

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
- Other water service activities

Chapter 11

Non financial measures

Water service activities

This table has five blocks and a total of 30 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.

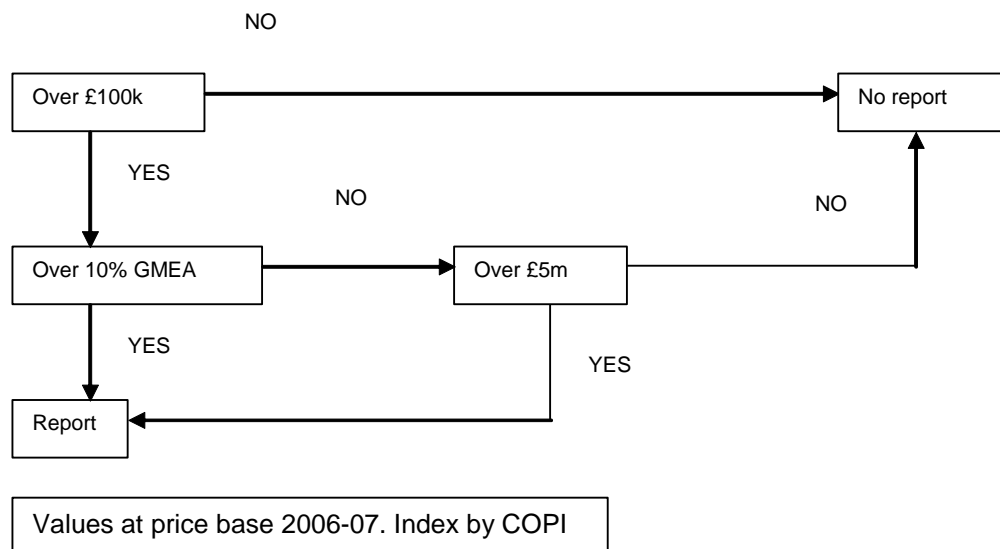
Guidance

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.
- **Other water service activities:** This section records the amount of capital maintenance activity carried out in the report year on a number of assets other than water mains and communication pipes. It also records quality enhancement activity on water treatment works, schemes under security related work and the environmental improvement programme.

The company should report substantive maintenance where expenditure at the relevant site or asset exceeds £5 million or is over £100k and is 10% or more of the Gross Modern Equivalent Asset (GMEA) value of the relevant asset at the SBP price base deflated by COPI. The figure below illustrates the level at which to report:

Reporting of activity on non-infrastructure assets and dams



For projects that span more than one report year the company should report activity in the report year when cumulative expenditure for the relevant project breaches the thresholds.

For large sites the company may group expenditure according to projects or asset groups, but a given works can only be included once each year.

If, in the view of the company the reporting of numbers gives a false impression of the level of capital maintenance activity, the company should provide a full explanation in its commentary.

A number of lines in this block and **Changes during report year** report on levels of activity which have been forecast. The company should explain any variances between forecast and actual activity only in as far as:

- i) there has been a related deterioration in serviceability to customers or the environment, and/or
- ii) the variance is in part or whole the result of a change in the company's policy toward asset maintenance.

The company should report all household meters replaced, whether this is proactive or reactive replacement. The company will be expected to be able to provide granularity of these numbers if requested.

Company commentary

The company should:

- report how they are 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;

- provide commentary (both on drinking water and environmental obligations, where necessary) to explain the late delivery of planned quality enhancement outputs during the report year. The company should also provide an indication of the effect any delays may have on the delivery of their overall drinking water and environmental programmes;
- confirm that all other SBP quality enhancement outputs have either been met or are on target to meet due dates;
- confirm or otherwise that the number of bursts/1000km in line 1 is unchanged due to the change in definition for reporting from Ofwat's JR07 guidance (the change is meant to add clarity but may have some affect);
- where the change in burst definition from Ofwat's JR07 guidance does produce a different result than applying the previous definition, then additionally provide in the commentary the number of bursts/1000 km against the previous definition with an explanation and reconciliation;
- 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). Commentary on changes in size classification will be required for the enhanced return.

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 changed definition to burst mains correctly, reported correctly in the table commentary the number which would have been reported in applying the previous definition and comment on any systemic problems that emerge in obtaining the data arising from the change;
- 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 the lengths 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 their overall reported burst rate. .
- comment on company information on the proportion of the reported length of mains relined, renewed or new mains being carried out for quality reasons;
- 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 SBP period. Reporters should give their opinion on the reasons given by the company for any changes;
- confirm that the activity reported in lines 18-21, 24 and 25 is for capital maintenance purposes only and that the threshold for reporting this activity has been achieved;
- comment on the company's approach to activity reporting, with regard to the level of aggregation/disaggregation of projects and the reporting thresholds;
- comment on the company's activity/performance on the delivery of environmental improvement.

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	Length of mains renewed in report year. Include mains whose prime purpose is renewal of an existing main, even where existing main remains in service (i.e. is not abandoned immediately on commissioning of new main). Include mains sleeving/pipe cracking/sliplining where used for this category of work, and record any original main as abandoned. An adjustment to size classification should be made where renewal activity results in upsizing or downsizing of mains. 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.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

3	Mains relined	km	2dp
Definition	Length of mains relined in report year. Include all spray applied lining.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

4	Mains cleaned (total)	km	2dp
Definition	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.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

5	Distribution mains cleaned for quality	km	2dp
Definition	The lengths of mains cleaned in the report year expressed in kilometres as part of the company quality enhancement programme. This can be either specified or general cleaning set down in Article 31 undertakings for the distribution system, which have been accepted as quality enhancement or cleaning as part of the activity to improve consumer acceptability. This includes mains cleaning for which the company received technical support from DWI and is listed under the schedule of works attached to a legally binding instrument of works. This must be consistent with the programme of work funded under the SBP for the water quality enhancement programme, . It may be necessary to amend these lengths at a later date after a review by DWI. Note: Report year		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

6	New mains	km	2dp
Definition	Length of new mains laid in report year. Include new mains and mains renewals involving upsizing, whose prime justification is the requirement for additional capacity. A size breakdown will be required for subsequent periodic reviews, hence record those upsizing mains renewals under the new diameter and abandon the existing main when taken out of service.		
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	Length of main taken out of service in the report year. Include mains left in ground or where pipe bursting techniques have been used. Include 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. 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.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

8	Lead communication pipes replaced – quality	nr	0dp
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 the SBP.. 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 the distribution mains. Maintenance work is defined as any other activity carried out on the distribution mains (including Article 31 undertakings or successor legal obligations requiring 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	Odp
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	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.		
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 report 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. Companies 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 OTHER WATER SERVICE ACTIVITIES

18	Length of aqueducts refurbished for maintenance	km	2dp
Definition	Length of aqueduct undergoing substantive refurbishment for capital maintenance purposes during the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% or more of the gross MEA value of the existing asset at the SBP price base deflated by COPI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

19	Substantive refurb. work - dams & impounding reservoirs (maintenance)	nr	0dp
Definition	Number of dams and impounding reservoirs undergoing refurbishment for capital maintenance purposes during the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% or more of the gross MEA value of the existing asset at the SBP price base deflated by COPI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

20	Number of existing water treatment works refurbished for maintenance.	nr	0dp
Definition	Number of existing water treatment works undergoing substantive refurbishment for capital maintenance purposes during the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% or more of the gross MEA value of the existing works at the SBP price base deflated by COPI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

21	Capacity of refurbished water treatment works for maintenance	MI/d	3dp
Definition	Capacity in MI/day of existing water treatment works undergoing substantive refurbishment for capital maintenance purposes during the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% or more of the gross MEA value of the existing works at the SBP price base deflated by COPI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

22	Number of new or enhanced water treatment works for quality	nr	0dp
Definition	The number of new or enhanced water treatment works completed during the report year to deliver new quality obligations. These enhancements must have been included in the work programme for quality in the SBP or a subsequent interim determination. Include the names of the completed projects in the commentary to be compared with reports received from DWI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

23	Distribution input of new or enhanced water treatment works for quality	MI/d	3dp
Definition	The annual average daily volume of water entering distribution, supplied by either new works or works enhanced to deliver new quality obligations. These enhancements must have been included in the work programme for quality in the SBP or a subsequent interim determination.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

24	Number of pumping stations refurbished for maintenance	nr	0dp
Definition	Number of existing pumping stations undergoing substantive refurbishment for capital maintenance purposes during the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% or more of the gross MEA value of the existing works at the SBP price base deflated by COPI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

25	Number of service reservoirs & water towers refurbished for maintenance	nr	Odp
Definition	Number of existing service reservoirs and water towers undergoing substantive refurbishment for capital maintenance purposes during the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% or more of the gross MEA value of the existing assets at the SBP price base deflated by COPI.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

26	Number of household meters renewed	nr	Odp
Definition	The total number of household meters renewed at household properties during the report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

27	Number of security related improvement projects	nr	Odp
Definition	The number of projects for security related improvements which have been completed during the report year. These are the projects included within the SBP which the company proposed were required to comply with guidance on 'physical' security requirements issued by the Centre for the Protection of National Infrastructure (CPNI)/NIO on behalf of the Secretary of State (refer to Article 294 of the WSSO) or the Department (refer to Article 295 of the WSSO). If the company included all the work it proposed as one project, then the company should report when all the work programme has been completed. Note: report year		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

28	Environmental impact - number of investigations	nr	Odp
Definition	The number of environmental investigations into the environmental impact of water abstraction completed during the report year. These are the investigations listed in the SBP. Do not include investigations carried out as part of a larger project. Note: report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

29	Environmental impact - number of options appraisals	nr	Odp
Definition	The number of projects appraising options for the alleviation of the environmental impact of water abstractions completed during the report year. These are the options appraisals listed in the SBP. Note: report year		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

30	Other environmental improvements	nr	0dp
Definition	The number of projects to deliver environmental improvements completed during the report year. This includes projects to alleviate the environmental impact of water abstraction confirmed under the early start programme and projects to carry out stream support, construct fish passes and intake protection. These are the implementation projects listed in the SBP. Note: report year		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

CHANGE CONTROL SHEET
CHAPTER 11

2008/1.0	First issue of chapter for the SBP period