

Chapter 16

Non financial measures

Sewerage service activities

Covering:

Asset balance at year beginning

Changes during report year

Asset balance at year end

Drainage area plans

Other sewerage service activities

Non financial measures

Chapter 16

Sewerage service activities

Three tables have been provided. One for NI Water data only, a second for PPP data only and a third which will be the sum of the first two.

These tables have six blocks and a total of 35 lines.

Network activities provide a good measure of work achieved provided they could 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 on table 36.

Guidance

The six blocks cover:

- **Asset balance at April 1**

This includes a breakdown of sewer lengths defined as "critical". This is downloaded from previous returns.

- **Changes during report year**

This records additions and maintenance of sewers and the number of sewer collapses.

- **Asset balance at March 31**

The aggregate length of sewers shows the cumulative effect of the changes during the report year.

- **Intermittent discharges**

This block covers the total number of intermittent discharges and those which are unsatisfactory.

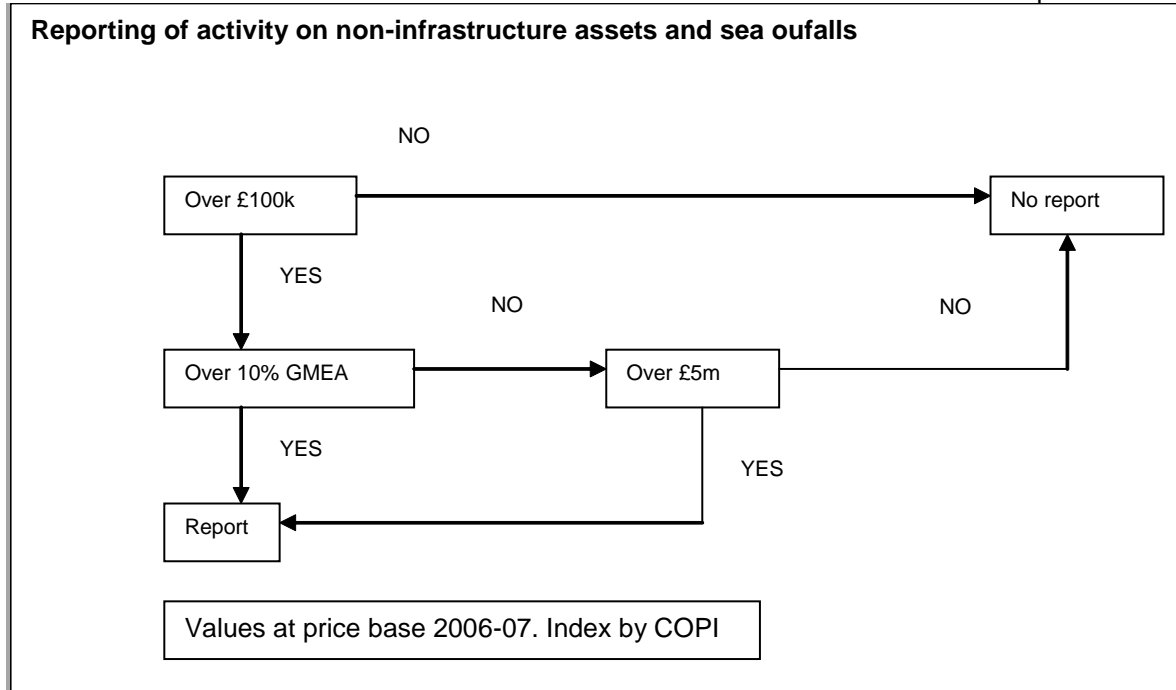
- **Drainage area plans**

The Information and commentary supplied under this indicator should provide confirmation of the company's approach to the development, evolution and ongoing continued commitment to asset management planning, and demonstrate the currency of its programme of undertaking detailed Drainage Area Plans.

- **Other sewerage service activities**

This section records the amount of capital maintenance activity carried out in the report year on assets other than "critical" and "non-critical" sewers. It also records quality enhancement activity on sewage treatment works.

Companies 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 2006-07 price base deflated by COPI. The figure below illustrates the level at which to report:



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 companies may group expenditure according to projects or asset groups, but a given works can only be included once each year.

Schemes with quality drivers containing a capital maintenance (MNI) element should be included in line 23 where the MNI element of the expenditure meets the reporting criteria.

Company commentary

The company should:

- report how it is targeting investment to maintain or achieve and maintain stable serviceability;
- report on the performance of PPP assets;
- for line 13, describe its approach to identifying, counting and dealing with sewer blockage events;
- set down the causes of sewer blockages experienced together with their approximate proportions and confidence grade. For example (not exhaustive):
 - sewer misuse – fats, oils and greases;
 - natural – roots and silting;
 - structural - laterals and sewer deformation; and/or
 - weather pattern - first flush after dry period.
- report the policy on recording the number of repeat sewer blockages;
- comment on the number of floodings with no apparent cause which are excluded from blockages cleared data;
- comment on what failure mode events are included under the category of unusable sanitation (for example restricted toilet use or other impediment to drainage from premises);
- comment on the number of blockages that are associated with flooding incidents reported in tables 3 and 3a respectively.

A 'reportable problem' in line 13 means a problem reported in line with company policy.

The company should also:

- where the performance of an intermittent discharge is considered unsatisfactory this information is to be reported in the commentary for Changes during report year (lines 3-12), using a separate sub-heading, Intermittent discharges, in that commentary box;
- where there is a difference between the total number of intermittent discharges given for the report year and for the previous year, and this difference cannot wholly be accounted for by improvement works i.e. capital schemes (e.g. where the change is partly or completely due to better information), then a breakdown detailing how the difference is made up should be given;
- where there is a difference between the number of unsatisfactory intermittent discharges given for the report year and for the previous year and this difference cannot be wholly accounted for by improvement works (either capital schemes or operational changes) (e.g. where the change is partly or completely due to reclassification of intermittent discharges by the Environment Agency), then a breakdown detailing how the difference is made up should be given;
- report on methods and procedures adopted where these differ from the standards specified in the definitions, or from the procedures used in the compilation of the strategic business plan;
- provide a full explanation if, in the view of the company, the reporting of numbers gives a false impression of the level of capital maintenance activity;
- state how many sewage treatment works reported in line 26 (enhanced sewage treatment works for quality) are also reported in line 24 (sewage treatment works refurbished for maintenance);
- provide a method statement which explains fully how the company identifies and reports on sewer collapses in line 12 including an explanation of how the company distinguishes collapses from other essential repairs to sewers, and the context of the number sewer collapses in relation to all sewer repairs;
- identify rising main failures within line 12 and report them in table 16a;
- report on the proportion of sewers repaired as a result of planned CCTV surveys, as opposed to a more reactive approach; and
- comment on the extent of sewer cleaning carried out; and
- complete the following table in the commentary to provide a history of drainage area plan studies to date, as follows (note additional columns should be added if further updates were carried out):

DAP 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 drainage area plans 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 increased during the report year)
- any changes to the way asset and customer data is combined and used to target and plan capital maintenance on infrastructure assets.

A number of lines in this block and Changes during report year report on levels of activity which have been forecast.

The company is required to 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.

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).

Guidance to the Reporter

The reporter should:

- confirm that the Drainage Area Plans studied conform with the guidance in the definitions, and that if procedures have changed, that revised procedures are adequate for the purpose set out in the definitions;
- confirm the correct reporting of PPP schemes;
- assess Confidence Grades on data in the context of the magnitude of adjustments made to data in the past;
- 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 wide variations of sewer activity rates across the industry and how effectively the company is targeting this activity;
- comment on the accuracy of the proportion of rising main failures within line 12;
- confirm the number of intermittent discharges which have been improved and which appear on lists agreed by the Environment Agency confirm that the activity reported in lines 23 - 25 and lines 30 - 32 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; and
- comment on the company's approach to reporting of blockages, and the accuracy and reliability of the numbers reported; and
- comment on the company's approach to reporting of sewer collapses, and the accuracy and reliability of the numbers reported.

Table 16 line definitions

A ASSET BALANCE AT APRIL 1

1	Total length of sewers	km	2dp
Definition	Total length of sewers. Include gravity sewers, rising mains.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Copied: from line 14 (previous year)		
Responsibility	Network Regulation Team		

2	Total length of "critical" sewers	km	2dp
Definition	Total length of "critical" sewers. Definition of "critical" comes from WRc Sewerage Rehabilitation Manual. Critical sewers are those, whose collapse repairs will be expensive or disruptive or those, which are considered to be strategically important. The principal structural criterion is that if a sewer should fail, the subsequent costs would be significantly higher than if rehabilitated before failure [more precise definition will be found in the WRc Manual].		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Copied: from line 15 (previous year)		
Responsibility	Network Regulation Team		

B CHANGES DURING REPORT YEAR

3	New "critical" sewers	km	2dp
Definition	Length of new "critical" sewers constructed or adopted in report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

4	"Critical" sewers – inspection by CCTV/man entry	km	2dp
Definition	Length of "critical" sewers inspected by CCTV/man entry in report year. This includes re-inspection activity.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

5	"Critical" sewers – renovated	km	2dp
Definition	Length of "critical" sewer renovated in report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

6	"Critical" sewers – replaced	km	2dp
Definition	Length of "critical" sewers replaced in report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

7	Abandoned "critical" sewers and other changes	km	2dp
Definition	Length of "critical" sewers abandoned in report year, plus other changes to the reported length of "critical" sewers. Include length of all sewers re-classified as "non-critical" during the report year. Also include corrections of previous data errors or digitising records improvements. 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	New "non-critical" sewers	km	2dp
Definition	Length of "non-critical" sewers constructed or adopted in report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

9	"Non-critical" sewers – renovated	km	2dp
Definition	Length of "non-critical" sewers renovated in the report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

10	"Non-critical" sewers – replaced	km	2dp
Definition	Length of "non-critical" sewers replaced in the report year.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

11	Abandoned "non-critical" sewers and other changes	km	2dp
Definition	Length of "non-critical" sewers abandoned in the report year plus other changes to the reported length of "non-critical" sewers. Include length of all sewers re-classified as "critical" during the report year. Also include corrections of previous data errors or digitising records improvements. 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		

12	Sewer collapses per 1,000km	nr	1dp
Definition	Number of sewer collapses per thousand kilometres of all sewers. Include bursts to rising mains, even where failures are accidental rather than weakness in pipe condition. All third party damage should be excluded where costs are potentially (rather than actually) recovered from a third party. If the incidents are significant, they should be reported in the commentary.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

13	Sewer blockages per 1,000km	nr	1dp
Definition	Number of sewer blockage events that required clearing per thousand kilometres of all sewers. Exclude blockages cleared as good will on private sewers and private drains. A blockage is an obstruction in a sewer which causes a reportable problem (not caused by hydraulic overload), such as flooding or discharge to a watercourse, unusable sanitation, surcharged sewers or odour.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

C ASSET BALANCE AT MARCH 31

14	Total length of sewers	km	2dp
Definition	Total length of sewers. Include gravity sewers, rising mains.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Calculated: sum of lines 1, 3 and 8 less lines 7 and 11		
Responsibility	Network Regulation Team		

15	Total length of "critical" sewers	km	2dp
Definition	Total length of "critical" sewers		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Calculated: The sum of lines 2 and 3 less line 7.		
Responsibility	Network Regulation Team		

D INTERMITTENT DISCHARGES

16a	Number of unsatisfactory intermittent discharges excluding CSOs (Environment Agency)	nr	Odp
Definition	<p>The number at the end of the report year. This number should include emergency overflows at pumping stations, storm overflows at inlets to works and storm tank discharges but exclude combined sewer overflows. This comprises those identified by the Environment Agency for improvement and not yet improved.</p> <p>Do not include new unsatisfactory intermittent discharges (excluding CSOs) identified by the Environment Agency after the production of the SBP. This number should be provided in the commentary accompanying the table.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

16b	Number of unsatisfactory intermittent discharges - CSOs (Environment Agency)	nr	Odp
Definition	<p>The number of unsatisfactory CSOs at the end of the report year. This number should exclude emergency overflows at pumping stations, storm overflows at inlets to works and storm tank discharges. This comprises those identified by the Environment Agency for improvement and not yet improved.</p> <p>Do not include new unsatisfactory CSOs identified by the Environment Agency after the production of the SBP. This number should be provided in the commentary accompanying the table.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

17	Number of intermittent discharges excluding CSOs	nr	Odp
Definition	<p>The total number of intermittent discharges (excluding CSOs) on the sewerage system at the end of the report year. This number should include emergency overflows at pumping stations, storm overflows at inlets to works and storm tank discharges but exclude combined sewer overflows.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

17a	Number of CSOs	nr	Odp
Definition	<p>The total number of CSOs on the sewerage system at the end of the report year. This number should exclude emergency overflows at pumping stations, storm overflows at inlets to works and storm tank discharges.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

E DRAINAGE AREA PLANS

18	Cumulative number of drainage area plans completed	nr	0dp
Definition	<p>Cumulative number of drainage area plan studies completed and maintained by the end of the report year since the start of the programme.</p> <p>Studies are defined as: Drainage area plan studies are expected to use the full investigation procedure set out in the Sewerage Rehabilitation Manual (WRc). Maintenance of studies means a review of study area changes and update of models.</p> <p>Abbreviated investigations may be substituted where it is clear that there are no hydraulic problems with the sewers in the relevant drainage area (see SRM vol 1 para 2.5).</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

19	Drainage area plans ongoing	nr	0dp
Definition	Number of drainage area plan 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		

20	Total sewerage drainage areas	nr	0dp
Definition	Total number of sewerage drainage areas within the undertakers area. Where separate models cover several drainage areas (such as for modelling interceptor sewers) then these can be included as part of the total number of plans.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

21	Cumulative % drainage area plan studies completed	%	1dp
Definition	Cumulative percentage of drainage area plan 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 18 ÷ Line 20 x 100		
Responsibility	Network Regulation Team		

22	% population/properties covered by completed studies	%	1dp
Definition	Percentage of population/properties in undertaker's area covered by completed drainage area 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 drainage area plan studies.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

F OTHER SEWERAGE SERVICE ACTIVITIES

23	Number of intermittent discharges refurbished for maintenance	nr	0dp
Definition	Number of intermittent discharges undergoing substantive refurbishment for capital maintenance purposes in the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% 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		

24	Number of sewage treatment works refurbished for maintenance	nr	0dp
Definition	Number of existing sewage treatment works undergoing substantive refurbishment for capital maintenance purposes in the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% 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	P.e. of refurbished sewage treatment works for maintenance	000	0dp
Definition	Capacity (p.e.) of existing, sewage treatment works undergoing substantive refurbishment for capital maintenance purposes in the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% 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		

26	Number of new or enhanced sewage treatment works for quality	nr	0dp
Definition	<p>The number of new or enhanced works completed during the report year to deliver new quality obligations. These enhancements must have been included in the SBP or at a subsequent interim determination.</p> <p>Sewage treatment works which are closed as a direct result of the imposition of a new quality obligation should not be included in the total. However, the sewage treatment works to which the flows are transferred should be included if enhancements to accommodate the additional flows and/or meet tighter treatment standards are carried out.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

27	P.e. of new or enhanced sewage treatment works for quality	000	0dp
Definition	<p>The population equivalent of new or enhanced sewage treatment works completed during the report year to deliver new quality obligations. These enhancements must have been included in the SBP or at a subsequent interim determination.</p> <p>In the case of sewage treatment works that are enhanced to accommodate transferred flows from a closed sewage treatment works, the population equivalent should also include that of the closed works.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

28	First time sewerage - number of schemes completed	nr	0dp
Definition	<p>The number of first time sewerage schemes completed during the report year. These are schemes included in the SBP.</p> <p>Please explain in the commentary if there have been changes in timescale or priorities to the original FTS programme included in the company strategic business plan.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

29	First time sewerage schemes – properties	nr	Odp
Definition	<p>The number of existing properties that have connected or are now able to connect to the public sewerage system for the first time, due to the completion of Article 157 schemes implemented during the report year. These are projects listed in the SBP.</p> <p>The method for assessing the number of connectable properties must be the same one used by the company in its SBP. The reporter should confirm that this is the case.</p> <p>These are properties in projects which fulfil the criteria under Article 157 of the Water and Sewerage Services (Northern Ireland) Order 2006. Note: report year</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

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

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

32	Number of sea outfalls refurbished for maintenance	nr	Odp
Definition	<p>Number of existing sea outfalls undergoing substantive refurbishment for capital maintenance purposes in the report year. Substantive refurbishment implies capital maintenance in excess of £5m or over £100k and 10% of the gross MEA value of the existing asset at the SBP price base deflated by COPI.</p>		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

33	Number of investigations completed related to the quality programme	nr	Odp
Definition	The total number of investigations completed during the report year. These are the investigations included in the SBP. Do not include investigations carried out as part of a larger project.		
Primary Purpose	Confirming delivery of key outputs and service.		
Processing rule	Input		
Responsibility	Network Regulation Team		

CHANGE CONTROL SHEET
CHAPTER 16

2008/1.0	First issue of chapter for the SBP period
2009/1.0	Second issue of chapter for the SBP period - block F reporting requirements removed - EHS references changed to EA - Tables amended for PPP and NIW+PPP reporting