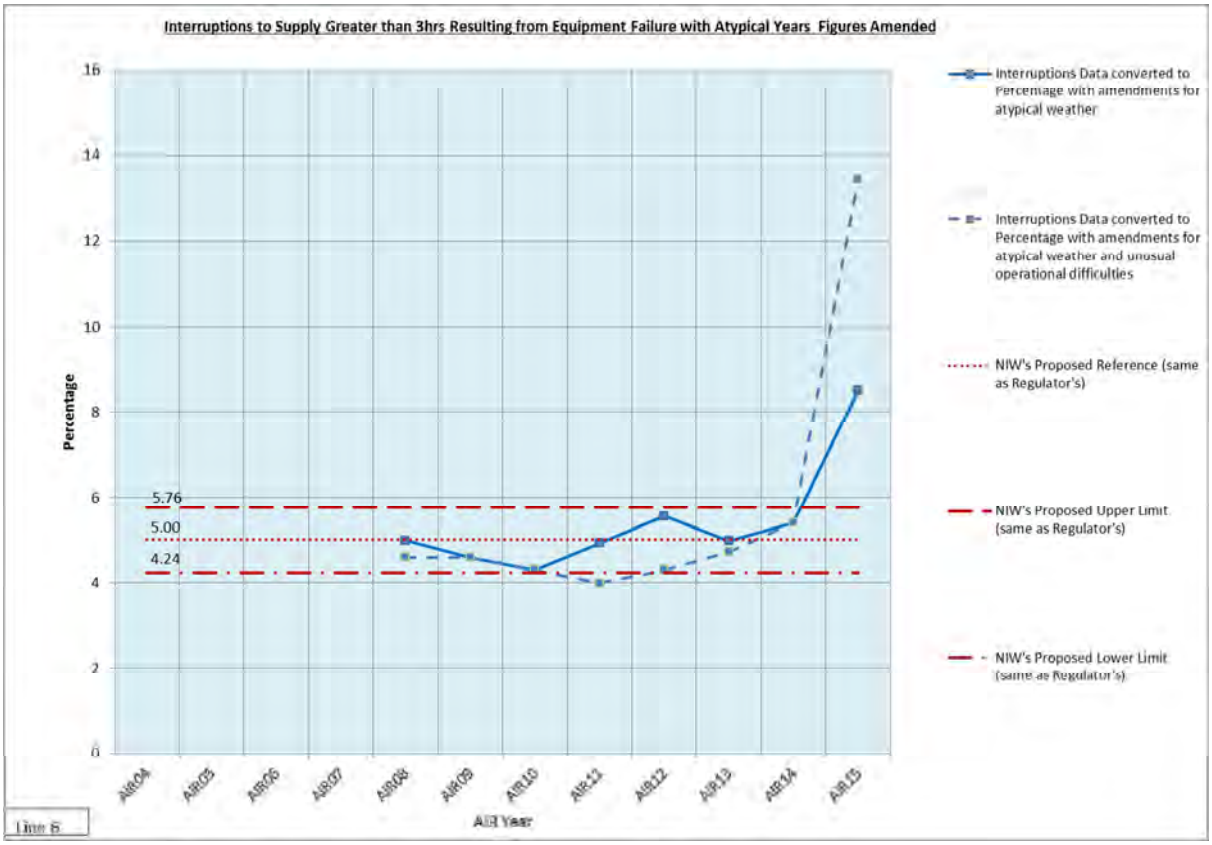
NI Water considers that the reference level set by this methodology would mean the most recent performance result would be approaching the control limit. NI Water does not consider the short run trending appropriate and presents a reference level based upon an average over a longer duration.

The graph above retains the control limit deviations but adopts an average calculation for the reference level – average of AIR06 to AIR15.



Reference Levels were calculated in accordance with the UR approach. However, for burst rates, NI Water considers that the reference level set by this methodology would mean that a number of the recent performance results may be outside the control limits. NI Water does not consider the short run trending appropriate and presents a reference level based on an average over a longer duration. The reference was therefore based on the average of AIR08 to AIR13 and the control limits were based on 3 times sigma of the difference in AIR11 and AIR12. AIR11 was assessed as an atypical year due to the freeze/thaw event. The value was changed to the average of the AIR10 and AIR12 figures.

The assessment suggests that burst rates have been on an improving trend since AIR10 with six consecutive year-on-year improvements bringing the AIR15 figure to just above 80 bursts/km.



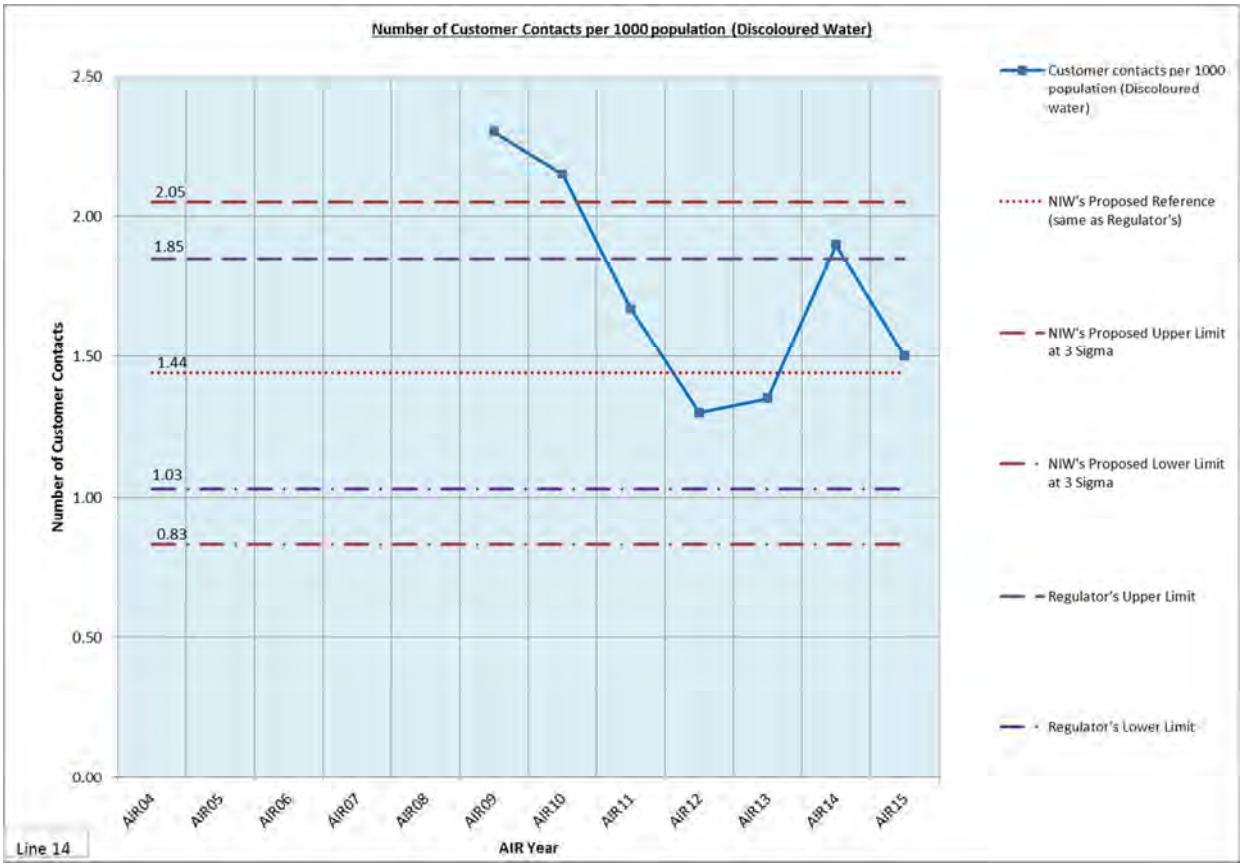
The control limits were based on 3 sigma standard deviation of the difference in AIR10 and AIR11. AIR11 was assessed as an atypical year due to the freeze/thaw event. The value was changed to the average of the AIR10 and AIR12 figures. AIR10 and AIR11 were assessed as an atypical years due to the freeze/thaw event. The dashed blue line has been included for illustrative purposes only. It also takes consideration of various unusual operational difficulties such as Head Road, Kilkeel and Victoria Terrace, Portadown trunk main failures.

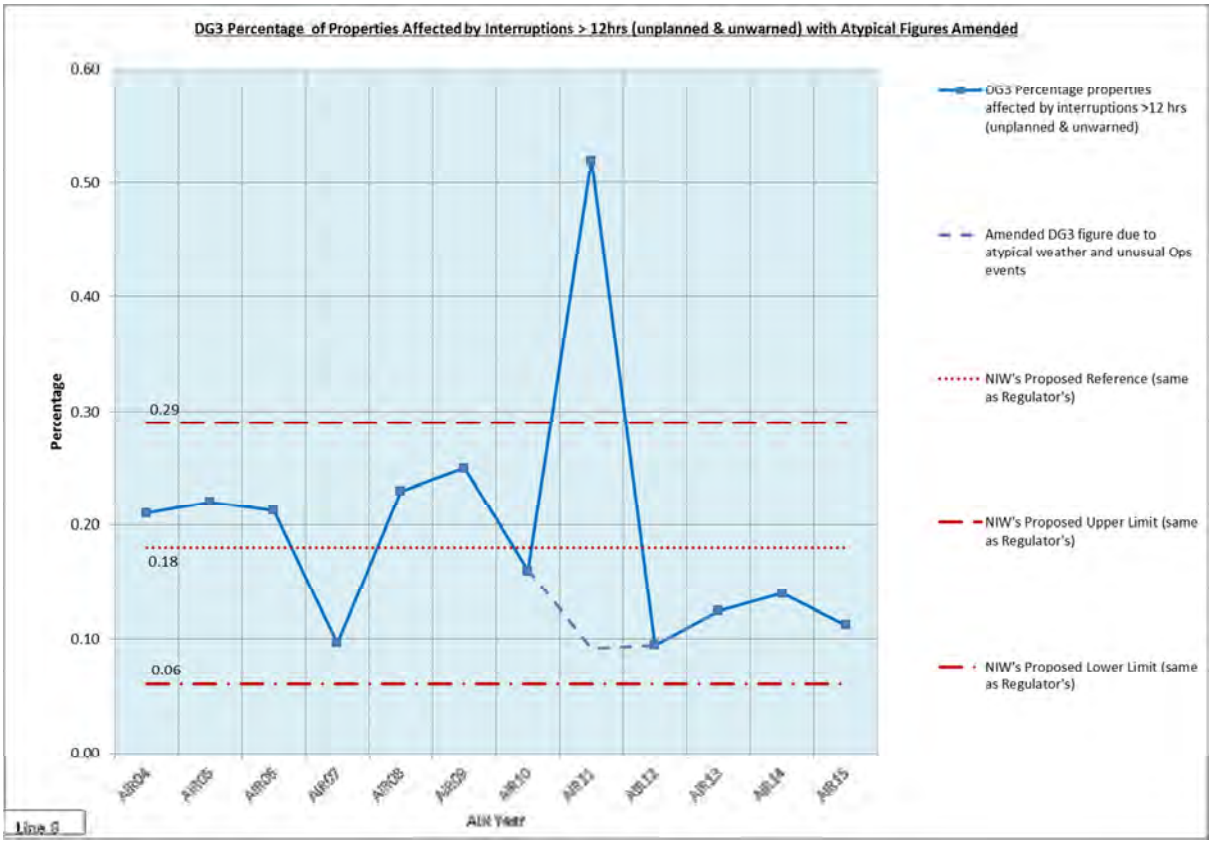
Using the default method NI Water considers that the reference level would mean that at least one of the recent performance results would be at the control limits. NI Water does not consider the short run trending appropriate and presents a reference level based on an average over a longer duration.

The above retains the control limit deviations but adopts an average calculation for the reference level – average of AIR08 to AIR15.

This assessment suggests that, adjusting for atypical events, interruptions to supply greater than 3 hours have been broadly stable from AIR08 to AIR14 with no strong trend evident.

A new system was introduced in July last year. This has improved the accuracy capturing more interruptions. There is no evidence that this trend is deteriorating but more time is required to review if there is a deteriorating pattern. The trend for last year as stable still applies.





For Interruptions to Supply > 12 hours, the default method of calculating the reference was based on the average of AIR12 and AIR13 and the control limits have been based on 1.5 times the long term standard deviation. This is considered to be an appropriate adjustment as there is no significant up or downwards long term trend and otherwise only three of the last 10 years would be within the control limits. The figures were derived from the historical

and current Annual Information Returns. Additional data has been included for the periods 2003/04 to 2012/15, as the methodology is consistent throughout. NI Water's atypical performance in 2009/10, 2010/11 and 2012/13 can be largely attributed to the adverse weather events. This indicator is volatile and susceptible to external influences, such and weather.

NI Water considers the reference level set by this methodology does not take account of the significant volatility in this measure. NI Water does not consider the short run trending appropriate and presents a reference level based upon an average over a longer duration. The above retains the control limit deviations but adopts an average calculation for the reference level – average of AIR04 to AIR15, discounting AIR11.

The assessment suggests that interruptions to supply greater than 12 hours have been broadly stable since AIR04 with no significant trend apparent. This conclusion is unaffected by adjustment for the atypical events of AIR11 but it may suggest that it is not a good serviceability indicator.

Lines 21 - 24 Total Trihalomethanes at Customer Tap

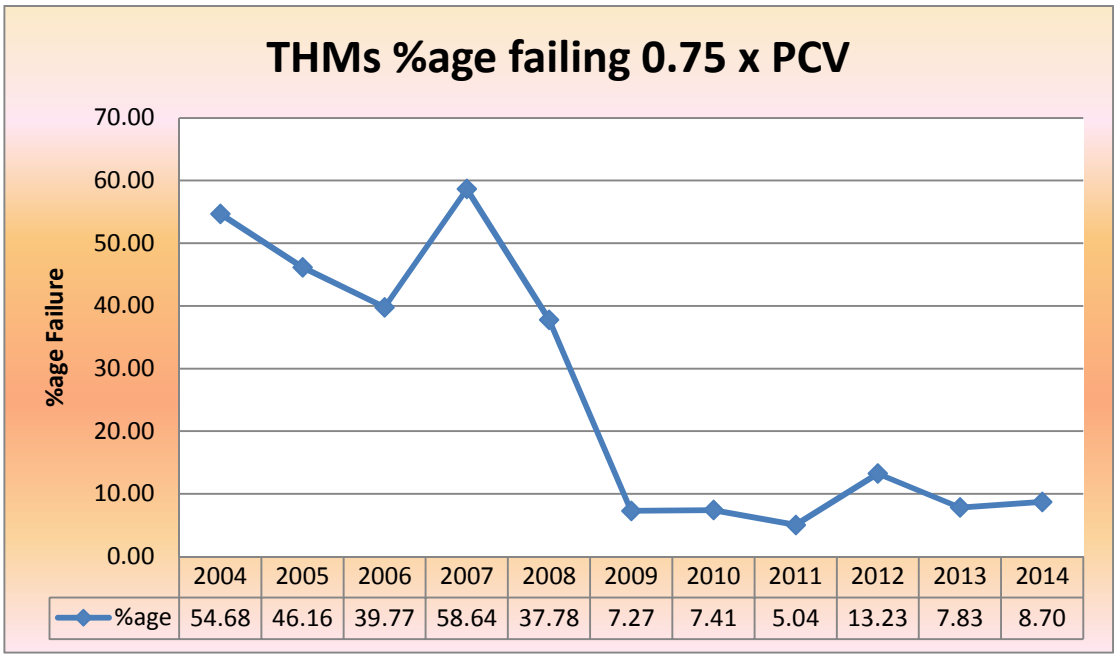
The calculations were carried out using the following data criteria:

- Prior to the calendar year to be tested, NIW determines the boundaries and populations of the water supply zones for that year, and provides a copy of that information to the Drinking Water Inspectorate (DWI).
- Only scheduled audit customer tap samples lifted to meet regulatory requirements from these zones during the calendar year are used, and using accredited laboratory analyses rather than onsite analyses.

Excluded from calculations

There were no zones excluded from the calculations

Total Trihalomethanes %age 0.75 X PCV Exceedances Chart



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
%age	54.68	46.16	39.77	58.64	37.78	7.27	7.41	5.04	13.23	7.83	8.70

Line 25 – Events at WTW resulting from treatment difficulties or ineffective treatment categorised as 'significant' or higher

The DWI is responsible for categorising Events.

Lines 26 – 28 - Coliform bacteria at Service Reservoirs

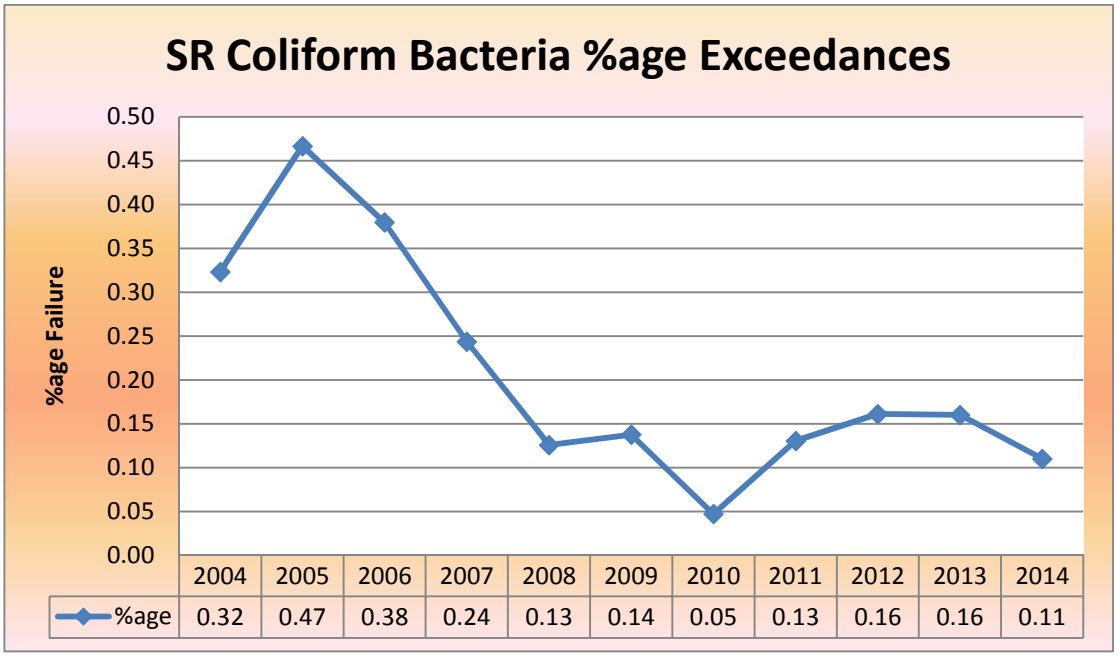
The calculations were carried out using the following data criteria:

- Only scheduled audit service reservoir samples lifted to meet Water Supply regulatory requirements during the calendar year were used, and using accredited laboratory analyses rather than onsite analyses.

Excluded from calculations

There were no SRs excluded from the calculations.

Service Reservoirs Coliform Bacteria %age Exceedances Chart



Line 29 - Unplanned (reactive) maintenance

Reporting restrictions

The ongoing development of the process for reporting of Water Non-infrastructure Unplanned (reactive) maintenance is expected to relate to the percentage availability of critical assets within this operational service area and although the principle of operation has already been proven through the development of M&E Out-of-Service databases for some equipment.

The return has been allocated a confidence grading of B2. This is due to the main factors listed;

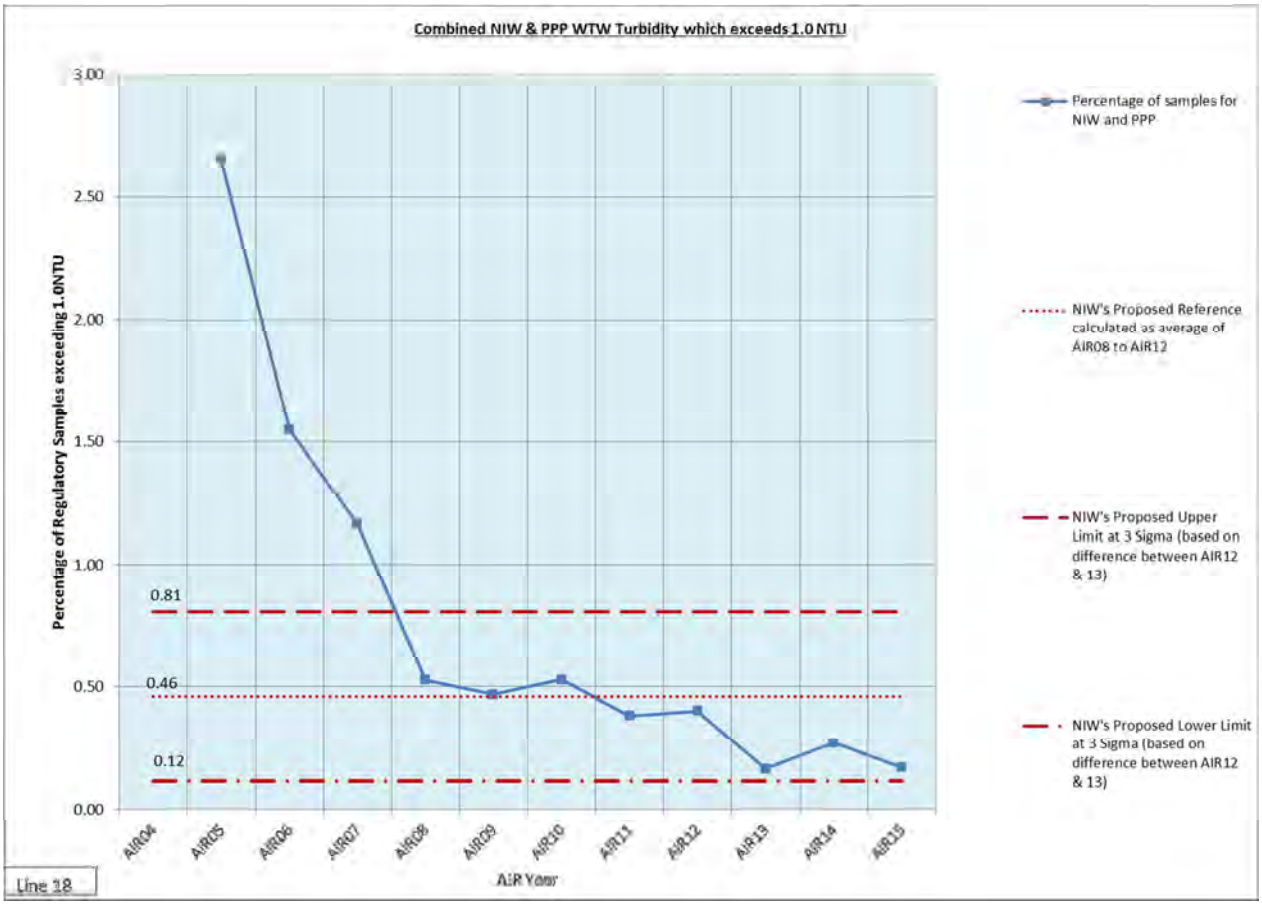
- Telemetry signal anomalies and errors can adversely affect the data for individual items of equipment.
- Equipment which is registered as "tripped in auto", "in hand" or "tripped in hand" is generally deemed to be unavailable. However those assets which are only operated in a manual capacity i.e. always "in hand" can offer misrepresentative data unless filtered out.
- The report is only run on working days i.e. Mon – Fri figures in the report are based on a maximum of 20 days for a 4 week period.

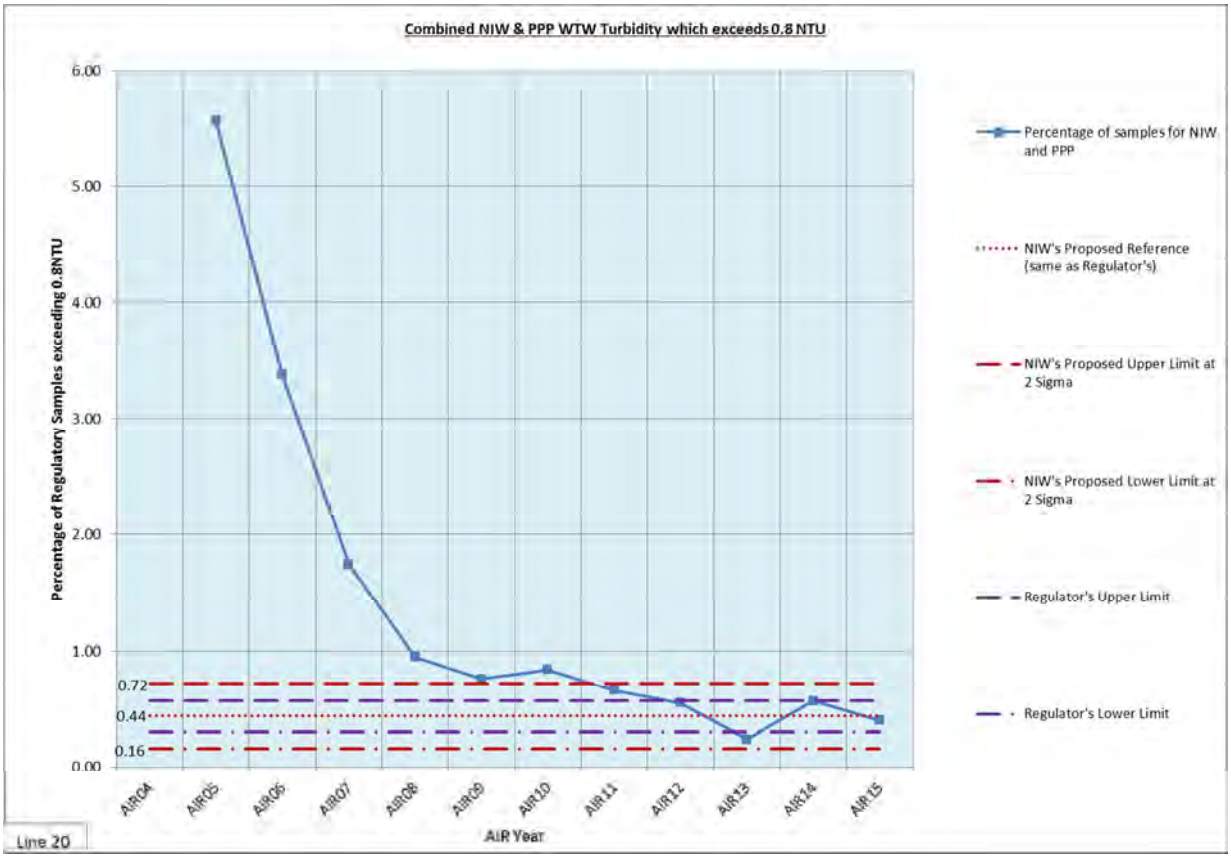
- Reporting on a daily basis means that faults that are repaired prior to the end of the working day are not recorded.
- Due to the practice of using common alarm signals, mainly at Water Treatment Works (WTW), it is not possible to report on some items of individual plant.

Line 30 – Company's overall serviceability assessment for water non-infrastructure

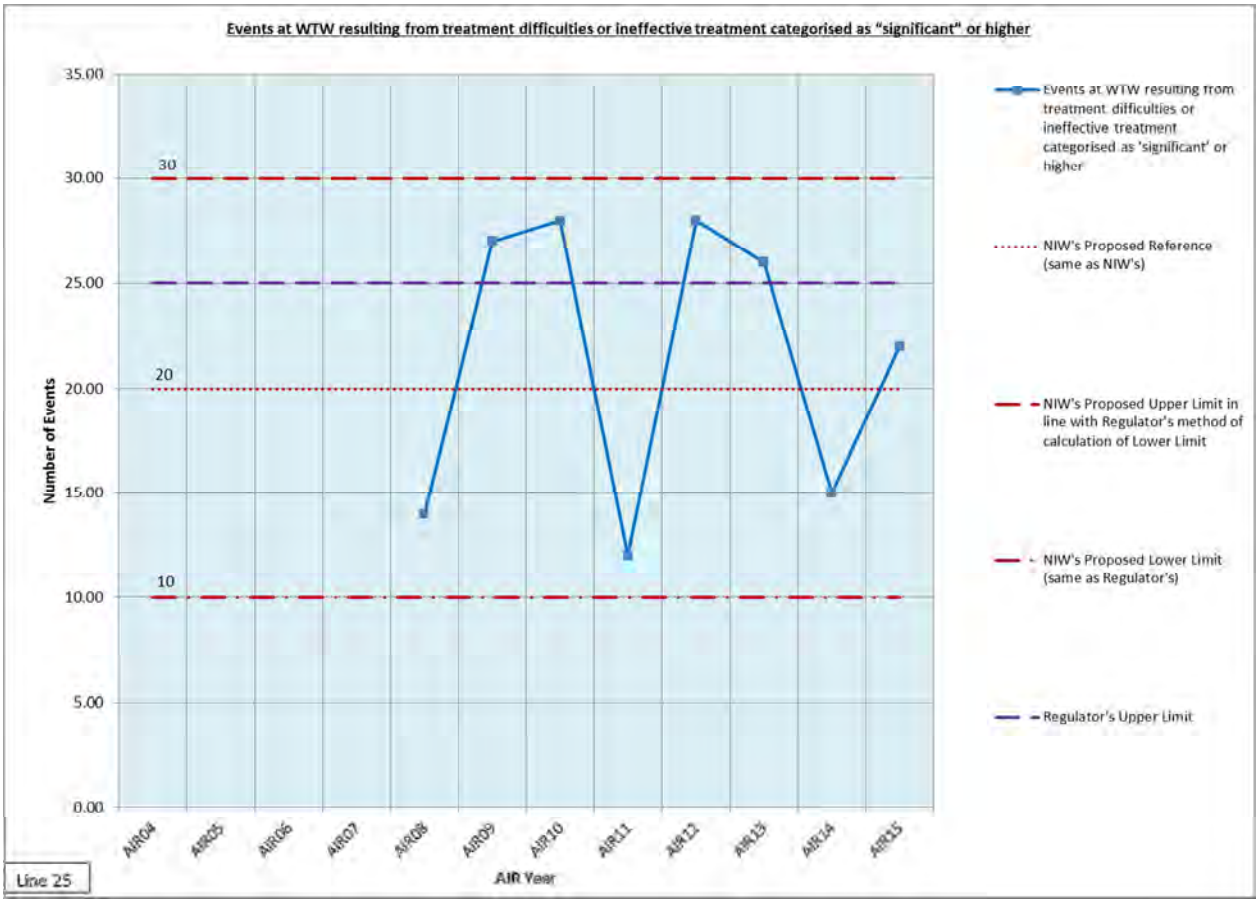
The serviceability assessment has been designated as Stable as the trend analysis associated with the basket of serviceability indicators, used to assess serviceability for water non-infrastructure, are all within the control limits based on the latest AIR15 information.

This can be seen in the serviceability graphs below:




Combined NIW & PPP WTW Turbidity which exceeds 0.8 NTU
Percentage of Regulatory Samples exceeding 0.8NTU
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.72
0.44
0.16
AIR04
AIR05
AIR06
AIR07
AIR08
AIR09
AIR10
AIR11
AIR12
AIR13
AIR14
AIR15
AIR Year
Percentage of samples for NIW and PPP
NIW's Proposed Reference (same as Regulator's)
NIW's Proposed Upper Limit at 2 Sigma
NIW's Proposed Lower Limit at 2 Sigma
Regulator's Upper Limit
Regulator's Lower Limit
Line 20

THM Compliance - percentage of samples exceeding 75% of the drinking water standard PCV
Percentage
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
14.41
6.22
AIR04
AIR05
AIR06
AIR07
AIR08
AIR09
AIR10
AIR11
AIR12
AIR13
AIR14
AIR15
AIR Year
Percentage of regulatory THM samples exceeding 75% of the drinking water standard PCV
NIW's Proposed Reference (same as Regulator's)
NIW's Proposed Upper Limit using 2 Sigma of AIR12 &13
Regulator's Upper Limit
Regulator's Lower Limit
Line 24



Line 31 – Total length of sewers

There has been no change to the structure of the data reported on this year from the previous years that would directly affect the totals provided. The same queries have been used to extract the data from the Corporate Asset Register and have been checked to ensure that they are still relevant. The confidence grade of the data will remain the same as the previous year. Any new data will have adhered to the NIW Code of Practice for the submission of asset data ensuring that data quality levels have been maintained throughout the year.

Lines 32, 33, 34, 35, 36, 37, 40, 43 & 44

Calculation Process

Data gathering and calculation for lines 34, 35, 37, 40, 43, and 43 is gathered by Wastewater Networks Field Managers using checked and paid invoices from the Sewer Maintenance Contractor and submitted through their line management (Area Managers), for quality control on an excel spreadsheet to WW Business Unit on a monthly basis. This information per area is automatically transferred to a composite Excel spread sheet to enable the information to be presented in the format as required for the AIR15 return. The nature of the collecting of the information for lines 32, 33, 36 and 44 is such that the data for these lines is purely input and not calculated.

Changes during report year

Work has progressed during the year to identify critical and lateral sewers these layers have been added to NIW's Corporate Asset Register. During this reporting period as per reporters recommendation no.6 WwBU now records the no. of inaccurate referrals (10) from the Flood Incident Line (FIL) with a view to consider providing separate training to FIL staff on the DG5 indicator.

NIW are now being more proactive in their approach to repeat blockages. NIW Customer Field Managers (CFM) now have the resource of designated field technicians who are carrying out CCTV investigations on sewers which have repeat blockage complaints any faults found have been remedied thus reducing the number of repeat incidents.

As result of further refinement at NIW's request the contractor now (end of March 2015) accurately records on their invoices what section within the sewer the blockage occurred (e.g. main, lateral or private). NIW are now in a good position for AIR16 to report on whether collapses or blockages have occurred in a private lateral, public lateral or public main sewer.

Lines 38 and 39 - Number of High (H), Medium (M) and Low (L) pollution incidents from the sewer network

The figures reported have been audited by NIEA and are reported on calendar year performance.

NIEA Classification of Pollution Incidents in 2014

Classification	CSO/Sewers/WwPS	WWTW	WTW/Distribution	Total
L	109	27	0	136
H/M	17	8	0	25
Total H/M/L	126	35	0	161

Line 42 - Total number of equipment failures

Reporting Restrictions

The MWM records do not incorporate instances of non-electromechanical devices such as storage tanks or hydrobrakes.

The failure of a pump, for example, on MWM will be recorded but not the outcome associated with this failure. It is therefore not possible to identify in isolation those equipment failures which resulted in "a detrimental impact on service to customers or the environment" since the vast majority of pumping stations possess an acceptable level of redundancy which mitigates the impact of failure on the customer.

These figures need not relate directly to equipment failures associated with M&E Services. In the vast majority of cases, for example, in SPS jobs the attendance is due to unblocking of pumpsets rather than pumpset failure. There is therefore a danger that the figures are incorrectly perceived as M&E equipment failures rather than as a result of external circumstances e.g. flash-flooding leading to blockages.

The return has been allocated a confidence grading of B2. This is due to two main factors i.e.

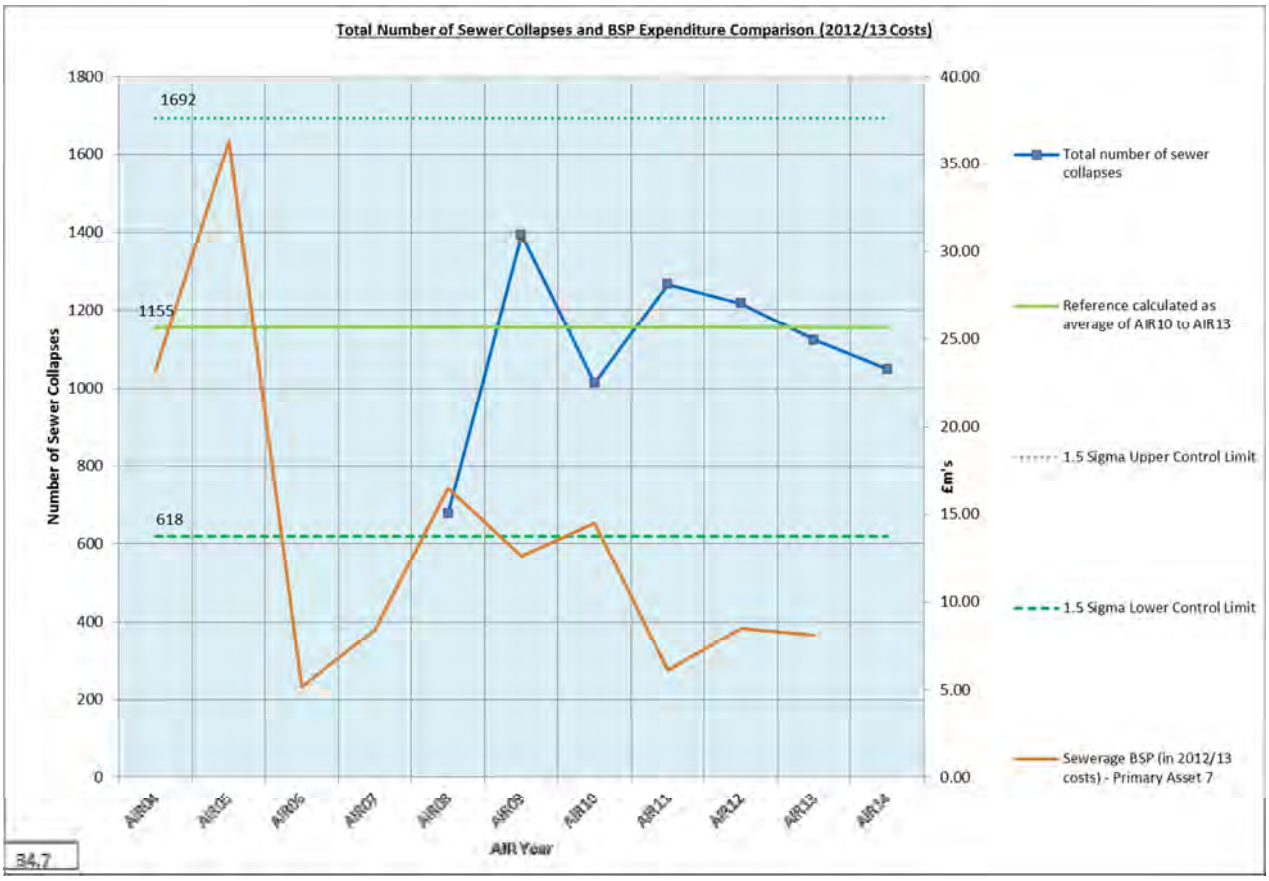
- Data is manually filtered to remove duplicate entries associated with "two-man" jobs. Given the manual element of this exercise there is some potential for error and
- Out of hours work may not all be captured using the current system which relies on all jobs being recorded on the MWM system. Given the company's current operating model this does not occur in all instances.

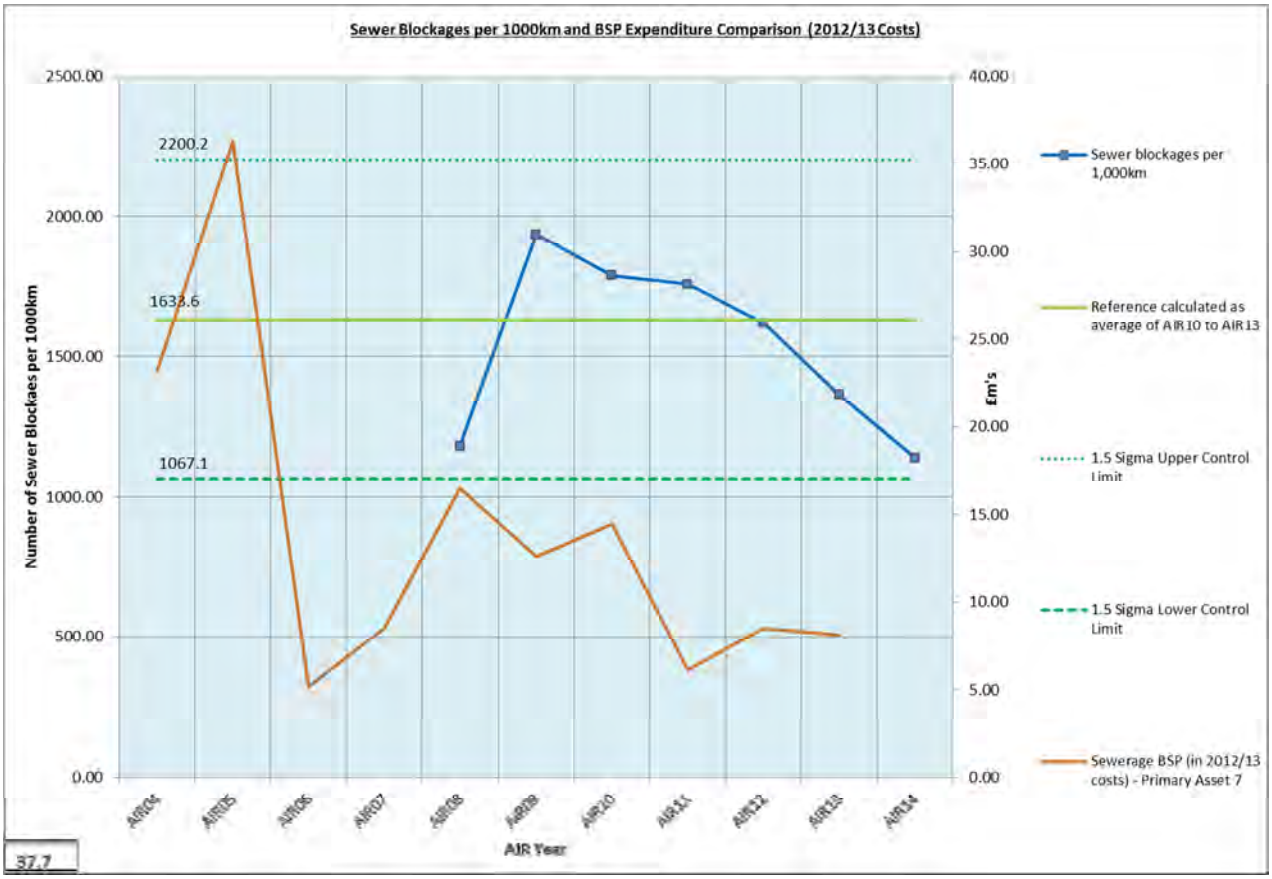
Line 45 – Company's overall serviceability assessment for sewerage infrastructure

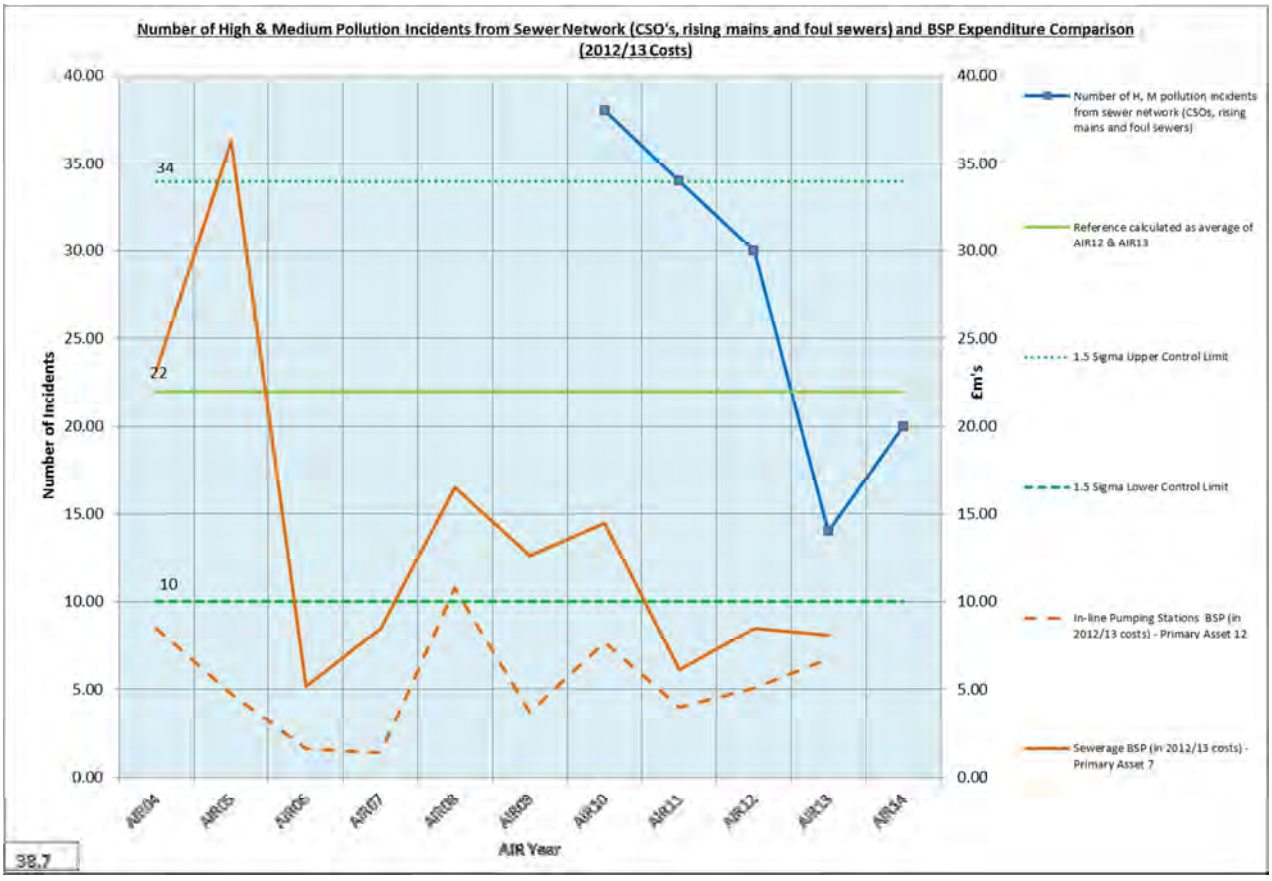
The serviceability assessment has been designated as Stable as the trend analysis associated with the basket of serviceability indicators, used to assess serviceability for

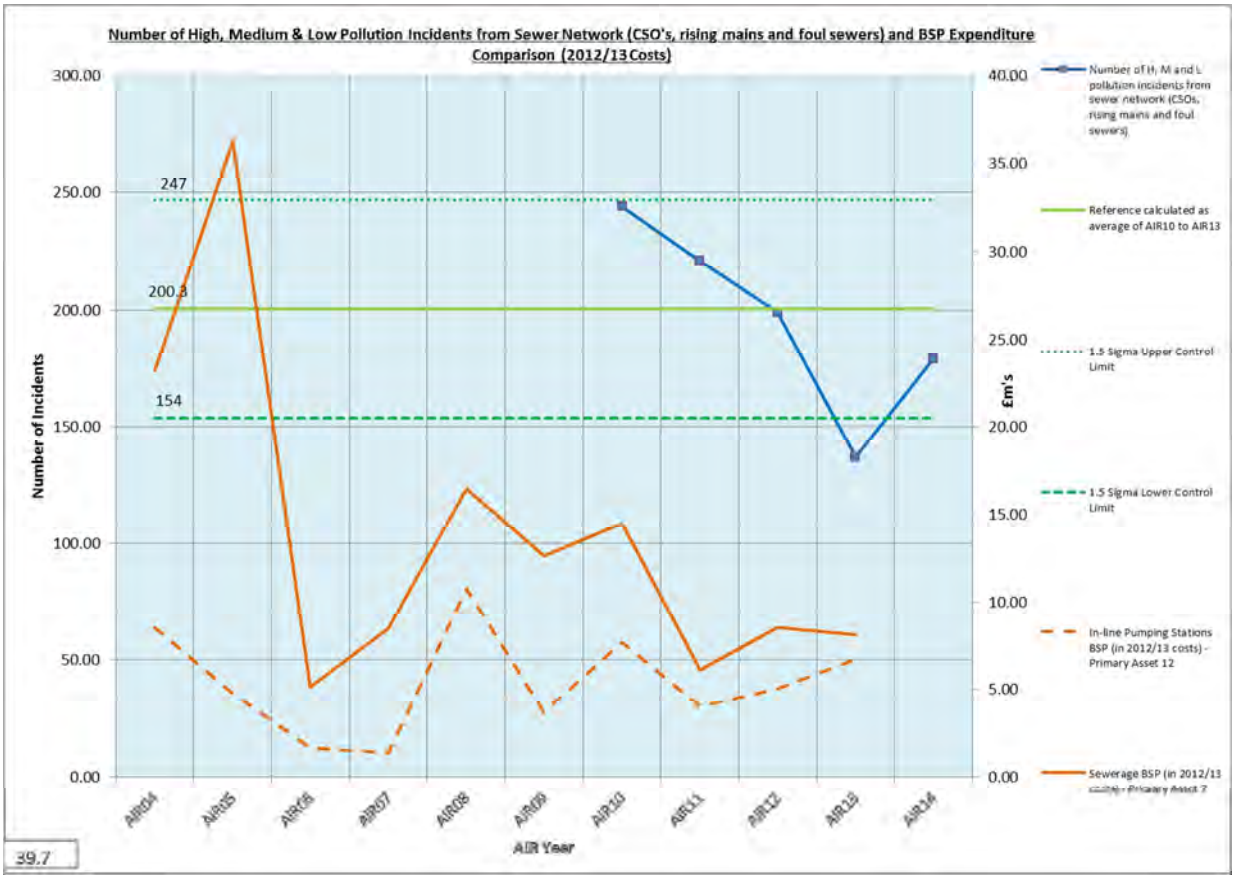
sewerage infrastructure, are all within the control limits, based on the latest AIR14 information.

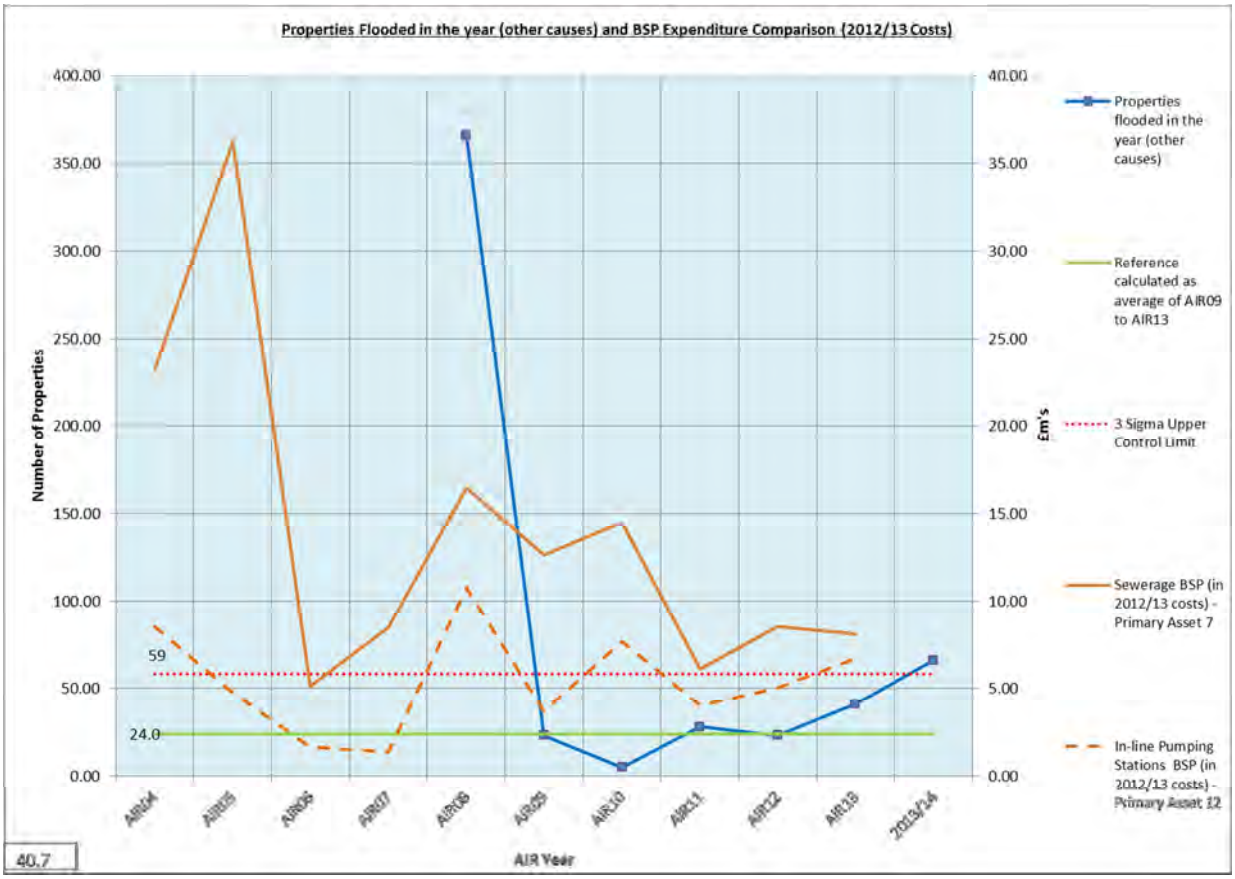
Wastewater Infra

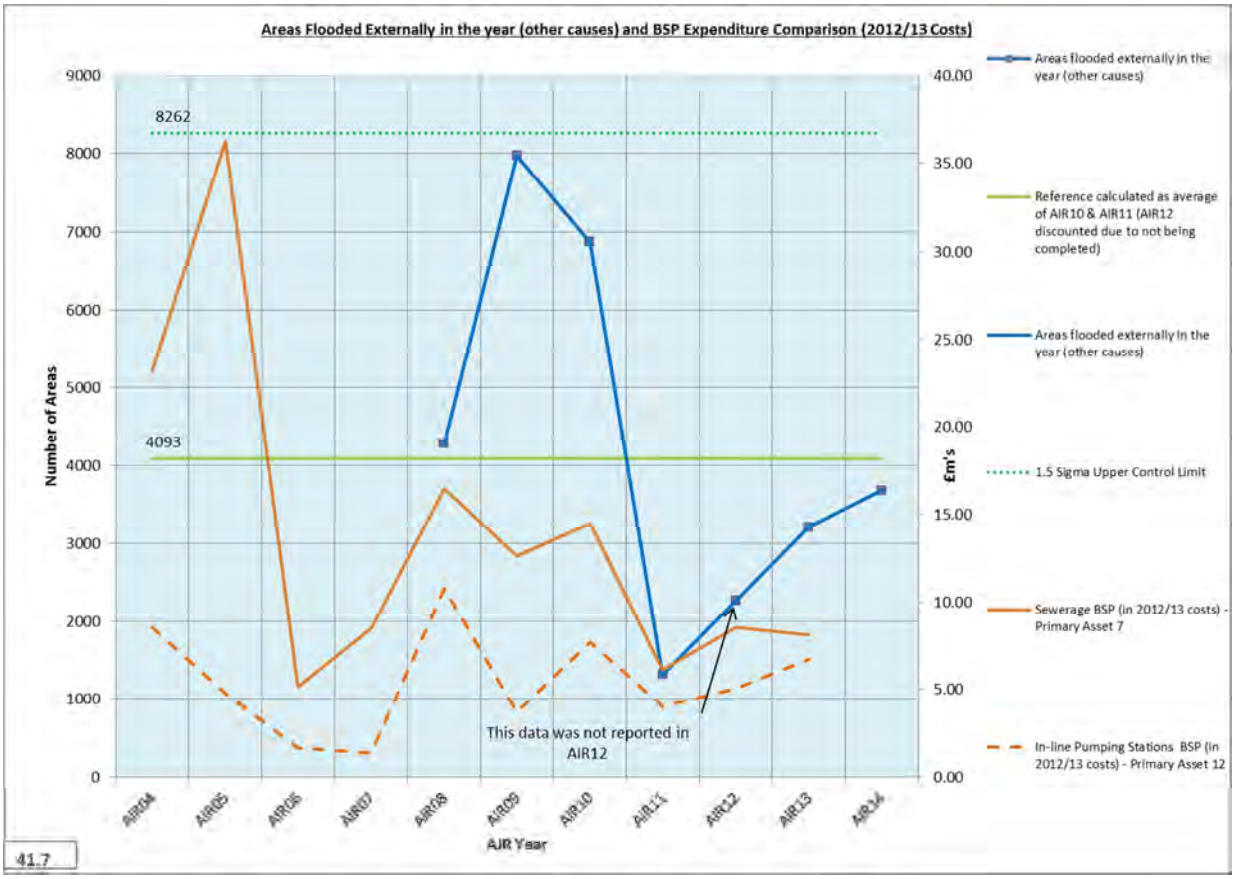


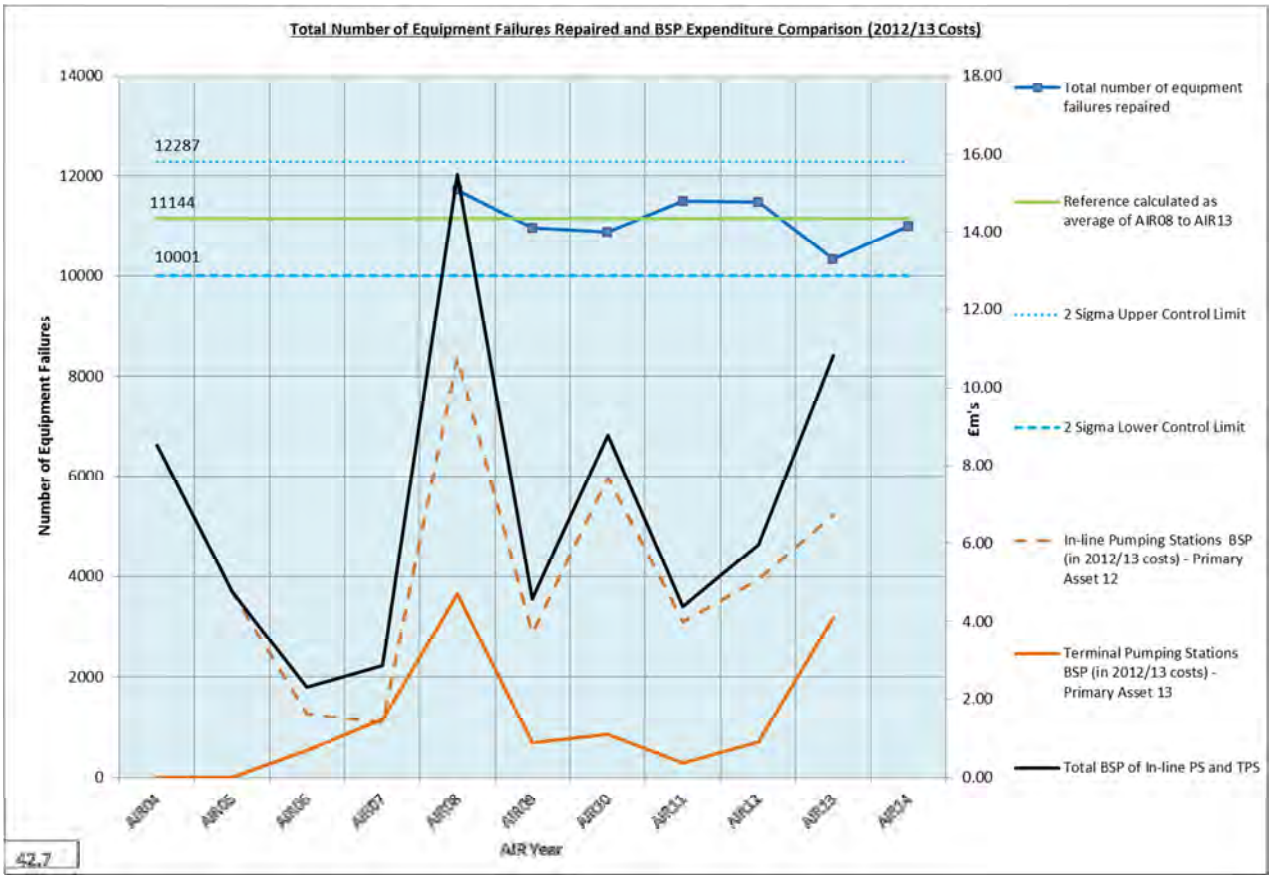

Sewer Blockages per 1000km and BSP Expenditure Comparison (2012/13 Costs)
Number of Sewer Blockaes per 1000km
£m's
AIR Year
2200.2
1633.6
1067.1
2500.00
2000.00
1500.00
1000.00
500.00
0.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
AIR04
AIR05
AIR06
AIR07
AIR08
AIR09
AIR10
AIR11
AIR12
AIR13
AIR14
Sewer blockages per 1,000km
Reference calculated as average of AIR10 to AIR13
1.5 Sigma Upper Control Limit
1.5 Sigma Lower Control Limit
Sewerage BSP (in 2012/13 costs) - Primary Asset 7
37.7


Number of High & Medium Pollution Incidents from Sewer Network (CSO's, rising mains and foul sewers) and BSP Expenditure Comparison (2012/13 Costs)
Number of Incidents
£m's
AIR Year
34
22
10
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
AIR04
AIR05
AIR06
AIR07
AIR08
AIR09
AIR10
AIR11
AIR12
AIR13
AIR14
Number of H, M pollution incidents from sewer network (CSOs, rising mains and foul sewers)
Reference calculated as average of AIR12 & AIR13
1.5 Sigma Upper Control Limit
1.5 Sigma Lower Control Limit
In-line Pumping Stations BSP (in 2012/13 costs) - Primary Asset 12
Sewerage BSP (in 2012/13 costs) - Primary Asset 7
38.7


Number of High, Medium & Low Pollution Incidents from Sewer Network (CSO's, rising mains and foul sewers) and BSP Expenditure Comparison (2012/13 Costs)
Number of Incidents
£m's
AIR Year
247
200.3
154
Number of H, M and L pollution incidents from sewer network (CSOs, rising mains and foul sewers)
Reference calculated as average of AIR10 to AIR13
1.5 Sigma Upper Control Limit
1.5 Sigma Lower Control Limit
In-line Pumping Stations BSP (in 2012/13 costs) - Primary Asset 12
Sewerage BSP (in 2012/13 costs) - Primary Asset 7
39.7


Properties Flooded in the year (other causes) and BSP Expenditure Comparison (2012/13 Costs)
Number of Properties
£m's
AIR Year
59
24.0
Properties flooded in the year (other causes)
Reference calculated as average of AIR09 to AIR13
3 Sigma Upper Control Limit
Sewerage BSP (in 2012/13 costs) - Primary Asset 7
In-line Pumping Stations BSP (in 2012/13 costs) - Primary Asset 12
40.7


Areas Flooded Externally in the year (other causes) and BSP Expenditure Comparison (2012/13 Costs)
Number of Areas
£m's
AIR Year
8262
4093
This data was not reported in AIR12
Areas flooded externally in the year (other causes)
Reference calculated as average of AIR10 & AIR11 (AIR12 discounted due to not being completed)
Areas flooded externally in the year (other causes)
1.5 Sigma Upper Control Limit
Sewerage BSP (in 2012/13 costs) - Primary Asset 7
In-line Pumping Stations BSP (in 2012/13 costs) - Primary Asset 12
41.7


Total Number of Equipment Failures Repaired and BSP Expenditure Comparison (2012/13 Costs)
Number of Equipment Failures
£m's
AIR Year
12287
11144
10001
Total number of equipment failures repaired
Reference calculated as average of AIR08 to AIR13
2 Sigma Upper Control Limit
2 Sigma Lower Control Limit
In-line Pumping Stations BSP (in 2012/13 costs) - Primary Asset 12
Terminal Pumping Stations BSP (in 2012/13 costs) - Primary Asset 13
Total BSP of In-line PS and TPS
42.7

Lines 46 – 47 and 52 – Sewerage Non-Infrastructure

Introduction

The Northern Ireland Environment Agency (NIEA) issues Water Order Consents (WOC) which set out legally binding conditions under which discharges to the aquatic environment are permitted. NI Water has in the order of 1500 WOC's covering all Waste Water Treatment Works (WWTW), Water Treatment Works, and sewerage systems.

NIEA assesses compliance on a calendar year basis, with WOC and UWWTR conditions to give the "official" compliance figure. However, to inform Management of progress on achieving Key Performance Indicators (KPI's) and address any potential problems, monthly reports are produced. In 2014 the KPI's related to wastewater treatment performance were:

- The percentage of WWTW serving more than 250 Population Equivalent (PE) compliant with the WOC and Urban Wastewater Treatment Regulations (UWWTR).
- The percentage PE served by compliant WWTW

Changes carried forward for AIR 15

1. For AIR 15 data the base for the WWTW in service aligns with the compliance figures of the KPI outturn and NIEA compliance assessment, which reports on all works in service at the start of the calendar year.

2. The pe data used to populate this table are the pe derived by the Asset Management Section (Performance Team – Above Ground) for the AIR 13 Return. This same pe were also used to calculate the number of audit samples required per site for the 2014 reporting year and agreed with (NIEA).

3. Only WWTW serving greater than 250 pe with numeric standards are included. No qualifying works were excluded from the assessment, with all regulatory samples having been sampled and analysed for the regulatory parameters.

4. The list of WWTW for AIR 15 contains a number of works which have crossed sampling thresholds. Table 1, which indicates the sampling frequencies associated with WWTW pe, is provided below.

Table 1 – Sampling Frequency Table

pe	Sampling Frequency
<250 pe	0
250 – 4,999 pe	12
5,000 – 49,999 pe	24
>50,000 pe	48

If the pe of a WWTW causes a decrease in sampling frequency, NIEA require evidence to justify the change. Evidence is required in the form of results of a flow and load survey or daily inlet sample results for a period of preferably one year but no less than six months. Table 2 indicates the WWTW affected by sampling frequency threshold changes and is provided overleaf.

Table 2 – Sampling Frequency Threshold Changes

Works Name	Pe used in AIR14	Pe Supplied by Asset Management	Threshold Being Crossed
Ballymena	113,825	80,361	100,000
Coalisland	12095	9929	10,000
Dunmurry	53,605	45,798	50,000
Dromore (Tyrone)	2,032	1917	2,000

The 2013 sample scheduling pe data, which was agreed with NIEA in November 2012, has been applied to the works in Table 2.

5. Only NI Water operated WWTW are included in assessment.

Line 46 – Percentage of WWTW discharges not compliant with numeric consents

The WOC specifies the number of samples to be taken per year and the parameters which have to be determined. A WWTW may fail if the required numbers of samples are not taken or the full range of parameter's are not determined.

Compliance for each WWTW was assessed on a parameter basis over a calendar year using the Look-Up Tables (LUT) of the Urban Waste Water Treatment Regulations (NI) 1995. This statistically derived methodology permits a certain number of exceedances, based on the number of samples taken, for each parameter included in the WOC e.g. where 24 samples are taken, three exceedances of each parameter are permitted. When this number of exceedances is surpassed a WWTW is deemed to fail. Table 3 in Appendix 1 details the relevant section of the Look-Up Table.

A number of WWTW have an additional clause in the consent known as an Upper Tier Limit (UTL) on the sanitary parameters of Biological Oxygen Demand (BOD, Suspended Solids (SS) and Ammonia (NH_4). One exceedance of this standard will lead to the WWTW failing for the year.

The WOC standards are contained in the Laboratory Information Management System (LIMS) and the audit sample results are automatically assessed against the standard. LIMS generates a standard report listing all WWTW with numeric standards and indicating the number of exceedances and whether the works has passed or failed.

A small number of WWTW have nutrient standards, nitrogen and/or phosphorus, although these are assessed on an annual average. While LIMS calculates a running average, which is displayed in the report referred to previously, it does not have the facility to compare this against a standard. This requires that the average is compared manually on an ongoing basis with the WOC standard.

Exceedances can be discounted from compliance assessment should NI Water be able to demonstrate to NIEA that, at the time of the exceedance, a works was not under normal operating conditions. The definitions of abnormal operating conditions are given in Appendix 2 but NIEA may permit discounts under other conditions e.g. skewing of performance through too many samples being lifted in a short period caused by the rescheduling of samples. Should a sample be discounted it must be replaced by another sample taken on the same day of the week. A replacement sample when entered on LIMS will register automatically on the compliance report.

NIEA can also issue interim time banded standards during capital upgrades of a WWTW. This is a more relaxed standard applicable for a specified period over which construction work may disrupt the normal treatment processes. When this time banded standard is entered in LIMS it is taken account in the production of the compliance report.

At monthly intervals (for the KPI, Board and CSDD/MT) and at the end of the calendar year, the number of WWTW which have passed their numeric WOC was calculated as a percentage of the total number of works to determine the compliance with the target.

Line 46 Calculations – Taken from AIR 15 Calculation Spreadsheet

No. of NI Water Only WWTW's = 230
No. of failing NI Water Only works = 18
No. of passing NI Water Only works = 212

18/230 x 100 = 7.83%
Reported to one decimal place = 7.8%

Line 47 – Percentage of Total PE Served by WWTW's Not Compliant With Numeric Consents

The PE served by non-compliant WWTW was calculated as a percentage of the PE served by the total number of WWTW. Upper Tier Limits (UTL) were not applied in determining this compliance. The figure reported is based on the total population.

Line 47 Calculations – Taken from AIR 15 Calculation Spreadsheet

PE of failing NI Water Only works = 33374
Total PE of NI Water Only works = 1808510
PE of passing NI Water Only works = 1775136

33374 / 1808510 x 100 = 1.85%

Lines 48-51 WWTW Parameter Non-Compliance

The methodology for statistical calculations produced involved the use of the analytical results that are used for reporting to the Environmental Regulator. These samples are held in NI Water's LIMS (Laboratory Information Management System) and are representative, scheduled audit samples. No operational results were used for calculations.

The calculation for the AIR15 submission excludes audit samples which had a population equivalent less than 250, and those ammonia tests which although the site had a Water Order Consent, there was no ammonia consent.

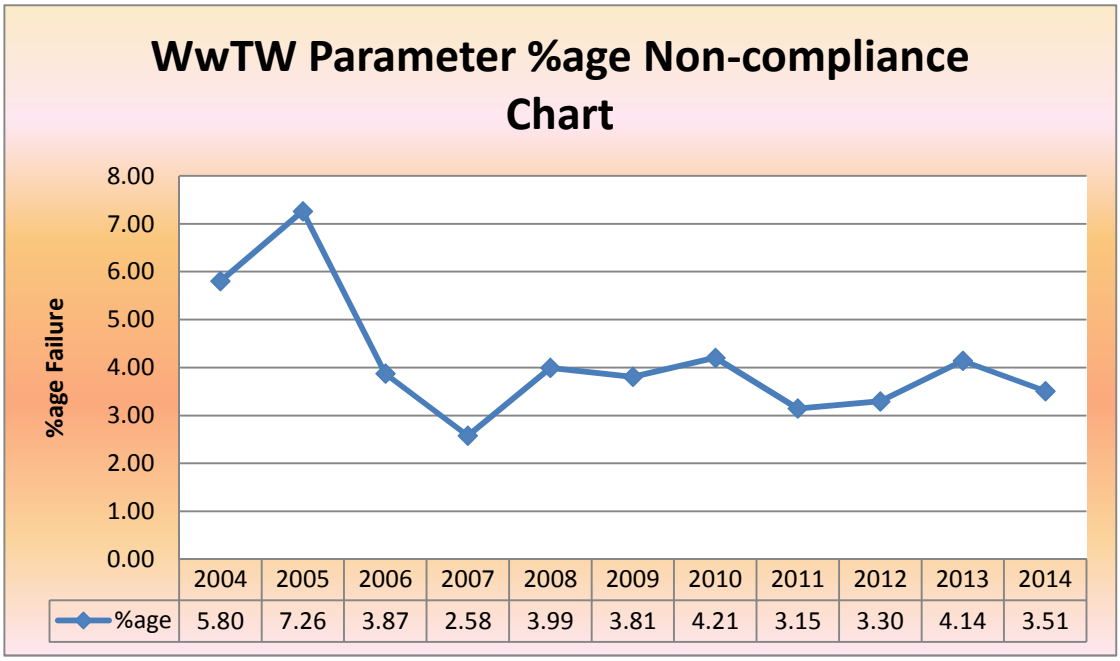
In keeping with NIEAs assessment of NIW's compliance for 2014, the submission now also includes those BODs which were sampled as part of the UWWTR compliance sampling programme. This reduces the % Non-Compliance submission slightly from 3.57% down to 3.51%

The queries also exclude those sites which have Suspended Solids scheduled as both SS_S and SS_MBR_S returning a single value for these samples instead of duplicates.

NIEA have agreed that from 2014 onwards, that NIW may reduce the sampling frequency of certain agreed sites which are unlikely to breach their consent conditions. This is typically a reduction of 50% and is reassessed and agreed on a site-by-site basis annually.

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Count	11,234	11,251	11,461	11,524	9,088	8,747	8,585	8,863	9,161	8,938	8,528
> Consent	652	817	444	297	363	333	361	279	302	370	299
% Non-Compliance	5.80	7.26	3.87	2.58	3.99	3.81	4.21	3.15	3.30	4.14	3.51

WwTW Parameter %age Non-compliance Chart



Roles and Responsibilities in Production of Compliance Statistics

The relevant personnel and contact numbers are given in Appendix 3. Contact numbers for NIEA staff are also included.

LIMS Manager/Deputy

In conjunction with the Waste Water Manager:

- Obtain PE figures from the Asset Management section in October each year and agree with NIEA by November.
- Agree the WWTW to be considered for compliance assessment and sampling schedule with NIEA in November for the following year.

Sole responsibility

- Liaise with the Laboratory Sampling Manager/Deputy in scheduling samples.
- Review standards within LIMS as instructed by the Wastewater Regulation Manager.
- Amend standards within LIMS in response to Interim Time Banded Standards (ITBS) as instructed by the Wastewater Regulation Manager.
- Liaison with Sampling Manager/NIEA on rescheduling in all instances where either spot or composite samples are not taken as scheduled.
- Activate automatic samplers for collection of UWWTR composite samples.
- Liaison with Sampling Manager and Wastewater Services scientific staff where samplers fail to operate.

Wastewater Regulation Manager/Deputy

- Joint assessment with the LIMS Manager of PE's and WWTW for compliance assessment and sample scheduling.
- Submit applications for Interim Time Bounded Standards in a timely manner to ensure the standards are in place prior to the commencement of a Capital Works project.
- Submit applications for sample discounts within the 15 day timescale set by NIEA.
- Liaise with Wastewater Services staff on ITBS applications and discounting of samples.
- Liaise with the LIMS Manager/Deputy on updating standards/discounts as received from NIEA.
- On a monthly basis, from March onwards, produce compliance data on the basis of the methodology outlined previously to meet the timeframe of the KPI, Board and CSDD/MT reports.
- Liaise with Wastewater Services staff on a monthly basis to agree compliance figures.
- Produce the end of year compliance figures by the end of February the following year.
- In conjunction with NIEA, cross check on the WWTW standards prior to the start of each calendar year.
- Review procedures prior to commencement of each calendar year.

Head of Environmental Regulation

- Audit the compliance figures as produced by the Wastewater Regulation Manager prior to submission.
- Liaise with the Head of Wastewater Services on general compliance issues.
- Liaise with the Head of Wastewater services on setting KPI targets.

Lines 52 – Small WWTW compliance measure

Small WwTW Compliance is a new measure. The figure has been derived from projections used for PC15 small works compliance subject to the Northern Ireland Environment Agency (NIEA) audit. The projection report can be located at:

Sharepoint /Asset Management /Environmental Regulation /Wastewater and Waste / RWIP / 2015 /Small works compliance projections v3

As the units for Line 52 are still to be confirmed the figure has been reported as a percentage.

Line 53 - Unplanned (reactive) maintenance

Reporting restrictions

The ongoing development of the process for reporting of Sewage Non-infrastructure Unplanned (reactive) maintenance is expected to relate to the percentage availability of critical assets within this operational service area and although the principle of operation has already been proven through the development of M&E Out-of-Service databases for some equipment.

The return has been allocated a confidence grading of B2. This is due to the main factors listed;

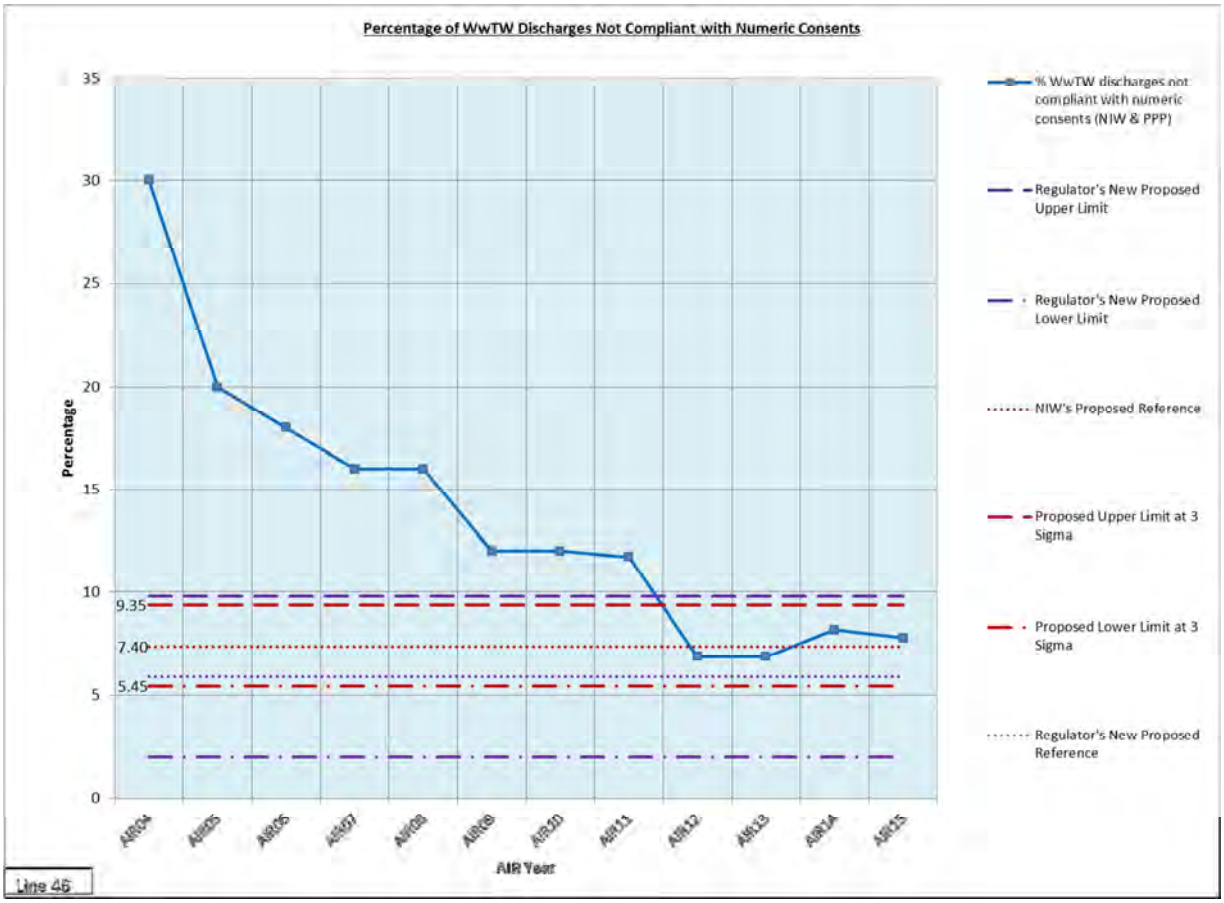
- Telemetry signal anomalies and errors can adversely affect the data for individual items of equipment.
- Equipment which is registered as “tripped in auto”, “in hand” or “tripped in hand” is generally deemed to be unavailable. However those assets which are only operated in a manual capacity i.e. always “in hand” can offer misrepresentative data unless filtered out.
- The report is only run on working days i.e. Mon – Fri figures in the report are based on a maximum of 20 days for a 4 week period.
- Reporting on a daily basis means that faults that are repaired prior to the end of the working day are not recorded.

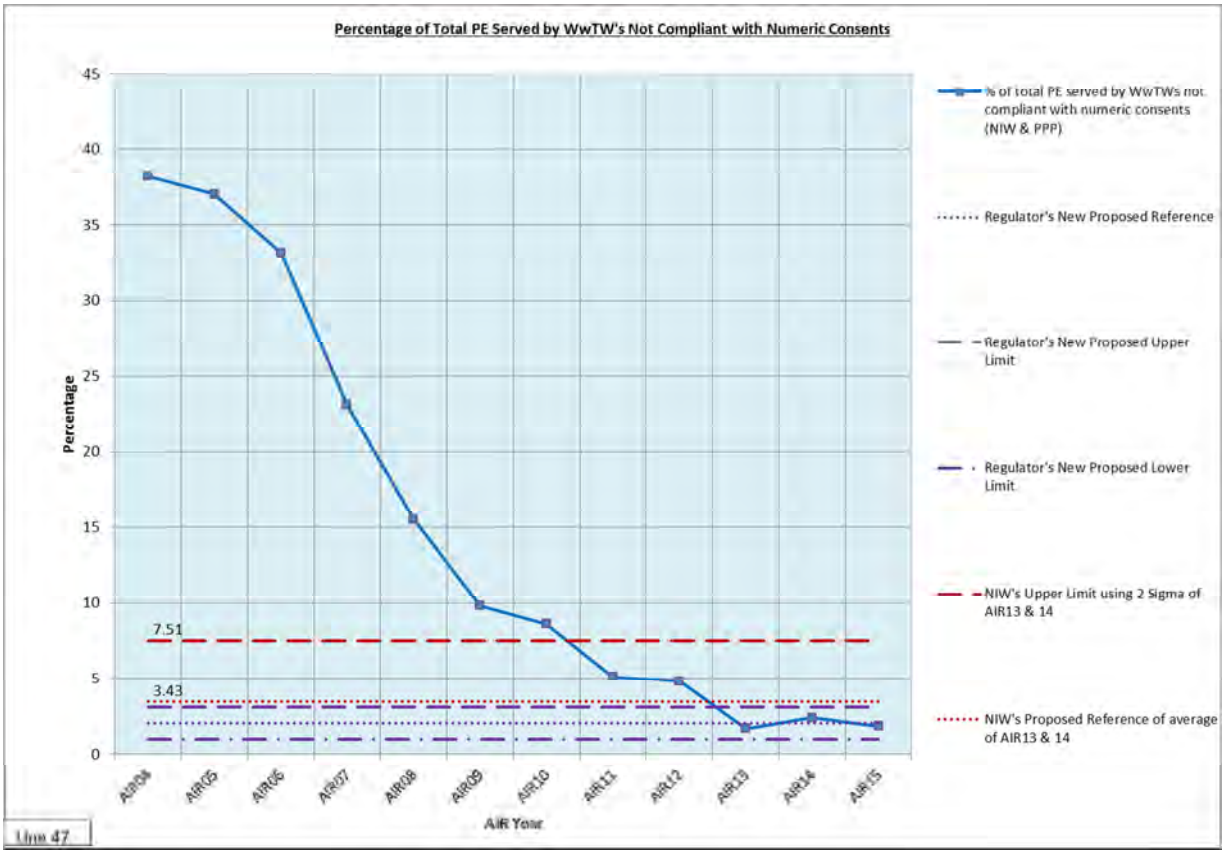
Line 54 – Company’s overall serviceability assessment for sewerage non-infrastructure

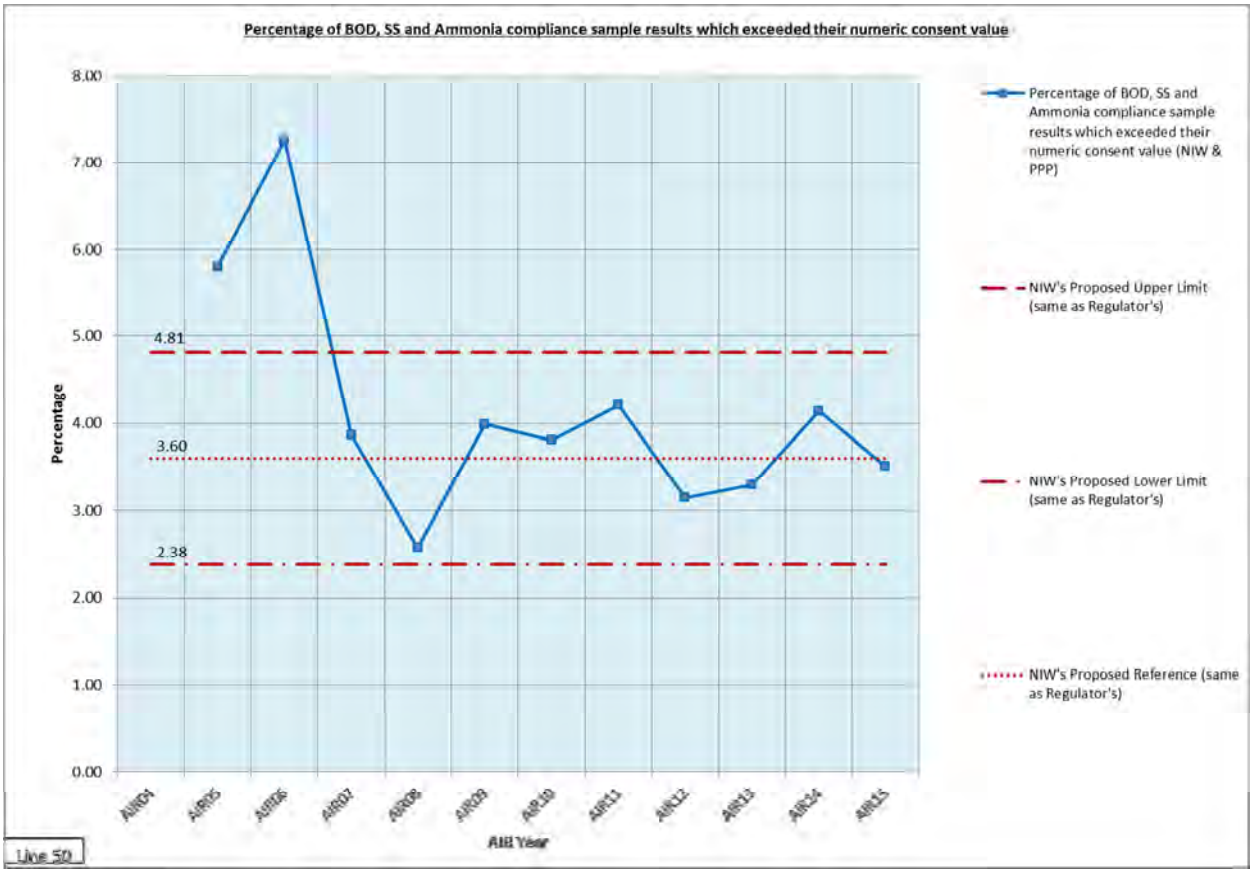
The serviceability assessment has been designated as Stable as the trend analysis associated with the majority of the basket of serviceability indicators, used to assess serviceability for water non-infrastructure, are all within the control limits based on the latest AIR15 information.

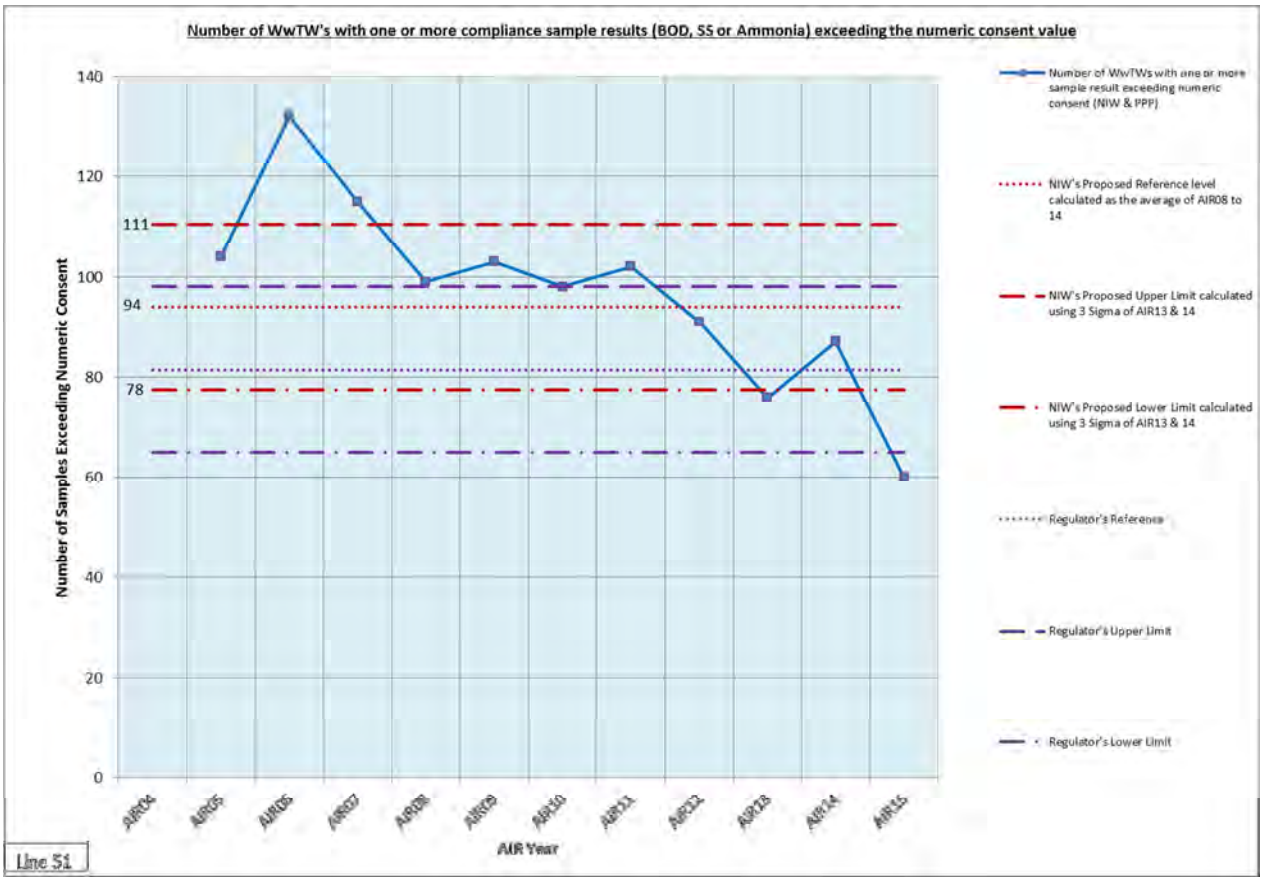
The exception to this is the indicator based on the Number of WWTWs with one or more compliance sample result (BOD, SS or Ammonia) exceeding the numeric consent value (Table 46 Line 51). There has been an in year decrease for AIR15 below the lower control limit. This indicator will be kept under review for AIR16.

This can be seen in the serviceability graphs below:


Percentage of WwTW Discharges Not Compliant with Numeric Consents
Percentage
AIR Year
% WwTW discharges not compliant with numeric consents (NIW & PPP)
Regulator's New Proposed Upper Limit
Regulator's New Proposed Lower Limit
NIW's Proposed Reference
Proposed Upper Limit at 3 Sigma
Proposed Lower Limit at 3 Sigma
Regulator's New Proposed Reference
9.35
7.40
5.45
Line 46


Percentage of Total PE Served by WwTW's Not Compliant with Numeric Consents
Percentage
AIR Year
% of total PE served by WwTWs not compliant with numeric consents (NIW & PPP)
Regulator's New Proposed Reference
Regulator's New Proposed Upper Limit
Regulator's New Proposed Lower Limit
NIW's Upper Limit using 2 Sigma of AIR13 & 14
NIW's Proposed Reference of average of AIR13 & 14
7.51
3.43
Line 47


Percentage of BOD, SS and Ammonia compliance sample results which exceeded their numeric consent value
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Percentage
4.81
3.60
2.38
AIR04
AIR05
AIR06
AIR07
AIR08
AIR09
AIR10
AIR11
AIR12
AIR13
AIR14
AIR15
AIR Year
Percentage of BOD, SS and Ammonia compliance sample results which exceeded their numeric consent value (NIW & PPP)
NIW's Proposed Upper Limit (same as Regulator's)
NIW's Proposed Lower Limit (same as Regulator's)
NIW's Proposed Reference (same as Regulator's)
Line 50


Number of WwTW's with one or more compliance sample results (BOD, SS or Ammonia) exceeding the numeric consent value
140
120
100
80
60
40
20
0
Number of Samples Exceeding Numeric Consent
111
94
78
AIR04
AIR05
AIR06
AIR07
AIR08
AIR09
AIR10
AIR11
AIR12
AIR13
AIR14
AIR15
AIR Year
Number of WwTWs with one or more sample result exceeding numeric consent (NIW & PPP)
NIW's Proposed Reference level calculated as the average of AIR08 to 14
NIW's Proposed Upper Limit calculated using 3 Sigma of AIR13 & 14
NIW's Proposed Lower Limit calculated using 3 Sigma of AIR13 & 14
Regulator's Reference
Regulator's Upper Limit
Regulator's Lower Limit
Line 51

APPENDIX 1

Table 3 – Permitted Exceedances

No of Samples	Permitted Exceedances
4-7	1
8-16	2
17-28	3
29-40	4
41-53	5

APPENDIX 2

NORMAL OPERATING CONDITIONS UNUSUAL SITUATIONS AND NORMAL LOCAL CLIMATIC CONDITIONS

1. THE REGULATIONS' TERMINOLOGY

1.1 The term "normal operating conditions" is used in paragraph 4(b) of Part II of Schedule 3; the phrase "unusual situations such as those due to heavy rain" is used in paragraph 5 of Part II of Schedule 3; "normal local climatic conditions" are referred to in regulation 4(4)(a).

2. INTERPRETATION

2.1 In order to assist in interpreting the weather conditions that might be considered to be abnormal or unusual, a definition of exceptional weather conditions is given below, together with an example of what might be considered to be other kinds of abnormal or unusual operating conditions.

2.2 The abnormal conditions set out below include capital works construction and periods of industrial action. Both are being considered by the Regulatory Committee, along with other possible exceptions suggested by other Member States. An amendment to this guidance note will be issued in the light of any guidance from the Regulatory Committee.

2.3 Definitions

2.3.1 For the purpose of this *registered standard / consent* the works shall be deemed to have been under 'normal operating conditions' except during a period when the following apply:

a.'Unusual weather conditions' which shall include the following:

i)low ambient temperature as evidenced by effluent temperature of 5°C or less, or by the freezing of mechanical equipment in the works;
ii)significant snow deposits;
iii)fluvial flooding;
iv)weather conditions causing unforeseen loss of power to the works which could not be ameliorated by the reasonable provision and operation of standby generator facilities.
b.A reduction in the level of treatment due to periods of industrial action or acts of vandalism that could not have been reasonably prevented.
c.When the Regulator has issued a variation of the registered standard for reasons such as construction of capital works.

Annual Information Return 2015

Section 3

Level of Service Methodologies

Northern Ireland Water

Level of Service Methodology

DG2 - Pressure of Mains Water

This document has been laid out in accordance with the guidance provided by NIAUR in the Annual Information Return Reporting Requirements 2014: Section 7 – Levels of Service Methodology Appendix

DG2 – Pressure of mains water

1. **Methods and procedures**
2. **Extract from DG2 register**
   - provide an extract from DG2 register
3. **Sources of information**
4. **Scope and coverage**
5. **Assumptions and exclusions**
   - including any assumptions made for surrogate for the reference level.
6. **Other issues**
   - provide any further information on issues that have arisen in the report year that impact on your methodology for reporting in the Annual Information return.

The procedure for the investigation and recommendation for removal and addition of properties to the DG2 Register is based on the 'DG2 NIWL Procedures April 2010' document produced by the Leakage Data Management Unit. The objectives of the investigation are as follows:

i. Removal/Addition of DG2 entries on the register as a result of more robust data being available (Better Information).
ii. Removal/Addition of DG2 entries resulting from capital works and networks improvements (Company Action).
iii. Investigation of customer 'Low Pressure' complaints.

1. Methods and Procedures

DG2 Investigations (excluding Rehab modelling)

The objective of a DG2 site investigation is to acquire the necessary data to allow a more detailed assessment to be carried out. The 2 key elements of this investigation are the logging of the water pressure and the gathering of accurate height data for both the logging point and DG2 property connection point. In keeping with 'DG2 NIWL Procedures April 2010' the following procedures are followed:

- Logging points are identified within the network, which do not exceed 250m in distance from the DG2 stopcock.
- The logging points are within the same DMA/PMA as the DG2 property.
- A unique logger ID is clearly assigned to the logging point.
- An accurate elevation of each logging point is provided using Real Time Kinematics (RTK) GPS. A value of 450mm is subtracted from this elevation to allow for the depth of the FH spindle.
- Logging point boundary polygons around the hydrants are digitised onto MapInfo to allow the associated properties to be assigned to the relevant logger.
- A pressure log and elevation may be taken in adjoining DMAs. This is to assist in identifying any potential for a BV change to improve the pressure at the DG2 property.
- A new ferrule elevation is produced for each property using Digital Elevation Model (DEM) 2008 data. The ferrule point value associated to each property is used to determine the height used for that property within the Total Head calculation.

To assist with the site investigation, a detailed map is produced showing the following information:

- Pointer Property data showing elevation at each property (NIW receives biannual updates from Ordnance Survey Northern Ireland).
- Water pipes, fittings i.e. SVs, Fire Hydrants (FHs) terminating nodes etc.
- DMAs and PMAs (where applicable).
- Background Vector maps.
- Required pressure logging points.

Reporting

Following field testing and site investigation routines, all data is analysed and the findings are included within a Recommendation for Removal Report or alternatively a Recommendation for Inclusion Report.

1. The removal of entries due to robust data being available.
2. The removal of genuine entries resulting from infrastructure changes.
3. The provision of detailed information to support the inclusion of properties in the DG2 Register.

If the data collected verifies that properties that are in receipt of a pressure >15m, then the DG2 properties are recommended to NIW for removal. Properties removed are supported by a brief technical assessment based on pressure loggings, RTK GPS height data and other relevant factors including the required pressure logging trace/print out.

Where properties are discovered to have been positioned incorrectly within NIW GIS resulting in their inclusion in the original register, and repositioning indicated that these properties were in receipt of pressure > 15m, these DG2 properties are recommended for removal.

Those properties identified as being in receipt of a pressure <15m remain on the Register and a brief technical assessment based on pressure loggings, RTK GPS height data and other relevant factors, including the required pressure logging trace/print out, is provided. Prior to this information being provided a brief assessment is undertaken to determine if the properties could be transferred onto an adjoining DMA/PMA. This information is included within the assessment where deemed viable.

Additional properties within logging areas determined to be in receipt of pressure <15m are recommended for inclusion on the register. As above a brief technical assessment based on pressure loggings, RTK GPS height data and other relevant factors, including the required pressure logging trace/ print out, is provided. Prior to this information being provided a brief assessment is undertaken to determine if the properties could be transferred onto an adjoining DMA/ PMA. This information is included within the assessment where deemed viable.

The potential removal of properties due to networks improvements is investigated via rationalising adjacent DMA boundaries following pressure loggings as per guidelines set out in the method statement above. All networks amendments follow the removal process and the submission of final reports leads to an update of the DG2 register.

DG2 Investigations by Rehab modelling

In the case of Rehabilitation schemes, PPRA reports associated with the various work packages are submitted to Asset Management Directorate for sign off and Leakage Function for processing in relation to the update of the DG2 Register. Leakage Data Management Unit on receipt of the suite of information including logger positioning site maps, accompanying logged data, PPRA reports and DG2 Investigation Reports align this

data to the existing register. Checks are conducted on logged information to ensure compliance in terms that each logger site is within 250m of actual properties highlighted and that minimum pressures provided correlate to expected total head values. Hyperlinks are created for each set of logged data, map and report. The DG2 register is updated accordingly.

Investigation of customer 'Low Pressure' complaints

Where low pressure complaints have been identified through the contact centre, the process of action is as follows:

- Contact Centre informs customer of known network planned or unplanned events in the area or determines if problem may be with customer supply only.
- Networks' first responder visits property to determine if pressure is a legitimate complaint. If pressure at property is assessed as being a potential DG2 issue, the complaint is passed to Leakage DMU for investigation.

Leakage DMU undertakes an investigation in accordance with 'Methods and Procedures' above. Additions and removals are processed accordingly. The facility has been developed for regular monthly updates of all DG2 properties to be uploaded onto the CARtoMAP system which is utilised by the Contact Centre in relation to low pressure complaints from customers.

UPRN	Status Date	Status	Building Nr	Primary_Thorfare	Town	Postcode	County	DMA	Pressure
187100513	30-Nov-12	In Register	181	[redacted]	Ardglass	[redacted]	Down	Sentry Hill	13.47
185292371	30-Sep-12	In Register	2	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.97
185292234	30-Sep-12	In Register	2	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	13.87
185292230	30-Sep-12	In Register	1	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.12
185290343	30-Sep-12	In Register	183	[redacted]	Ardglass	[redacted]	Down	Sentry Hill	13.07
185778557	30-Sep-12	In Register	10	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.79
185292251	30-Sep-12	In Register	5	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	13.90
185292239	30-Sep-12	In Register	3	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.01
185292245	30-Sep-12	In Register	4	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	13.82
185292368	30-Sep-12	In Register	16	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.71
185292366	30-Sep-12	In Register	14	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.86
185292364	30-Sep-12	In Register	12	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.89
185292362	30-Sep-12	In Register	10	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.95
185292259	30-Sep-12	In Register	8	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	14.06
185292258	30-Sep-12	In Register	7	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	13.82
185292257	30-Sep-12	In Register	6	[redacted]	Ardglass	[redacted]	Down	Loughrans Tower	13.89
185207712	31-Aug-12	In Register	156	[redacted]	Donaghadee	[redacted]	Down	Portavoe Donaghadee	7.94
185207711	31-Aug-12	In Register	154	[redacted]	Donaghadee	[redacted]	Down	Portavoe Donaghadee	8.07
185207710	31-Aug-12	In Register	152	[redacted]	Donaghadee	[redacted]	Down	Portavoe Donaghadee	8.44
185207709	31-Aug-12	In Register	150	[redacted]	Donaghadee	[redacted]	Down	Portavoe Donaghadee	8.65
185207714	31-Aug-12	In Register	160	[redacted]	Donaghadee	[redacted]	Down	Portavoe Donaghadee	7.51
185207715	31-Aug-12	In Register	162	[redacted]	Donaghadee	[redacted]	Down	Portavoe Donaghadee	7.43

3. Sources of information

For AIR14 the following information was used

- Post Project Rehabilitation Assessment reports (PPRAs) and their associated DG2 Investigative Reports (DIRs) are submitted when specific watermain rehabilitation schemes are completed and include the relevant data and reports to merit alterations to the DG2 register.
- Recommendation for Removal reports are produced on conclusion of networks improvements to merit deductions from the DG2 register.
- Recommendation for Inclusion reports are produced to substantiate the addition of properties to the DG2 register based on better information.

4. Scope and coverage

The ongoing maintenance of the existing DG2 register through the removal of properties due to company action via the processing of PPRA reports submitted during the reporting year. These are the direct result of work the majority of which were completed in the 2012/13 year. Similarly, additions to the company register were processed where better information became available.

5. Assumptions and exclusions

NI Water does not currently have in place a permanent pressure monitoring network and is not in a position to identify exclusions arising from intermittent network incidents or infrastructure changes. Assumptions for AIR14 are identified in the methodologies described above. A surrogate pressure of 15m has been used to identify DG2 properties.

Deviation from the conditions laid out by NIW for DG2 property investigations.

Due to the rural nature of some DMAs it is not possible in some exceptional cases, i.e. groups of DG2 entries within individual DMAs, to undertake logging within 250m of the DG2 property as set out in the NIW methodology. In these instances a number of Fire Hydrants are logged to enable an accurate pressure profile of the DMA to be established.

The following alternative procedure is used:

- A desktop study of the DMA containing DG2 entries is undertaken.
- A series of FHs are identified for pressure logging. The locations are selected to ensure that an accurate pressure profile of the DMA is established.
- Data loggers are fitted to log the pressures over a seven day period.
- All logging points are surveyed using RTK GPS; this provides accurate height data for Total Head calculations. A value of 450mm is subtracted from the elevation to allow for the depth of the hydrant spindle.

On compilation of this data, a revised analysis is undertaken to determine the nature of supply and create a pressure profile within the DMA/PMA to determine potential DG2 entries. If the pressure profile shows that the Total Head within the DMA/PMA is sufficient to provide adequate pressure, the results from the field testing and analysis are presented as evidence for removal of the DG2 entries and a Recommendation for Removal Report is issued.

In line with previous procedures, where analysis identifies properties that are in receipt of a surrogate pressure <15m, they will remain, or be added to the Register in accordance with NIW procedure.

Northern Ireland Water

Levels of Service Methodology

DG3 Supply Interruptions

This document has been laid out as follows:

1.0 Objective & Aim
2.0 Reporting Requirements
3.0 Definitions
4.0 Procedure
5.0 Records
6.0 Reporting
7.0 Void Properties
8.0 'No Water/Low Pressure' Complaints

Appendix A – Roles and Responsibilities
Appendix B – Process Flow Diagram – Unplanned Interruptions
Appendix C – Process Flow Diagram – Planned Interruptions
Appendix D – Pro forma - Interruption Record Sheet
Appendix E – Pointer 2.1 Specification Extracts
Appendix F – CRC Call Scripts for 'No Water/Low Pressure' Complaints
Appendix G – DG3 Interruptions to Supply Register Extract

1.0 OBJECTIVE & AIM

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.

The aim of the register is to allow verification and audit of the reported information for DG3 and to enable the identification of the properties affected. It should contain information on the timing, duration and cause of each interruption and sufficient information to enable all properties affected by interruptions lasting more than three hours to be identified. Therefore, the register should include:

- properties affected (by name and location or number and street);
- date and time of interruption;
- duration of interruption and time supply restored;
- cause of interruption;
- notice given; and
- the name of person responsible for entering records in the system.

The DG3 Interruptions to Supply Register is compiled and held by Customer Systems in Capital House.

2.0 REPORTING REQUIREMENTS

The information to be reported within Table 2 of the Annual Information Return (AIR) is as follows:

2.1 Line Descriptions

Line	Description
5	More than 3 hours unplanned
6	More than 6 hours unplanned
7	More than 12 hours unplanned
8	More than 24 hours unplanned
9	More than 3 hours planned and warned
10	More than 6 hours planned and warned
11	More than 12 hours planned and warned
12	More than 24 hours planned and warned
13	More than 3 hours unplanned caused by third parties
14	More than 6 hours unplanned caused by third parties
15	More than 12 hours unplanned caused by third parties
16	More than 24 hours unplanned caused by third parties
17	More than 6 hours unplanned due to overrun of planned and warned
18	More than 12 hours unplanned due to overrun of planned and warned
19	More than 24 hours unplanned due to overrun of planned and warned

Note: Interruptions should be reported under each relevant time band so that the category for interruptions exceeding:

- 3 hours also includes all interruptions lasting more than 6 hours;
- 6 hours also includes all interruptions lasting more than 12 hours; and
- 12 hours also includes all interruptions lasting more than 24 hours.

Each interruption should be classed as a single interruption event, and should be recorded under only one of the four categories of: unplanned or unwarned, planned and warned, unplanned caused by third parties and, unplanned or unwarned due to overruns of planned and warned interruptions. If there are a significant number of overruns between 3 and 6 hours, the number should be reported in the commentary.

Further guidance, if required may be found in the Annual Information Return Reporting Requirements & Definitions Manual 2015, Issue 1.0 – March 2015.

3.0 DEFINITIONS

3.1 Interruption

An interruption to supply is defined as the actual loss of water supply to a property, whether planned or unplanned, warned or unwarned.

Supplies may be affected by other factors, for example, lower pressure through the flushing of mains, or restrictions on use. These are also covered under the DG2 and DG4 procedures.

3.2 Start Time Determination

The outage commences when the first customer contacts the contact centre (as per current methodology).

3.3 End Time Determination

The outage is deemed to be fully recovered on the turning of the isolation valve. Although it is acknowledged that, on occasions, there will be a slight lag between the valve operation and all properties having their supply restored, in the majority of cases the opening of the main supplying valve will result in the end of an interruption.

Note: The time on the customer's warning card is used to determine whether or not a planned and warned interruption overruns. It is not used to determine the End Time.

3.4 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 to the last property affected by the interruption is restored to the tap.

3.5 Planned Interruption Duration Determination

When calculating the duration of a planned interruption, the Start Time is taken as the time when the valve is turned off and the End Time is taken as the time when the valve is turned on (plus an allowance for mains charging if this is deemed to be necessary). This ensures that reporting is in line with the regulatory definition below:-

'Duration is defined as 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 to the tap.**'

If a planned and warned interruption commences before the Planned Start Time, the interruption is re-categorised as an unplanned interruption.

If a planned and warned interruption commences after the Planned Start Time, the time between the planned start and actual start is not included in the duration.

If a planned and warned interruption finishes before the Planned End Time, the time between the actual end and planned end is not included in the duration.

If a planned and warned interruption finishes after the Planned End Time, the interruption is re-categorised as an unplanned interruption (overrun of a planned interruption).

3.6 Event
Event is the term used by NI Water to describe its involvement in an abnormal occurrence in its services to customers.

3.7 Planned & Warned Interruption
This is where notice of an interruption (> 3 Hours) is provided to properties affected at least 48 hours in advance of the beginning of the interruption.

3.8 Unplanned/Unwarned Interruption
This is when an unplanned or a planned and unwarned interruption to supply occurs. Properties receiving less than 48 hours notice of a planned interruption (> 3hrs) are to be counted as 'unplanned' and reported under this category. Any planned interruption that is started before the planned date and time contained in the warning notice, whether this occurs within a 48 hour warning period or not, is also to be re-categorised as 'unplanned'.

3.9 Overruns
When a planned and warned interruption continues beyond the end of the warned time, for whatever reason and whether or not a customer has been advised during the shutdown that an overrun is going to occur, the interruption is described as an overrun and is reported separately.

3.10 Third party interruption
A third party is defined as anyone who does not act for, or on behalf of NI Water. This category is intended to cover damage 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. Where a third party interruption is not caused by a third party, but repair may be delayed by a third party, for example when a gas main runs close to a water main and needs to be isolated, the whole of the duration on the interruption must be reported as an unplanned interruption. Companies can describe this event in their commentary.

3.11 Electrical Failures
Interruptions to supply caused by electricity supply failures must be reported as unplanned, unwarned interruptions, and identified in the records as caused by electrical failure to enable the details to be included in the NIAUR Return commentary.

3.12 Properties affected by more than one interruption during report year
Properties, which are affected by more than one interruption during the report year, should be reported separately for each interruption. This means, for example, that a property affected by three supply interruptions would be reported three times, once for each interruption. Where properties are affected by repeat interruptions on the same day, these should only be counted separately where there is a minimum of one hour between the interruptions for the supply to be available (e.g. to refill storage tanks). When shorter gaps occur the duration is counted from the start of the first interruption until the last restoration of supply.

4.0 PROCEDURE
It should be established before any work is carried out on site, which function is responsible for the collection of information for the interruption record. In general, whichever function operates the valves to cut off supply at the site of an interruption is also responsible for the collection and ownership of the information.

4.1 Planned Interruptions (lasting > 3 Hours)

Planned interruptions to supply arise as a result of work being carried out by different functions within the Customer Service Delivery Directorate or by functions within other NI Water Directorates. These have been identified as follows:

- Planned interruptions carried out by Networks Water,
- Planned interruptions carried out by Leakage Services,
- Planned interruptions carried out by Engineering Procurement (EP) and,
- Planned interruptions carried out by Customer Field Services.

Regardless of the source of the interruption to supply, all planned interruptions must follow the procedures for giving the appropriate warnings. Each function is responsible for collecting and recording all appropriate information to be included in the DG3 Interruptions to Supply Register.

All affected properties must be notified by letter, or card drop, at least 48 hours before the shutdown, notifying them of the planned times and dates of shutdown and the restoration of supply. A minimum of 48 hours warning must be given for planned interruptions greater than 3 hours. The start of the warning occurs when the last card has been delivered or the last letter sent to the properties affected. If for example, there is estimated to be 500 properties to be warned, the card drop operation starts at 9.00am on 2nd July and finishes at say 2.00pm, then the warning period starts at 2.00pm for 48 hours and work should not start on site on the planned interruption until 2.00pm on the 4th July.

A copy of the letter of notification or the information contained on the card used in the card drop should be sent to the following for information – Customer Relations Centre Front Desk, Work Planning Unit, Telemetry Control Centre, Functional Manager and relevant Northern Ireland Fire and Rescue Service. For contact details see Appendix A.

The number of properties affected by a planned interruption should be determined by the most accurate means available at the time of:

a) planning activity;
b) the interruption; or
c) any subsequent more detailed investigation.

At the time of the initial assessment this is likely to be by property count or an estimate based on local knowledge. For recommendation for estimating numbers of properties see paragraph 5.3.

4.2 Planned interruptions carried out by Networks Water or Leakage Services

Field staff on site are to record all information on a paper pro forma, known as an Interruption Record Sheet (see Appendix D). The pro forma contains the raw data associated with the interruption and is retained for audit purposes. The information is also communicated to the Work Control Centre (during normal working hours) and the Telemetry Control Centre (outside normal working hours) where staff will already have opened an event on the Central Incident Management System (CIMS) and will use the information to update/populate the remaining fields associated with the event.

During the course of an interruption, field staff will continue to provide the WCC or TCC with regular updates on progress and the CIMS event details will be updated accordingly. When the interruption has ended, the CIMS event record will be closed with a status of ‘Closed – DG3 Record Required’ and the Field Manager responsible will review the details with the Field Technician and amend the information as necessary.

The following fields of information are required to enable a CIMS Planned Interruption Event to be created:

- Cause
- Warning details
- Planned start / finish
- Public narrative
- Incident location / areas affected

The following CIMS fields should be updated during the course of a planned interruption event:

- Estimated restoration time / date
- Actual restoration time / date
- Water sampler contacted
- Public narrative

4.3 Planned interruptions carried out by EP or Customer Field Services

EP and Customer Field Services use a combination of a paper pro forma (Appendix D) and an MS Excel spreadsheet template, known as a Contractor Return Sheet, to record the details of interruptions as the contractors that carry out the work for these departments do not have access to CIMS. Each month, an appropriate member of EP or Customer Field Services will sign off the information to be recorded retrospectively on CIMS. Details of the spreadsheet template can currently be obtained from Customer Systems in Capital House.

CIMS planned interruption events relating to the EP Directorate should be created by EP staff in advance of planned interruptions taking place on site. The Warning Issued Date and Time, Planned Start Date and Time, Planned Restoration Date and Time, cause of interruption and properties affected are the only details that can be input in advance. This information will be used by staff in the CRC when providing updates to customers.

During the interruption, the contractor will record the details of the interruption, including the Actual Start Date and Time and Actual Restoration Date and Time, on an Interruption Record Sheet. The contractor will also summarise the information from the Interruption Record Sheets for each month in a Contractor Return Sheet. Contractor Return Sheets will be forwarded to EP staff who will use the details to update the CIMS interruption event records. This task will be completed both monthly and retrospectively. A copy of the Contractor Return Sheets is also to be forwarded to Customer Systems for incorporation in the monthly DG3 Composite Report.

4.4 Unplanned Interruptions carried out by Networks Water or Leakage Services

The event trigger for a CIMS unplanned interruption event to be created is 4 ‘no water’ complaints in a single DMA within an hour, or when the WCC/TCC is informed by the Field Technician that the water is being turned off.

As defined above, unpredicted events such as mains bursts, or interruptions that are planned but where customers are not warned at least 48 hours in advance, are classified as unplanned interruptions.

Unplanned interruptions are mainly the responsibility of the Networks Water function and information should be recorded using CIMS.

Following receipt of a 'No water/Burst main' complaint the Field Manager will investigate as soon as possible and provide 'status updates' to the Work Control Centre on the progress of remedial works. The Field Technicians on site will record all information on a paper pro forma (Appendix D) and the pro forma will be retained for audit purposes. The Field Technicians will also provide regular timely updates on the progress of such events to the Work Controllers, Duty Managers and Telemetry Operators. Details including the cause of interruption, the time the repair is commenced, the estimated restoration time and the time the repair is complete are to be recorded on CIMS.

Area Managers may be made aware of interruptions other than as a result of customer calls. In such cases, the Field Managers should ensure that relevant details are passed to the WCC for processing.

Details input to CIMS are to include the Interruption Start Time, as noted by the first affected customer, the time at which the supply was restored and whether or not a third party or an electrical supply failure was the cause.

The following fields of information are required to enable a CIMS Unplanned Interruption Event to be created:

- Time of first call
- Estimated restoration time
- Public narrative
- Incident location / areas affected

The following CIMS fields should be updated during the course of an unplanned interruption event:

- Public narrative
- Cause
- Mains type / material
- Repair commenced date / time
- Supply restored date / time
- All properties restored date / time
- Water sampler

Note: A record should be created for every burst main, even if the properties affected are zero as there is a requirement to record all bursts on DG3.

4.5 Unplanned interruptions carried out by EP or Customer Field Services

CIMS unplanned interruption events relating to the EP Directorate are created by WCC and TCC staff in the same way that other CIMS unplanned interruption events are created. Sometimes, the contractor may be unaware that an unplanned interruption has occurred, for example, if the contractor forgets to open a valve. The CIMS process ensures that such interruptions are captured by the Company. In cases where the contractor is aware of having caused an unplanned interruption, for example, a burst main, the contractor will provide details of the interruption in the Contractor Return Sheet.

4.6 Number of properties affected

An estimation using practical evaluation and contouring from NIW's GIS system will be used to give a more accurate estimate of drawdown of the system.

5.0 RECORDS

Overall responsibility for DG3 records lies with the Head of Networks Water. However, the DG3 Register is compiled and held by Customer Systems in Capital House.

Interruption records relating to the Networks Water and Leakage Services functions are recorded on CIMS. Interruption records relating to Engineering Procurement and Customer Field Services are also recorded on CIMS but on a retrospective basis. As EP and CFS contractors do not have access to CIMS, their details are initially recorded on an MS Excel spreadsheet template before being entered onto CIMS by NI Water staff.

5.1 Interruption Recording using CIMS

When an event is created on CIMS, the event can be one of the following:

- Unplanned Interruption
- Planned Interruption
- Flooding
- Water Quality

CIMS can be used to specify whether or not:

- an Unplanned Interruption event was caused by a third party
- a warning was issued for a Planned Interruption event
- the amount of warning was sufficient for a Planned Interruption event
- a Planned interruption event occurred during the planned time

In this way, CIMS can be used to report on all four regulatory categories of interruption.

When all information has been entered onto CIMS, the information is then extracted in the form of a report. A number of reports are available for selection including:

- RPT1151 – Historical DG3 Interruption Records Report,
- RPT1152 – Historical DG3 Interruption Addresses Report,
- RPT1155 – 'Live' DG3 Unplanned Interruption Records Report
- RPT1156 – 'Live' DG3 Planned Interruption Records Report.

When a CIMS interruption event record has been created and closed with the status of 'Closed – DG3 Record Required', it is then the responsibility of the Field Manager to review the record and to amend the details according to the information provided by the Field Technician and information obtained through the GIS polygon process. Once the Field Manager is satisfied that all amendments have been made, the record should be approved and passed to the Customer Field Manager for review and approval. The record should then be passed to the Area Manager for review and approval, to the DG3 Customer Services Coordinator for review and approval and finally, to the Head of Networks Water for review and approval. If the CFM, AM, DG3 CS Coordinator or HoF find any issues with the information, they have the option to reject the record.

Most of the information required will be able to be input directly onto the input screen and will probably not be altered. Some information e.g. house numbers and addresses will be initially estimated by the Field Technicians or the Field Manager. However more investigative work may be required to give an accurate number of houses. The interruption record can then be updated when this information becomes available. For procedures for obtaining house numbers and address see paragraph 5.3 below.

Area Managers and Field Managers are to ensure that all relevant details are recorded and input to the system as soon as possible, and any paper records or notification cards are retained for general audit purposes.
On-call staff are to gather all relevant information and report to the Networks Water Area Manager as soon as possible the next working day.

The following Audit Process is aimed at ensuring the timely completion of audit tasks and approval ahead of monthly reporting on DG3 to the Board.

DG3 / CIMS Reporting / Audit Process (3rd Draft – 21 Oct 14)

Action No.	Action	Date
CIMS Report from the Field		
1	• WC opens a New Event in CIMS when an event trigger is reached. • The CIMS Event is updated by WC throughout the incident with information from Field Staff. • WC Save the event when the incident is closed in the field.	
2	• DG3 CS Coordinator sends the ***Weekly Rapid No Water Complaints Report*** to the FM's on a Monday morning for the previous week.	Every Monday morning.
3	• The weekly ***Rapid No Water Complaints Report***, lists all NIW No Water calls for the week. • FM filters the report for his own area, sorts by date and DMA which then group calls. • The FM opens the CIMS / Reports / ***RPT1151 – Historical Report – DG3 Interruption Records.*** o Enter Start Date. o Remove tick from Null box. o Enter End Date o View Report. o Click Export Drop Down Menu o Export to Excel o Filter Report to own area. • The call groups are then checked against an ***appropriate DG3 Interruption Record*** and the Technicians, ***Interruption to Supply – Site Record***. • From the three reports the FM then adjusts, if required, and **Save** the CIMS Report. • At this stage **don't Approve** to allow the event to remain with the FM until all audit checks are completed at the end of the month.	Ongoing throughout the week/month.
4	• The above process will be completed for each week of the month. • L4 will also check the CIMS Event Report throughout the Month and raise queries as appropriate.	Ongoing throughout the week/month.

DG3 Reporting and Audit Process		

5	• DG3 CS Coordinator produces Draft DG3 KIP Report, ***DG3 Reporting – 081014.***
	• Two tabs;
	  ○ ***Unplanned >6hr Summary***
	  ○ ***AIR & KPI Reporting***
		By 1st working day of the new month.

6	• Level 4 uses the above monthly ***Unplanned >6hrs Summary*** Report to identify a number of L4 Monthly Audit checks. • L4 meets with the Customer Field Manager to arrange the Audit Checks.	1st working day + 1 day. 1st working day + 1 day
7	• Level 5 checks the monthly ***Unplanned >6hr Summary*** report for his area against CIMS Events and adjusts as necessary.	1st working day + 1 day
8	• Customer FM discusses the CIMS Events highlighted for audit in action 6. • Adjusts as required.	1st working day + 3 days
9	• Customer FM reports back to Level 4. • L4 approves/saves the Audit Events in the CIMS system.	1st working day + 5 days
Monthly Sign Off		
10	• L4 emails L3 & DG3 CS Coordinator that Monthly Audit checks have been completed.	1st working day + 7 days

11	• DG3 CS Coordinator produces ***DG3 Rapid Comparison Checks*** report.
	• This Zip file contains an number of reports;
	  ○ Individual FM folders with DG3 ID Events checks.
	  ○ Comparison Checks Summary.
	  ▪ Red/Amber/Green against start/finish/No. prop
	  ○ Properties not recorded on CIMS.
	  ▪ Used to check No. of prop queries.
		1st working day + 8 days

12	• L4 discusses above report with Customer FM. • Customer FM discussed above report with FM's. • Customer FM to the Level 4. • L4 reports back to DG3 CS Coordinator.	1st working day + 10 days
13	Level 3 sings off the monthly DG3 Report for the Board.	2nd Tuesday of the new month.

5.2 MS Excel Spreadsheet Template – Contractor Return Sheet

Planned interruptions undertaken by EP and Customer Field Services will most likely be carried out by a number of contractors. The Contractor's Representative should gather all appropriate information on a paper pro forma (Appendix D) and then transfer this information to the Contractor Return Sheet. The Contractor Return Sheets should be collated at the end of each week/month and signed off by an appropriate member of EP or Customer Field Services staff and sent to Customer Systems for inclusion into the DG3 Register. All pro forma should be stored by EP and Customer Field Services for Audit purposes.

Details of the Contractor Return Sheet can currently be obtained from Customer Systems in Capital House.

5.3 Property numbers and Addresses

It is a requirement of NIAUR that the numbers of properties and address details of properties affected by interruptions to supply exceeding 3 hours are recorded. The numbers of properties and address details should be determined by the most accurate means available at the time. This is likely to be by one of two methods.

a. Visual Property Counts

In the case of small scale interruptions, a Field Technician may have sufficient knowledge to determine the number of properties affected by carrying out a visual property count. Details should initially be recorded by hand on a paper pro forma including location, type and cause of interruption, and 'valve off'/'valve on' times. Each week, the Field Manager should review the Interruption Record Sheets with his Field Technicians and the details provided should be used to update the CIMS records.

b. GIS Polygons

In the case of large scale interruptions, the number of properties affected by an interruption should be determined using a GIS polygon. A Map Redline Request should be submitted using the CIMS DG3 Interruption Details page. Then in CARtomap (the Company's Corporate Asset Register/GIS intranet facility), a redline polygon should be drawn around the affected area and assigned to the CIMS request which should appear in the dropdown list associated with the DG3 Areas Layer of the Water workspace (see Editing Menu). Back in CIMS, the Map Redline Request should be updated to retrieve the address details of the properties within the polygon and hence, the number of properties affected.

Field Managers should base the redline polygons on the details provided by the Field Technicians.

In the case of interruptions where rezoning is carried out, it may be necessary to obtain address details from within more than one polygon.

5.4 Records of Interruptions

In general all interruptions to supply should be recorded. However there are large numbers of very short interruptions to supply carried out by Leakage Services and Customer Field Services. These interruptions are routine, inconsequential and last no longer than 30 minutes. Information about these interruptions is held by managers in Leakage Services and Customer Field Services and is therefore not required for the DG3 Interruptions to Supply Register. Discretion should however be used in all cases. If difficulties arise or there happens to be an exception to the type of routine interruption referred to above that gives rise to an interruption that lasts for more than 1 hour then, this interruption should be

recorded. Guidance on which interruptions should be recorded is to be given by Leakage Services and Customer Field Services managers.

In general: Routine interruptions lasting less than 1 hour need not be recorded as part of the DG3 Interruptions to Supply Register except at the discretion of the Field Technician or Field Manager.

All interruption records entered onto CIMS are to be approved by at least the Area Manager responsible by the 1st working day + 5 days, as per the Audit Process described earlier in the document. Interruption records belonging to EP and Customer Field Services should be sent to Customer Systems by the same date.

- When a Field Manager approves a CIMS DG3 record, an e-mail reminder is automatically forwarded to the Customer Field Manager.
- When a CFM approves a CIMS DG3 record, an e-mail reminder is automatically forwarded to the Area Manager.
- When an Area Manager approves a CIMS DG3 record, an e-mail reminder is automatically forwarded to the DG3 Customer Services Coordinator.

Automatic e-mail reminders to approve the DG3 records are sent to the DG3 Customer Services Coordinator, Head of Networks Water, Head of Networks Leakage and EP L3 on a monthly basis.

5.5 Historical records
All associated documentation is to be kept for seven years.

5.6 Audit Trail
The maintenance of audit trails is very important. During AIR audits the Reporter would more than likely want to investigate several interruptions and the associated documentation. It is therefore imperative that all records corresponding to individual interruption records, including pro forma, are stored locally for audit purposes.

5.7 Amendments to Information
It is recognised that the details entered at the time a CIMS event record is created are estimates and that it may be necessary to update the details following the GIS polygon process. The CIMS Internal Narrative should be used to record the details of any amendments, over and above those that occur as a result of the normal process of updating records. All amendments to the base data contained in CIMS or information changed during the course of the development of the DG3 Composite Report File, must be supported by a detailed explanation.

6.0 REPORTING

6.1 NI Water Reports
CIMS can be updated on a continuous basis, as and when interruption events occur, throughout the life of an ‘Active’ event, and after an event has been closed on the system and a corresponding DG3 interruption record has been registered. Monthly reports can be generated following the completion of quality assurance checks carried out by Area Managers and Customer Field Managers and the release of data by the Head of Function. These reports are used by the Customer Systems function to compile a DG3 Register for each month and corresponding KPIs.

The following reports are generated by Customer Systems for Management Information:

- Monthly DG3 Composite Report including monthly DG3 Register

- Monthly DG3 KPI Report
- Annual DG3 AIR Table 2 Lines 5 to 19 Report (as defined by the Annual Information Return Reporting Requirements and Definitions Manual).

6.2 Development of the DG3 Register and KPI Report

As described above, interruption data for each month is extracted from the various data sources (CIMS and Contractor Return Sheets) used by the various work streams (Networks Water, Leakage Services, EP and Customer Field Services) and copied to a DG3 Composite Report File held by Customer Systems in Capital House.

Copies of the original records are retained in their unaltered state. The records are then sorted according to the four regulatory categories of interruption:

- Unplanned Interruptions
- Planned and Warned Interruptions
- Unplanned Interruptions Caused by Third Parties
- Unplanned Interruptions due to Overruns of Planned and warned Interruptions

and further sorted according to the four regulatory time bands:

- More than 3 hours
- More than 6 hours
- More than 12hours
- More than 24 hours

The interruption records are subject to a series of audit checks to ensure that the details of interruptions have been captured in accordance to the regulatory guidance. For further information on the development of the DG3 Register, please refer to the Line Methodology for AIR Table 2 Lines 5 to 19.

6.3 Regulatory Report

The Finance & Regulation Directorate will report to Northern Ireland Authority for the Utility Regulation (NIAUR) on an annual basis.

7.0 Void Properties

Within NI Water, Asset Information Development (AID) is primarily responsible for ensuring the databases, systems, standards and processes are in place to support the Corporate Asset Register (GIS/Ellipse).

According to the definition, a void property is a type of connected property. The GIS picks up the following twelve property types, including void properties:

- Approved Built
- Approved Derelict
- Approved Under Construction
- Candidate Built
- Candidate None
- Candidate Under Construction
- Historical Built
- Historical Derelict
- Historical None
- Historical Under Construction
- Provisional Built
- Provisional Under Construction

Unless AID is specifically asked to exclude void properties when running queries, their GIS address lists will include any of the property types listed above.

There is a delay in updating the GIS with property status information.

Relevant extracts from the Pointer 2.1 Specification can be found in Appendix E at the back of this document (Pages 22 to 26 of 31).

8.0 'No Water/Low Pressure' Complaints

Within NI Water, CRC call agents adopt a specific line of questioning with the customer to establish the cause of complaint including complaints relating to low pressure and no water.

A copy of the latest CRC call scripts for handling low pressure/no water complaints can be found in Appendix F at the back of this document (Pages 27 & 28 of 31). Provided the customer provides an accurate response to the questions asked by the call agent, the risk of wrong classification should be negated.

Appendix A – DG3 Interruption to Supply - Roles & Responsibilities

Customer Relations Centre (Normal Hours)

- Log 'no water'/ 'burst main' complaints into RapidXtra system;
- Use CIMS system to provide up to date information to customers;
- Use 'Operational Announcements' functionality to share information;
- Adhere to agreed communication routes.

Work Control Centre (Normal Hours)

- Create CIMS interruption event records and close with either a status of 'Closed – DG3 Record Required' or 'Closed – DG3 Record Nor Required'.

Work Planning Units

- Normal hours – create a Work Order and inform area supervisor immediately;
- Update the Ellipse System following 'status calls';
- Ensure Work Orders are closed out.

Customer Service Delivery Directorate - Networks Water

- The Area Managers and Field Managers are responsible for the procurement of information for DG3 within the Networks Water function.

Customer Service Delivery Directorate - Leakage Services

- The Area Managers and Field Managers are responsible for the procurement of information for DG3 within the Leakage Services function.

Customer Field Services

- Customer Field Services is responsible for reactive meter maintenance, proactive meter exchange and the installation of new meters. An interruption to supply to the property arises during the course of the installation.

Field Technicians

- Proactively provide regular timely updates on the progress of events (bursts, repairs etc.) to Work Control / Duty Managers / Telemetry operators:
    - Nature of the problem and any relevant details
    - Time repair commenced
    - Estimated restoration time
    - Repair complete;

Field Technicians (continued)

- Provide any additional information to Field Managers to allow completion of the corresponding DG3 record e.g.
    - Polygon details
    - Rezoned properties.

Field Managers

- Inform Customer Services and Work Planners of planned interruptions providing details of area & number of properties affected and proposed duration of interruption;
- Assess extent of unplanned interruptions and organise remedial work;
- Inform Work Planners on completion of remedial work;
- Provide supporting information on number of properties affected and reasons for interruption.

- Ensure Field staff are adhering to agreed processes and communication routes;
- Review records created by Work Controllers:
- Ensure start / finish times are accurate
- Ensure property data is accurate & required fields complete;
- Review corresponding DG3 record for each event;
- Draw polygons, where required, and automatically link to CIMS record;
- Sign off DG3 record for submission for approval by Customer Field Manager;
- Update Major Incident records.

Customer Field Managers

- Ensure Field Managers are adhering to the agreed process / timescales;
- Check / query records signed off by Field Managers;
- Sign off DG3 Record for approval by Area Manager.

Area Managers

- Ensure Customer Field Managers are adhering to the agreed process / timescales;
- Check / query records signed off by Customer Field Managers;
- Sign off DG3 Record for approval by Area Manager.

Telemetry Control Centres (Out of Hours)

- Log 'no water'/'burst main' complaints into Work Planning (Ellipse) system;
- Create CIMS interruption event records;
- Inform on call supervisor immediately.

Work Controllers / Telemetry Operators

- Create and maintain event records based on the information provided by Field Staff:
  - Interruptions to Supply (planned and unplanned)
  - Water Quality;
- Create and maintain event records for planned work;
- Close records at completion of events and apply appropriate DG3 status (required or not required);
- Monitor open incidents for records requiring action;
- Provide advice and guidance, if required, to Bronze users during Major Incidents.

DG3 Customer Services Coordinator

- Processes interruption information from Networks Water, Leakage Services, EP and Customer Field Services;
  - Checks, audits and queries records signed off by Customer Field Managers;
  - Compiles DG3 Interruptions to Supply Register based on data derived from CIMS;
  - Signs off CIMS records and DG3 Interruptions to Supply Register for approval by Head of Networks Water;
  - Produces KPI reports for Management and AIR for Regulator.

Engineering Procurement (EP) Directorate

- The EP Directorate is responsible for the rehabilitation of existing water mains and the installation of new water mains. Interruptions to supply arise as a result of connecting properties to the refurbished and new water mains.

EP Planned Works Coordinator

- Ensure that planned works affected > x properties / lasting > x time are entered on the system in advance;
- Ensure that planned works are updated if necessary (e.g. overruns, early starts);
- Close records at completion of events and apply appropriate DG3 status (required or not required);
- Ensure that planned works affecting < x properties / lasting < x time are entered on the system retrospectively and submitted for approval.

Networks - On-call Staff

- Assess extent of unplanned interruptions, update Duty Officer (if required) and organise remedial work
- Inform Networks Water Area Manager of actions taken and interruption details

Head of Networks Water

- Final signoff of amalgamated approved CIMS interruption records on a monthly basis and release of data for reporting purposes.

Regulation & Business Performance Section

- Submit Annual Information Return to NIAUR.

Emergency Planning Team

- Declare Major Incidents on the CIMS system;
- Interrogate reports to provide status updates as incidents develop;
- Complete Upwards Reports based on data provided in CIMS;
- Close Major Incidents on CIMS system.

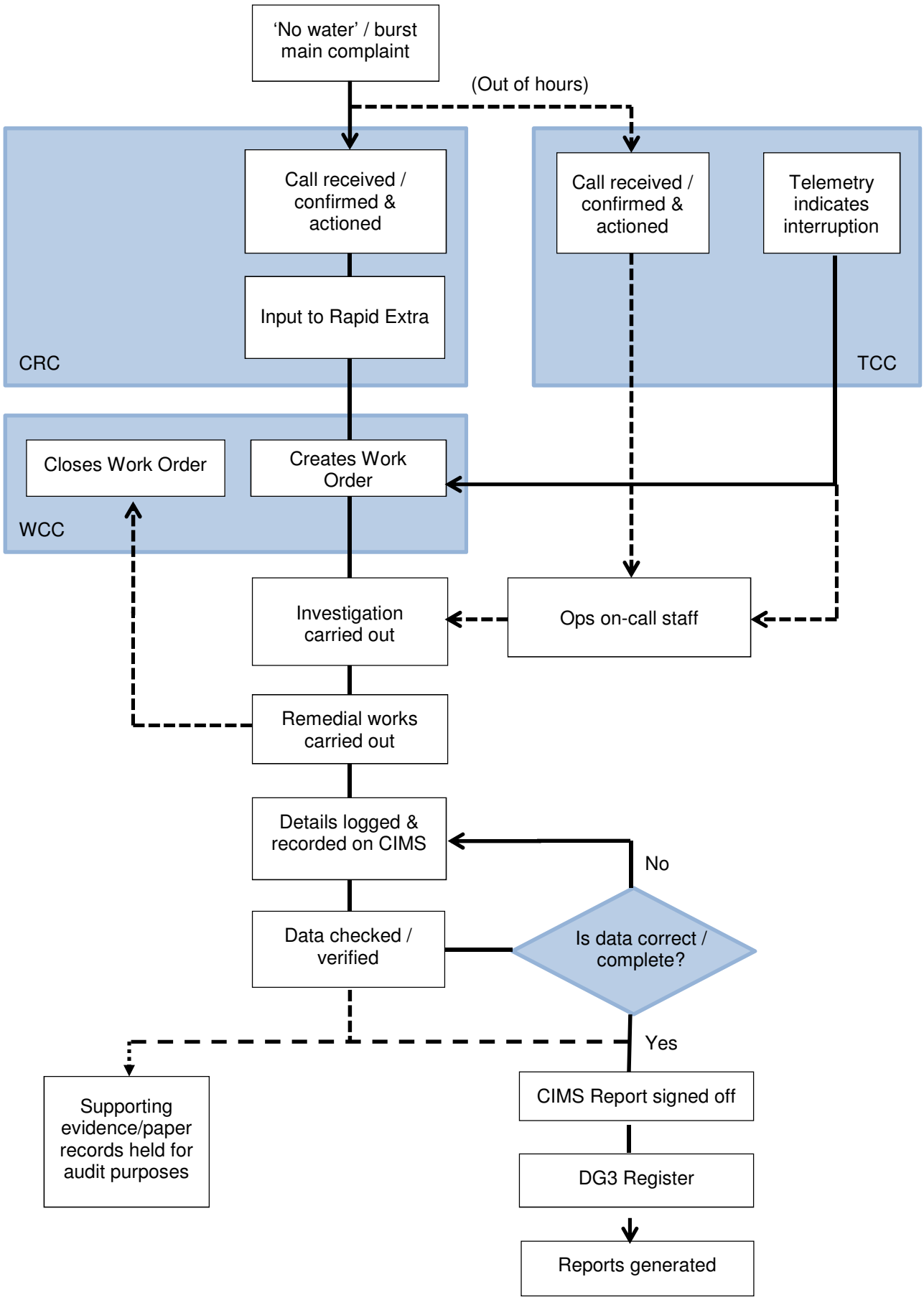
Bronze Team – MIP Only

- Create and maintain event records based on the information provided by Field Staff:
    - Interruptions to Supply (planned and unplanned)
    - Water Quality
    - Flooding;
- Close records at completion of events and apply appropriate DG3 status (required or not required);
- Monitor open incidents for records requiring action;
- Interrogate reports to provide status updates as incidents develop within their Bronze area.

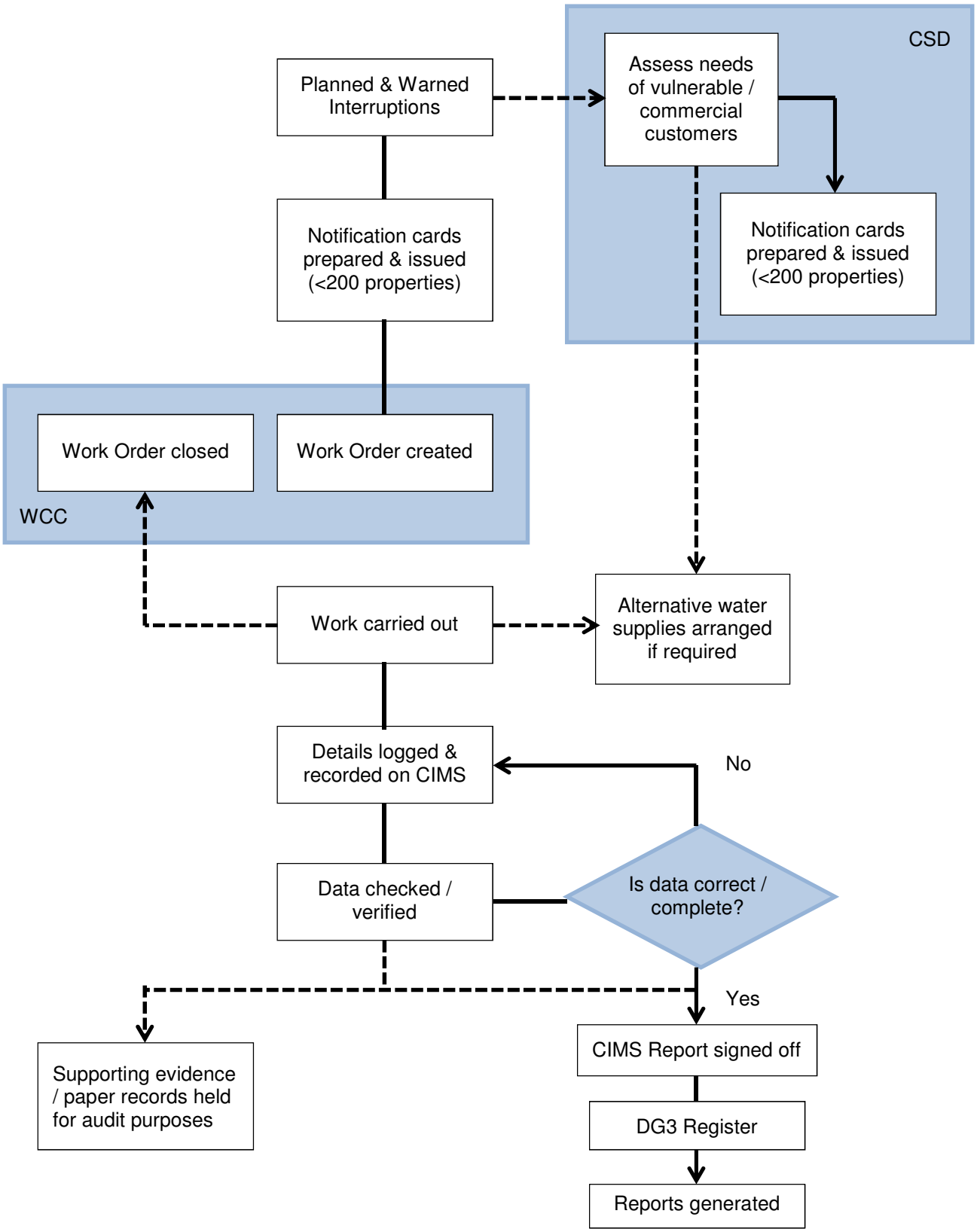
Silver Team

- Interrogate reports to provide status updates as incidents develop.

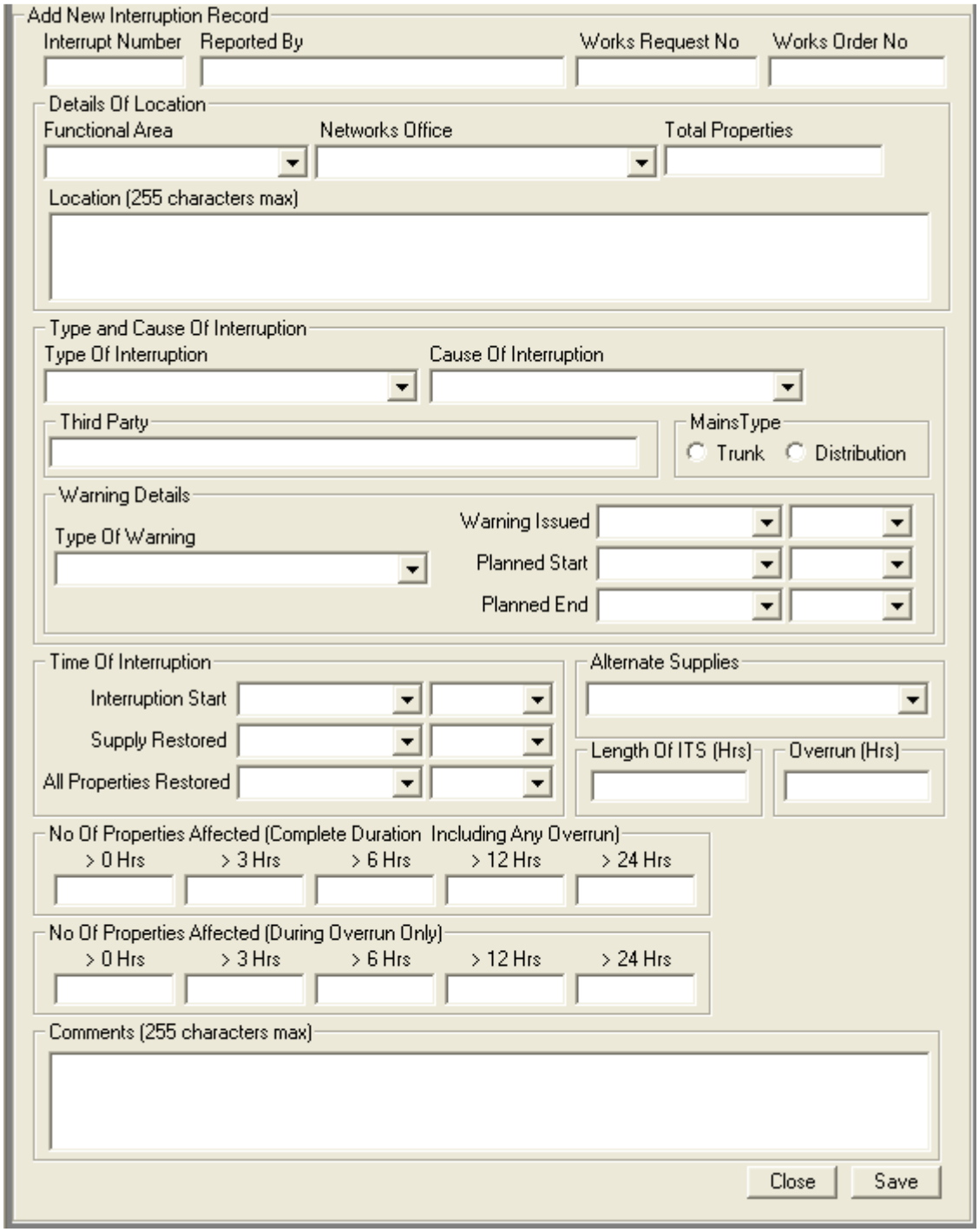
Appendix B – DG3 Process Flow Diagram – Unplanned or Unwarned Interruptions



Appendix B – DG3 Process Flow Diagram – Planned and Warned Interruptions



Appendix D – Pro forma - Interruption Record Sheet



Appendix E – Pointer 2.1 Specification Extract (Page 12)

4.21 BUILDING_STATUS

Definition
The current physical status of the building.

Constraints
Population of this field is mandatory.

Permitted PAO Status values are:

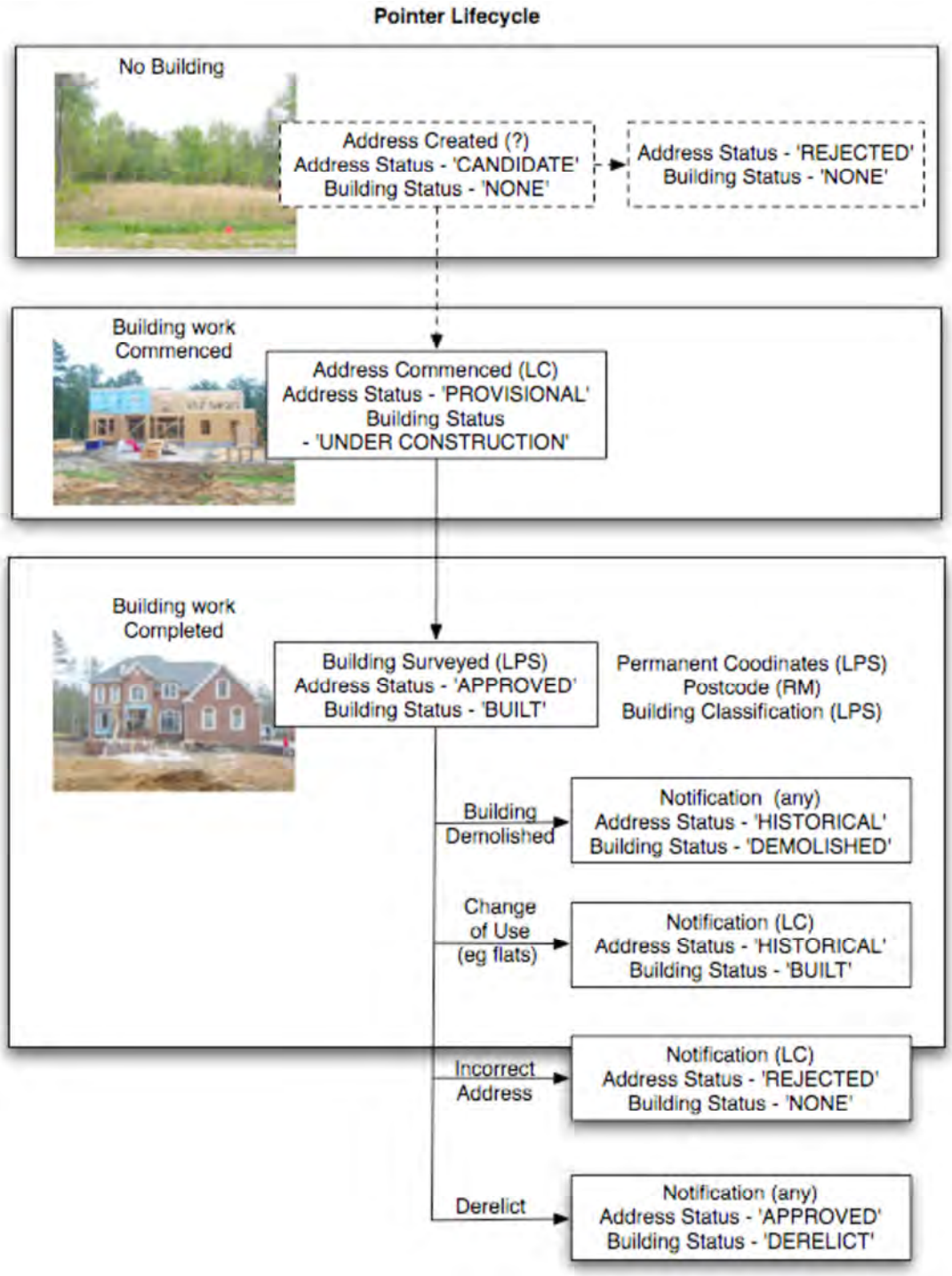
None, Under Construction, Built, Derelict and Demolished

Details
This field reflects changes to the Building_Status.

The values in this field are system generated and when a new address sent in from a council is entered in the system, the Building_Status is set to 'None' and the Address_Status set to 'Candidate'. When the council sends notification that building has commenced, the Building_Status is set to 'Under Construction' and the Address_Status set to 'Provisional'. After LPS field surveyors have confirmed the exact co-ordinates for the building, the Temp_Coords field is updated and the Building_Status is set to 'Built' and the Address_Status set to 'Approved'. A notification from a council that a building is derelict or demolished results in the Building_Status being updated and the Address_Status set to 'Historical'.

Please note that depending on the purpose for which the data is being used, the user may need to filter out certain categories of Building _Status. For example, addresses for 'Demolished' buildings would not be required where a mail shot is planned.

Appendix E – Pointer 2.1 Specification Extract (Page 13)



Appendix E – Pointer 2.1 Specification Extract (Page 14)

4.22 ADDRESS_STATUS

Definition
The current logical status of the address.

Constraints
Permitted ADDRESS_STATUS values are: (See diagram above)

- Candidate - before building starts. Planning permission has been granted but building has not commenced. Created by the Local Council before building has begun.
- Provisional – The Local Council has confirmed that the building is under construction.
- Approved – LPS add permanent co-ordinates and/or a building classification. A Postcode may also be added however this does not affect the ADDRESS_STATUS
- Historical - addresses that are no longer in use due to dereliction, demolition etc.
- Rejected – used to indicate the deletion of an incorrect address. Population of this field is mandatory, and is system generated.

Details
The values in this field are system generated and when a new address sent in from a council is entered in the system, the Building_Status is set to 'None' and the Address_Status set to 'Candidate'. When the council sends notification that building has commenced, the Building_Status is set to 'Under Construction' and the Address_Status set to 'Provisional'. After LPS field surveyors have confirmed the exact co-ordinates for the building, the Temp_Coords field is updated and the Building_Status is set to 'Built' and the Address_Status set to 'Approved'. A notification from a council that a building is derelict or demolished results in the Building_Status being updated and the Address_Status set to 'Historical'.

Please note that depending on the purpose for which the data is being used, the data should be filtered on the categories of Address _Status. For example, addresses set to 'Historical' would not be required where a mail shot is planned.

4.23 CLASSIFICATION

Definition
The current use of the building, derived from the LPS classification.

Constraints
Data in this field is system generated.

Permitted CLASSIFICATION values are shown below. These are derived from the detailed LPS list of valuation classifications.

Details
There are three main classification groups :

- NULL – Where the record has not yet been updated with an LPS classification.
- Non Domestic (formerly Commercial) – these records are prefixed with 'ND'
- Domestic (formerly Residential) – these records are prefixed with 'DO'. Where an individual is operating a business from a room within their home, LPS still classify this as a Residential property.

These are subdivided into a further classification as detailed above.

When the building use of an addressable object changes, the CLASSIFICATION field will be updated to reflect this change.

Appendix E – Pointer 2.1 Specification Extract (Page 15)

CODE	CLASSIFICATION DESCRIPTION
ND_agriculture	Agriculture (incl farms, market gardens)
ND_agriculture_other	Miscellaneous Agriculture
ND_comm_other	Commercial other
ND_culture	Cultural (incl museums, libraries)
ND_culture_other	Miscellaneous Culture
ND_education	Education (incl school, further ed)
ND_entertainment	Leisure and tourism (non-sporting - cinemas etc.)
ND_ents_other	Miscellaneous Entertainment
ND_freight_other	Freight (canal, dock, railway undertaking)
ND_health	Health(incl hospital, care home, clinics)
ND_hospitality	Hospitality (incl hotels, B&B)
ND_indust_other	Miscellaneous Industry
ND_industry	Industry (incl factory, quarries)
ND_legal	Law and Order
ND_office	Commercial office - banks, post offices, offices
ND_religious	Religious establishment (incl places of worship)
ND_retail	Retail (shops, showrooms etc.)
ND_sporting	Recreation (sports facilities)
ND_utilities	Public utilities
ND_utilities_other	Miscellaneous Utilities
DO_apart	Domestic - Apartments/flats
DO_detached	Domestic - detached
DO_semi	Domestic - Semi
DO_terrace	Domestic - Terrace
DO_other	Domestic other (incl Lock-up garages)

4.24 CREATION_DATE

Definition
The date when an address is first entered into the system by the Local Council.

Constraints
This field will only be populated for records created after the Pointer application went live in 2005. The field is automatically populated when records are entered into the database. It does not necessarily relate to the date of building, but rather when the information was provided.

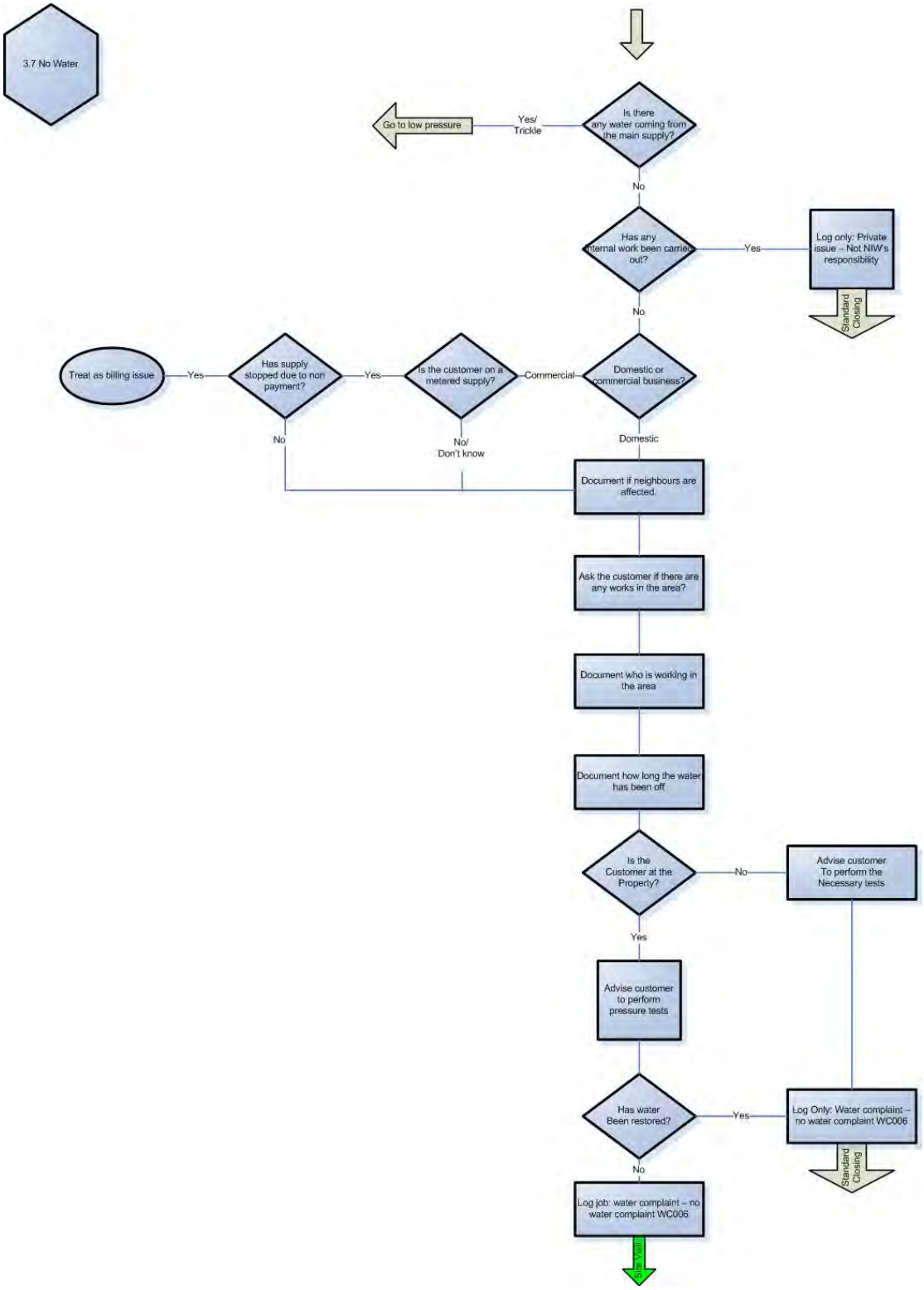
4.25 COMMENCEMENT_DATE

Definition
This is the date when construction on the property has begun.

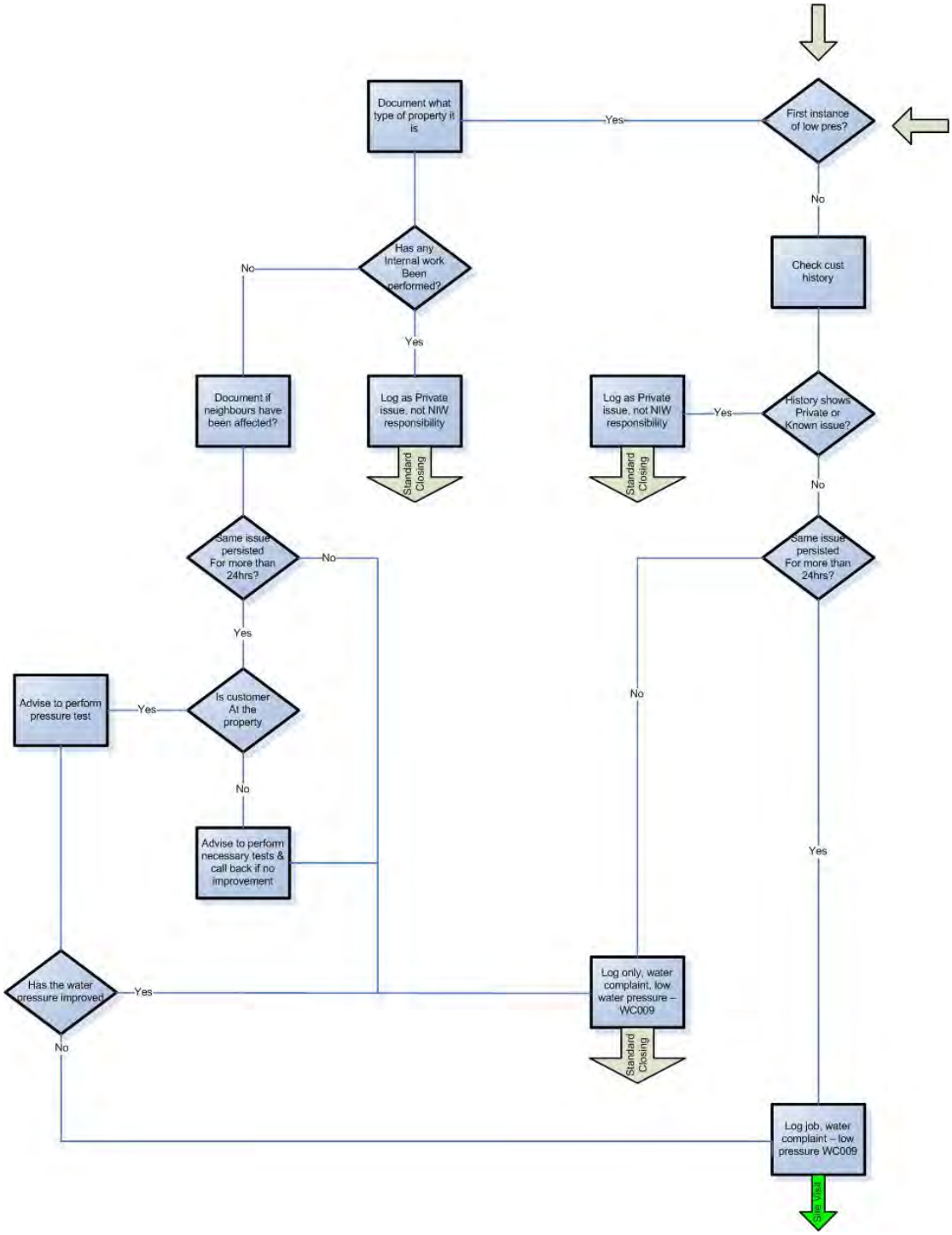
Constraints
This field will be populated for records created after the release of the new Pointer Product and when Local Council informs Pointer of the fact.

Details
This indicates when the BUILDING_STATUS changes from ‘NONE’ to ‘UNDER CONSTRUCTION’

Appendix F – CRC Call Script for 'No Water' Complaints



Appendix F – CRC Call Script for 'Low Pressure' Complaints



Appendix G – DG3 Register Extract *(Unplanned Interruption Events – CIMS Report RPT1151)*

LastRun
01/05/2015 00:31

Unplanned, Unwarned Interruptions

More than 3 hrs **No of Properties** **10548**

EventID	InterruptionId_User Friendly	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG_Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	Number of Properties Affected	Number of Properties Affected	Number of Properties Affected	Number of Properties Affected	Number of Properties Affected	Duration Hours Minutes	Location	Third Party Caused Interruption	ThirdParty	InterruptionCause
22964	12590	Submitted to Area Manager	Networks Water	NWS1B	[redacted]		Unplanned Interruption		N/A			12/03/2015 09:50	12/0 /2015 13:00	24	24	0	0	0	3 Hrs 10 Mins	(UPRN: 185686598)	FALSE		Service Pipe Repair
22873	12511	Submitted to Area Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			02/03/2015 18:00	02/0 /2015 21:15	17	17	0	0	0	3 Hrs 15 Mins	(UPRN: 187397284)	FALSE		Burst Main/Main Repair
22921	12550	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			06/03/2015 10:49	06/0 /2015 14:04	33	33	0	0	0	3 Hrs 15 Mins	(UPRN: 185882807)	FALSE		Burst Main/Main Repair
22933	12557	Registered	Networks Water	NW02C			Unplanned Interruption		N/A			07/03/2015 09:00	07/0 /2015 12:15	5	5	0	0	0	3 Hrs 15 Mins	(UPRN: 185215806)	FALSE		Burst Main/Main Repair
23064	12740	Submitted to Customer Field Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			22/03/2015 11:10	22/0 /2015 14:25	11	11	0	0	0	3 Hrs 15 Mins	(UPRN: 185696615)	FALSE		Burst Main/Main Repair
22957	12583	Submitted to Area Manager	Networks Water	NWS2A			Planned Interruption			11/03/2015 09:00	11/03/2015 14:00	11/03/2015 09:40	11/0 /2015 13:00	106	106	0	0	0	3 Hrs 20 Mins	(UPRN: 185403515)	FALSE		Leakage Meter Replacement
23126	12733	Submitted to Customer Field Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			28/03/2015 08:13	28/0 /2015 11:35	3752	3752	0	0	0	3 Hrs 22 Mins	(UPRN: 185288517)	FALSE		Burst Main/Main Repair
23093	12728	Submitted to Customer Field Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			25/03/2015 16:34	25/0 /2015 20:00	2681	2681	0	0	0	3 Hrs 26 Mins	(UPRN: 185878346)	FALSE		Replacement Fitting (e.g. SV FH)
22935	12563	Registered	Networks Water	NWS3A			Unplanned Interruption		N/A			07/03/2015 09:30	07/0 /2015 13:00	31	31	0	0	0	3 Hrs 30 Mins	(UPRN: 185910331)	FALSE		Pump Equipment Failure
22968	12597	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			12/03/2015 07:30	12/0 /2015 11:00	18	18	0	0	0	3 Hrs 30 Mins	(UPRN: 185491568)	FALSE		Burst Main/Main Repair
23041	12718	Submitted to Customer Field Manager	Networks Water	NWO3B			Unplanned Interruption		N/A			19/03/2015 22:45	20/0 /2015 02:15	5	5	0	0	0	3 Hrs 30 Mins	(UPRN: 185250847)	FALSE		Burst Main/Main Repair
23088	12725	Submitted to Customer Field Manager	Networks Water	NW01B			Planned Interruption	24/03/2015 11:00	Card drop	26/03/2015 09:00	26/03/2015 15:00	26/03/2015 10:30	26/0 /2015 14:00	25	25	0	0	0	3 Hrs 30 Mins	(UPRN: 185074024)	FALSE		Install New Fitting (e.g. SV FH)
23130	12735	Submitted to Customer Field Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			29/03/2015 09:30	29/0 /2015 13:00	61	61	0	0	0	3 Hrs 30 Mins	(UPRN: 185542566)	FALSE		Replacement Fitting (e.g. SV FH)
23025	12841	Submitted to Customer Field Manager	Networks Water	NWO2B			Unplanned Interruption		N/A			18/03/2015 18:00	18/0 /2015 21:30	6	6	0	0	0	3 Hrs 30 Mins	(UPRN: 185296342)	FALSE		Burst Main/Main Repair
22949	12582	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			10/03/2015 12:25	10/0 /2015 16:00	17	17	0	0	0	3 Hrs 35 Mins	(UPRN: 185794247)	FALSE		Burst Main/Main Repair
22976	12596	Submitted to Customer Field Manager	Networks Water	NWO3A			Unplanned Interruption		N/A			12/03/2015 18:44	12/0 /2015 22:25	73	73	0	0	0	3 Hrs 41 Mins	(UPRN: 187387763)	FALSE		Airlock in Main
22859	12490	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			01/03/2015 08:00	01/0 /2015 11:45	118	118	0	0	0	3 Hrs 45 Mins	(UPRN: 185542678)	FALSE		Burst Main/Main Repair
22975	12598	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			12/03/2015 18:45	12/0 /2015 22:30	71	71	0	0	0	3 Hrs 45 Mins	(UPRN: 185548117)	FALSE		Burst Main/Main Repair
23081	12685	Submitted to Area Manager	Networks Water	NWS2A			Unplanned Interruption		N/A			24/03/2015 11:30	24/03/2015 15:15	29	29	0	0	0	3 Hrs 45 Mins	(UPRN: 185463149)	FALSE		Burst Main/Main Repair
23132	12745	Submitted to Customer Field Manager	Networks Water	NWS1A			Planned Interruption			30/03/2015 09:00	30/03/2015 15:00	30/03/2015 09:00	30/03/2015 12:45	24	24	0	0	0	3 Hrs 45 Mins	(UPRN: 185547343)	FALSE		Burst Main/Main Repair
22908	12939	Submitted to Customer Field Manager	Networks Water	NWO2B			Unplanned Interruption		N/A			05/03/2015 11:50	05/03/2015 15:40	34	34	0	0	0	3 Hrs 50 Mins	(UPRN: 185194915)	FALSE		Burst Main/Main Repair
23157	12778	Registered	Networks Water	NWO2B			Unplanned Interruption		N/A			31/03/2015 16:54	31/03/2015 20:45	14	14	0	0	0	3 Hrs 51 Mins	(UPRN: 185245444)	FALSE		Burst Main/Main Repair
22866	12503	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			02/03/2015 12:00	02/03/2015 15:56	35	35	0	0	0	3 Hrs 56 Mins	(UPRN: 185907088)	FALSE		Burst Main/Main Repair
23018	12661	Submitted to Customer Field Manager	Networks Water	NWO3A			Unplanned Interruption		N/A			20/03/2015 08:33	20/03/2015 12:30	8	8	0	0	0	3 Hrs 57 Mins	(UPRN: 185273023)	FALSE		Airlock in Main
22884	12519	Submitted to Area Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			03/03/2015 15:00	03/03/2015 19:00	4	4	0	0	0	4 Hrs 0 Mins	(UPRN: 185645991)	FALSE		Burst Main/Main Repair
22932	12558	Submitted to Customer Field Manager	Networks Water	NWO3C			Unplanned Interruption		N/A			07/03/2015 09:00	07/03/2015 13:00	78	78	0	0	0	4 Hrs 0 Mins	(UPRN: 187222536)	FALSE		Burst Main/Main Repair
22930	12565	Submitted to Area Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			06/03/2015 17:00	06/03/2015 21:00	196	196	0	0	0	4 Hrs 0 Mins	(UPRN: 185642692)	FALSE		Burst Main/Main Repair
22989	12611	Registered	Networks Water	NW01C			Unplanned Interruption		N/A			13/03/2015 17:00	13/03/2015 21:00	37	37	0	0	0	4 Hrs 0 Mins	(UPRN: 185269211)	FALSE		Service Pipe Repair
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			16/03/2015 03:30	16/03/2015 07:30	130	130	0	0	0	4 Hrs 0 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
23015	12631	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			17/03/2015 11:30	17/03/2015 15:30	164	164	0	0	0	4 Hrs 0 Mins	(UPRN: 185542473)	FALSE		Burst Main/Main Repair
23012	12634	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			17/03/2015 14:00	17/03/2015 18:00	6	6	0	0	0	4 Hrs 0 Mins	(UPRN: 185494323)	FALSE		Burst Main/Main Repair
23095	12692	Submitted to Customer Field Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			25/03/2015 17:00	25/03/2015 21:00	37	37	0	0	0	4 Hrs 0 Mins	(UPRN: 185655384)	FALSE		Burst Main/Main Repair
23099	12711	Registered	Networks Water	NWS1A			Unplanned Interruption		N/A			26/03/2015 10:30	26/03/2015 14:30	52	52	0	0	0	4 Hrs 0 Mins	(UPRN: 185483767)	FALSE		New Mains Tie In
22859	12490	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			01/03/2015 11:45	01/03/2015 16:00	61	61	0	0	0	4 Hrs 15 Mins	(UPRN: 185542678)	FALSE		Burst Main/Main Repair
22865	12504	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			02/03/2015 12:45	02/03/2015 17:00	8	8	0	0	0	4 Hrs 15 Mins	(UPRN: 185999387)	FALSE		Service Pipe Repair
22907	12551	Submitted to Area Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			05/03/2015 13:00	05/03/2015 17:15	13	13	0	0	0	4 Hrs 15 Mins	(UPRN: 185479020)	FALSE		Burst Main/Main Repair
22963	12587	Submitted to Customer Field Manager	Networks Water	NWO3B			Unplanned Interruption		N/A			11/03/2015 17:45	11/03/2015 22:00	13	13	0	0	0	4 Hrs 15 Mins	(UPRN: 185298605)	FALSE		Broken/Jammed/Misaligned Fitting
23010	12633	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			16/03/2015 14:18	16/03/2015 18:20	29	29	0	0	0	4 Hrs 2 Mins	(UPRN: 185791372)	FALSE		Burst Main/Main Repair
22893	12526	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			04/03/2015 11:55	04/03/2015 16:15	3	3	0	0	0	4 Hrs 20 Mins	(UPRN: 185801834)	FALSE		Burst Main/Main Repair
22905	12533	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			05/03/2015 09:10	05/03/2015 13:37	19	19	0	0	0	4 Hrs 27 Mins	(UPRN: 185998244)	FALSE		Burst Main/Main Repair
23069	12673	Registered	Networks Water	NWS2A			Unplanned Interruption		N/A			23/03/2015 10:30	23/03/2015 15:00	20	20	0	0	0	4 Hrs 30 Mins	(UPRN: 187316134)	FALSE		Burst Main/Main Repair
23102	12701	Submitted to Customer Field Manager	Networks Water	NWO3B			Unplanned Interruption		N/A			26/03/2015 08:00	26/03/2015 12:30	8	8	0	0	0	4 Hrs 30 Mins	(UPRN: 185300975)	FALSE		Replacement Fitting (e.g. SV FH)
23113	12727	Submitted to Customer Field Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			27/03/2015 06:30	27/03/2015 11:00	44	44	0	0	0	4 Hrs 30 Mins	(UPRN: 185557943)	FALSE		Burst Main/Main Repair
23144	12752	Submitted to Customer Field Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			31/03/2015 09:54	31/03/2015 14:30	225	225	0	0	0	4 Hrs 36 Mins	(UPRN: 185788328)	FALSE		Burst Main/Main Repair
23144	12752	Submitted to Customer Field Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			31/03/2015 11:54	31/03/2015 16:30	5	5	0	0	0	4 Hrs 36 Mins	(UPRN: 185788328)	FALSE		Burst Main/Main Repair
22977	12602	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			13/03/2015 08:08	13/03/2015 12:45	3	3	0	0	0	4 Hrs 37 Mins	(UPRN: 185800068)	FALSE		Replacement Fitting (e.g. SV FH)
23148	12759	Submitted to Customer Field Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			31/03/2015 12:05	31/03/2015 16:45	18	18	0	0	0	4 Hrs 40 Mins	(UPRN: 185771250)	FALSE		Burst Main/Main Repair
23153	12754	Registered	Networks Water	NWO2B			Unplanned Interruption		N/A			31/03/2015 11:01	31/03/2015 15:45	8	8	0	0	0	4 Hrs 44 Mins	(UPRN: 187100475)	FALSE		Burst Main/Main Repair
23127	12738	Submitted to Customer Field Manager	Networks Water	NWS2A			Unplanned Interruption		N/A			28/03/2015 17:00	28/03/2015 21:45	7	7	0	0	0	4 Hrs 45 Mins	(UPRN: 185428721)	FALSE		Burst Main/Main Repair
22874	12510	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			02/03/2015 16:12	02/03/2015 21:00	65	65	0	0	0	4 Hrs 48 Mins	(UPRN: 187421257)	FALSE		Replacement Fitting (e.g. SV FH)
22906	12540	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			05/03/2015 14:07	05/03/2015 19:00	149	149	0	0	0	4 Hrs 53 Mins	(UPRN: 185667006)	TRUE	Other	Burst Main/Main Repair
23068	12680	Submitted to Customer Field Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			23/03/2015 07:03	23/03/2015 12:00	12	12	0	0	0	4 Hrs 57 Mins	(UPRN: 187523392)	FALSE		Burst Main/Main Repair
22954	12580	Submitted to Customer Field Manager	Networks Water	NWO3D			Unplanned Interruption		N/A			10/03/2015 14:00	10/03/2015 19:00	1	1	0	0	0	5 Hrs 0 Mins	(UPRN: 185932118)	FALSE		Burst Main/Main Repair
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			16/03/2015 03:30	16/03/2015 08:30	142	142	0	0	0	5 Hrs 0 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
23012	12634	Submitted to Area Manager	Networks Water	NWS1A			Unplanned Interruption		N/A			17/03/2015 08:00	17/03/2015 13:00	28	28	0	0	0	5 Hrs 0 Mins	(UPRN: 185494323)	FALSE		Burst Main/Main Repair
23073	12684	Submitted to Customer Field Manager	Networks Water	NWO3B			Unplanned Interruption		N/A			24/03/2015 08:00	24/03/2015 13:00	674	674	0	0	0	5 Hrs 0 Mins	(UPRN: 185914087)	FALSE		Broken/Jammed/Misaligned Fitting
23061	12693	Submitted to Customer Field Manager	Networks Water	NWO3B			Unplanned Interruption		N/A			21/03/2015 13:00	21/03/2015 18:00	6	6	0	0	0	5 Hrs 0 Mins	(UPRN: 185336506)	FALSE		Burst Main/Main Repair
23060	12668	Submitted to Customer Field Manager	Networks Water	NWS2A			Unplanned Interruption		N/A			21/03/2015 11:00	21/03/2015 16:15	15	15	0	0	0	5 Hrs 15 Mins	(UPRN: 185439425)	FALSE		Burst Main/Main Repair
23075	12686	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			24/03/2015 07:40	24/03/2015 13:00	118	118	0	0	0	5 Hrs 20 Mins	(UPRN: 185799306)	FALSE		Burst Main/Main Repair
23059	12638	Submitted to Area Manager	Networks Water	NWS2A			Unplanned Interruption		N/A			18/03/2015 09:33	18/03/2015 15:00	8	8	0	0	0	5 Hrs 27 Mins	(UPRN: 185426892)	FALSE		Burst Main/Main Repair
22955	12581	Submitted to Customer Field Manager	Networks Water	NW01A			Unplanned Interruption		N/A			10/03/2015 14:02	10/03/2015 19:30	25	25	0	0	0	5 Hrs 28 Mins	(UPRN: 187422178)	FALSE		Burst Main/Main Repair
23021	12640	Submitted to Customer Field Manager	Networks Water	NW03A			Unplanned Interruption		N/A			18/03/2015 09:31	18/03/2015 15:00	131	131	0	0	0	5 Hrs 29 Mins	(UPRN: 185273028)	FALSE		Burst Main/Main Repair
23063	12676	Registered	Networks Water	NWS3A			Unplanned Interruption		N/A			22/03/2015 07:56	22/03/2015 13:00	0	0	0	0	0	5 Hrs 4 Mins	(UPRN: 185896272)	FALSE		Burst Main/Main Repair
22899	12537	Submitted to Area Manager	Networks Water	NWS2B			Unplanned Interruption		N/A			05/03/2015 08:14	05/03/2015 14:00	28	28	0	0	0	5 Hrs 46 Mins	(UPRN: 185476856)	FALSE		Burst Main/Main Repair
23075	12686	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			24/03/2015 08:40	24/03/2015 14:30	100	100	0	0	0	5 Hrs 50 Mins	(UPRN: 185799306)	FALSE		Burst Main/Main Repair
22908	12939	Submitted to Customer Field Manager	Networks Water	NWO2B			Unplanned Interruption		N/A			05/03/2015 11:50	05/03/2015 17:40	104	104	0	0	0	5 Hrs 50 Mins	(UPRN: 185194915)	FALSE		Burst Main/Main Repair
22860	12487	Registered	Networks Water	NU02B			Unplanned Interruption		N/A			01/03/2015 09:43	01/03/2015 14:50	13	13	0	0	0	5 Hrs 7 Mins	(UPRN: 185185615)	FALSE		Burst Main/Main Repair
23075	12686	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			24/03/2015 13:00	24/03/2015 19:30	16	16	16	0	0	6 Hrs 30 Mins	(UPRN: 185799306)	FALSE		Burst Main/Main Repair
23021	12640	Submitted to Customer Field Manager	Networks Water	NW03A			Unplanned Interruption		N/A			18/03/2015 09:31	18/03/2015 16:15	37	37	37	0	0	6 Hrs 44 Mins	(UPRN: 185273028)	FALSE		Burst Main/Main Repair
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			16/03/2015 03:30	16/03/2015 10:30	42	42	42	0	0	7 Hrs 0 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
22906	12540	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			05/03/2015 14:07	05/03/2015 21:30	1	1	1	0	0	7 Hrs 23 Mins	(UPRN: 185667006)	TRUE	Other	Burst Main/Main Repair
22533	12249	Submitted to Customer Field Manager	Networks Water	NW01A			Unplanned Interruption		N/A			06/03/2015 07:00	06/03/2015 14:30	21	21	21	0	0	7 Hrs 30 Mins	(UPRN: 185279499)	FALSE		Burst Main/Main Repair
22894	12531	Submitted to Customer Field Manager	Networks Water	NW03D			Unplanned Interruption		N/A			04/03/2015 14:45	04/03/2015 23:50	63	63	63	0	0	9 Hrs 5 Mins	(UPRN: 185335602)	FALSE		Burst Main/Main Repair
23017	12704	Registered	Engineering and Procurement	NW02B			Unplanned Interruption		N/A			11/03/2015 07:09	11/03/2015 17:00	16	16	16	0	0	9 Hrs 51 Mins	(UPRN: 185255031)	FALSE		Burst Main/Main Repair
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			16/03/2015 03:30	16/03/2015 15:30	127	127	127	0	0	12 Hrs 0 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
23066	12672	Submitted to Customer Field Manager	Networks Water	NWS1B			Unplanned Interruption		N/A			22/03/2015 23:07	23/03/2015 14:00	126	126	126	126	0	14 Hrs 53 Mins	(UPRN: 185673632)	FALSE		Burst Main/Main Repair
23018	12661	Submitted to Customer Field Manager	Networks Water	NW03A			Unplanned Interruption		N/A			20/03/2015 08:33	20/03/2015 23:30	18	18	18	18	0	14 Hrs 57 Mins	(UPRN: 185273023)	FALSE		Airlock in Main
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			15/03/2015 23:52	16/03/2015 15:30	14	14	14	14	0	15 Hrs 38 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
22910	12542	Submitted to Customer Field Manager	Networks Water	NU01A			Unplanned Interruption		N/A			05/03/2015 16:37	06/03/2015 16:24	62	62	62	62	0	23 Hrs 47 Mins	(UPRN: 185164402)	FALSE		Burst Main/Main Repair

Unplanned, Unwarned Interruptions

More than 6 hrs **No of Properties** **543**

EventID	InterruptionId_User	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG_Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
23075	12686	Submitted to Area Manager	Networks Water	NWS3A	[redacted]		Unplanned Interruption		N/A			24/03/2015 13:00	24/0 /2015 19:30	16	16	16	0	0	6 Hrs 30 Mins	(UPRN: 185799306)	FALSE		Burst Main/Main Repair
23021	12640	Submitted to Customer Field Manager	Networks Water	NW03A			Unplanned Interruption		N/A			18/03/2015 09:31	18/0 /2015 16:15	37	37	37	0	0	6 Hrs 44 Mins	(UPRN: 185273028)	FALSE		Burst Main/Main Repair
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			16/03/2015 03:30	16/0 /2015 10:30	42	42	42	0	0	7 Hrs 0 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
22906	12540	Submitted to Area Manager	Networks Water	NWS3A			Unplanned Interruption		N/A			05/03/2015 14:07	05/0 /2015 21:30	1	1	1	0	0	7 Hrs 23 Mins	(UPRN: 185667006)	TRUE	Other	Burst Main/Main Repair
22533	12249	Submitted to Customer Field Manager	Networks Water	NW01A			Unplanned Interruption		N/A			06/03/2015 07:00	06/0 /2015 14:30	21	21	21	0	0	7 Hrs 30 Mins	(UPRN: 185279499)	FALSE		Burst Main/Main Repair
22894	12531	Submitted to Customer Field Manager	Networks Water	NW03D			Unplanned Interruption		N/A			04/03/2015 14:45	04/0 /2015 23:50	63	63	63	0	0	9 Hrs 5 Mins	(UPRN: 185335602)	FALSE		Burst Main/Main Repair
23017	12704	Registered	Engineering and Procurement	NW02B			Unplanned Interruption		N/A			11/03/2015 07:09	11/0 /2015 17:00	16	16	16	0	0	9 Hrs 51 Mins	(UPRN: 185255031)	FALSE		Burst Main/Main Repair
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			16/03/2015 03:30	16/0 /2015 15:30	127	127	127	0	0	12 Hrs 0 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
23066	12672	Submitted to Customer Field Manager	Networks Water	NWS1B			Unplanned Interruption		N/A			22/03/2015 23:07	23/0 /2015 14:00	126	126	126	126	0	14 Hrs 53 Mins	(UPRN: 185673632)	FALSE		Burst Main/Main Repair
23018	12661	Submitted to Customer Field Manager	Networks Water	NW03A			Unplanned Interruption		N/A			20/03/2015 08:33	20/0 /2015 23:30	18	18	18	18	0	14 Hrs 57 Mins	(UPRN: 185273023)	FALSE		Airlock in Main
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			15/03/2015 23:52	16/0 /2015 15:30	14	14	14	14	0	15 Hrs 38 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
22910	12542	Submitted to Customer Field Manager	Networks Water	NU01A			Unplanned Interruption		N/A			05/03/2015 16:37	06/0 /2015 16:24	62	62	62	62	0	23 Hrs 47 Mins	(UPRN: 185164402)	FALSE		Burst Main/Main Repair

Unplanned, Unwarned Interruptions

More than 12 hrs **No of Properties** **220**

EventID	InterruptionId_User	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG_Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
23066	12672	Submitted to Customer Field Manager	Networks Water	NWS1B	[redacted]		Unplanned Interruption		N/A			22/03/2015 23:07	23/0 /2015 14:00	126	126	126	126	0	14 Hrs 53 Mins	(UPRN: 185673632)	FALSE		Burst Main/Main Repair
23018	12661	Submitted to Customer Field Manager	Networks Water	NW03A			Unplanned Interruption		N/A			20/03/2015 08:33	20/0 /2015 23:30	18	18	18	18	0	14 Hrs 57 Mins	(UPRN: 185273023)	FALSE		Airlock in Main
22995	12630	Submitted to Customer Field Manager	Networks Water	NW01B			Unplanned Interruption		N/A			15/03/2015 23:52	16/0 /2015 15:30	14	14	14	14	0	15 Hrs 38 Mins	(UPRN: 185863370)	FALSE		Burst Main/Main Repair
22910	12542	Submitted to Customer Field Manager	Networks Water	NU01A			Unplanned Interruption		N/A			05/03/2015 16:37	06/0 /2015 16:24	62	62	62	62	0	23 Hrs 47 Mins	(UPRN: 185164402)	FALSE		Burst Main/Main Repair

Unplanned, Unwarned Interruptions

More than 24 hrs **No of Properties** **0**

Appendix G – DG3 Register Extract *(Planned & Warned, Third Party & Overrun Events – CIMS Report RPT1151)*

Planned and Warned Interruptions

More than 3 hrs **No of Properties** **578**

EventID	InterruptionId_UserI	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG3Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
22948	12577	Submitted to Customer Field Manager	Networks Water	NW0 B	[redacted]		Planned Interruption	06/03/2015 16:30	Card drop	10/03/2015 09:00	10/03/2015 17:00	0/03/2015 12:20	10/03/2015 15: 0	20	20	0	0	0	3 Hrs 10 Mins	(UPRN: 185332155)	FALSE		Install New Fitting (e.g. SV FH)
23097	12699	Registered	Networks Water	NW52A			Planned Interruption	23/03/2015 09:00	Card drop	26/03/2015 09:00	26/03/2015 15:00	26/03/2015 09:15	26/03/2015 12: 0	39	39	0	0	0	3 Hrs 15 Mins	(UPRN: 185404959)	FALSE		New Mains Tie In
22939	12570	Registered	Networks Water	NW02B			Planned Interruption	03/03/2015 09:00	Card drop	09/03/2015 09:30	09/03/2015 15: 0	09/03/2015 0:20	09/03/2015 14:15	37	37	0	0	0	3 Hrs 55 Mins	(UPRN: 185728110)	FALSE		Burst Main/Main Repair
22877	12514	Submitted to Area Manager	Networks Water	NW52A			Planned Interruption	27/02/2015 09:00	Card drop	03/03/2015 09:00	0 /03/2015 15:00	03/03/2015 09:30	0 /03/2015 13: 0	0	10	0	0	0	4 Hrs 0 Mins	(UPRN: 185860226)	FALSE		Mains Rehabilitation
22839	12488	Submitted to Area Manager	Networks Water	NW01A			Planned Interruption	26/02/2015 09:00	Card drop	01/03/2015 09:00	0 /03/2015 17:00	01/03/2015 12:30	0 /03/2015 16:45	37	37	0	0	0	4 Hrs 15 Mins	(UPRN: 185 66107)	FALSE		Burst Main/Main Repair
22994	12613	Submitted to Customer Field Manager	Networks Water	NW03A			Planned Interruption	13/03/2015 09:00	Card drop	15/03/2015 09:00	15/03/2015 16:00	15/03/2015 09:12	15/03/2015 13: 0	9	9	0	0	0	4 Hrs 18 Mins	(UPRN: 185273107)	FALSE		Install New Fitting (e.g. SV FH)
23150	12756	Submitted to Customer Field Manager	Networks Water	NW01A			Planned Interruption	26/03/2015 09:00	Card drop	31/03/2015 09:00	3 /03/2015 15: 0	31/03/2015 10:30	3 /03/2015 14:55	0	10	0	0	0	4 Hrs 25 Mins	(UPRN: 187288240)	FALSE		Burst Main/Main Repair
22891	12572	Submitted to Area Manager	Networks Water	NW51A			Planned Interruption	02/03/2015 09:00	Card drop	04/03/2015 11:30	04/03/2015 17:00	04/03/2015 12:00	04/03/2015 16: 0	2	2	0	0	0	4 Hrs 30 Mins	(UPRN: 185533212)	FALSE		New Mains Tie In
23030	12647	Submitted to Area Manager	Networks Water	NW52A			Planned Interruption	17/03/2015 09:00	Card drop	19/03/2015 09:00	19/03/2015 16:00	19/03/2015 09:57	19/03/2015 14:40	33	33	0	0	0	4 Hrs 43 Mins	(UPRN: 185399703)	FALSE		New Mains Tie In
23077	12681	Registered	Networks Water	NW52A			Planned Interruption	20/03/2015 09:00	Card drop	24/03/2015 09:00	24/03/2015 15:00	24/03/2015 09:15	24/03/2015 14:00	97	97	0	0	0	4 Hrs 45 Mins	(UPRN: 185405159)	FALSE		New Mains Tie In
23145	12758	Submitted to Customer Field Manager	Networks Water	NW03A			Planned Interruption	24/03/2015 14:00	Card drop	31/03/2015 08:00	3 /03/2015 16:00	31/03/2015 10:15	3 /03/2015 15: 0	71	71	0	0	0	5 Hrs 15 Mins	(UPRN: 185596082)	FALSE		New Mains Tie In
22966	12593	Submitted to Area Manager	Networks Water	NW51A			Planned Interruption	09/03/2015 09:00	Card drop	12/03/2015 09:00	12/03/2015 16:00	12/03/2015 10:20	12/03/2015 16:00	11	11	0	0	0	5 Hrs 40 Mins	(UPRN: 185568682)	FALSE		New Mains Tie In
23122	12732	Submitted to Customer Field Manager	Networks Water	NW01A			Planned Interruption	25/03/2015 09:00	Card drop	28/03/2015 09:00	28/03/2015 15:00	28/03/2015 09:00	28/03/2015 15:00	131	131	0	0	0	6 Hrs 0 Mins	(UPRN: 185016891)	FALSE		Install New Fitting (e.g. SV FH)
23147	12757	Submitted to Customer Field Manager	Networks Water	NW01A			Planned Interruption	27/03/2015 14:00	Card drop	31/03/2015 09:00	3 /03/2015 15:00	31/03/2015 09:00	3 /03/2015 15:00	27	27	0	0	0	6 Hrs 0 Mins	(UPRN: 185068715)	FALSE		Install New Fitting (e.g. SV FH)
22881	12548	Submitted to Customer Field Manager	Networks Water	NW01A			Planned Interruption	27/02/2015 09:00	Card drop	03/03/2015 08:00	0 /03/2015 18:00	03/03/2015 08:00	0 /03/2015 18:00	44	44	44	0	0	10 Hrs 0 Mins	(UPRN: 185973222)	FALSE		NIE Planned Outage

Planned and Warned Interruptions

More than 6 hrs **No of Properties** **44**

EventID	InterruptionId_UserI	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG3Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
22881	12548	Submitted to Customer Field Manager	Networks Water	NW01A	[redacted]		Planned Interruption	27/02/2015 09:00	Card drop	03/03/2015 08:00	0 /03/2015 18:00	03/03/2015 08:00	0 /03/2015 18:00	44	44	44	0	0	10 Hrs 0 Mins	(UPRN: 185973222)	FALSE		NIE Planned Outage

Planned and Warned Interruptions

More than 12 hrs **No of Properties** **0**

Planned and Warned Interruptions

More than 24 hrs **No of Properties** **0**

Interruptions caused by third parties

More than 3 hrs **No of Properties** **125**

EventID	InterruptionId_UserI	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG3Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
22869	12506	Submitted to Customer Field Manager	Networks Water	NW02B	[redacted]		Unplanned Interruption		N/A			02/03/2015 14:28	02/03/2015 19:45	125	125	0	0	0	5 Hrs 17 Mins	(UPRN: 185194299)	TRUE	Building Contractor	Burst Main/Main Repair

Interruptions caused by third parties

More than 6 hrs **No of Properties** **0**

Interruptions caused by third parties

More than 12 hrs **No of Properties** **0**

Interruptions caused by third parties

More than 24 hrs **No of Properties** **0**

Unplanned Interruptions (Overruns of Planned Interruptions)

More than 3 hrs **No of Properties** **64**

EventID	InterruptionId_UserI	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG3Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
23045	12665	Submitted to Customer Field Manager	Networks Water	NW01A	[redacted]		Planned Interruption	20/03/2015 09:00	Card drop	22/03/2015 09:00	22/03/2015 15:00	22/03/2015 11:25	22/03/2015 15:20	15	15	0	0	0	3 Hrs 55 Mins	(UPRN: 185172454)	FALSE		Install New Fitting (e.g. SV FH)
22919	12554	Submitted to Customer Field Manager	Networks Water	NW0 B			Planned Interruption	02/03/2015 14:00	Card drop	06/03/2015 09:00	06/03/2015 15:00	06/03/2015 11:00	06/03/2015 15: 0	22	22	0	0	0	4 Hrs 30 Mins	(UPRN: 185284129)	FALSE		Install New Fitting (e.g. SV FH)
22892	12544	Submitted to Area Manager	Networks Water	NW52B			Planned Interruption	03/03/2015 09:00	Card drop	05/03/2015 09:00	05/03/2015 16:00	05/03/2015 09:30	05/03/2015 16:15	27	27	27	0	0	6 Hrs 45 Mins	(UPRN: 185696158)	FALSE		Replacement Fitting (e.g. SV FH)

Unplanned Interruptions (Overruns of Planned Interruptions)

More than 6 hrs **No of Properties** **27**

EventID	InterruptionId_UserI	InterruptionStatus	ManagingFunction	FieldManagerArea	EventCreator	DG3Creator	InterruptionType	WarningDate	WarningType	PlannedStartDateTime	PlannedRestorationDateTime	ActualStartTime	ActualSupplyrestoredDateTime	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	NumberofPropertie	DurationHoursM	Location	ThirdPartyCausedIn	ThirdParty	InterruptionCause
22892	12544	Submitted to Area Manager	Networks Water	NW52B	[redacted]		Planned Interruption	03/03/2015 09:00	Card drop	05/03/2015 09:00	05/03/2015 16:00	05/03/2015 09:30	05/03/2015 16:15	27	27	27	0	0	6 Hrs 45 Mins	(UPRN: 185696158)	FALSE		Replacement Fitting (e.g. SV FH)

Unplanned Interruptions (Overruns of Planned Interruptions)

More than 12 hrs **No of Properties** **0**

Unplanned Interruptions (Overruns of Planned Interruptions)

More than 24 hrs **No of Properties** **0**

Appendix G – DG3 Register Extract *(Unplanned Interruption Property Records – CIMS Report RPT1155)*

LastRun
01/05/2015 00:31

EventId	Interruption Id User Friendly	InterruptionStatus	ManagingFunction	Field Manager Area	EventCreator	DG3Creator	InterruptionName	Duration Hours	Duration Minutes	Actual Start Date Time	Estimated Restoration Date Time	Repair Commenced Start Date Time	Actual Supply Restored Date Time	Water Sampler Contacted Date Time	Estimated All Properties Restored Date Time	PRIMARY_THORFARE	BUILDING NUMBER	TOWN	POSTCODE	Affected Area Property Count Residential	Affected Area Property Count Non Residential	Affected Area Property Count Unknown	Total Affected Properties Count	Location	Third Party Caused Interruption	ThirdParty	Description
22423	12109	Submitted to Area Manager	Networks Water	NW01B			Unplanned Interruption	8	9	0 /02/2015 09:51	01/02/2015 17:00	01/02/2015 14:00	01/02/2015 18:00	01/02/2015 18:20	01/02/2015 18:10			Carrickfergus		21	0	0	21	(UPRN: 85390178)	FALSE		Burst Main/Main Repair

Appendix G – DG3 Register Extract *(Planned Interruption Property Records – CIMS Report RPT1156)*

Event Id	Interruption Id User Friendly	Interruption Status	Managing Function	Field Manager Area	Event Creator	DG3 Creator	Interruption Name	Warning Type	Warning Date Time	Duration Hours	Duration Minutes	Planned Start Date Time	Planned Restoration Date Time	Estimated Actual Start Date Time	Actual Supply Restored Date Time	Water Sampler Contacted Date Time	PRIMARY THORFARE	BUILDING NUMBER	BUILDING NAME	TOWN	POSTCODE	Affected Area Property Count Residential	Affected Area Property Count Non Residential	Affected Area Property Count Unknown	Total Affected Properties Count	Location	Third Party Caused Interruption	Third Party	Description
21980	11743	Submitted to Area Manager	Networks Water	NW01A			Planned Interruption	Card drop	31/12/2014 09:00	2	15	03/01/2015 09:00	03/0 /2015 15:00	03/01/2015 0:00	0 /01/2015 12:15	03/01/2015 12:30				Lisburn		23	0	0	23		FALSE		Burst Main/Main Repair
21980	11743	Submitted to Area Manager	Networks Water	NW01A			Planned Interruption	Card drop	31/12/2014 09:00	2	15	03/01/2015 09:00	03/0 /2015 15:00	03/01/2015 0:00	03/

Northern Ireland Water

Level of Service Methodology

DG5 Internal Flooding

Contents

1. Introduction
2. DG5 Flooding Incidents – Internal
3. DG5 Properties at Risk of Flooding – Internal

Appendix A – NI WATER DG5 Internal Flooding Register Methodology

1. Introduction

Objective and Aim

NI Water must maintain verifiable records for DG5. The aim of the records is to provide an auditable method for identifying the specific, properties which are affected by flooding, or are at risk of experiencing flooding.

As part of these records companies must maintain a DG5 register which should form a database of all properties which are at risk of experiencing sewer flooding more than once in twenty years. It will enable the identification by address of individual properties which are below the reference level and should also contain information on (for example) complaints and the results of their investigation, problems which are attributable to customers apparatus and properties which experience sewer flooding but are covered by one of the allowable exclusions.

The register must clearly identify those properties below the reference level, distinguish them from those which have flooded but are not below the reference level and provide a verifiable reason for the exclusion (e.g. flooding was a result of a blockage).

The records should include:

- date of incident;
- properties affected identified by address;
- cause of flooding (including source and reason, where known);
- action taken;
- name of persons completing the records; and
- the 'Flooding' category for reporting under DG5.

Reporting Requirements

Two main outputs are required to be produced relating to internal flooding for AIR 15:

- DG5 Annual Flooding Summary – properties internally flooded as a result of overloaded sewers and other causes.
- DG5 Properties on the 'Flooding' register – properties at risk of flooding due to overloaded sewers, more frequently than once in twenty years and once or twice in ten years, requiring further investigation, problem status of properties on the register, annual changes to the register.

The information relating to the above is contained in Table 3 of AIR15.

2. DG5 Internal Flooding incidents – Methodology and Procedures

Internal

Data gathering and calculation is as described below.

Calculation Process - Lines 2 to 11,15a & 17

Data gathering and calculation is as described below in the Line- Specific Methodology Statements for Table 3: Lines 2 to 11,15a & 17.

Sources/Primary Process

Lines 2 – 11, 15a & 17 Properties and flooding incidents

A download of internal flooding records was obtained from the Ellipse system for the period April 2014 to March 2015 on a month by month basis.

Investigations were carried out for each reported incident and those properties found not to be flooded after investigation, using information from the Sewer Maintenance Contractor, Flood Incident Report (FIR) Forms, Field Manager reports, modelling provided by Drainage Area Plan consultant and contacting the Customers directly, are removed. The remaining properties were recorded as Flooding Incidents.

Assumption

For the purpose of AIR15, NI Water has assumed that a single incident includes recorded complaints from the same property on the same day or within three days.

'Three days' was chosen on the basis that a noticeable volume of repeat calls tends to be received within three days of an incident occurring. There is then a much longer passing of time before calls are again received from the same locality, suggesting that the original incident has passed and that the calls relate to a different incident.

An incident of internal flooding is assumed to be where a property has been flooded internally. If two adjacent properties are flooded at the same time they are classed as two properties and two incidents.

Where a single property floods internally on two separate occasions then this is recorded as one property and two incidents.

Sources/Secondary Process

1. Wastewater Business Unit (WWBU) carries out further investigations to determine the cause of every internal flooding incident.
2. WWBU assess the information held on customer report, Flood Incident Report (FIR), along with photographic evidence and closure details provided by the contractor.
3. WWBU determine if the cause of the flooding incident was hydraulic incapacity or flooding other cause, i.e. Blocked Sewer, Equipment Failure or Collapsed Sewer. This is done by a number of methods including site visits, concentric circle surveys, Customer Field Manager reports, modelling provided by Drainage Area Plan consultant, customer interviews, field manager interviews and review of existing incident information.
4. If hydraulic incapacity is confirmed a Met Office Weather report is used to determine if the incident is as a result of severe weather (Line 4).
5. These properties were then recorded on a spread sheet under the appropriate categories for lines 2, 3, 4, 4a, 5, 6, 8, 9, 10 and 11 using the information gathered from, the Sewer Maintenance Contractor, Flooding Report Forms, Field Manager reports and contacting the Customers directly. A folder of evidence was created for all confirmed cases and this was brought to the monthly DG5 panel for approval and addition to the appropriate section of the register. At the end of the reporting year this was the data used for AIR returns.
6. The figure for line 7 was obtained by having a report run in the DG5 Oracle Database which holds the information as a DG5 layer in the GIS system.
7. Line 15a relates to properties on the Historical register which have not been fully investigated and categorized accordingly thus the nil return.
8. The required information to populate Line 17 is extracted directly from the monthly spread sheet completed by the contractor.

Changes in Methodology over the Previous Year

As per the Reporters recommendation 10 on AIR14: Recommend the Company provides further clarification to the Contractor on external flooding. The FIR forms were improved with additional categories inserted and clarification on definitions provided to Meridian. In

addition in the future all spillage incidents will be recorded as external flooding, taking effect from April 2015.

3. Internal Flooding Register

Internal Flooding Process

All internal flooding incidents are subjected to a robust investigation (See Appendix D – NI Water DG5 Internal Flooding Register Methodology). An expert panel (the DG5 Panel) examines the evidence for each incident and governs the addition of properties to, and the removal of properties from, the register. Those records that do not meet the DG5 Criteria are recorded in the 'excluded' section of the Database. All new incidents of external flooding are being investigated in a similar manner as the Internal flooding incidents.

The register is held as an Oracle database within the Corporate Asset Register – specifically as a GIS layer on CARtomap.

Methodology applied to the completion of Table 3

Lines 12-15: the numbers have been extracted from the DG5 Oracle database

Line 16: the number has been extracted from the DG5 Oracle database

Lines 22-25 and 30-33: A folder is created (within the Asset Management section of the company network) for each addition, removal or transfer of a property. The lines were populated from an analysis of these folders; the analysis was cross-checked against the minutes of the monthly DG5 Panel meetings.

Lines 26 and 34: The 'Enhanced Service Levels' element of the capex cost was obtained from the CAPTRAX system for each relevant project and aggregated. This total cost was then divided by the number of properties removed.

Continuing investigation of Flooding incidents on the 1 in 20 register

It is recognised that a significant number of properties on the 1 in 20 Register are in the Register because of historic (pre-2008) incidents – and that, as a consequence – their inclusion within the register has a lower level of confidence.
All such properties are subject to ongoing assessment and appraisal by current Engineering Procurement projects. It is anticipated that all of these appraisals will be completed within year 14/15.

Mitigation

Properties protected from the risk of flooding by mitigation measures, such as non-return valves have been added to the 1 in 20 Register (unless evidence existed to allow addition to the 1 in 10 or 2 in 10 register).

All such properties are currently the subject of two Engineering Procurement appraisal projects – which seek to identify permanent solutions at the locations.

Additions to the Register and Transfers within the Register

A folder of evidence was created for all confirmed DG5 flooding properties and this was brought to the monthly DG5 panel meetings for their approval and addition to the appropriate section of the register.
Similarly transfers between the register categories (**2 in 10, 1 in 10 and 1 in 20)** are brought to the attention of the DG5 Panel at the monthly meetings for approval.

Prioritisation of capital schemes

No formal prioritisation process is applied.

All capital works projects are submitted to the NI Water Capital Investment Panel for approval before implementation.

Properties which have not flooded in the last 10 years

Properties remain on the Register which have not flooded in the past 10 years (excluding severe weather).

Appendix A NI Water DG5 Internal Flooding Register - Methodology

DG5 Internal Flooding Register - Methodology

Final v1.1

08 June 2015

1 Main Contributors	2 Aspect/Section	3 Notes
[redacted]	Draft	
[redacted]	Final	

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Revision No	**Date**	**Description/Amendment**	**Checked**	**Reviewed**	**6 Authorised for Issue**
0.8	26 Feb 11	Revise to include improved approach	[redacted]	[redacted]	
1.0	31 Mar 12	Finalised ahead of sign-off by DG5 Panel	[redacted]	[redacted]	[redacted]
1.1	08 Jun 15	Minor revisions and new FIR form inserted	[redacted]	[redacted]	[redacted]

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10 Introduction

10.1 Background

This document provides guidance on how the successful management of the DG5 Internal Flooding Register, within Northern Ireland (NI) Water, should be carried out. Where possible, this document complies with Ofwat and Northern Ireland Authority for Utility Regulation (NIAUR) Guidance.

10.2 Scope and Objectives

This document is owned by NI Water and describes the end-to-end business process by which a property that has experienced internal flooding is added to, and removed from the DG5 Internal Flooding Register. It will support NI Water in the development and implementation of its DG5 reporting processes and long-term management of the Register.

The purpose of this methodology is to ensure that a fully transparent, auditable process is in place for the management and maintenance of the DG5 Internal Flooding Register for NI Water in order to report to NIAUR.

11 Definitions

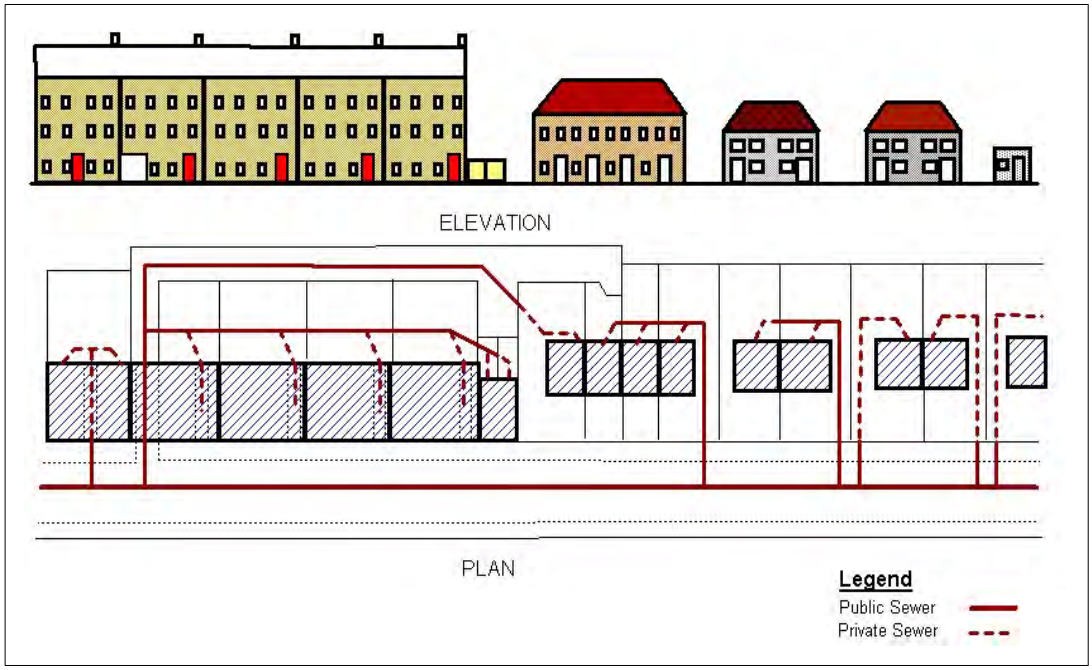
The following definitions are to be applied when recording and reporting properties and incidents held on NI Water's DG5 Internal Flooding Register.

Northern Ireland Water is only responsible for internal flooding caused by failure of the public sewerage system. This excludes private sewers, highway drainage, gullies, land drainage, and watercourses.

11.1 Legal Definitions

11.1.1 Public and Private

Northern Ireland Water is responsible for internal flooding caused by failure of the public sewerage system. The status of a sewer (i.e. whether public or private) is depicted below.



Drains; are defined as a pipe which carries waste water (sinks, baths, toilets etc.,) and trade wastes from one property to a sewer. Northern Ireland Water has responsibility for a drain up until the point of the property boundary. The length of drain within the boundary of the property lies with the property/landowner.

Public sewers; are defined as sewers serving more than a single property or, if serving a single property, sewers outside the property boundary and has been adopted, only then does responsibility lie with Northern Ireland Water.

11.1.2 Adopted and Unadopted Sewers

An adopted sewer is a sewer that is vested by NI Water and maintained at its expense. An unadopted sewer is a sewer that is either privately owned or has not yet been adopted by NI Water.

11.1.3 Third Party Responsibility

A third party incident is one where Northern Ireland Water could take action to recover costs from those responsible. Incidents due to third party attributed to hydraulic overload of the public sewerage system are significant unconsented discharges e.g. industry, leisure, domestic (swimming pool).

Where NI Water has gathered evidence that flooding of a property has occurred due to the actions of a third party, the company will attempt to recover the costs of implementing a the temporary or permanent solution.

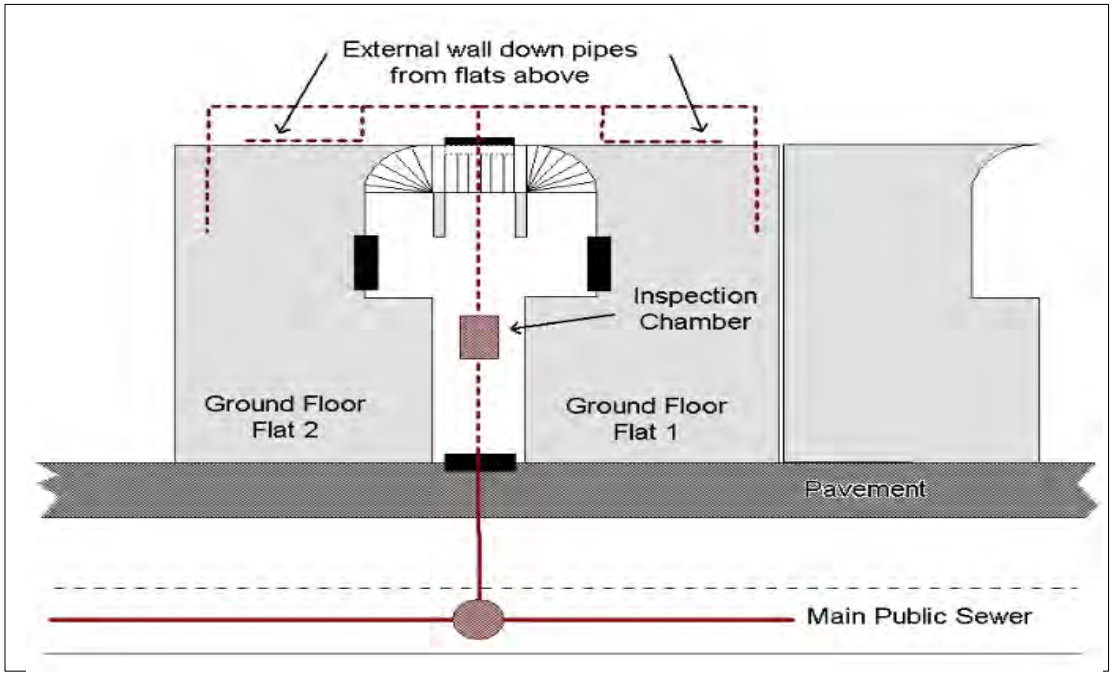
11.1.4 Basement Flooding

Customers do not have a right to connect wastewater discharges from a basement directly into the public sewerage. If a customer wishes to connect, then Northern Ireland Water will carry out investigations to confirm that by connecting the basement discharge to the public system it does not put the property at risk, because of existing conditions within the sewerage system. Written confirmation of the investigations will be given to the customer.

If a customer connects without obtaining the necessary planning permissions, then they do so at their own risk. Northern Ireland Water does not accept any responsibility for any resultant flooding incident. If basement flooding occurs due to hydraulic overload (and the customer has the right to connect) then this property will be identified as impacted by internal flooding and will be added to the appropriate register.

11.1.5 Apartment / High Rise Responsibilities

Incidents, which occur on the private drain, i.e. within the apartment block, are the responsibility of the residents. Should a flooding incident occur on the ground floor then those properties affected can be classed as internal flooding if appropriate. All other properties would be classed as external access flooding.



11.1.6 Sensitive Areas

Sensitive areas include, schools, hospitals, children play areas, nursing homes and properties of vulnerable customers. A property's sensitivity may have an impact on the prioritisation of when the solution to the internal flooding is implemented.

11.1.7 Property Classification

For reporting purposes, the following statements relate to property classification:

- Buildings that are normally occupied and used for residential, commercial, public, business or industrial purposes are included. This also includes garages that form an integral part of the property and are classed as part of the building even if the main purpose is storage.
- Buildings whose prime purpose is storage or installation of domestic appliances are not classed as occupied.
- Detached or 'linked-detached' garages i.e. those attached to a property but separated from it by an external passageway are excluded.

- A cellar forms an integral part of a building that is at least partly below ground level. Where a cellar is in regular use as part of normal living accommodation, it is termed a basement and any flooding should be reported as a normal flooding incident. Where an uninhabited cellar, i.e. one that is not used for habitation, is affected by water entering it directly (as opposed to via another part of the building) this has to be separately enumerated.

In order to ensure that the correct assessments on properties are made the following diagrams and pictures show the definitions for internal flooding against various property types;

- **Property with integral garage**
- Therefore either area flooded will be classed as internal flooding
- Flow entering the solum or living area would be classed as internal flooding and only that property recorded.

Villa – Ground Floor and 1st floor properties
Flooding to the solum of the ground floor flat will mean that only that property will be identified as suffering from internal flooding.
If the 1st floor flat is accessed via a door which enters immediately into the property and is also affected by flood water, then this will also constitute internal flooding and both will be identified as an internal flooding incident

- **Basement Property**
- A cellar that is in regular use as part of normal living accommodation is termed a basement and any flooding should be reported as a normal flooding incident.
-
-

Apartment Block
Internal Flooding would normally be contained to the ground floor flats. Individual properties affected by internal flooding will be identified and recorded. Flooding of the internal access will not be classed as internal property flooding for the remaining tenants. These will be classed as external flooding (access).

- **Semi-detached** properties with **detached** garage.
- Flooding of the garage would not be classed as internal flooding.

- **Detached** or **'linked-detached'** garages i.e. those attached to a property but separated from it by an external passageway.
- Flooding of the garage would not be classed as internal flooding.

11.1.8 Temporary and Permanent Solution

A temporary solution is defined as one which does not permanently remove the risk of flooding but reduces the risk of internal flooding happening.

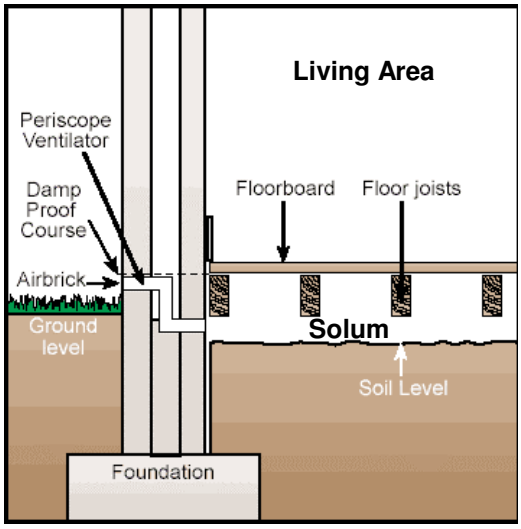
A permanent solution is defined as one that permanently addresses the cause of the hydraulic overload. Permanent works would enable a property to be removed from the DG5 Internal Flooding Register.

Examples of temporary and permanent solutions include;

Temporary Solutions	Permanent Solution
Fitting of anti-flood devices e.g. Non-Return Valve (NRV)	Land re-profiling
Air brick protection	Disconnect basement
Raising of Thresholds	Divert private drainage or public sewer
Bolt down inspection chambers	Isolate with private pumping station
Seal / bolt down manholes	Fill in hollow floors and cellars
Stop Logs	Flow attenuation
Issue of sandbags	Outfall protection e.g. flap valve
uPVC doors	Sewer Upsizing
Flood guards	'Right to purchase'

11.2 Internal Flooding Definition

A property can be deemed affected by an internal flooding incident when foul, combined or surface water escapes from the public sewerage system into a property and enters a building or passes below a suspended floor. The diagram below shows a cross section through a suspended floor.



For DG5 reporting purposes, internal flooding refers to buildings which are normally occupied and used for residential, public, commercial, business or industrial purposes. Buildings whose prime purpose is storage or installation of domestic appliances are excluded. Refer to Section 2.1.7 for Property Classification.

11.2.1 Restricted Toilet Use

Restricted Toilet Use (RTU) occurs where there is no internal flooding but where the customer us unable to flush their toilet without a risk of causing internal flooding of the property.

11.3 Flooding Cause Definition

11.3.1 Introduction

Flooding generally occurs through a combination of events and responsibility can lie with a number of different parties. Possible reasons for flooding can include:

- Blocked or overloaded drainage ditches, drains and sewers overflow across roads, gardens and into property.
- Hydraulic incapacity can on occasion cause sewers to backflow into a property.
- Rain can be so heavy that run-off flows overland down hills and slopes.
- Rain soaks into the ground causing groundwater levels to rise and flood.
- Broken or burst water mains (normally leading to basement flooding rather than property flooding above ground level).

Customers do not always distinguish between the various causes of flooding. In order to deal with an incident efficiently, it is imperative that call centre staff ascertain the cause and mechanism of the flooding. This ensures that appropriate action can be taken and the risks to the company minimised.
The cause of flooding will be determined by call centre staff asking the customer a set of pre-set questions from a call centre script.

11.3.2 Flooding due to Hydraulic Incapacity

A sewer can be classed as hydraulically incapable when the flow from a storm is unable to pass through it due to a permanent problem. Permanent problems are due to limitations in the physical characteristics of the network, generally the size of the sewer relative to flow and gradient. Properties affected by internal flooding due to hydraulic incapacity shall be placed within relevant flooding severity category unless there is evidence to prove that the flooding was due to 'Other Causes' or severe weather. Temporary problems are excluded and comprise of: Blockages, Collapses, Equipment Failure.

11.3.3 Other Causes Flooding

'Other Causes' are related to localised deficiencies and transient characteristics of the network. The main causes are:

- blockages
- collapses
- equipment or operational failure

These incidents are reported separately to NIAUR, but stored within the excluded section of DG5 Internal Flooding Register.

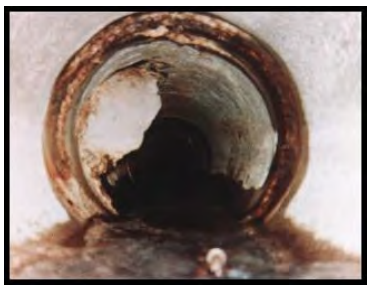
11.3.4 Blockages

A sewer blockage can be attributed to a number of factors, including siltation, fat, roots, and debris, as shown below.

For regulatory reporting, silt, fat, roots debris are all classed as a blockage. However, it is important that the actual cause of the blockage is recorded within the incident record. The response to each of these might require a different solution. For example, a persistent fat problem may require trade effluent control or persistent siltation problems may need to be added to the de-siltation programme for that area.

11.3.5 Collapsed Sewer

In the context of the indicator a collapsed sewer, is a sewer that creates a restriction or induces a blockage, e.g. fracture, deformation, intruding junction. A rising main burst is also classified as a collapse. An example of a collapse is shown below.



11.3.6 Equipment Failure

Equipment and operational failures can be attributed to power outages, inadequate maintenance regimes, a change to operating regime other than that designed for, mechanical or electrical failure.
Where a pumping station has failed then distinction must be made between network and terminal stations, as well as the criticality or size band of the station indicated.

Where a pumping station can be seen to be overrun by the incoming flows and can be shown to be operating within its design parameters then this may be an indication of severe weather or inflow from another source e.g. watercourse, tidal, ground water infiltration etc.

If the pumping station can be seen to be beaten by in coming flows in non-severe weather conditions and can be shown to be operating within its design parameters consideration should also be given to the possibility that the capacity of the pumping station has been exceeded, i.e. the sewer network now suffers hydraulic incapacity. Properties flooded internally as a result of such situations shall be classed as DG5 reportable.

Flooding caused by failure of an anti-flood device on a private connection, e.g. NRV, should be ascribed back to the underlying cause, hydraulic incapacity, and recorded as an internal flooding incident.

11.3.7 Third Party Causes

A third party incident is one where Northern Ireland Water could take action to recover costs from those responsible. These can include the discharge of material into the public system causing a blockage, or equipment failure, vandalism, network impacted by a third party e.g. a builder or other statutory utility.

It is important that causes beyond the reasonable control of the company are identified and described especially where a claim might be pursued against a third party. If permanent improvement or temporary operational works for Northern Ireland Water causes internal flooding then this must also be recorded and the reasons given as to why it happened.

The Floods Strategy Steering Group is made up of Northern Ireland Water, Rivers Agency, Roads Service and Local Councils could provide a useful forum in which to establish responsibility for disputed third party flooding.

11.3.8 Increase in Demand

Increase in demand is defined by Northern Ireland Water as predicted growth, which exceeds the available headroom within the network on the trigger event.

Verified hydraulic models shall be used to identify properties at risk of flooding as a direct result of development/ growth based on the Local Area Plan. This analysis is generally an output from a Drainage Area Study (DAS). No other analysis on demand is carried out.

11.4 Flooding Class Definition

- 1 in 10; is applied to reported flooding location due to hydraulic incapacity during a rainfall event with a return period between 5 and 10 years.
- 2 in 10; is applied to reported flooding location due to hydraulic incapacity during a rainfall event with a return period of 2 in 10 years i.e. <5 years, or has actually flooded twice within a 10 year period.
- 1 in 20; is applied to reported flooding location due to hydraulic incapacity during a rainfall event with a return period between 10 and 20 years.
- Severe Weather; locations refer to a reported flooding incident with a return period greater than 20 years.
- Flooding Other Causes; is applied to reported flooding locations where the cause of flooding has been found not to be hydraulic incapacity i.e. blockages, collapses, third party or equipment failure causes.
- Removed due to Company Action; is applied to reported flooding locations where NI Water has constructed a permanent solution to remove the risk of flooding
- Removed due to Better Information; is applied to reported flooding locations where information has been obtained which proves that the cause of flooding was not due to incapacity in the sewer system.

Internal Flooding Register – Governance

11.5 General

The NI Water DG5 Internal Flooding Register contains information on internal flooding incidents caused by the hydraulic incapacity of sewers, and properties at risk of experiencing internal flooding. NI Water's Asset Management section (AMS) is the owner of the DG5 Internal Flooding Register.

The information recorded on properties affected by internal flooding or those at risk of experiencing flooding constitutes a legal register for reporting to the NIAUR. The information contained within must be verifiable and available for audit.

NIAUR requires NI Water to produce an annual DG5 Report summarising the required DG5 information. NI Water is also required to maintain a DG5 Internal Flooding Register which holds information on properties at risk of flooding, once in twenty years and once or twice in ten years due to the hydraulic incapacity of sewers. NI Water must also report on each flooding category status of each property on the register and all annual changes to the register.

The DG5 Internal Flooding Register will contain the information required to prepare Table 3, of the Annual Information Returns (AIR). This information can be accessed via the reporting function on the DG5 incident and property database.

The DG5 Internal Flooding Register has been developed from records that date back to 1990 and the increasingly robust investigation of 'live' incidents from 2008 onwards.

11.6 Governance

Maintenance of the DG5 Internal Flooding Register and AIR reporting is the responsibility of AMS and the Network Sewerage Business Unit (NSBU). Clear definition of responsibility for actions, analysis and records within the DG5 Internal Flooding Register has been entrusted to the appropriate sections within NI Water. The stakeholders and their responsibilities have been defined within this methodology.

This end-to-end DG5 business process outlined in this document, and attached in Appendix A, will ensure that responsibilities and performance measures are in place to ensure the quality of information captured and maintained is consistent at all levels through the process.

The DG5 Panel has responsibility for approval of additions to and removals from the register, while also ensuring that the reporting processes and outputs remain robust enough to meet the reporting requirements of NIAUR. Responsibilities for the internal DG5 flooding reporting process will be reviewed on an annual basis and updated accordingly.

12 Internal Flooding Register – Business Process

12.1 Notification of Internal Flooding Incident to Call Centre

All flooding incidents are recorded through a series of different source collection methods in NI Water's asset inventory management system. This happens by customers reporting flooding incidents via our Customer Call Centre. The call handlers will establish if the incident is the responsibility of NI Water and then confirm with the customer that the incident was indeed internal flooding and record it on NI Water's call management system. A Caller Log is created with the incident information then passing to NI Water's Work Control Centre staff who distributes the relevant work order to the appropriate contractor for action. This step takes no longer than one week to complete.

12.2 Initial Investigation by Network Sewerage Business Unit

The NSBU will initiate the first phase of investigations once an internal flooding incident has been reported. Evidence gathered at this initial stage is passed to Asset Performance (AP) for further investigation/verification. The process that NSBU follow is outlined below;

- Reported Internal Flooding Incidents are downloaded from the company's asset inventory management systems and interrogated, with duplicates removed.
- Information held on Customer Reports and Flooding Incident Reports are assessed along with photographic evidence and previous flooding records to ascertain if the reported incident is internal flooding.
- NSBU to carry out further investigations to determine if the cause of flooding incident was hydraulic incapacity or due to other causes, i.e. Blocked Sewer, Equipment Failure or Collapsed Sewer. This is done by a number of methods including site visits, concentric circle surveys, customer interviews and review of existing incident information. If flooding is due to other causes, the property is placed in the excluded section of the DG5 Internal Flooding Register. (Investigation methods are outlined in Section 4.2)
- If hydraulic incapacity is confirmed NSBU use a weather report to determine if the incident is as a result of severe weather. If severe weather is confirmed the property is excluded. The same weather report, along with historic records (if applicable), is used to categorise non-severe weather incidents into one of three storm return categories – 1:20, 1:10 and 2:10. In addition properties that suffer from RTU, due to hydraulic incapacity, are also recorded. (Storm Return Categories and RTU explained in Section 4.2.10 and 4.2.11).
-

Once NSBU have completed the above stages a folder of evidence is compiled and forwarded to AP for further investigation/verification.

12.3 Identification of additional properties by Engineering and Procurement

In addition to the weekly flooding incident download by NSBU, Engineering and Procurement (EP) will forward a monthly report detailing any newly identified DG5 properties to NSBU for investigation. These potential DG5 properties will be identified from on-going Capital Works Programme (CWP) Schemes. This step is completed on a monthly basis.

12.4 Further Investigation by Asset Performance

AP receives all fully investigated and categorised DG5 Properties from NSBU on a monthly basis. AP carryout further detailed investigations to verify the investigations undertaken by NSBU. Detailed investigations can include modelling, DAS, customer questionnaires, Geographical Information System (GIS) assessments and topographical surveys.

AP carryout the following investigative process;

- Assess the history of flooding incidents at each property to confirm the NSBU flooding report. Historic assessments may include investigations of reported external incidents, extreme weather event records and incidents confirmed at adjacent properties.
- Interview the Operational Area Field Manager (FM) to confirm that the property has a history of internal flooding. AP also seeks advice from the relevant FM as to the cause of the internal flooding to aid in further investigations.
- Use GIS to assess the position of the sewer network.

- Carryout site topographical surveys of the sewer network and surrounding area.
- Interview the property owner with pre-set questions in DG5 Internal Flooding Questionnaire.
- Assess existing network model, i.e. DAS, for predicted flooding to verify if property floods under specific flooding scenarios.
-

Once AP has completed the above stages a report will be compiled summarising the evidence gathered including recommendations. If hydraulic incapacity is confirmed the evidence will be presented to the DG5 Panel to propose adding the property to the DG5 Register.

Note; if the cause is still unknown after the course of investigations and the internal flooding is major and frequent enough to warrant a thorough investigation, then a Project Consideration Form (PCF) will be raised to propose a feasibility study.

12.5 Approval of Additions by DG5 Panel

The DG5 Panel review the evidence brought before them and decide whether to add the property to the DG5 Internal Flooding Register. If the Panel members need more evidence, the property will be returned to AP for further investigation, and then re-submitted to the Panel for consideration. This step is completed once every month.

12.6 Update of Asset Information Records

The DG5 Panel Secretary will digitise all flooding incidents approved by the DG5 Panel onto the DG5 Layer of the company's GIS System, and update the DG5 incident and property database with the associated incident.

12.7 Initiation CWP Project by Asset Performance

The DG5 Panel forward all new additions to the DG5 Internal Flooding Register to AP to initiate the CWP process. Asset Performance cross-check existing CWP Schemes to ensure the property is not included in an on-going project. A PCF will be created to begin the CWP process.

Once the relevant section of the scheme is complete a DG5 Beneficial Use Form is sent from EP to AP, where a check against drainage area studies carried out to establish if the reported flooding has been resolved. If a resolution to the flooding is confirmed AP prepare supporting evidence to present at DG5 Panel for removal from the DG5 Internal Flooding Register

12.8 Approval of Removal by DG5 Panel

If a property is to be removed from the DG5 Internal Flooding Register due to 'Company Action', a Beneficial Use Form must be presented as evidence. If a property is to be removed due to 'Better Information' a folder of evidence must be presented outlining the reasons. This is completed once every month.

This clear and strictly controlled process will govern the movement of each property as it is investigated. Each stage described above can be seen in Appendix A.

13 Internal Flooding Register – Administration, Additions and Format

This section provides guidance on how properties at risk of flooding due to the hydraulic incapacity of sewers are categorised within the DG5 Internal Flooding Register.

13.1 Rules Governing Internal Flooding Register

The following rules govern the DG5 Internal Flooding Register and describe how a property is added and removed from the register. Property additions and transfers must follow the appropriate procedure as described below. (Property removals are discussed in section 7).

13.1.1 Additions to Internal Flooding Register

This procedure must be followed for all new flooding incidents received through the weekly NSBU download (see Section 3.2). These incidents will usually have occurred recently, although it is possible new information may cause a historic event to be reclassified.

- All properties that have been affected by internal flooding, caused by hydraulic incapacity, must be reported in the DG5 Internal Flooding Register. Properties flooded due to Other Causes (Blockage, Collapse or Equipment Failure) will be placed in the 'excluded' section of the same register and reported in Table 3 of the AIR.
- First time flooding where hydraulic Incapacity is confirmed shall be supported by weather reports and any supporting DAS data.
- A property affected by internal flooding as a result of hydraulic incapacity is categorised by the severity of the rainfall event and how often flooding has been recorded.
- All properties affected by flooding due to hydraulic incapacity will be investigated to ensure that each property or area flooded is accounted for within the appropriate category.
- For repeat incidents, supporting meteorological data will be required only if there is significant difference in the number of properties affected within the same location or if an event is deemed to be severe. An increase in frequency will affect the prioritisation and in some instances the register category of some or all properties affected.
- If the event was due to 'Severe Weather' the properties are placed in the 'excluded' section of the DG5 Internal Flooding Register.
- Where a property has flooded as a result of failure of a mitigation device, it should be reported as an equipment failure.
- Only if a basement has a 'right to connect' to the public sewerage system and has flooded can it be identified as being affected by internal flooding and categorised appropriately.
- If the flooding is shown to be outside Northern Ireland Water's responsibility (Third Party), it is excluded from the DG5 Internal Flooding Register and flagged appropriately within the exclusion register.
- Properties added due to better information are placed in the DG5 Internal Flooding Register when flooding has been identified for the first time, usually as a result of network analysis, greater local knowledge or following customer contact.

13.1.2 Sources of Information

Historic information can be used with discretion in order to support or understand the full extent of a flooding incident.

If properties are found to have historically flooded when carrying out a study within a catchment (e.g. DAS) then details should be captured and the appropriate information passed to NSBU. Supporting information would include:

- The use of verified hydraulic models.
- Site and level Information.
- Customer interviews.
- Shared information between other relevant bodies e.g. Local Authorities.

Information can also include the following:

- Flooding at a property being caused by blockages/ equipment failure rather than hydraulic incapacity. Acceptable supporting data would be date stamped CCTV, or static photographic evidence.
- Severe weather classification – data provided by weather reports
- Customer Interviews
- Flooding shown to be caused by a Third Party.

13.1.3 Investigations where Hydraulic Overload is suspected

After a flooding incident has occurred it is recorded and passed to NSBU who will carry out further investigative work to ensure that the cause, mechanism and impact of flooding is identified and analysed as soon after the event as is practicable.

This process will ensure that:

- The most appropriate action is taken.
- Where necessary a cost-effective solution proposed.
- Flooding regulatory registers are maintained with accurate and up to date information.

13.1.4 Incident Investigations

Initial site investigations will be carried out by the Contractor, co-ordinated by Networks Sewerage Section. The number of properties affected by the incident and the extent of the other external areas will be recorded regardless of the cause.

If the cause cannot be attributed to 'other causes' i.e. through CCTV, visual inspections, jetting, customer liaison or third party, then a request for further investigation will be submitted via the work order. This request will be submitted to the Contractor, by Networks Sewerage for action.

13.1.5 Network Review

This is primarily a desktop exercise to review all available information on the site and relevant assets. This will include information on the catchment through existing asset management plans, DAS, hydraulic modelling, feasibility studies, MET office data analysis, and previous cluster data if a repeat incident.

If there are known operational hot spot areas then further work on capacity checks, assessment of hydraulic model predictions and historic information will be needed. A network review will only be carried out in detail where the mechanism of flooding is unclear or where the rainfall data and impact is inconsistent with other evidence.

13.1.6 Sites Investigations

These are carried out as soon as is practicable after the incident happening. This is to ensure that the necessary evidence is gathered as close to the event as is practicable.

Site investigations may also show that there is evidence to prove that unreported flooding has occurred. Investigations are carried out using the concentric circle methodology, where investigations will start at the property affected by internal flooding and work outwards to adjacent properties in all directions. This will ensure that all affected properties are captured and recorded, allowing the full scale of the internal flooding to be realised. This approach will be repeated for every property identified for each incident.

13.1.7 Customer Questionnaires

Customers can provide useful information on the events leading up to, during and after an incident has occurred. Where appropriate a customer questionnaire should be completed.

13.1.8 Weather Reports

Weather reports will only be requested if:

- It is a first time flooding incident.
- There is low confidence in understanding the problem.
- It is a repeat incident and there is a significant disparity between the numbers of properties recorded by recurring incidents.
- Severe weather is suspected

Use of weather reports to categorise properties

- Properties will be categorised as 'excluded due to severe rainfall' if the weather report identifies the storm during which the internal flooding occurred as having a return period of greater than 1 in 20 years.
- Properties will be placed in the 1 in 20 register if the weather report identifies the storm during which the internal flooding occurred as having a return period of 1 in 20 years or less and greater than 1 in 10
- Properties will be placed in the 1 in 10 register if the weather report identifies the storm during which the internal flooding occurred as having a return period of 1 in 10 years or less and greater than 1 in 5

- Properties will be placed in the 2 in 10 register if the weather report identifies the storm during which the internal flooding occurred as having a return period of 1 in 5 years or less.

13.1.9 New Hydraulic Model Builds

If a hydraulic model does not exist and the extent of the problem cannot be determined from site investigations then a model may need to be commissioned.

Note: Prior to any major capital investment a verified hydraulic model should be used for solution development.

13.1.10 Localised Enhancements to Existing Models

Where a hydraulic model exists, then it may be necessary to carry out some localised enhancements. This process may include manhole survey, and / or dis-aggregation of the network prior to any solution development. The validity of the enhancements to the model must be checked in that area against the original verified model.

13.1.11 Conversion Factors

There are a number of situations where conversion factors must be applied when calculating the DG5 value of larger premises and buildings. Normally a single property or house is considered to constitute one DG5 property. This approach assumes the single property is of typical size, with a typical number of appliances discharging into the sewer network.

For larger premises and buildings that are likely to have more appliances a conversion factor needs to be applied for the full DG5 value of the property to be realised and prioritised accordingly. Properties that are classed as large commercial premises should have the conversion factor applied.

The DG5 value will be calculated by adding together all the loading units for all the appliances in the building and dividing this figure by 24 to produce the DG5 equivalent.

Water Fitting (See note 1)	Loading Units
WC Flushing Cistern	2
Wash Basin in a house	1.5
Wash Basin elsewhere	3
Bath (Tap nominal size 20mm)	10
Bath (Tap nominal size lager than 20mm)	22
Shower	3
Sink (Tap nominal size 15mm)	3
Sink (Tap nominal size larger than 15mm)	5
Spray Tap	0.5
Bidet	1.5
Domestic Appliance (subject to a minimum of 6 LU's per house) (See note 2)	3
Communal or commercial appliance	10
Any other water fitting or outlet (including a tap – but excluding a urinal or water softener)	3

Note 1; Reference to any fitting includes reference to any plumbing, outlet, dedicated space or planning or other provision for that fitting

Worked Example – 1 Alanbrook Road, Belfast (Thales Factory)

Water Fitting	No. per property	Loading Unit	Total
WC flushing cistern	46	2	92
Wash basin in a house	0	1.5	0
Wash basin elsewhere	0	3	0

Bath (tap nominal size 20 mm)	0	10	0
Bath (tap nominal size larger than 20 mm)	0	22	0
Shower	4	3	12
Sink (tap nominal size 15 mm)	70	3	210
Sink (tap nominal size larger than 15 mm)	0	5	0
Spray tap	0	0.5	0
Bidet	0	1.5	0
Domestic appliance	0	3	0
Communal or commercial appliance	0	10	84
Any other water fitting or outlet (including a tap – but excluding a urinal or water softener)	10	3	30
			428

DG5 Equivalent;

428 / 24 = 17.83 (rounded up to 18 units)

13.1.12 At Risk Categories

Properties are placed under one of the following three categories in the DG5 Internal Flooding Register:

1 in 10 – Frequency of flooding once in 10 years; Properties are classified here if either:

- The property has flooded once in 10 years from non-severe rainfall events
- The property has flooded from a single event shown to be less than a 10-year return period storm but more than a 5-year return period storm. (weather report required)

2 in 10 – Frequency of flooding twice in 10 years; Properties are classified here if either:

- The property has flooded more than once in 10 years from non-severe rainfall events
- The property has flooded from an event shown to be less than 5-year return period (weather report required)

1 in 20 – Frequency of flooding once in 20 years; Properties are classified here if either:

- This is the default category for all historical flooding properties coming into the register.
- The property has flooded from an event shown to be less than 20 year return period but more than 10 years. (weather report required)

Properties that have previously flooded and are included in the DG5 Internal Flooding Register but which have since not flooded in the last 10 years during a non-severe rainfall event, will be placed into the 1 in 20 category.

13.1.13 Timing Out

Properties can move between the different DG5 Internal Flooding Register categories, if they have not had a repeat flooding incident over a certain period of time.

Properties at risk of flooding internally due to hydraulic incapacity will move between the flooding register categories on a 'timing out' basis, as follows:

- If a '2 in 10' property does not suffer repeat flooding, caused by hydraulic overload, within 6 years it will be downgraded to '1 in 10'.
- If a '1 in 10' property does not suffer repeat flooding, caused by hydraulic overload, within 11 years it will be downgraded to a '1 in 20'.
-

13.1.14 Restricted Toilet Use

RTU is an NIAUR AIR reporting requirement. Properties suffering from RTU are placed in one of the three categories discussed in Section 4.1.12, and recorded in the AIR.

13.2 Format of Internal Flooding Register

13.2.1 Record Data held on each Property

The records held on each property on GIS will include at least;

- Date of Incident
- Property Address – Property Number, Street Name, Town and Postcode
- Grid Reference
- Sewer Type
- Asset causing flooding incident
- Library of Documented Evidence for addition
    - Field Manager Report, GIS Map, Incident Report, Ellipse Report, Met Office Report (if applicable) and Confirmation of CCTV
- Library of Documented Evidence for removal
    - DG5 Beneficial Use Form

13.2.2 Property and Incident Unique Identifiers

A DG5 incident number is used within the DG5 Internal Flooding Register and all related registers as a unique identifier to distinguish one incident from another.

Structure of DG5 Property and Incident Numbers

- DG5P – corporate indicator that the record is a DG5 Property
- 0000001 – unique seven figure number for each DG5 Property
- DG5I – corporate indicator that the record is a DG5 Incident
- 0000002 – unique seven figure number for each DG5 Incident

The generated seven figure number is unique for both DG5 Properties and Incidents and no two DG5 Properties or Incidents can have the same seven figure combination.

All historic and new DG5 properties will be assigned a DG5 incident number, using the above format. DG5 Property and Incident numbers will be allocated in order of date added to the register.

14 Internal Flooding Register – Periodic Maintenance

Periodically the register should be assessed to check for the following:

- Properties that have been recorded as flooding but have not had a repeat flooding after 10 years will be demoted to the 1in 20 category within the register but they are not automatically removed from the register.
- Comprehensive audits of the DG5 Internal Flooding Register must be carried-out annually (or when necessary) to ensure the information held within is accurate and reflects what has happened throughout the year.

15 Internal Flooding Register – Solutions

15.1 Permanent Solutions

A permanent solution to flooding risk is dependent on the cause. Where the problem can be isolated, a quicker and cheaper permanent solution could be implemented. However, this is not always the case and a permanent solution can take several years to construct due to the solution development, design, and tendering and construction process.

In some cases the cost involved to rectify a problem will far exceed the benefits. This means that where the solution cost exceeds a certain level per property then other action may need to be considered i.e. 'Right to purchase', 'Mitigation' or 'Do nothing' alternative.

A permanent solution will enable a property to be removed from the register.

Permanent solutions can fall into one of the following categories:

- Sewer upsizing and flow attenuation; these types of solutions require a hydraulic model and extensive data collection and analysis to understand the extent of the problem and therefore identify the appropriate cost effective solution.
- Property isolation; if a single or small number of properties are shown to be affected then where the cost of other more traditional solutions far exceed the benefit then isolation may be seen as the most appropriate long term solution.
- Right to Purchase; it is not NI Water's normal policy to purchase a customer's property. However, where there is extreme and persistent flooding the most cost-effective solution may be seek to purchase the at risk property.

15.2 Mitigation and Contingency

Mitigation will be considered where the costs of capital schemes are high or where permanent works are not planned in the short term. Where it is appropriate to do so, mitigation measures can offer customers some degree of protection against internal flooding from the public sewerage system i.e. reduce the frequency of incidents.

Mitigation measures can be applied to either persistent internal flooding or where there is severe flooding to sensitive areas. However, mitigation measures will not enable a property to be removed from the register. Where a property has flooded as a result of failure of a mitigation device it should be reported as equipment failure.

Properties with mitigating measures installed to prevent internal flooding will be defaulted into the 1:20 category of the DG5 Internal Flooding Register and will be prioritised accordingly for solution.

15.3 Prioritisation and Cost Benefit Analysis

The company does not at present carry out cost benefit analysis on DG5 projects. However to allow prioritisation of schemes the process set out below is proposed.

- Review of existing CWP to ensure DG5 related programmes of work are captured.
- Assessment of DG5 Register to develop prioritisation methodology relative to frequency and impact.
- Receipt and analysis of feasibility studies to compliment prioritisation matrix including cost details.
- Review to ensure alignment with Regulatory Reporting on AIR and CIM returns.

16 Internal Flooding Register – Removals

A DG5 Property can be removed from the DG5 Internal Flooding Register when one of the solutions described below has been implemented. This will usually be triggered by construction of a CWP Scheme, or new information on the causes of historic events. Removal of a property from the register can only be done through a formal business process and where there is a justifiable reason, supported by sound evidence.

These properties will have supporting documentation to demonstrate that the grounds for removal have been met. This evidence will be presented to the DG5 Panel for formal removal of a property. Solutions to be considered before property removal from the register can be approved include;

- Permanent Solution; where a permanent solution has been constructed and is in beneficial use, the Capital Programme Team will present a DG5 Beneficial Use Form to the DG5 Panel as a record of confirmation of the flooding scheme completion. This will include the properties to be removed and cost of solution apportioned to flood prevention. The Beneficial Use Form will be approved by the DG5 panel members, and the identified properties removed from the DG5 Internal Flooding Register. They will in turn be re-categorised as removed due to 'company action'. The property will remain in this category of the register indefinitely or until such a time as the property floods again.
- Minor Works; where there has been evidence of asset deterioration, e.g. subsidence or through third party interference and a minor asset improvement project has been completed to rectify the flooding issues. Evidence that the flooding has been resolved will come from the appropriate FM and signed off by the DG5 Panel members.
- Better information - Severe weather; the event causing the property to be on the DG5 Internal Flooding Register is confirmed to have > 20 year return period (i.e. severe) and supported by appropriate meteorological or DAS investigation data.
- Better information - Flooding due to Third party; where investment on the sewer network would not prevent a repeat internal flooding incident and NI Water does not have responsibility for the problematic sewer the properties should be removed from the DG5 Internal Flooding Register. The details should be recorded in the AIR commentary. However, if the responsibility for the problematic sewer is shared with NI Water, then the property remains on the Register.
- Better information - Flooding is due to other causes; where it can be confirmed that flooding has occurred due blockage, collapse or equipment failure details will be recorded as 'other causes' within the excluded section of DG5 Internal Flooding Register.

Note: Mitigation will not enable a property to be removed from the register.

Finally, errors can happen;

- Error, identified by Audit or Investigation. Where an error can be clearly shown to have occurred, then the property can be removed.
-

Operational improvements are an unlikely explanation for justifying removal of properties from the register. Therefore any supporting data must be robust, for example, CCTV data. In the case of permanent solution then the property would be removed.

17 Annual Information Returns

The DG5 Internal Flooding Register will contain the information required to prepare Table 3, of AIR. The information required for the AIR will be retrieved from DG5 Internal Flooding Register.

- AMS will report on internal flooding incidents due to hydraulic incapacity held in the DG5 Internal Flooding Register.
- NSBU will report on internal flooding incidents due to other causes held in the 'excluded' section of the register
- AMS and NSBU will collaborate closely when compiling the AIR for internal flooding.

– Asset Performance Customer Questionnaire

Northern Ireland Water
Asset Performance
Asset Management
Westland House
Old Westland Road
BELFAST
BT14 6TE

Tel: 08458 770002
Fax: 028 2566 3131
Email: [redacted]
www.NI Waterater.com

Owner/Occupier

Email
Your Ref
Our Ref
Date

Dear Sir/Madam

SEWER FLOODING AT THE ABOVE ADDRESS

I refer to your complaint of sewer flooding on, and would be very grateful if you could help me with the following pieces of information:

- Was the flooding internal (e.g. in the house or attached garage) or external?
- What was the cause of the flooding?
- Has it been resolved by Northern Ireland Water or others?
- What way was it resolved (if known)?
- If it is still occurring, when did it last happen?

Could you please respond by calling me on my mobile (xxx) or emailing me. Your assistance in this matter will be much appreciated.

Yours faithfully,

[redacted]
Asset Performance

	ASSET PERFORMANCE DG5 DETERMINATION REPORT
Name and Address (Add BT Code)	

Incident Date	
Flood Type	
Rainfall Report	
Ellipse Notes	
CEMS Notes	
Customer Comments	
F.M. Comments	
Restricted Toilet Use	

Other Information Sources e.g. Pollution Reports, WWPS alarms, Captrax, Flooding Incident Reports, CCU etc.;	

GIS Assessment	
Existing Sewer Details	
Type of sewer	
Diameter (mm)	
Material Type	
Year Laid	
Sewer Location	
CCTV Carried Out	
Sewer Desilted	
Comments	
Topographical Assessment	

Possible Number of Other Properties Involved	

Flooding Mitigation (NRV's etc. ;)	
Drainage Area Catchment	
D.A.S.is Network Model Available	
DAS is there Predicted Flooding	

Summary	

Determination	

Signed	

Date	

– DG5 Flooding Incident Report

Northern Ireland Water – Flooding Incident Report

Work Order Ref No: ___ Name: _____

Location: _____

Date: _____ Arrival time: _____

1) Internal Flooding: ☐

Main Sewer	☐	Lateral Sewer	☐
Adjacent properties flooded	☐	Attached garages flooded	☐
Basements/Cellar flooded	☐	Restricted Toilet use	☐
Kitchen	☐	Hallway	☐
Living room	☐	Dining room	☐
Shop/integral store	☐	Downstairs bathroom	☐

2) External Flooding: ☒

Main Sewer	☒	Lateral Sewer	☐
Public road/footpath	☐	Public area	☐
Agricultural land	☐	Curtilage	☒
Detached garage flooded	☐	Detached shed or store flooded	☐

3) Comments on cause of reported incident: (Select only one category below)

Blockage	☒	Collapsed sewer	☐
Defective road gulley	☐	Defective private drain	☐
M&E equipment failure	☐	Other:	

4) Clean up operations:
Not Required ☐ Further Action Required ☐ Completed ☒

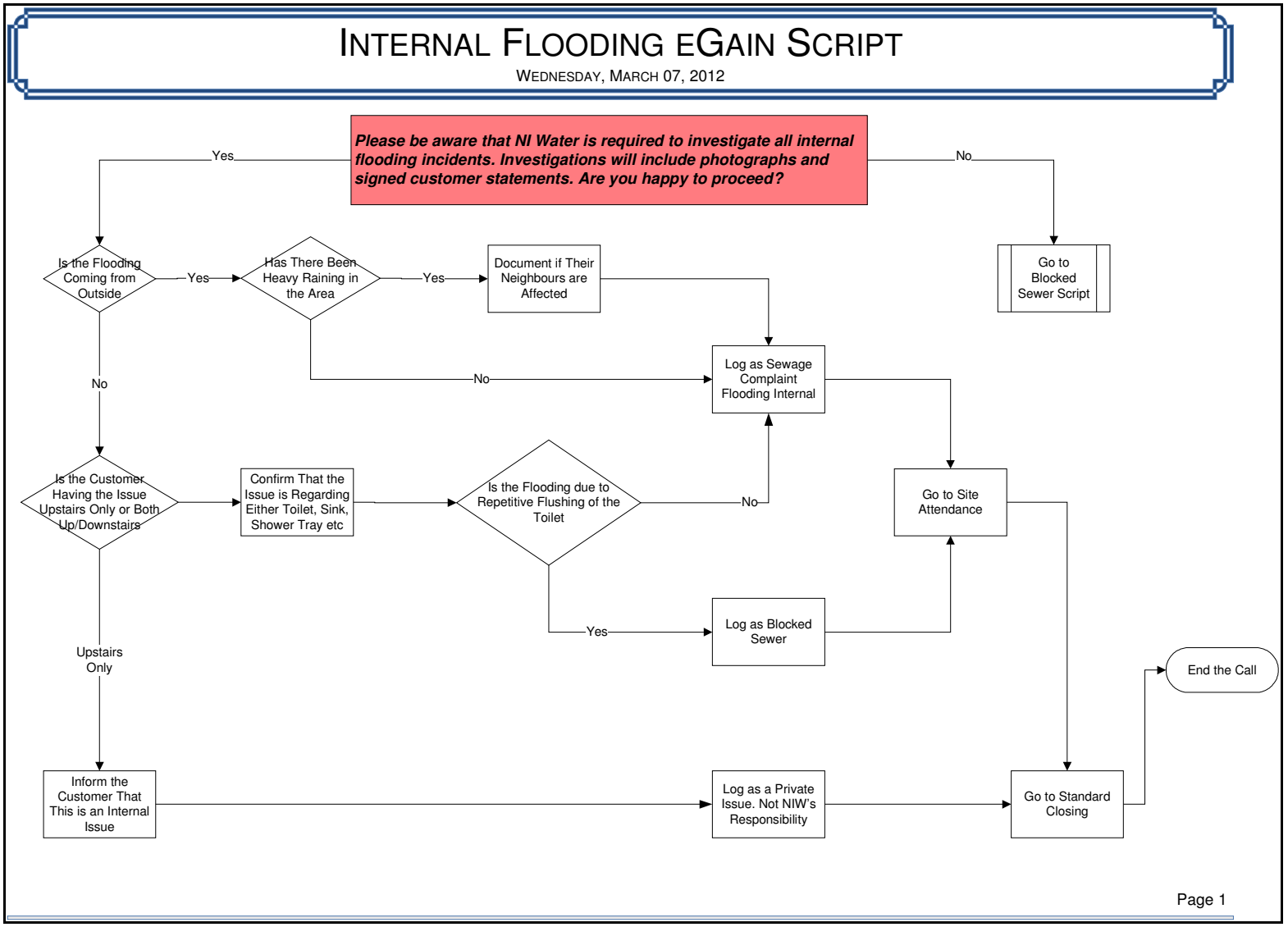
5) Previous History:
Yes ☐ No ☒ Not Aware ☐

6) Weather Conditions:
Dry ☐ OR Wet ☒: Heavy ☐ Medium ☐ Light ☒

Comments: Especially for Flooded jobs or Follow on jobs

PHOTO FOR FLOODED JOBS:

– Call Centre DG5 Caller Script


INTERNAL FLOODING EGAIN SCRIPT
WEDNESDAY, MARCH 07, 2012
Please be aware that NI Water is required to investigate all internal flooding incidents. Investigations will include photographs and signed customer statements. Are you happy to proceed?
Yes
No
Is the Flooding Coming from Outside
Yes
Has There Been Heavy Raining in the Area
Yes
Document if Their Neighbours are Affected
Go to Blocked Sewer Script
No
No
Log as Sewage Complaint Flooding Internal
Is the Customer Having the Issue Upstairs Only or Both Up/Downstairs
Confirm That the Issue is Regarding Either Toilet, Sink, Shower Tray etc
Is the Flooding due to Repetitive Flushing of the Toilet
No
Go to Site Attendance
Yes
Log as Blocked Sewer
Upstairs Only
End the Call
Inform the Customer That This is an Internal Issue
Log as a Private Issue. Not NIW's Responsibility
Go to Standard Closing
Page 1

Northern Ireland Water

Level of Service Methodology

DG6 Response to Billing Contacts

DG6 RESPONSE TO BILLING CONTACTS

Methodology and Procedures

Northern Ireland Water (NIW) has contracted out the provision of Customer Billing and Contacts (CBC) to Echo Managed Services (Echo). Echo is the provider of CBC services to NIW.

DG6 response to billing contacts (Process Summary):

1. Telephone Contact (go to step 4) or Documentation received (in Capital House)
2. Documentation opened by the Echo Payment Processing Team and passed to the NIW Account Services Customer Support Team
3. Scan and Index (documentation only which is archived after scanning)
4. Raise and allocate CMS contact type
5. Assess and Investigate
6. Update and compose response

All customer response letters are printed by NIW Account Services Contacts Team and dispatched locally. Exceptions to this include correspondence generated through DSTI which are bills (including recalculated bills) and automated recovery letters / correspondence. The process for printing and distribution of bills and other stationery on a daily basis is detailed below:

Items generated in Rapid:
Information received and updated by the agent, (which automatically updates the system), may trigger the system to create an item of stationery. The agent can also take a course of action (which will manually update the system) and may also trigger an item of stationery. This may include receipt of a leakage form from the customer, Data Protection Letter, Transfer of Responsibility etc. All such contacts are recorded as closed as at the date of dispatch.

The BSA team, within Echo, reconciles numbers of bills, letters and forms and sends all relevant items of stationery created the previous day through to DSTI for printing. These are signed-off, printed, enclosed and prepared for pick-up by TNT. Currently only bills, recovery notices and letters are handled this way. For DG6 reporting purposes the date of resolution of the item or date of the substantive response is used as the closure date.

Definitions

A billing contact covers any communication from a customer or their representative (on receipt of written permission from the customer as per data protection) regarding a customer account which requires a response or an action by NIW and does not constitute a written complaint. A customer's representative may be a solicitor, Citizens Advice Bureau, local MLA, or stakeholder representative, e.g. Ulster Farmers Union or CCNI.

Billing contacts can be received by telephone, in writing, by e-mail, by fax, by personal visit or written on a piece of company correspondence, for example a bill which is returned to NIW. Offensive or abusive written contacts are not included.

A billing contact not received in writing is a DG6 event. A written communication however, may be classified as a DG6 or DG7 event. Where the content or tone of written communication indicates an element of dissatisfaction, however mildly worded or unjustified, it should be classified as a written complaint and reported under DG7.

Billing contacts include calls that are made to pay a bill as this will result in an action being taken on the customer's account.

Email / Faxes: When an e-mailed, faxed or hand delivered contact is received after 16:30 it will be scanned, logged and indexed on the next working day. The date of receipt recorded will match the actual date of receipt.

Emails and faxes, which can be sent at any time, that are received outside or normal operating hours shall record the receipt date as the date it was delivered to the company. For example, if an email is received on a Saturday this is recorded as day 0. The next working day (Monday) would be counted as day 1. If an email is received on a Sunday then this is recorded as date of receipt – day 0 and Monday as day 1.

Exclusions

A query relating to billing for domestic customers, including the provision of meters is not a DG6 contact, as domestic customers are not billed by NIW.

For reporting purposes, other exclusions are:

- Written complaints (these are handled as DG7);
- Correspondence from banks re direct debits (clarified with NIAUR as excludable);
- Contacts logged in error;
- Freedom of Information requests;
- Calls relating to septic tanks and septic tank payments (these are non-appointed);
- Calls relating to new connections, not yet completed; and
- Copy correspondence from and to NIW personnel.
- Correspondence relating to payment processing, e.g. BACS notifications, payment giros and remittance advice notes.

Multiple Accounts

NIW received clarification from the Regulator as to how contacts from customers with multiple accounts should be logged, so as not to over or understate the DG6 position.

Therefore, for reporting purposes, a DG6 contact received; by a customer holding multiple accounts with NIW that is requesting an update to their standing account details will be recorded as 1 DG6 event on 1 account and as a non-reportable event on the remaining accounts.

End of year (contacts not dealt with at end of year)

As per NIAUR guidance, if a billing contact is not resolved by the time the year end report is run, the contact is included in the total number of billing contacts received for the year in which it is received.

Further, the response time for any open billing contacts received within the reporting year is reported to be within 5 working days based on the assumption that a substantive holding response has been issued for each by working day 5. On resolution of the billing contact, these billing contacts will be closed back to the date of the holding response. A sample of 60 of the 294 open DG6 contacts were checked to see if they had a holding letter issued on or before working day 5 and 100% of the 50 sampled did.

Auditing

Internal Audits – This process falls within Echo's Quality Management system and is audited several times a year under ISO9001/2000.

Performance and the achievement of Billing enquiries are recorded as per the Contact Handling Expected Service Levels which are measured monthly in accordance with *Contract Schedule 2.2*. Detailed monthly monitoring reports of actual performance are generated by Echo within CorVu and presented in the monthly Business Review Pack (MBRP) to NIW within 5 working days of the end of each month covering lines 1.1.1 to 1.1.9 in accordance with schedule 8.4.

Validation of DG6 figures provided by Echo are carried out monthly by NIW in accordance with *Contract Schedule 2.2* and recorded in the "NIW Response to the Monthly Business Review Pack" document which is published for comment and review. Any discrepancies on monthly DG6 performance are raised with Echo and escalated.

Echo regularly performs quality reviews against contacts received to ensure contacts are dealt with correctly. Although no documentation is made available to NIW, regular reviews are carried out by Team Managers within Echo, including:

- Weekly call listening;
- Monthly scoring based on call listening and feedback to individual agents;
- Coaching and feedback; and
- Daily monitoring of all billing contacts with team feedback when necessary.

NIW conduct monthly bill accuracy checks and report their findings to Echo by randomly selecting 100 bills issued each month and analysing them for accuracy, including:

- Accuracy of standing charges, sewerage and water charges;
- Bill total agrees with supporting pages;
- Correct application of VAT;
- Customer details are correct; and
- Correct bill type is used.

Any discrepancies are logged and sent to Echo for review.

NIW Contract Office performs a call listening exercise on a monthly basis. Each month a random selection from the total calls received is made. This selection includes both billing and operational calls. Billing calls are assessed for:

- For accuracy;
- To determine if memo contents are clear and precise;
- To ensure the conversation is accurately recorded on Rapid; and
- To ensure correct use of CMS code.

Any findings are reported back to Echo management through the Response to the MBRP.

An end to end process review is carried out by internal audit.

Sources of information

System used

The telephony system comprises of a suite of Avaya products and a CallMedia ACD. The Avaya switch is tightly integrated with the CallMedia platform which provides CTI (Computer telephony Integration) and ACD (Automatic Call Distribution). Calls can be automatically routed to appropriately skilled agents ensuring a quality response to the customer, at first point of contact. NICE is the call logging system.

The software comprises of CallMedia Enterprise Console with an integral reporting suite which distributes calls based on skills sets and SLA's.

Written correspondence is date stamped at point of receipt by Echo (unless received after 16:30), scanned on a (Kodak i 620 scanner) and indexed. This safeguards security and minimises administration. Once correspondence is scanned it is indexed and batched with an allocated batch number. The scanned image is then available to Rapid Users.

All contacts received should be recorded on Rapid. Reports from CorVu are generated by Echo, validated by NIW, and are used to report on DG6 performance.

Actual data

Actual data is extracted from the billing system RapidXtra using CorVu. CorVu 'DG6 Received QRY (Live)' is used to calculate the total number of DG6 contacts received (table 4, line 1) and to calculate the DG6 closed performance (table 4, lines 2-5). DG6 data analysis is produced monthly and re-run for the entire reporting year, providing the necessary information essential for the Director General's reporting requirements.

Sampling

Actual data is used to report DG6 performance (table 4, lines 1-5). Sampling is only used by NIW for data quality purposes and to provide comfort around the assumption that DG6 contacts open at year end will be closed back to a holding letter issued on or before working day 5.

Reliability

All data is taken from the main billing system to ensure it is reliable and accurate.

Responses

This is defined as a response to a billing contact which may be by telephone, written correspondence or personal visit. Responses will provide the following:

An explanation of NIW's relevant policy or procedure and indicates why, in NIW's opinion, no further action on the customers billing contact is required; or

Informs the customer when action on his/her account will be taken if action cannot be taken immediately due to circumstances beyond NIW's control, for example customer needs to obtain clearance from third party, such as a landlord.

Whichever type of response is dispatched it must substantively answer all points raised by the customer and be recorded and date stamped.

Use of telephone

The telephone is the company's preferred method of responding to a billing enquiry. All DG6 related telephone calls should result in a CMS memo being raised and coded by the agent according to the individual enquiry. An audit trail of the response will be recorded on the billing system (Rapid) as a memo with a CMS type. A full record of the actual conversation and its outcomes is held on CallMedia. A CMS is created on Rapid and contains information including:

- CMS type;
- Customer name;
- Customer address;
- Telephone contact;

- Query details; and
- Action required.

Use of letters

Letters are only used when it is not possible to deal with the customer by telephone, when a written reply has been requested by the customer and when it is deemed more appropriate by the agent. Telephone calls not dealt with at first point of contact are dealt with by the NIW Account Services department. A CMS is created on Rapid and contains information including:

- CMS type;
- Customer name;
- Customer address;
- Telephone contact;
- Query details; and
- Action required.

Holding letters are sometimes used but are customised by the agent. They are held within Rapid and are posted directly to the customer and not through DSTI.

Use of personal visit

If a DG6 contact requires a personal visit, (e.g. a meter query team site visit), the agent will raise a CMS contact. This will be transferred to the NIW Account Services Contact Team who takes ownership for resolution and closure of the contact. The Contacts Team agent will send a holding letter to the customer once the visit request has been raised. It is this date/time of this letter that is used for closure.

Response time

This is the number of working days between receipt of a contact by NIW up to and including the day of despatch of a response. For the purpose of this calculation, the day of receipt; provided it is a working day; is counted as day zero and the next working day as day one.

Emails and faxes, which can be sent at any time, that are received outside or normal operating hours shall record the receipt date as the date it was delivered to the company. For example, if an email is received on a Saturday this is recorded as day 0. The next working day (Monday) would be counted as day 1. If an email is received on a Sunday then this is recorded as date of receipt – day 0 and Monday as day

CCNI

Written billing contacts received via the Consumer Council for Northern Ireland (CCNI) office on a customer's behalf are included.

Holding reply

This is defined as a response to a billing contact which advises the customer that NIW will need to undertake additional research or other actions before being able to respond to the customer's contact. A holding reply is counted as a substantive response if it informs the customer what further action needs to be taken to respond to the query and includes a date by which investigations or further actions will be complete and by when the customer will receive a further communication from NIW.
A holding reply will close a contact for DG6 reporting purposes but not for NIW until all actions have been taken. NIW provides a reply within 5 working days of the customer contact and a further holding letter is sent, if there is a delay in finding a resolution. The

company will include the number of days in which they will contact the customer again. Enquiries and follow up questions will not be counted as a DG6 contact.

Other Issues

Please refer to DG6 Company Commentary.

Northern Ireland Water

Level of Service Methodology

DG7 Response to Written Complaints

DG7 METHODOLOGY 2014/15

Methodology and Procedures

Northern Ireland Water (NIW) has contracted out the provision of Customer Billing and Contacts (CBC) to Echo Managed Services. Echo Managed Services (Echo) are the provider of CBC services to NIW. Written contacts and complaints are dealt with in-house by NIW Customer Services. The Accounts Services (AS) Customer Support Team within this department scan, log & index documentation whilst the AS Complaints & Exec Mail Team case-manage and respond to DG7 complaints.

The following high level process steps are followed:

- documentation received (in Capital House);
- documentation opened by Payment Processing (Echo) who separate payments & non-customer documentation before passing the remainder to the Account Services department;
- documentation sifted into DG6, DG7 and non-reportable categories;
- documentation date stamped, scanned, logged & indexed by AS Customer Support Team;
- CMS contact raised to AS Complaints & Exec Mail Team inboxes in RapidXtra (Customer Billing & Contact Management System) and case raised in Savvion (BPM solution);
- contacts allocated to AS Complaints & Exec Mail Team members;
- AS Complaints & Exec Mail Team member assesses, investigates and case-manages complaint as appropriate;
- request for information and/or action sent to relevant part of the business then;
- review information provided by business, update accounts, draft & issue response.

Allocation to DG7

Written complaints are recognised from all other correspondence by following the definition of a written complaint as set out in the Reporting Requirements and Definitions Manual. All incoming written correspondence is passed to Account Services. It is then sifted and categorised as DG6, DG7 or non-reportable according to the Utility Regulator's definitions. Following that, it is date-stamped, scanned, logged and indexed by the AS Customer Support Team.

The reported response times for all written complaints are derived from the Rapid database. All written complaints, with the exception of exclusion categories detailed herein, are included in this total.

Definitions

A DG7 complaint is defined as any written communication from a customer or customers' representative (e.g. Citizens' Advice Bureau, solicitor), alleging action or inaction, or service or lack of a service on the company's part or that of its agent or contractor has fallen below the expectation of the customer – even if written in mild and friendly terms. This includes any expression of annoyance or dissatisfaction by the customer, or disagreement with the company.

Written complaints include letters, e-mails and faxes.

Also included are:

- second or subsequent complaints;
- general complaints;

- complaints that may seem unfair or frivolous;
- complaints received by Consumer Council for Northern Ireland and;
- complaints written on returned Company letters or stationery (e.g. bills).

Should the Company receive a petition, it is classed as a DG7 contact and the Company will respond only to the customer who has sent in the petition. This will be classed as one complaint although the complaint and the response letter will be archived against the account of each customer that has signed the petition where practical.

Exclusions

The following are excluded from DG7:

- cheques and stubs;
- written DG6 billing queries;
- all other Company mail;
- complaints that are sent anonymously;
- complaints that are offensive or abusive;
- complaints referring to non-appointed activities;
- complaints returned alongside customer satisfaction surveys;
- complaints not about the services and functions of the Company (e.g. complaints about executive salaries, advertising campaigns);
- complaints about the activities of other utilities (for example signage around trenches);
- complaints about recreational and amenity activities not defined as duties imposed by the Water and Sewerage Order 2006 and;
- public liability claims (although any related complaint should be included as normal).

End of Year (contacts not dealt with by end of year)

As per NIAUR guidance, if a complaint is not resolved by the time the year-end report is run, the complaint is included in the total number of complaints received for the year in which it is received.

Further, the response time for any open complaints received within the reporting year is reported to be within 10 working days based on the assumption that a substantive holding response has been issued for each by working day 10. On resolution of the complaint, these complaints will be closed back to the date of the holding response.

Auditing

This process falls under the remit of NIW Internal Audit (IA). There were no audits performed by IA in relation to DG7 contacts during 2014/15.

Each complaint also undergoes a series of quality assurance checks. The first is carried out by the AS Complaints & Exec Mail Team member who has the item allocated to them. They check that the item has been:

- correctly categorised as DG7;
- coded using an appropriate CMS code; and
- logged to the correct account(s).

The AS Complaints & Exec Mail Team member verifies that the information received from within the business is suitable to use in response to the complaint before the response is drafted.

Once the response has been drafted, it is subject to a self-assessed Quality Assurance check during which adherence to an agreed Letter Writing Checklist is tested.

The Complaints & Exec Mail Team Manager/Supervisor performs further monthly sampling of contact categorisation to ensure accuracy. These additional monitoring systems check:

- DG7 categorisation;
- CMS code; and
- advice code for closed complaints (existence of and; accuracy of).

Sources of Information

Complaints are sorted into the relevant categories, date-stamped, scanned, logged then indexed, thus ensuring security and minimising administration.

Each complaint received is scanned using the Kodak i620 scanner. At the end of each "batch" of correspondence scanned, a batch number is allocated. The images can then be seen by staff on their PC and indexing can begin. During indexing the following details are input by the operator:

- property and/or customer reference;
- date of receipt;
- CMS group;
- CMS description;
- document type and;
- operator id.

It is at the indexing stage that the scanned items are categorised, thus allowing the description to be input above.

Changes in system during the report year

Filenet image capture software was replaced by Datacap image capture software in November 2014. This was essential in order that the PC linked to the scanner could be upgraded from running on Windows XP to Windows 7.

Actual Data

Actual data is extracted from the billing system RapidXtra using CorVu. CorVu 'DG7 Received QRY (Live)' is used to calculate the total number of DG7 contacts received and to calculate the DG7 closed performance. DG7 data analysis is produced monthly and re-run for the entire reporting year, providing the necessary information essential for the Director General's reporting requirements.

Sampling

Sampling is not used in compiling received data for DG7. Sampling is only used by NIW for data quality purposes.

Reliability

All data is taken from the main billing system to ensure that it is reliable and accurate.

Responses

Upon receipt of a complaint, we ensure that relevant action is undertaken, provide a substantive response and ensure the contact is closed on the Customer Contact Management System (Rapid).

NIW endeavours to answer all written complaints, regardless of the sensitivity of the issue or subject raised by the customer.

Our responses do one or more of the following:

- provide an explanation of our policy or procedure and indicate why no further action is required;
- inform the customer that action to resolve the complaint has been taken and identifies when this action occurred;
- informs the customer when the action to resolve his/her complaint will be taken if it cannot be done immediately e.g. capital works scheduled for completion months sometime in the future;
- answer all issues or questions raised by the customer.

Use of Telephone

Where appropriate, telephone calls are used to respond to written complaints. Telephone calls are also used to update customers as the progress of complaints under investigation. The customer account is annotated with details of the call in these cases.

Use of Standard Letters

Standard letters are not used to respond to complaints - all responses are personalised and customised.

Use of Personal Visit

When a personal visit is used to respond to a written complaint, a letter confirming the content of the visit is provided to the customer. The date of the visit is used as the date of response.

Assumptions

NI Direct

Complaints received through NI Direct are not reported.

Telephone Complaints

Complaints received via telephone are reported as DG9 telephone complaints, not DG7. Billing telephone complaints are reported as DG6.

Date of Receipt

Written complaints are date-stamped per the date of receipt.

Date of Dispatch

The date of dispatch refers to the date on which a response is sent to the customer. The date of dispatch is recorded as the date closed.

Response Time

This is the number of working days between receipt of a contact by NIW up to and including the day of dispatch of a response. For the purpose of this calculation, the day of receipt (provided it is a working day) is counted as day zero and the next working day as day one.

When an email or fax is received after 16:00 it will be scanned, logged and indexed on the next working day. The date of receipt recorded will match the actual date of receipt.

The reported date of receipt for emails/faxes received outside of normal operating hours is the actual date on which the complaint was delivered to the company. For example, if an email is received on a Saturday, this is recorded as day zero. The next working day (normally the Monday) would be counted as day one. If an email is received on a Sunday then this is recorded as date of receipt (day zero) and (normally) Monday as day one.

Substantive Holding Reply

This defined as a response to a written complaint which advises the customer that NIW needs to undertake additional investigations or other actions before being able to provide a full response. A holding response is considered substantive if it advises the customer what further action needs to be taken in order to fully respond, when this will be done and when they will receive a further communication from NIW.

Items remain open until all actions have been completed but will be closed back to the date of the holding response for reporting purposes when said actions have been completed.

When a date by which investigations or further actions will be complete cannot be given, we will give the date by which we will contact the customer again.

Holding responses can be issued in writing or provided verbally by telephone.

Repeat Contact

Where a complaint has been responded to and results in a period of correspondence each written contact is treated as, and reported as, a separate complaint.

This is done even if NIW consider the complaint has been dealt with as far as we are able.

Consumer Council for Northern Ireland (CCNI)

Complaints received in writing via CCNI will be logged as complaints and recorded in DG7 figures. All complaints from CCNI are received in writing.

CCNI enquiries and follow-up questions are not recorded as complaints.

Complaints to or about Contractors

Complaints made directly to contractors about work carried out on our behalf are recorded following notification to NIW through agreed process. Such complaints will be recorded even they are handled directly by the contractor.

Complaints about contractors received directly by NIW are reported even if they are referred to the contractor to deal with.

Holding Response & Frequency

Monitoring systems have been in place throughout the reporting period to support recording on the number holding responses issued throughout 14/15.

The data for the volume of holding responses issued between 01/04/14 and 31/08/14 was collated using a manually-recorded, off-system process.

System-based report data was used to derive the number of holding responses issued between 01/09/14 and 31/03/15.

The figure reported in Line 14 is the total recorded number of holding responses issued to customers during 14/15 owing to pending investigations linked to open DG7 contacts which were received in 14/15. It does not include holding responses issued within 14/15 in relation to DG7 contacts received in the previous reporting year.

The reported figure does not represent the number of unique DG7 contacts for which one or more holding response was issued.

In cases where the investigations were on-going by the expiry date of the initial holding response, a further holding response will have been issued.

Based on the recorded data, we can say that one (or more) holding response was sent in relation to 220 DG7 contacts which were received in 14/15. This equates to 9.31% of the received total volume. Therefore, it can be concluded that one or more holding response was issued in relation to 9.31% of the DG7 contacts received during 14/15.

Other Issues

Please refer to the DG7 Company Commentary.

Northern Ireland Water

Level of Service Methodology

DG8 Bills for Metered Customers

DG8 - BILLS FOR METERED CUSTOMERS

Definitions

Every time a metered account is billed a reading type is updated onto the Rapid billing system (Rapid) to identify the type of reading.

The reading types and estimated indicator are used to distinguish the meter reading status of each metered account, which is subsequently analysed in Rapid to create the 'DG8 Meter Summary Analysis' report.

DG8 Reporting

The Rapid 'DG8 Meter Summary Analysis' report ensures we correctly identify each of the reporting requirements in the sequence shown.

The reading indicators are extracted from Rapid RPU005 meter consumption update screen. The 'DG8 Meter Summary Analysis' report extracts this information and compiles this in line with the requirements.

The report is run annually at the end of the financial year, covering the period 1 April to 31 March and includes all categories requested by the Director General for the June Return reporting.

A bill is only counted as issued if it is sent to the customer within the reporting year. Any bills that are sent after this date will be included in the following reporting year's figures.

Total Metered Accounts

The report confirms the number of active accounts with either water or water and sewerage consumption which are metered.

Company Reading and Billed

If a Company reading has been taken during the within the defined annual cycle period, and a bill created against that reading, it will be included under the 'Meters read by Company' indicator. The exception to this is those meters that are billed outside of Rapid (trade effluent meters).

Company readings are recorded by the Meter Reader (MR) via a PDA. Each day the MR will upload those accounts that have had a reading and or an abnormal reading from the PDA to Routestar/Temetra, for transfer to Rapid. The Temetra system was introduced on 26th August 2014 to replace Routestar.

No Bills Received During Reporting Year

Bill status is scanned for no bills issued during the reporting year and is reported under the 'Not Billed this year' indicator.

Meters included in this category are identified as having a reading entered but the 'bill sent' flag set to 'No'

Customer Readings

Reading types are scanned for not receiving a bill based on a Company Reading but at least one bill based on a 'Customer Reading' and will be included in the 'Meters read by Customers' indicator.

'Meters Read By Customer' represents the number and percentage of the meters read by the customer within the DG reporting year that are identified as either 'Customer read' or 'Customer web reading'

The Company encourages our customers to take readings themselves so that they are aware of their usage. Customer reads can be registered for billing purposes by using the On-line facility available on our website or by calling our billing line.

Customer readings are recorded via a correspondence management system. A team member will then update the account and issue a revised bill. A customer reading type indicator will be displayed on the system. The estimated read will also be visible on the system

Estimated Only

Any meters that have not satisfied any of the preceding indicators will be recorded under the 'Meters Estimated Only' indicator.

'Meters Estimated Only' represents the number and percentage of meters only estimated within the DG reporting year. The following read types are identified as estimates: Estimate Exchange Final, System Estimate, and Manual Estimate.

Unread for Two Years

If no Company reading exists during a two year period, it will be reported under the 'No Company Reading for 2 Years' indicator.

Specifically two years back from the end date of the DG report.

Exclusions

The following are excluded from the indicators:

- Charged on another basis (not metered consumption)
- Test meters
- Trade-effluent meters
- DRD or NIW meters
- Fire supplies
- Properties occupied continuously for less than six months
- Complex accounts – Including combination meters i.e. the 'low-flow' element is excluded.
- Void properties

Reading and Billing Frequency

Frequency of reading:

- Non-household properties are scheduled to be read twice a year. The reading schedule for each read is completed over a six month period, the 1st read cycle is April to September and the 2nd read is October to March.
- Non-household – large volume users are read and billed monthly.
- There are a number of meters that have been assigned a reading frequency of Annual Read within the Rapid system. However, these meters are either DRD Supply or Test Meters which fall under the permitted exclusions and will only be read to assist business requirements, as neither category generates a customer bill.

Frequency of Bill Issue:

- Household properties – the Company do not currently bill domestic properties

- Non-household – the Company aim to read at twice a year and bill twice yearly.
- Large non-household users – the Company aim to read and bill monthly.

Method of Meter Reading

Before the start of each reading period, whether monthly or six monthly, details of metered accounts scheduled for reading were transferred from Rapid to Routestar between April and 25th August, and from Rapid to the Temetra system for 26th August onwards.

The accounts are then downloaded on to an electronic data storage unit (PDA) to facilitate the actual reading of the accounts by a MR in the field.

The meter reading information obtained by the MR is then transferred back to Rapid from Routestar/Temetra, which is subsequently updated upon the meter being read.

The data transfer from Routestar/Temetra to Rapid is not solely automatic and currently requires manual assistance by the MAM team.

Abnormal Readings

An abnormal reading can be identified by one of two factors:

- A meter reading that gives a usage that does not fall in line with previous usage patterns, identified by the MR, billing system or customer.
- A meter reading that does not correlate with previous readings taken.

The PDA unit automatically calculates the usage between a new reading and the previous reading. The MR checks the usage against the previous readings that are displayed on the PDA. If the usage appears to be abnormal the MR will enter a report onto the PDA and or use a pre-set indicator to explain why (trouble codes).

A daily 'Rejected Readings' report is produced through the Rapid billing system that also identifies any abnormal usage that require further investigation. Each account on the report is checked and if accepted the reading will be utilised and a bill issued. If the rejected read cannot be added, a site visit request is raised to instruct a Meter Query Technician (MQT) to investigate and provide further information.

Previous Misreads

Accounts that are identified as having previously been misread are subject to re-calculation based on the most recent meter reading.

Access Denied / Meter Reading Unobtainable

In such instances that the Company is unable to gain access to the meter, a skip code is entered which identifies that access was denied. If the customer does not provide a reading before the billing run a system estimate is used.

Faulty Meters

Where a faulty meter is identified and a MR or MQT replaces the meter, it is recorded on an MRD (Meter Replacement Docket) which their Field Manager (FM) signs off and sends to the MAM team, and "First Read New Meter" is logged on the handheld.

If a MR or MQT cannot replace the meter, a MMR (Meter Maintenance Request) is completed which their FM signs off and sends to the Meter Maintenance (MM) team, MM then forwards the MMR to the Contactor. When the meter has been replaced, the

Contractor advises MM of the replacement details. The old and new details will then be returned by MM on a MRD to MAM for updating on the billing system

Updating, Post Bill Issue

If the Company has any disputed readings, the account will be suspended while further investigations are being made. Once the investigations are finalised, a revised bill will be issued if necessary.

Assumptions

Those accounts excluded from the analysis are categorised using the definitions provided by the reporting requirements, as noted above.

Additional Information

Echo, on behalf of Northern Ireland Water, are responsible for the billing activity.

Some meters are billed on a sundry schedule rather than the normal billing schedule within Rapid. These are Trade Effluent bills. Trade Effluent bills are excluded from DG8.

Sewerage only customers, if not TE customers, are charged on an unmeasured basis.

Northern Ireland Water

Level of Service Methodology

DG9 Telephone Contact

Definitions:

Principle Advertised Customer Contact (PACC) Points

For the purposes of the indicator, principal means the main contact point(s) which customers are encouraged/directed to phone to, while advertised refers to those customer contact points which appear in telephone directories, newspaper advertisements, on the Northern Ireland Water (NIW) website, NIW literature or are specifically printed (rather than typed) onto NIW letterheads. It excludes however, those which are of a temporary nature established to handle a specific topic.

NIW PACC points include:

- **Billing Enquiries:** 0845 877 0030
- **Debtline:** 0845 8770 050
- **Waterline:** 0845 744 0088
- **Leakline:** 0800 028 2011
- **Text Relay (for customers with hearing difficulties):** Registered users are provided with a prefix for any NIW number they wish to ring.

An MLA/ER Hotline [redacted] was initiated on 21st August 2007 to provide a direct means of contact for elected representatives and council members telephoning to enquire about specific issues in their constituencies.

In addition, the following dedicated campaign lines are in operation for certain sections of the community to aid NIW's response:

- Developers Line: 0845 877 0002
- Emergency Services: 0845 877 0008
- Telecare Quick Check: 0845 877 0080
- Closed Communities: 0845 877 0007
- Aged Debt: 0845 877 0003

Telephone Contact

The indicator is intended to monitor incoming telephone traffic which can be regarded as originating from NIW's customer base. All calls received to telephone lines other than principle advertised customer contact points are excluded for reporting purposes (i.e. all other business lines).

Company Agent

NIW has contracted out the provision of Customer Billing and Contacts (CBC) to a 3rd party provider known as Echo Managed Services (Echo). Echo is the provider of CBC services and is based in Capital House, Belfast.

A company agent is defined as an employee of Echo (operating from a principle customer contact point), who operate the contact on behalf of NIW. All calls are answered directly by Customer Service Advisors who are direct employees of Echo.

Office Hours

The indicator covers office hours only. Office hours are defined as the hours which NIW's PACC points are open. These are detailed below:

- **Billing Enquiries:** Monday to Friday - 08.00 to 20.00
  Saturday - 08.00 to 18.00
  Sunday - 12.00 to 18.00
- **Debtline & Aged Debt:** Monday to Friday - 08.00 to 17.00
- **Waterline:** 24 hours a day, 7 days a week, 365 days a year
- **Leakline:** 24 hours a day, 7 days a week, 365 days a year
- **MLA and dedicated lines:** 24 hours a day, 7 days a week, 365 days a year

Telephone Complaints

Calls received about the following water service issues are expected by NIAUR to be included as a complaint:

- no water;
- lack of pressure;
- leaks;
- taste and odour;
- discolouration; and
- hard water (except for simple enquiries, e.g., dishwasher settings).

In addition, calls received about the following wastewater service issues are also expected to be included as a complaint:

- sewer flooding other than those received through NI Direct/ blockages; collapsed sewers / manholes;
- smells from sewage treatment works / pumping stations; and flies from sewage treatment works.

NIW have created a series of CMS logging codes, within the RapidXtra system, to cover these issues. All telephone contacts logged by the agent using one of these codes will be included in the reported volume of telephone complaints. In addition, where a customer expresses dissatisfaction during their call, the agent has the ability to select the complaint flag which will identify the log for inclusion in the reported figures.

NIW excludes from the reported figures, those telephone complaints which are:

- Anonymous;
- About the activities of other utilities;
- Received through NI Direct Incident Line; and
- Received on telephone lines other than principle advertised customer contact points (i.e. all other business lines).

Complaints to/about contractors

Telephone complaints to contractors or other agents about work being undertaken on behalf of NIW are reported only where NIW are informed. Complaints about contractors or other agents are also reported, even if the complaint is referred to the contractor to resolve.

Telephony Structure:

Telephone Providers Network

The supplier during the reporting year was Cable & Wireless, however all physical lines in Capital House were switched from C&W to BT on 6th March 2014, with remaining non-geographic services moved to BT on Tuesday 10th of March 2015. No issues were

experienced during these switches.

Cable and Wireless Network IVR

NIW introduced a High Volume Call Answering (HVCA) solution to assist answering large volumes of unexpected trouble calls in December 2012. In order to facilitate the solution, the Cable and Wireless Network IVR was activated on the 'Waterline'. Customers calling this line will hear the following message and be presented with further options:

"Thank you for calling WaterLine. Calls are recorded and may be used for quality assurance and training purposes. Please select from one of the following options. For Developer Services or New Connections please press 1, to report a problem with the water supply or sewerage please press 2, for septic tank desludging please press 3, for all other enquiries please press 4 and to hear these options again please press 5."

Auto Attendant sub menu: "For New Connections please press 1. For the Developer Service team and you know their name, please press 2."

Auto Attendant

Auto attendant is a new functionality that allows callers who wish to speak to a member of the Developer Services Customer Team and know their name to go directly to their desk phone without the need to talk to an agent within the CRC. This is achieved by selecting option 1 on the top menu of the IVR. This will bring them to the sub menu – "For New Connections please press 1. For the Developer Service team and you know their name, please press 2." If the individual is not available then the call will be redirected back to the CRC to be serviced.

High Volume Call Answering (HVCA) System

The HVCA system is aimed at ensuring NIW can handle large volume of calls during periods where calls can increase very quickly e.g. Major Incidents, heavy rainfall incidents, etc. This ensures that all calls are logged and customers given specific information resulting in higher levels of customer satisfaction during service interruptions. The HVCA system will recognise customers using the telephone number we hold on their customer record or it can use Voice Recognition to allow customers to speak their Post Code.

Calls will be delivered to HVCA direct from the C&W IVR menu structure when a caller selects option '2'. Calls delivered to this campaign will be offered to agents first in Call Media, however if an agent is not available the call will automatically divert to the HVCA Platform. The divert is controlled by the Cable and Wireless intelligent network, calls will divert on busy tone, route failure and no reply.

As each caller hangs up in the HVCA application, a Call Data Record (CDR) is created which details the caller's activity during the call. A portion of the CDR is passed to NIW in the customer contact file for the creation of work requests through Rapid to Ellipse.

Call Media

Calls received on all other PACC lines and the majority of calls received on Waterline are delivered to the Call Media system for allocation to an appropriately skilled agent. If there is more than one Customer Service Agent available, the system allocates the call to the one who has been available the longest period of time.

If no skilled agent is available immediately then the call will be queued until a skilled agent becomes available. The Call Media Telephony System provides an internal queuing

system where callers will hear a ring tone and then a comfort message and music on hold.

The use of Call Media's skill based routing ensures that incoming calls are distributed in a way that will ensure a quality response to the customer.

Call Recording

All calls received in the call centre via Call Media are recorded via NICE call recording software. This software records the time of the call and the telephone number that called the centre if available.

Reporting:

Reporting the DG9 Position (telephony schematic attached in Appendix 1)
DG9 performance is reported by the NIW MI Team on a monthly basis using the MI reports from both HVCA and Call Media systems.

Reporting of Telephone Complaints

NIW MI Team use Corvu to report on the volume of telephone complaints received, on a monthly basis, using the agreed Operational Original CMS transaction codes and any other call logged where a complaint flag has been selected by an agent if the customer has expressed dissatisfaction.

Call Listening

NIW MI Team listen to 10 randomly selected calls per month, check that they have been logged on Rapid correctly and feedback any quality issues highlighted to ECHO through the monthly response to the MBRP.

Call Handling:

Practices and Procedures

All calls received are managed by either HVCA call routing system or Call Media and routed directly to an appropriately skilled agent based on the first available call handler.

Wherever possible, an agent will deal and action a customer's enquiry at point of contact. Where this is not possible, a message will be raised on the system for further investigation or where appropriate the customer will be transferred.

All enquires are logged on RapidXtra automatically by HVCA or manually via an agent, covering the reason for the contact (contact type) and the advice given or action taken. This is the case whether or not further work is required ensuring all calls are recorded, even if they remain open for further action.

Calls which require further action are logged on RapidXtra and work flowed to teams or individuals as required or passed to Ellipse for issue to mobile work management operational teams. This includes instances where further 'back office' or NIW investigation is required in order to provide a response to the customer.

Transfers between PACC Points

Agents are multi-skilled, so transfers are not generally made. Transferred calls are reported as one call.

Direct Measurement/Interpolation/Extrapolation

NIW measures statistics for all telephone calls received on PACC points which are delivered directly to the Call Media telephony system and to the HVCA system. Sampling, interpolation or extrapolation is not used in compiling totals.

Messaging:

Use and activation of IVRs (Interactive Voice Response)

During business as usual an introductory message is set up and assigned to each queue, e.g. Billing Enquires Line. The message greets the customer and thanks them for calling the relevant number. It explains that an agent with be with them shortly and to note that calls are recorded to help provide quality assurance and training.

If a customer telephones out of hours, the customer will receive an out of hour's message. In the event of disaster recovery and building evacuation, a recorded message is activated which explains to customers that calls cannot be answered at the moment, please call back later.

As noted above, the Cable and Wireless Network IVR tool is now being utilised on Waterline to direct customers calling in relation to New Connections, Trouble Calls, Septic Tank requests and other operational issues. This allows NIW to transfer Trouble Calls to the HVCA system in situations where calls exceed the volume of agents available in the CRC.

Use and activation of message manager systems

No message manager systems were used during the reporting year.

Use and activation of answering machines

Answering machines were not used during the reporting year.

Company Systems:

Telephony

Systems comprise of a suite of Avaya products and a Call Media Automatic Call Distribution (ACD). The Avaya switch is tightly integrated with the Call Media platform which provides Computer Telephony Integration (CTI), ACD and outbound dialler functionality through three main components:

- Avaya S8710 providing core telephony switching
- Call Media Contact Centre software providing ACD, CTI and dialler functionality
- NICE Call Recording; and
- High Volume Call Answering (HVCA), hosted service provided by Twenty First Century Communications.

Calls that arrive at the Avaya switch are routed by the Call Media ACD to appropriately skilled agents via desktop phones.

Location

All systems are located at Capital House, Belfast. There is currently a 240 line capacity dedicated inbound calls from NIW customers, 30 dedicated lines for outbound calls and 30

dedicated lines ring-fenced for priority lines e.g. ER Hotline, Emergency Services, etc.). The scale of the current capacity was implemented in preparation for domestic billing which was deferred in April 2007.

Software

Software comprises of Call Media Enterprise Console, the integral reporting suite supplied with Call Media ACD and NICE call recoding.

Other Issues:

Text Relay Service and Text Phone

NIW has provided for a Text Relay and Textphone service to support customers with hearing difficulties.

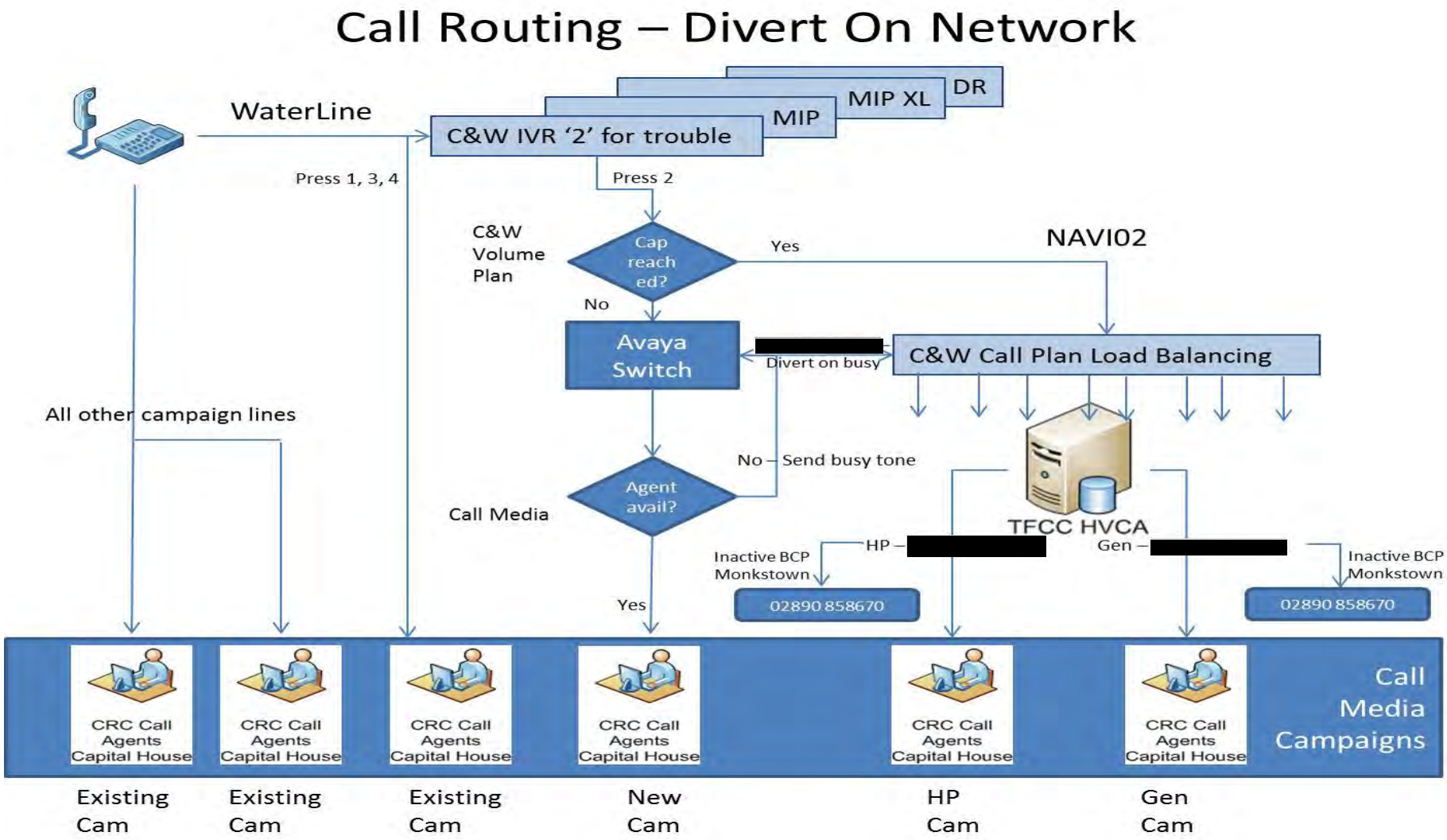
Text Relay Service is a third-party service whereby the customer rings a Text Relay operator, who in turn contacts the Customer Relations Centre via the normal customer line (Waterline/Leakline/Billing, etc.) on behalf of the customer. This is recorded as a call received on the appropriate line.

Rejected Calls

During the reported year calls currently rejected for any of the following reasons are not included in total calls received:

- The time being out of working hours
- The queue is too full and cannot accept any more tasks. Each queue holds 500 calls at any one time.
- The task queued for the ‘Max Queue Time’ and was returned to the connector.

Appendix 1


Call Routing – Divert On Network
WaterLine
C&W IVR '2' for trouble
MIP
MIP XL
DR
Press 1, 3, 4
Press 2
C&W Volume Plan
Cap reach ed?
Yes
NAVI02
No
Avaya Switch
Divert on busy
C&W Call Plan Load Balancing
All other campaign lines
No – Send busy tone
Call Media
Agent avail?
TFCC HVCA
HP –
Gen –
Inactive BCP Monkstown
02890 858670
Inactive BCP Monkstown
02890 858670
Yes
CRC Call Agents Capital House
CRC Call Agents Capital House
CRC Call Agents Capital House
CRC Call Agents Capital House
CRC Call Agents Capital House
CRC Call Agents Capital House
Call Media Campaigns
Existing Cam
Existing Cam
Existing Cam
New Cam
HP Cam
Gen Cam

Annual Information Return 2015

Section 4

Customer Research Appendix

Annual Information Return 2015

Customer Research Appendix

Customer Satisfaction
One of the fundamental measures concerning the level of service received by customers is customer satisfaction. This measure concerns the service received when telephoning NI Water. A customer satisfaction survey (Quality of Call Handling) is used to establish performance against this measure.

Customers' satisfaction with regards to call handling is assessed by McCallum Layton, an independent market research company. McCallum Layton carry out quarterly surveys (Waves) of customers who have called the Company for any reason. The score for the answer to survey question 18 ("*Overall, how satisfied were you with how your call was handled 1-5?*") is the call handling satisfaction score.

The primary objective is to provide a measurement of customer satisfaction in telephone call handling, by water industry companies.

The resultant data is required to be statistically robust based on the sample received to allow comparison both between companies each year, and for each company on a year on year basis.

Methodology
For each water company taking part, a target was set of 100 telephone interviews with customers who had contacted the water company in the previous week, for each Wave of the survey, equating to 400 per Water Company per year.

Overall Northern Ireland Water (NIW) achieved 400 interviews in total – Q1 was 100 interviews, Q2 100 interviews, Q3 100 interviews and Q4 100 interviews.

All surveys were administered using a Computer Aided Telephone Interviewing (CATI) unit. Each survey was undertaken by multiple interviewers to prevent any possibility of interviewer bias.

Sampling

Sample Provision
NIW is advised of the week in which call data will be collected for a survey two weeks in advance.

NIW is required to record all incoming calls to the contact centre for the seven days in question, irrespective of how calls were handled.

This data is then supplied to McCallum Layton and is password protected for data protection purposes. Data is provided based on an Excel spreadsheet containing the following fields:

- Telephone Number;
- Date of contact (date call made to NIW);

In addition to the sample, an Audit sheet was completed which detailed the total number of calls received; number of records excluded from the sample and any factors the company felt may have affected their performance during the sampling period. The following table shows the actual number of useable records received in each Wave.

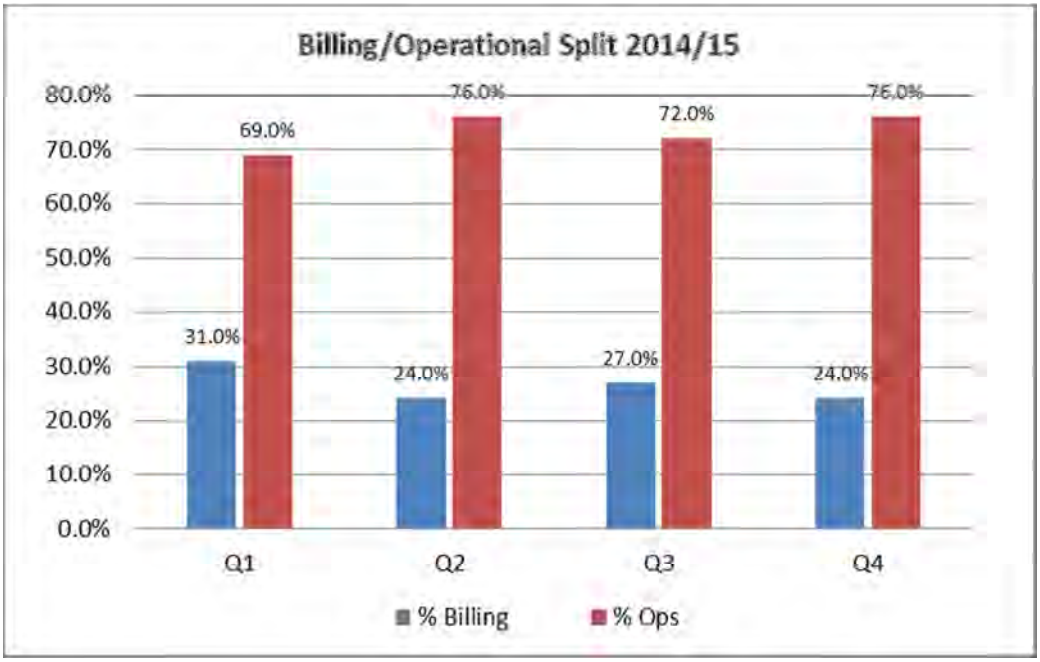
Wave 1	Wave 2	Wave 3	Wave 4	Total 14/15
5489	4848	4311	4605	**19253**

Sample Management
Upon receipt of the sample, McCallum Layton applied the following sample management procedures for each water company:-

- **Removal of non-useable records –** e.g. overseas telephone numbers, records with no telephone numbers, visually incorrect telephone numbers; and
- **De–duplication –** removal of any customer record which appears in the supplied sample more than once and of customers which have been included in any previous waves that year to ensure no customer is approached to participate in the survey more than once per annum.

Given that NIW is not billing domestic customers (unlike other UK water companies), it is important to establish the proportion of calls received by day and query type to ascertain the quotas needed to ensure a representational spread of interviews was achieved.

The following table shows the NIW percentage split for billing and operations, per quarter.



Overall Performance Assessment
NIW achieved an overall score of 4.65/5.0 for the reporting year, falling short of the target set at the beginning of the year of 4.75, as follows;

In 2014/15 NIW were not ranked against the English and Welsh water companies as they moved to the SIM and CES methods whereas the Regulator stated that NIW were to remain with the Customer Satisfaction Methodology.

Overall, the annual score has increased over the first 3 years of reporting with slight decreases in the next 3 years with the 14-15 score being the highest to date as shown below.