

Chapter 11

Non financial measures

Water service activities

Covering:

- Asset balance at year beginning
- Changes during report year
- Asset balance at end year
- Distribution studies
- Water Service Nominated Outputs

Chapter 11

Non financial measures

Water service activities

This table has five blocks and a total of 20 lines.

Network activities provide a good measure of work achieved provided they can be related to associated investment. The investment breakdowns included in these reporting requirements provide this linkage, with the separation of base service expenditure from that related to enhancements in table 35.

Guidance

One table has been provided. The company should report NI Water data only in this table and exclude PPP data. Some PPP reporting by exception is required in the commentary.

The table's five blocks cover:

- **Asset balance at April 1:** This data is downloaded from previous returns.
- **Changes during the report year:** This records the additions and maintenance of mains, and the burst rate on mains and communication pipe activity.
- **Asset balance at March 31:** The aggregate length of mains shows the cumulative effect of the changes during the report year.
- **Distribution studies:** The Information and commentary supplied under this indicator should provide confirmation of the company's approach to the development, evolution and ongoing commitment to asset management planning, and demonstrate the currency of its programme of undertaking detailed distribution zone studies.
- **Nominated water service outputs:** The Information and commentary provided in this section should confirm the company's approach and commitment to the delivery of nominated water service outputs for PC10.

PPP Reporting

The information reported in the table should exclude PPP data. In the case of water mains the requirement to report data is defined by the responsibility for operating the mains. Therefore mains laid by the PPP concession which are transferred to NI Water for operation should be included in the reported figures. Mains which continue to be operated by the PPP concession should be excluded.

In respect of the PPP schemes, the company should report in its commentary by exception on any water mains activity in the report year (covering the categories of renewed, relined, cleaned, new and other activities including abandoned mains) by the PPP concession on the mains which it operates.

Mains activity reporting

The company should report mains activity in lines 2, 3 and 6 on the basis of the primary purpose for the activity. Mains activity lengths should only be reported on one of these lines (i.e. there should be no double counting) so that the asset balance on line 12 reflects the net increase/decrease in the overall length of mains.

Company commentary

The company should:

- report how it is targeting investment to maintain or achieve and maintain stable serviceability;
- not count repeated cleaning of the same length of main within the report year. For example if 1km is cleaned three times in the year then report 1km. Such information can be incorporated in the commentary if thought to be useful;
- confirm whether PC10 outputs have either been met or are on target to meet due dates;

- provide commentary to explain any variances between forecast and actual activity during the report year including, where appropriate, any amendments and additional outputs agreed by stakeholders through the PC10 Change Control Protocol. The company should also provide an indication of the effect any delays may have on the delivery of its overall drinking water programme;
- provide details of any mains activity by the PPP concessionaire during the report year on the mains which it operates;
- comment on the proportion of bursts within line 11 found by proactive methods, such as active leakage control;
- state in the commentary the length of spray applied lining reported in line 3 that has been carried out to improve or restore the structural integrity of the host pipe, and comment on whether, and in what circumstances, such a rehabilitation technique might in future be better reported separately or included in line 2;
- complete the following table in the commentary to provide a history of zonal studies to date, as follows (note additional columns should be added if further updates were carried out):

Zonal Study Description	Population/properties (choose as appropriate)	Initial Study		1 st Update of Initial Study (if applicable)	
		Start Date (actual or proposed)	Completion Date (actual or proposed)	Start Date (actual or proposed)	Completion Date (actual or proposed)

- report on methods and procedures for carrying out distribution zone studies and explain any differences from the standards specified in the definitions, or from the procedures used previously. The company should report on:
 - any changes to the scope (i.e. how much of the network is covered and the frequency of reviews/updates) of its infrastructure asset studies;
 - any developments (e.g. innovations or improvements) in the information being collected and analysed (e.g. has the amount of CCTV investigations or pipe sampling increased during the report year); and
 - any changes to the way asset and customer data is combined and used to target and plan capital maintenance on infrastructure assets.
- Commentary on policy can be limited to exclusion reporting of changes in policy.
- Commentary is required on significant revisions to previous data (e.g. as a result of better information from GIS).
- NI Water should provide an updated copy of Table N1 which sets out the PC10 nominated outputs as amended by the 1st Change Control process identifying the PC10 outputs which have been delivered in 2010-11, 2011-12 and 2012-13. The reported outputs should be consistent with the total number of nominated outputs reported in Table 11 for each year. This information should be submitted in excel format. The structure of this submission is largely a matter for NI Water to decide, but as a minimum should include:
 - The capital investment project ID reference code and project name to allow the information provided to be cross referenced to that in Table 40 of the AIR and the CIM.
 - The PC10 reference code where appropriate.
 - The date that beneficial use was achieved.
 - A separate line should be provided for each output delivered.
- NI Water should provide the following breakdown of water mains activity in 2010-11, 2011-12 and 2012-13 in its commentary:

Activity Description	Length (km) – 2dp			
	2010-11	2011-12	2012-13	PC10 Cumulative Total
New mains (WRMP)				
Renewed mains (WMRP)				
Relined mains (WMRP)				
Total WRMP Activity				
Nominated trunk mains - New				
Nominated trunk mains - Renewed				
Total Nominated Trunk Mains Activity				
New mains - New development				
Total Mains Activity in the Period				

The lengths reported in the table above should be consistent with those reported in lines 2, 3 and 6 of Table 11 of the AIR and lines B2, B3, B4 and B5 of the company's Output Monitoring Submission. An explanation should be provided if this is not the case.

For the nominated trunk main lengths reported in the commentary, the company should also provide a list of the projects (including the project ID reference code, the project name and the associated activity length) which contribute to the reported figures. The totals of the lengths provided for each trunk main project should reconcile to the overall lengths reported in the commentary table. An explanation should be provided if this is not the case.

Guidance to the Reporter

The reporter should:

- confirm that the distribution studies carried out and/or updated conform with the guidance given in the definitions; and that if procedures have changed, that revised procedures are adequate for the purpose set out in the definitions;
- confirm that the company has applied the definition to burst mains correctly and comment on any systemic problems that emerge in obtaining the data arising from the definition;
- confirm that PPP data have been excluded from the table and correctly reported in the commentary;
- comment on the suitability of spray applied lining as an innovative way of improving or restoring the structural integrity of mains in the situations selected by the company.
- assess confidence grades on data;
- comment on company information on the lengths and proportions of mains relined, renewed or new mains laid for quality reasons, the reported lengths carried out in these zones for non-quality reasons and on the proportion of replaced communication pipes which are of lead material;
- review the consistency of activity with any policy statements made on network activity (and in subsequent years, on changes in policy);
- comment on company activity rates in the context of the wide variation of mains activity rates across the industry; and comment on how effectively the company is targeting this activity. Particular attention is to be given as to whether the company monitors burst frequencies for individual condition grades, and if so, how it reconciles these figures to its overall reported burst rate;
- comment on the company policy for carrying out rehabilitation for quality reasons where the company balance of relining/replacing has changed by more than 10% during the course of the PC10 period. Reporters should give their opinion on the reasons given by the company for any changes;
- confirm that the activity and outputs reported in the table and the commentary have been achieved and comment on the company's explanation for any variances between forecasts and actuals during the report year.

Table 11 line definitions
A ASSET BALANCE AT APRIL 1

1	Total length of mains	km	2dp
Definition	Total length of mains, potable water. Company to state in the commentary if definition of "main" is size related (give minimum size) or based on other criteria (e.g. in public road). Raw water mains to be treated as aqueducts. Report in the commentary box on partially treated or non-potable mains.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Copied: from line 12 of previous year		
Responsibility	Network Regulation Team		

B CHANGES DURING REPORT YEAR

2	Mains renewed	km	2dp
Definition	<p>Length of mains renewed in report year.</p> <p>Include mains whose prime purpose is renewal of an existing main, even where the existing main remains in service (i.e. is not abandoned immediately on commissioning of new main).</p> <p>Include mains sleeving/pipe cracking/slip lining where used for this prime purpose category of work, and record any original main as abandoned.</p> <p>An adjustment to size classification should be made where renewal activity results in upsizing or downsizing of mains.</p> <p>The guidance at the start of this chapter gives the information required in the commentary on the breakdown of mains activity to meet the company obligations to fulfil Article 31 undertakings requiring work on the distribution system.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

3	Mains relined	km	2dp
Definition	<p>Length of mains relined in report year. Include all spray applied lining.</p> <p>Report in the commentary the length of main included in this line, where the spray lining has been applied to improve or restore the structural integrity of the host pipe.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

4	Mains cleaned (total)	km	2dp
Definition	<p>The total length of mains cleaned in the report year expressed in kilometres. Information is required on mains cleaning activity carried out by the company under both maintenance and formal quality regime. This should include all pre-planned system flushing, but not flushing after bursts or other incidents. Include air scouring as well as the more aggressive forms of cleaning, such as pigging.</p> <p>Do not count repeated cleaning of the same length of main within the report year.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

6	New mains	km	2dp
Definition	<p>Length of new mains laid in report year.</p> <p>Include new mains and mains renewals involving upsizing, whose prime justification is the requirement for additional capacity.</p> <p>A size breakdown will be required for subsequent periodic reviews, hence record those upsizing mains renewals under the new diameter and record the original main as abandoned when taken out of service.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

7	Mains abandoned and other changes	km	2dp
Definition	<p>Length of main taken out of service in the report year.</p> <p>Include mains left in ground which are no longer in service and those that have been renewed (including those where pipe bursting techniques have been used).</p> <p>Include other changes to mains length data (e.g. correction of previous errors or removal of non-potable lengths). Do not use for changes in size classification.</p> <p>Note: Reductions in length should be treated as positive changes (in the same way as abandoned lengths) and increases in length should be treated as negative changes.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

8	Lead communication pipes replaced – quality	nr	Odp
Definition	The number of lead communication pipes replaced for quality reasons as a result of the lead quality programme to deal with the revised Drinking Water Regulations. All replacement activity must have been confirmed by DWI in the schedule of works attached to a legally binding instrument of works. This must be consistent with the programme of work funded under PC10. Note: Report year		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

9	Lead communication pipes replaced – maintenance or other	nr	Odp
Definition	Number of lead communication pipes replaced as a result of infrastructure renewals work being undertaken on distribution mains. Maintenance work is defined as any other activity carried out on the distribution mains (including Article 31 undertakings or successor legal obligations required to deal with other parameters) that is not part of the lead quality programme to meet the new Drinking Water Quality Regulations. Exclude all lead communication pipes which are reported under quality in line 8. Include all lead communication pipes which are replaced at customers' request under Regulation 29(4)(b) of the Water Supply (Water Quality) Regulations (Northern Ireland) 2007.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

10	Communication pipes replaced – other	nr	Odp
Definition	Number of communication pipes (all types of materials but excluding lead) replaced for other reasons e.g. at the customer's request.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

11	Mains bursts per 1000km	nr	0dp
Definition	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

C ASSET BALANCE AT 31 MARCH

12	Total length of mains	km	2dp
Definition	<p>Total length of mains, potable water. Company to state in the commentary box if definition of "main" is size related (give minimum size) or based on other criteria (e.g. in public road). Raw water mains to be treated as aqueducts. Report in the commentary box on partially treated or non-potable mains.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Calculated: sum of lines 1, 2, 6 less line 7.		
Responsibility	Network Regulation Team		

D DISTRIBUTION STUDIES

13	Cumulative number of distribution zone studies completed	nr	0dp
Definition	Cumulative number of distribution zone studies completed and maintained by the end of the report year since the start of the programme. Studies are defined as: Detailed study is expected to include network analysis of a model of the defined zones, at the level of detail necessary to permit forecasts to be made of expenditure necessary to maintain zonal performance over a five year timescale i.e. specific lengths of mains or pumping improvement or additions would have been identified, and budget estimates prepared. Maintenance of studies means review of zonal changes and update of models.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

14	Distribution zone studies ongoing	nr	0dp
Definition	Number of distribution zone studies in progress at the end of the report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

15	Total distribution zones identified for study	nr	0dp
Definition	Total number of distribution zones identified for study. Where separate models are maintained for trunk main analysis, these may be defined as separate zones and counted for reporting purposes. The company may alter the size and number of zones, but brief commentary on the reasons for this is expected.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

16	Cumulative % distribution zone studies completed	%	1dp
Definition	Cumulative percentage of distribution zone studies completed by the end of the current report year since the start of the programme.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Calculated: Line 13 ÷ Line 15 x 100		
Responsibility	Network Regulation Team		

17	% population/properties – completed studies	%	1dp
Definition	Percentage of population or properties covered by completed distribution zone studies. Company estimate is required for either population or properties (whichever is considered most representative by company, based on models) covered by detailed completed and maintained distribution zone studies.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

E NOMINATED WATER SERVICE OUTPUTS

18	Completion of nominated trunk main schemes to improve security of supply.	nr	0dp
Definition	The number of nominated trunk main schemes having achieved the beneficial use milestone as defined for the Capital Investment Monitoring submission in the period. Only report the nominated outputs schemes included in the PC10 FD Annex N1 02.00 subject to any amendments agreed by stakeholders through the PC10 Change Control Protocol.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input field		
Responsibility	Network Regulation Team		

19	Completion of nominated water treatment works schemes to improve water quality.	nr	0dp
Definition	The number of nominated water treatment upgrades schemes having achieved the beneficial use milestone as defined for the Capital Investment Monitoring submission in the period. Report the nominated outputs schemes included in the PC10 FD Annex N1 02.00 subject to any amendments and additional outputs agreed by stakeholders through the PC10 Change Control Protocol.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input field		
Responsibility	Network Regulation Team		

20	Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks.	nr	0dp
Definition	The number of nominated service reservoirs and clear water tanks schemes having achieved the beneficial use milestone as defined for the Capital Investment Monitoring submission in the period. Only report the nominated outputs schemes included in the PC10 FD Annex N1 02.00 subject to any amendments agreed by stakeholders through the PC10 Change Control Protocol.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input field		
Responsibility	Network Regulation Team		

CHANGE CONTROL SHEET

CHAPTER 11

2008/1.0	First issue of chapter for the SBP period.
2009/1.0	Second issue of chapter for the SBP period. <ul style="list-style-type: none"> - block E reporting requirements removed - Tables amended to provide PPP only and NIW + PPP
2010/1.0	Third issue of chapter for SBP period. <ul style="list-style-type: none"> - Requirement to report PPP information separately removed and PPP reporting requirements clarified. - Minor amendments to mains activity line description.
2011/1.0	First issue of chapter for the PC10 period. <ul style="list-style-type: none"> - Line 5 deleted - Block E amended to collect information on PC10 nominated outputs.
2012/1.0	Second issue of chapter for the PC10 period. <ul style="list-style-type: none"> - Requirement to submit a breakdown of water main activity length, including a list of projects contributing to trunk main lengths, added. - Requirement to submit an updated copy of Table N1 as part of the commentary added.
2013/1.0	Third issue of chapter for the PC10 period <ul style="list-style-type: none"> - NI Water asked to submit PC10 Table N1 updated for all three years of PC10.