B4 QUALITY ENHANCEMENTS

Outline

In this part the company should set out its strategy for dealing with any additional quality requirements placed on it. The strategy must explain the company's interpretation of the new requirements, particularly new legal obligations and guidance from ministers.

The status of the work planned must be explained, that is whether the enhancement forms part of the PC10 Quality programme determined in consultation with DWI and NIEA, or is being promoted by the company in the absence of explicit support from the quality regulators. The company should set down both the phasing of the delivery of outputs and the associated expenditure profile. The information in this section must be drawn from and reconcile with the supplementary information provided for the capital investment plan (part C5).

We suggest that this part of the company submission is divided into four sections covering the water service and four sections covering the sewerage service. This structure provides a framework for the company to explain its strategy for delivering the quality enhancement programmes.

Where data is required in relation to PPP schemes this has been stated. This may take the form of data being included within NI Water's own data, a separate line for PPP, or reported in a separate PPP table. Where data for PPP are to be excluded from the inputs, this has also been stated.

Part B4 – Quality enhancements	
	Water service
Section 1	The quality enhancement obligations (water service). New standards/requirements placed on the company.
Section 2	The quality enhancement programme (water service). The company explanation on how to meet the standards.
Section 3	The expenditure implications of the quality enhancement programme (water service).
Section 4	Logging-up/down. Changes in net costs for changes to the quality programme since the last price setting (water service). The logging-up/down process is to be introduced for PC12.
	Sewerage service
Section 5	The quality enhancement obligations (sewerage service). New standards/requirements placed on the company.
Section 6	The quality enhancement programme (sewerage service). The company explanation on how to meet the standards.
Section 7	The expenditure implications of the quality enhancement programme (sewerage service).
Section 8	Logging-up/down. Changes in net costs for changes to the quality programme since the last price setting (sewerage service). The logging-up/down process is to be introduced for PC12.

Sections 1 to 4 – Quality enhancements (water service)

The company should provide a strategic view of the enhancements to be carried out at water treatment works and in the distribution system. This must highlight the key issues for the company, and explain why the company has chosen the proposed solutions. The company must demonstrate that it has considered the impact of any new quality requirements as a whole, and that the chosen programme is the most appropriate whole life solution for dealing with all the quality obligations placed on it. These explanations should be at a strategic level, the details of the work will be provided in the supporting information (part C5) and the associated spreadsheets.

In the commentaries the company should explain its strategies for dealing with the key issues affecting the business. For example:

- **Measures to deal with deteriorating raw water quality**

The company should set out the extent of the problem, including the number and size of schemes, and the proportion of the distribution input affected by the improvements, the need for which must have been identified when establishing the PC10 Quality programme in consultation with DWI . The company should also explain how much of the total costs of the schemes has been allocated elsewhere, especially to supply/demand. The planning horizon is also required.

- **Distribution system renovation**

The company should set out its policy for completing the improvements to the distribution system required in the quality programme developed in consultation with DWI including those under Article 31 undertakings. Where there has been a change in policy in the balance between relining and renewal of distribution mains, the reasons for this must be set out. The company should explain its policy for relining or renewing with reference to the condition of the mains. The length and costs attributed to relining and renewal must be included in the supporting information provided in section C5.

- **Water treatment improvement**

The company should give details of new work to meet the standards in the 2007 Water Quality regulations. This should include the number and size of any schemes and the proportion of the distribution system affected. The need for the work must have been identified when establishing the PC10 Quality programme in consultation with DWI. The company should also explain how much of the total costs of the schemes have been allocated elsewhere, especially to supply/demand.

- **Compliance with the lead standard**.

The company should give details of further work to comply with the lead standard. Where the company is replacing lead communication pipes under infrastructure renewals as part of a long term plan, the number and the costs attributed to this must be clearly set out.

- **Environmental impact of water abstractions**

The company should give details of the measures proposed to deal with the environmental impact of water abstractions. An explanation is needed of how the proposals satisfy the requirements of the Northern Ireland Environment Agency (NIEA).

- **Shortfalls and logging up/logging down (The logging-up/down process is to be introduced for PC12)**

The company should give a summary of any changes to the assumptions made in the SBP or subsequent interim determinations (if appropriate) as a result of changes in the legal obligations placed on it. The company must also explain and value any outputs late in delivery. Supporting information should be provided in table C15.

- **Other issues**

The company should set out any other important quality issues and how any new legislation and guidance has been translated into a compliance programme. The number of works, timescales and costs of the work must be summarised.

Sections 5 to 8 – Quality enhancements (sewerage service)

The company should explain its overall strategy for meeting legal obligations affecting the sewerage service, and explain the phasing of planned compliance in relation to legally required compliance dates. The impact of both European legislation and national requirements on the company assets must be explained.

The company should explain how it is implementing the guidance given by ministers and the NIEA. For example:

- **Improvements to intermittent discharges**

The company should explain its plans and timescales for dealing with unsatisfactory intermittent discharges. This must include a commentary on progress with implementation of solutions previously agreed with NIEA (formal agreements) for the SBP. The company should explain how the guidance given by ministers has been interpreted, and the progress made with the NIEA on setting priorities.

- **Improvements to wastewater treatment works**

The company's interpretation of ministerial guidance and the timescale for carrying out the work on improvements, and to prevent deterioration in river water quality needs to be set out. The company should explain how any new designations and interpretation of standards affects its assets. The company should give the number of works and the combined equivalent population of the discharges affected. The company should explain how much of the total costs of the schemes has been allocated elsewhere, especially to supply/demand.

- **Disposal of sewage sludge**

The price limits set in the SBP provided for the company to meet statutory requirements for the recycling of sludge to agricultural land, and to deal with increased volumes of sludge anticipated in consequence of improved waste water treatment standards.
The company should set out its sludge management strategy (including an explanation of its work to meet statutory requirements within the SBP), in a self-contained section suitable for sharing with DRD and NIEA.

The company should set out its sewage sludge management with reference to the various obligations and other factors that have shaped it. The company should explain why the strategy is being adopted in preference to alternative approaches. It is invited to provide evidence that other strategies have been considered and that the strategy chosen provides the optimal balance between cost-effectiveness, environmental sustainability, flexibility and economic/business risk. We seek confirmation that the chosen strategy is in line with government policy and an explanation as to how the requirements and constraints of legislation and codes of practice, both current and anticipated have been taken into account.

The company should highlight and explain changes in the strategy from that set out in its strategic business plan and which was provided for in price limits set within that plan.

The strategy should include a profile of how the quantity (tonnes dry solids) of sludge produced is forecast to change over the NIAMP3 period and justify, by reference to the capacities of the company's sludge treatment centres, any increase in capacity proposed in the company's plan. The company should indicate the proportions of the forecast change in quantities that are attributable to growth and enhanced sewage treatment. This justification should be set out at scheme level and be consistent with information submitted in section C5. The level of treatment provided at each sludge centre should be stated eg pasteurisation, MAD, composting, lime stabilisation etc. and whether dewatering is undertaken. For treatment centres forming part of agricultural disposal route, the company should additionally indicate:

a) whether the treatment falls into the enhanced or conventional category according to the definitions below:
    i. conventionally treated sludge has been subjected to defined treatment processes and standards that ensure at least 99 per cent of pathogens have been destroyed.
    ii. enhanced treatment, originally referred to as "Advanced Treatment", describes treatment processes which are capable of virtually eliminating any pathogens (99.9999 per cent) which may be present in the original sludge.

b) the split of the land bank between grassland, silage and fodder crops, arable, fruit, salad, vegetable or horticultural crops, and industrial crops.

The company should provide a forecast of the proportion of its sludge production going to different recycling and disposal routes. Any significant change anticipated in the proportion going to various management routes over the 2 year period of the plan (and beyond, to the 5 year PC12 period) should be explained. In particular, justification is sought for:

a) any increase in the proportion of sludge going to land being subjected to enhanced treatment, and

b) any decrease in the proportion of sludge directed to the agricultural route (ie that controlled by the Sludge (Use in Agriculture) Regulations (Northern Ireland) 1990).

With regard to the latter, the company should explain how recent total territory designation (NI in its entirety is a nitrate vulnerable zone), changes in market sentiment and other factors (e.g. the P Index of soils) have impacted on the land bank available to the company, transportation and its strategy as a whole.

Cost allocation guidance

The net additional costs associated with the provision of on-site sludge treatment and disposal operations should be incorporated in the costs of WWTW enhancement schemes being reported in the capital investment plan (Part C5). These will include costs of providing and operating additional storage and thickening capacity and changes to the inter-process pipework and pumping arrangements. These costs should be reported in table B4-4.

The net additional costs associated with the transportation to, reception, treatment and storage at, and disposal from sludge treatment centres, of additional volumes of sludge produced by enhanced sewage treatment processes at satellite WWTWs should be reported in table B4-4.

The net additional costs associated with the enhanced treatment and different storage and disposal arrangements of existing sludge volumes should be reported in B4-4.

The company should comment on the proportional allocation of expenditure between quality and supply/demand to dispose of increased quantities of sludge.

- Measures to meet the Freshwater Fish Directive

The company must explain the timescale for carrying out any work to meet mandatory standards for rivers designated under the Freshwater Fish Directive. As well as giving the number of works and the combined equivalent population of the discharges affected, the company should explain the proportion of the costs allocated to supply/demand.
Measures to meet the Bathing Waters Directive

The company must explain the timescale for carrying out any work to meet mandatory or guideline standards for bathing waters under the Bathing Waters Directive. The company should give the number of works and the combined equivalent population of the discharges affected, and explain the proportion of the costs allocated to supply/demand.

- Measures to meet the Water Framework Directive

The company must explain the timescale for carrying out any work to meet mandatory standards to enable water bodies to meet any additional requirements identified in river basin management plans produced under the WFD.

- **Shortfalls and logging up/logging down (The logging-up/down process is to be introduced for PC12)**

The company must give a summary of any changes to the assumptions made in the SBP or subsequent interim determination as a result of changes in the legal obligations placed on it. The company should also explain and value any outputs late in delivery

- **Other issues**

The company should set out any other important quality issues and how any new legislation and guidance has been translated into a compliance programme. The number of works, timescale and costs of the work must be summarised.

Data tables

Tables B4-1 and B4-2 – Quality enhancement outputs

The overall scope and phasing of the quality enhancement programme required from the company for the period 2010-2012 will be defined in the next few months. We expect there will be limited uncertainty surrounding the obligations by the time the company business plan is submitted on 1st June 2009.

These summary tables have been designed to accommodate the range of possible improvements required under many of the cost drivers outlined by the NIEA in "Drivers and Categories for use in the Prioritisation of the Water Service Capital Works Programme" October 2006, and subsequent updates) and the DWI . A schedule of drivers is given in part C5.

For both the water and the sewerage services, all improvements must be included in the output tables. These will show the work required to be completed each year, as established in conjunction with the relevant quality regulator. These tables must reconcile with the projects and work programmes included in the capital investment plan submission (part C5).

Water service

Table B4-1

Table B4-1 is split into three blocks for the company to enter planned activity for:

- improvements to water treatment works;
- improvements to the distribution system; and
- work to deal with the environmental impact of water abstraction.

Sewerage service

Table B4-2

Table B4-2 is split into three blocks for the company to enter planned activity for:

- sewer system improvements;
- wastewater treatment works improvements; and
- sewage sludge disposal improvements.

Tables B4-3 and B4-4 – Quality enhancement expenditure projections

Tables B4-3 and B4-4 require the company to set out its projections for the capex and opex needed to deliver the enhancements included in the outputs tables (B4-1 and B4-2).

The lines for total capex and opex in tables B4-3 and B4-4 must reconcile with the sums assumed when completing the corresponding lines for the quality enhancement programme in tables A7 and A8. The quality enhancement expenditure information in tables B4-3 and B4-4 must reconcile with the capital investment plan submission (part C5). The costs in these tables must be the net costs of work allocated to quality after proportional allocation to other areas, (that is to maintenance, supply/demand or enhanced service levels). The costs in the capital investment plan spreadsheets must reconcile with tables B4-3 and B4-4 before other adjustments to take account of overlap with capital maintenance or base operating expenditure and the overall assumed efficiency improvement profile.

Expenditure for consideration in price limits will be compared with the capital investment plan spreadsheets and the company should ensure that all the expenditure included in tables B4-3 and B4-4 can be identified and linked to specific obligations in the spreadsheets. Only such expenditure will be considered. Any unallocated expenditure will be disregarded.

Expenditure allocation

When allocating expenditure, the company must carry out proportional allocation as set out in RAG 2.03v2. Where a quality driven scheme includes other elements, the company must set this out in the capital investment submission (Part C5), proportionally allocating between quality and capital maintenance, supply/demand or enhanced service levels. Only the quality element is to be included in tables B4-3 and B4-4.

The components of the total projected expenditure may, however, affect the company's capital maintenance projections in tables B3-5, B3-6, B3-7 and B3-8. There is a facility in line 12 of these tables for the company to recognise this. However we expect, in most cases, that the continuation of capital maintenance at current levels will be adequate to absorb any capital maintenance linked to the prospective quality programme.

For surface assets we anticipate that identifying the capital maintenance elements of any enhancement scheme will be relatively straightforward. For underground assets, particularly water, the position is more complex. In particular, where quality enhancement expenditure on the water distribution system includes mains renewal rather than relining, there will implicitly be an element of this work which would have been carried out anyway under normal capital maintenance. An appropriate element of this must be accounted for as capital maintenance and included in the projected infrastructure renewals charge.

The company is required to set out in the commentary the methodology it has adopted to proportionally allocate the capital maintenance element. The Reporter must review and confirm that the approach is appropriate. Allocating all quality related renewals activity to capital maintenance would be excessive, as the impact of the quality programme is to compress renewals activity into a shorter period than would otherwise be the case. One possibility would be for the company to adopt the approach set out in Ofwat's RD 3/99 whereby the proportion allocated to capital maintenance is calculated according to the incremental cost of renewal over relining. In the 1999 determination for England and Wales Ofwat assumed a 40% difference and incorporated this into price limits. The company can either use this or give sound reasons, commented on by the Reporter, for using a different assumption. We will then consider company specific issues.

Synergies with capital maintenance

As well as the allocation issue, there may be synergies between capital maintenance and quality improvements that are not accounted for elsewhere. For example, where asset renewals and improvements are required at the same site, the company is likely to save on project management costs. The effect of this may be a net reduction in the total level of capital investment required for the company to deliver its outputs. These projected cost savings must be deducted from the projected cost of quality enhancements, and there is scope to do this in lines 8 and 20 of table B4-3 and lines 7 and 16 of table B4-4.

For example:
If the company plans to spend £5m on an improvement scheme at an existing works, during a particular year, the company would include the gross cost of the work (£5m) in the appropriate part of the capital investment plan spreadsheets. This enhancement to the works may increase the capacity as well as deal with some quality issues. Some of the £5m must therefore be proportionally allocated to other areas such as growth or maintenance, perhaps leaving £3m attributable to quality. This net amount for quality must be transferred to table B4-3 line 4, along with estimates from other schemes set down in the capital investment plan spreadsheets.

Even though the company has proportionally allocated expenditure for individual schemes, it may consider that its procedures underestimate the true overlap between quality and maintenance. This may particularly be the case where there is a large quality programme, which has further reduced the need for routine maintenance of assets. If the company concludes for example that there is an additional 5% of overlap between quality and maintenance then a –5% adjustment in line 8 may be appropriate.

The final adjustment relates to overall assumed efficiency improvements and summarised in tables B2-2 and B2-3. Thus in table B4-3 line 10 is derived from:

The company judgement of the annual efficiency an efficient company might be expected to achieve, perhaps proportioned between the customer and the company, for example 2% per year from 2003-04. The company decides to divide the scope 50:50 between customers and the company, hence leading to say a rounded net impact of say –5% in 2008-09.

and

If the company is planning to catch up the gap between the frontier and its own efficiency at the rate of 3% per year from 2005-06, by the third year of the reporting period (2007-08) this will have a rounded net impact of say –9%. These two adjustments are then compounded together to calculate the programme total in line 9.

In this example:

Gross Capex for scheme in spreadsheet - £10m
- of which the:
Gross Capex for say 2007-08 - £5m
- of which only 60% is allocated to quality enhancements
Amount to Quality enhancement - £3m
- which is transferred to table B4-3 line 4 for report year 2007-08

and then subject to the **programme level adjustments**

line 7 overlap with capital maintenance [5%]
line 8 overall assumed efficiency improvement [14%]
- which are multiplied together in the table giving
a net adjustment (0.95x0.86=0.82) [18%]
- such that the net for the scheme is £2.5m

Similar principles apply to the operating expenditure adjustment of operating expenditure on new works.

Water service

Table B4-3 – This table is split into three blocks:

Block A capital enhancement expenditure for non-infrastructure assets

Block B capital enhancement expenditure for infrastructure assets

Block C additional operating expenditure.

Sewerage service

Table B4-4 – This table is split into three blocks:

- Block A capital enhancement expenditure for infrastructure assets
- Block B capital enhancement expenditure for non-infrastructure assests
- Block C additional operating expenditure.

Each of the four capital expenditure blocks in tables B4-3 and B4-4 is broken down into the same four key areas as follows:

- completion of the SBP programme;
- enhancements required because of new quality obligations identified since 2007-08;
- adjustments for overlaps with capital maintenance; and
- the overall assumed efficiency improvement profile.

Each of the operating expenditure blocks in tables B4-3 and B4-4 is broken down into four similar key areas as follows;

- completion of the SBP obligations programme;
- enhancements required because of new quality obligations identified since 2007-08;
- adjustments for overlaps with base opex adjustment; and
- the overall assumed efficiency improvement profile.

Guidance to the Reporter

The Reporter should provide a comprehensive commentary on part B4 and the associated capital investment plan submission (Part C5).

The Reporter should:

- Comment on whether the company has provided a consistent interpretation of legal obligations and guidance given by the Minister and on whether the company has included all of the proposals, forming the PC10 Quality programme determined in consultation with DWI and NIEA. The report must contain a schedule of omissions and a list of any additional enhancements that have been included. The Reporter should confirm or otherwise that the company business plan reconciles with the requirements and expectations of the quality regulators.
- Comment on whether the company has considered its quality obligations as a whole, and reviewed options open to meet the new obligation and has chosen an efficient and cost-effective solution based on whole life costs.
- Confirm or otherwise that the company has not taken a lower risk approach to that applied elsewhere in the business.
- Confirm or otherwise that the strategy and the information in the tables reconcile with the information included in the capital investment plan spreadsheets and with the total capex and opex lines in tables A7 and A8. Comment on whether the company expenditure profiles for projects are reasonable and achievable,
- Confirm or otherwise that the costs are based on the same costing methodology as that used in the cost base and submitted in the cost base report. Comment on the level of contingency included in the costs; and indicate whether in his judgement this is reasonable.
- Give an opinion of the company's assessment of the ranges of uncertainty in cost estimates and output figures and in the light of these points provide any further comments on the company's strategy. This must include comments on the approach taken by the company to cost estimation, for example, whether it was cautious or pragmatic.
- Comment on whether or not the company's costs represent a central estimate or whether they are biased in any direction. The Reporter must provide a quantitative estimate of any bias in the company's costs for the quality enhancement programme.
- Review and confirm that the methodology the company has adopted to proportionally allocate the capital maintenance element for underground assets is appropriate.

TABLE B4-1

Part B – Key components – quality enhancements

Table B4-1 - Water service - quality enhancement outputs
Block A – Water treatment works improvements

1	Quality improvements completed by number of works	nr
Definition	The number of water treatment works at which quality enhancement improvements have been or will be completed during the report year. This is work which forms part of the PC10 Quality programme determined in consultation with DWI The information supplied in this line must be consistent with that given in supporting information part C5 on quality. The cumulative total April 2010 to March 2012 is given in the final column.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

1a	Quality improvements completed by number of works (PPP)	nr
Definition	The number of water treatment works at which quality enhancement improvements have been or will be completed during the report year. This is work which forms part of the PC10 Quality programme determined in consultation with DWI The information supplied in this line must be consistent with that given in supporting information part C5 on quality,. The cumulative total April 2010 to March 2012 is given in the final column.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

2	Quality improvements completed by design flow	Ml/d (2dp)
Definition	The total design flow of water treatment works at which quality enhancements have been or will be completed during the report year. The information supplied in this line must be consistent with that given in supporting information part C5 on quality. The cumulative total April 2010 to March 2012 is given final column.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

2a	Quality improvements completed by design flow (PPP)	Ml/d (2dp)
Definition	The total design flow of water treatment works at which quality enhancements have been or will be completed during the report year. The information supplied in this line must be consistent with that given in supporting information part C5 on quality. The cumulative total April 2010 to March 2012 is given final column.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

3	Other improvements (including security related improvements) by site number	nr
Definition	The number of other improvements (not driven by environmental improvements) but including those confirmed as needed to comply with 'physical' security requirements notified by CPNI/NIO on behalf of the Secretary of State or notified by the Department. The information supplied in this line must be consistent with that given in supporting information part C5 on quality. The cumulative total April 20010 to March 2012 is given in the final column.	
Processing rules	Input line	
Reference		
Responsibility	Network Regulation Team	

3a	Other improvements (including security related improvements) by site number (PPP)	nr
Definition	The length of distribution mains to be cleaned, relined or replaced to deliver programmes of work to improve customer acceptability. This work must form part of the PC10 programme determined in consultation with DWI. Explain in the commentary, the proportion of cleaning, relining and replacement.	
Processing rules	Input line	
Reference		
Responsibility	Network Regulation Team	

Block B – Water distribution system improvements

7	Quality improvement work - mains relining	km (1dp)
Definition	The length of mains relined or planned to be relined during the report year to deliver the quality improvement programme for the distribution system determined through consultation with DWI.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

8	Quality improvement work - mains renewal	km (1dp)
Definition	The length of mains renewed or planned to be renewed during the report year to deliver the quality improvement programme for the distribution system determined through consultation with DWI.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

9	Quality improvement work - mains cleaning	km (1dp)
Definition	The length of mains cleaned or planned to be cleaned during the report year to deliver the quality improvement programme for the distribution system determined through consultation with DWI.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

10	Lead communication pipes replaced under quality	nr
Definition	The number of lead communication pipes that have been or are expected to be replaced during the report year to comply with the water quality regulations.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

Block C – Water service environmental improvements

11	Lead communication pipes replaced - maintenance or other	nr
Definition	The number of lead communication pipes that have been or are expected to be replaced during the report year for any reason other than to comply with the quality standard. The expectation is that most will relate to planned maintenance of the distribution system or when carrying out work in relation to the condition of the distribution system.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

12	Total lead communication pipes replaced	nr
Definition	The total number of lead communication pipes that have been or are expected to be replaced either during maintenance of the distribution system, or for quality reasons.	
Processing rules	Calculated field: line 10 plus line 11.	
Reference		
Responsibility	Network Regulation Team	

13	Number of environmental investigations completed	nr
Definition	The number of investigations that have been completed or are required to deal with legally imposed measures to protect the environment. All investigations to have been confirmed by the Minister. The cumulative total for April 2010 to March 2012 is given in the final column. Information provided to be consistent with that provided in supporting information part C5 on quality. .	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

14	Environmental improvements completed by number of sites	nr
Definition	The number of sites where work has been completed or is required to deal with legally imposed measures to protect the environment. All work to have been confirmed by the Minister. The cumulative total for April 2010 to March 2012 is given in the final column. Information provided to be consistent with that provided in supporting information part C5 on quality.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

15	Environmental improvements completed by design flow	Ml/d (2dp)
Definition	The increase in the total design flow of water treatment works or sources, resulting from work to deal with legally imposed measures to protect the environment. All work to have been confirmed by the Minister. The cumulative total April 2010 to March 2012 is given in the final column. Information provided to be consistent with that provided in supporting information part C5 on quality.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

TABLE B4-2

Table B4-2 - Sewerage service - quality enhancement outputs -

Block A - Sewerage system improvements

1	Nr of intermittent discharges improved under the SBP Quality Programme	nr
Definition	The number of intermittent discharges where improvements completed in the year under the SBP Quality Programme. Include combined sewer overflows (CSOs) on the sewerage system and at pumping stations, emergency overflows at the inlets to sewage treatment works and storm tank discharges. Include any approved changes.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

2	Nr of intermittent discharges to be improved under new environmental obligations	nr
Definition	The number of intermittent discharges to be improved under the PC10 Quality Programme. Include combined sewer overflows (CSOs) on the sewage system and at pumping stations, emergency overflows, storm overflows at the inlets to sewage treatment works and storm tank discharges.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

3	Length of additional sewer built for quality enhancement	km (1dp)
Definition	The length of additional sewer built as part of the quality enhancement programme (eg as part of intermittent discharge improvement schemes) or first time sewerage schemes.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

4	Length of sewer renewed for quality enhancement	km (1dp)
Definition	The length of sewer renewed as part of the quality enhancement programme (eg as part of intermittent discharge improvement schemes.)	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

5	Length of sewer upsized for quality enhancement	km (1dp)
Definition	The length of sewer upsized as part of the quality enhancement programme (eg as part of intermittent discharge improvement schemes.)	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

7	P.E. of WwTWs under the SBP Quality Programme	000 (2dp)
Definition	The population equivalent associated with improvements to sewage treatment works completed under the SBP Quality Programme The population equivalent should be calculated on the basis of 60g BOD_5 per capita per day. Imported effluents should be included in the calculation. No account should be taken of holiday population.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

Block B - Sewage treatment work improvements

6	Nr of WwTWs completed under the SBP Quality Programme	nr
Definition	The number of wastewater treatment works enhancements completed during the year under the programme assumed when price limits were set in the SBP or subsequently amended through application of the change protocol.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

8	New obligations - Nr of improvements - inland discharges	nr
Definition	The total number of improvements to sewage treatment works discharging to inland waters under the PC10 Quality programme	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

9	New obligations – p.e. of inland discharges	000 (2dp)
Definition	The population equivalent associated with improvements to inland sewage treatment works under the PC10 Quality Programme The population equivalent should be calculated on the basis of 60g BOD_5 per capita per day. Imported effluents should be included in the calculation. No account should be taken of holiday population.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

10	New obligations – estuarial and coastal discharges	nr
Definition	The total number of improvements to sewage treatment works discharging to estuarial and coastal waters under the PC10 Quality Programme	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

11	New obligations – p.e. of estuarial and coastal discharges	000 (2dp)
Definition	The population equivalent associated with improvements to estuarial and coastal sewage treatment works under the PC10 Quality Programme The population equivalent should be calculated on the basis of 60g BOD_5 per capita per day. Imported effluents should be included in the calculation. No account should be taken of holiday population.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

11a	Number of improvements to non-infrastructure assets by site for security related measures	nr (0dp)
Definition	The number of sites undergoing improvements which are needed to comply with 'physical' security requirements notified by CPNI/NIO on behalf of the Secretary of State or notified by the Department. The information supplied in this line must be consistent with that given in supporting information part C5 on quality. The cumulative total April 20010 to March 2012 is given in the final column.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

Block C – Sewage sludge disposal improvements

12	Additional sludge from the SBP Quality Programme	ttds (1dp)
Definition	The additional amounts of sewage sludge disposed of with completion of the SBP Quality Programme.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

13	Additional sludge from new obligations.	ttds (1dp)
Definition	The additional sewage sludge disposed of from the PC10 Quality Programme.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

14	Total sewage sludge disposal	ttds (1dp)
Definition	The total sewage sludge disposed of during the report year. The total output from the sewage service existing and new assets. In thousand tonnes dry solids per year. This should include disposal to farmland, landfill, incineration and other as reported in lines 16 20 respectively.	
Processing rules	Input field	
Reference	AIR table 15, Line 16	
Responsibility	Network Regulation Team	

15	Total unsatisfactory sewage sludge disposal	ttds (1dp)
Definition	The total amount of sewage sludge disposed of unsatisfactorily, during each year. Give reasons for unsatisfactory disposal including the Regulations breached or non-adherence to Codes of Practice in the commentary and the percentage affected.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

16	Percentage sewage sludge to farmland – untreated	% (2dp)
Definition	Percentage of the untreated sewage sludge disposal to farmland. Untreated sewage will have received no form of treatment designed to reduce its pathogen content. The sludge may be thickened and/or de-watered to facilitate transportation.	
Processing rules	Input field	
Reference	AIR Table 17g line 2, Col. 1 divided by line2 Col. 9 – expressed as a %age	
Responsibility	Network Regulation Team	

17	Percentage sewage sludge to farmland – conventional	% (2dp)
Definition	Percentage of the conventionally treated sewage sludge disposed to farmland. "Conventionally treated" sewage sludge is that which has undergone processes designed to reduce the amount of E Coli present by no less than 99% (a 2 log reduction)	
Processing rules	Input field	
Reference	AIR Table 17g line 2, Col. 2 divided by line2 Col. 9 – expressed as a %age	
Responsibility	Network Regulation Team	

18	Percentage sewage sludge to farmland – advanced	% (2dp)
Definition	Percentage of the "advanced" treated sewage sludge disposed to farmland. "Advanced" treated sewage is that which has undergone processes designed to reduce the amount of E. Coli present by no less than 99.9999% (a 6 log reduction).	
Processing rules	Input field	
Reference	AIR Table 17g line 2, Col. 3 divided by line2 Col. 9 – expressed as a %age	
Responsibility	Network Regulation Team	

20	% sewage sludge to incineration	% (1dp)
Definition	The percentage of the total sewage sludge disposed of by incineration.	
Processing rules	Input field	
Reference	AIR Table 17g line 2, Col. 4 divided by line2 Col. 9 – expressed as a %age	
Responsibility	Network Regulation Team	

21	% sewage sludge to landfill	% (1dp)
Definition	The percentage of the total sewage sludge disposed of to landfill.	
Processing rules	Input field	
Reference	AIR Table 17g line 2, Col. 5 divided by line2 Col. 9 – expressed as a %age	
Responsibility	Network Regulation Team	

22	% other sewage sludge disposal	% (1dp)
Definition	The percentage of the total sewage sludge disposed of by methods other than to farmland, landfill or incineration. For example: gasification, pyrolysis, composting, forestry, silviculture etc. Give the nature of the other methods and estimated percentages for each in the commentary.	
Processing rules	Input field	
Reference	AIR Table 17g, Line 2, Cols. 6, 7 & 8 divided by line 2, Col. 9 - expressed as a %age	
Responsibility	Network Regulation Team	

23	Nr of quality related investigations	nr
Definition	Number of investigations specified as part of the quality enhancement programme, as part of a project or the whole project. Include the year in which the report of the investigation must be completed, or is planned to be completed for consideration by the environmental regulations.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

24	Nr of first time sewerage schemes	nr
Definition	Number of schemes the company plans to complete during the year to connect to the public sewerage system. Include in the commentary the basis of the numbers and an estimate of the number of properties connected.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

TABLE B4-3

Key components – Quality enhancements

Table B4-3 – Water service – quality enhancement expenditure projections

All capital expenditure and operating costs included must reconcile with the capital investment plan spreadsheets (Part C5) and must reconcile with the information given in table B4-1. For 2007-08 the totals should reconcile with those in the company Annual Information Return 2008.

Block A – Capital enhancement expenditure for non-infrastructure assets

2	Completion of the SBP Water Quality Programme (non-infra)	£m (3dp)
Definition	Actual and forecast capital expenditure for non-infrastructure schemes allowed in the SBP. Include only those schemes listed approved for the SBP Quality programme.. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

3	Completion of the SBP environmental programme (non-infra)	£m (3dp)
Definition	Actual and forecast capital expenditure for schemes allowed in the SBP. Include only those schemes approved for the SBP quality programme. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

4	New drinking water quality programme (non-infra)	£m (3dp)
Definition	Capital expenditure allocated to asset improvements for water treatment due to legally enforceable quality obligations for PC10 programme. This will only include projects that form part of the PC10 Quality programme determined in consultation with DWI. Do not include expenditure allocated to environmental obligations. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

5	New environmental quality obligations (non-infra)	£m (3dp)
Definition	Capital expenditure allocated to non-infrastructure asset improvements due to new legally enforceable environmental obligations in the PC10 programme. This will only include schemes which form part of the PC10 Quality programme determined in consultation with NIEA. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

6	Other new obligations inc. security related (non-infra)	£m (3dp)
Definition	Capital expenditure for enhancement of non-infrastructure assets required to fulfil other new obligations. This deals with other legal obligations not specifically dealt with by the drinking water quality or environmental programme, e.g. security obligations notified by the Centre for the Protection of National Infrastructure .	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

7	Water treatment quality programme (non infra) – pre synergies/efficiency	£m (3dp)
Definition	The pre synergies/efficiency sub total obtained for the whole of the water resources and treatment programme for capital investment in assets classified as non-infrastructure (ie lines 2 6 inclusive).	
Processing rules	Calculated field: Sum of lines 2, 3, 4, 5 and 6. .	
Reference		
Responsibility	Network Regulation Team	

8	Synergies with capital maintenance adjustment (non infra)	% (1dp)
Definition	The additional savings assumed by the company between quality and capital maintenance in addition to that set out in proportional allocation in the –capital investment plan spreadsheet. This additional synergy can take account of the reduced need for maintenance with a large quality programme affecting a significant proportion of a company's assets.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

9	Overall compounded assumed improvement profile (capital enhancement non-infra)	% (2dp)
Definition	Projected annual reductions in capital enhancement expenditure on non-infrastructure assets compared to projected levels based on the company's current unit cost database.	
Processing rules	Copied field: Table B2-2, line 31	
Reference		
Responsibility	Network Regulation Team	

Block A – Capital enhancement expenditure for infrastructure assets

10	Total – water service quality enhancement programme (non infra)	£m (3dp)
Definition	Capital expenditure on non-infrastructure assets allocated to the water resources and treatment quality programme. Including adjustments for capital maintenance synergies and including efficiency assumptions.	
Processing rules	Calculated field: (sum of lines 2 to 6) multiplied by ((1 minus line 8/100) multiplied by (1 minus line 9/100)).	
Reference		
Responsibility	Network Regulation Team	

12	Completion of the SBP drinking water programme (infra)	£m (3dp)
Definition	Actual and forecast capital expenditure for schemes allowed in the SBP. Include only those schemes approved for the SBP Quality programme.. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

13	Completion of the SBP environmental Programme (infra)	£m (3dp)
Definition	Actual and forecast capital expenditure for schemes allowed in the SBP. Include only those schemes approved for the SBP Quality programme. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

14	New drinking water quality programme (infra)	£m (3dp)
Definition	Actual and forecast capital expenditure allocated to infrastructure asset improvements due to legally enforceable quality obligations in the PC10 programme. Include proposed work to improve the acceptability of supplies to consumers. This will only comprise projects that form part of the PC10 Quality programme determined in consultation with DWI. Do not include expenditure allocated to environmental obligations. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

15	Water quality mains renovation programme (infra)	£m (3dp)
Definition	Capital expenditure allocated to the mains renovation programme to fulfil the PC10 quality programme. It does not include Article 31 undertakings where further maintenance is required. Do not include any expenditure proportionally allocated to maintenance, supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

16	Lead communication pipe replacement (infra)	£m (3dp)
Definition	Capital expenditure allocated to the replacement of lead communication pipes for quality purposes that forms part of the PC10 programme determined in consultation with DWI, usually as part of the strategic programme of lead pipe replacement. This should exclude expenditure proportionally allocated to leakage reduction, and it must not include lead communication pipe replacement as part of maintenance programmes. Do not include any expenditure proportionally allocated to maintenance, supply/demand or enhanced service levels. This should reconcile with the activity given in table B4-1 line 12.	
Processing rules	Input field.	
Reference		
Responsibility	Network Regulation Team	

17	New environmental quality obligations (infra)	£m (3dp)
Definition	Capital expenditure allocated to infrastructure asset improvements due to new legally enforceable environmental obligations in the PC10 programme. This will only include projects that form part of the PC10 Quality programme determined in consultation with NIEA. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

18	Other new obligations inc. security related (infra)	£m (3dp)
Definition	Capital expenditure for enhancement of infrastructure assets required to fulfil other new obligations. This deals with other legal obligations not specifically dealt with by the drinking water quality or environmental programme, e.g. security obligations notified by the Centre for the Protection of National Infrastructure	
Processing rules	Input line	
Reference		
Responsibility	Network Regulation Team	

19	Water service infrastructure quality programme (infra) – pre synergies/efficiency	£m (3dp)
Definition	The pre synergies/efficiency sub total of capital expenditure for the whole of the water service infrastructure quality enhancement programme.	
Processing rules	Calculated field: sum of lines 12 to 18	
Reference		
Responsibility	Network Regulation Team	

20	Synergies with capital maintenance adjustment (infra)	% (1dp)
Definition	The additional savings assumed by the company between quality and capital maintenance in addition to that set out in proportional allocation in the supporting capital investment plan spreadsheets (Part C5). These savings can take account of the reduced need for maintenance in a large quality programme affecting a significant proportion of a company's assets.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

21	Overall compounded assumed efficiency improvement profile (capital enhancement infra)	% (2dp)
Definition	Projected annual reductions in capital enhancement expenditure on infrastructure assets compared to projected levels based on the company's current unit cost database.	
Processing rules	Copied field: table B2-2 line 25	
Reference		
Responsibility	Network Regulation Team	

22	Total – water service infrastructure quality enhancement programme	£m (3dp)
Definition	Capital expenditure allocated to work on infrastructure assets net of adjustments for synergies with maintenance and efficiency assumptions.	
Processing rules	Calculated field: (sum of lines 12 – 18) multiplied by ((1-line 20/100)x(1-line 21/100))	
Reference		
Responsibility	Network Regulation Team	

C – Quality enhancement operating expenditure

24	Completion of the quality SBP programme – drinking water	£m (3dp)
Definition	Actual and forecast operating expenditure for schemes allowed in the SBP for drinking water. Include only those schemes approved for the SBP Quality programme. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

25	Completion of SBP quality programme – environmental programme	£m (3dp)
Definition	Actual and forecast operating expenditure for schemes to investigate or deliver environmental improvements allowed in the SBP. Include only those schemes approved for the SBP Quality programme. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

26	Synergies with base operating expenditure adjustment	% (1dp)
Definition	The overlap assumed by the company between quality and base operating expenditure in addition to that set out in proportional allocation in the capital investment plan spreadsheet (Part C5). This additional overlap can take account of the additional efficiencies reducing the operating costs for the base service. Such efficiencies will occur when a significant proportion of a company's assets are replaced or improved. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

27	Overall compounded assumed improvement profile (base)	% (2dp)
Definition	The overall cumulative improvement in water service base operating efficiency resulting from catch-up in relative efficiency plus minimum improvements achievable by band A companies.	
Processing rules	copied from table B2-2 line 4	
Reference		
Responsibility	Comparative Efficiency Team	

28	Water service - quality enhancement additional operating expenditure for SBP	£m (3dp)
Definition	Projected water quality enhancement – the additional operating expenditure for SBP schemes. This includes the operating costs for completion of the projects confirmed in the SBP as part of the Quality programme. Operating expenditure in addition to the 2007-08 position.	
Processing rules	Calculated field: (line 24 plus line 25) multiplied by (1-line 26/100)x(1-line 27/100)	
Reference		
Responsibility	Network Regulation Team	

29	New water treatment quality programme	£m (3dp)
Definition	Operating expenditure allocated to asset improvements for water treatment due to new legally enforceable water quality obligations in the PC10 programme Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

30	Water distribution quality programme	£m (3dp)
Definition	Operating expenditure allocated to the mains renovation programme for quality reasons. This does not include treatment which affects the distribution system, such as plumbsolvency control or softening.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

31	New environmental obligations	£m (3dp)
Definition	Operating expenditure allocated to asset improvements due to new legally enforceable environmental obligations confirmed in the PC10 programme. Do not include any opex proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

32	Other new obligations (including security related)	£m (3dp)
Definition	Additional operating expenditure to fulfil other new obligations. This deals with other legal obligations not specifically dealt with by the drinking water quality or environmental programme, e.g. security obligations notified by the Centre for the Protection of National Infrastructure Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

33	Water PC10 quality enhancement additional operating expenditure – pre synergies/efficiency	£m (3dp)
Definition	The sub total for the PC10 water service quality enhancement operating expenditure. This includes drinking water quality, environmental requirements and other obligations, all confirmed as required by ministers.	
Processing rules	. Calculated field: Sum of line 29, 30, 31 and 32.	
Reference		
Responsibility	Network Regulation Team	

34	synergies with base operating expenditure adjustment	% (1dp)
Definition	The additional savings assumed by the company between quality and base operating expenditure in addition to that set out in proportional allocation in the capital investment plan spreadsheet (Part C5). This additional synergy can take account of the additional efficiencies reducing the operating costs for the base service. Such efficiencies will occur when a significant proportion of a company's assets are replaced or improved. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

35	Overall compounded assumed improvement profile (opex enhancements)	% (2dp)
Definition	The overall year on year improvement in water service enhancements operating efficiency resulting from catch-up in relative efficiency plus minimum improvements achievable by band A companies.	
Processing rules	Copied field: copied from table B2-2 line 9	
Reference		
Responsibility	Comparative Efficiency	

36	PC10 water quality enhancement additional operating expenditure	£m (3dp)
Definition	Projected additional operating expenditure to determine the PC10 water quality enhancement programme. This comprises all the additional operating expenditure for completion of the PC10 programme confirmed by ministers.	
Processing rules	Calculated line: line 33 multiplied by (1 minus line 34/100) multiplied by (1 minus line 35/100)	
Reference		
Responsibility	Network Regulation Team	

37	Total water service quality enhancement additional operating expenditure	£m (3dp)
Definition	The net additional operating expenditure attributable to the water service quality enhancement programme, after adjustment to account for synergies with base operating costs and efficiency assumptions. Any net additional opex in 2009-10 compared with the base year 2007-08 must reconcile with line 8 in table A7. This information will be used to inform the starting point for quality enhancement opex in 2010-11.	
Processing rules	Calculated line: sum of lines 28 and 36	
Reference		
Responsibility	Network Regulation Team.	

TABLE B4-4

Table B4-4 – Sewerage service – quality enhancement expenditure projections

All capital expenditure and operating costs included must reconcile with the quality database in the supplementary information and must reconcile with the information given in B4-2. For 2007-08 the totals should reconcile with those in the company Annual Information Return 2008.

Block A – Capital enhancement expenditure for infrastructure assets

2	Completion of the SBP improvement programme (infra)	£m (3dp)
Definition	Actual and forecast capital expenditure for intermittent discharge improvements and first time sewerage schemes under the SBP quality programme. Also include any infrastructure expenditure associated with improvement of continuous discharges. Report the amounts in the commentary.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

3	New sewerage improvement -programme (infra)	£m (3dp)
Definition	Capital expenditure allocated to quality for sewerage improvements under the PC10 quality programme and first time sewerage required	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

4	New wastewater treatment obligations – continuous discharges	£m (3dp)
Definition	Capital expenditure allocated to quality for infrastructure enhancement associated with wastewater treatment works under the PC10 programme.	
Processing rules	Input line	
Reference		
Responsibility	Network Regulation Team	

5	New sewage sludge disposal obligations (infra)	£m (3dp)
Definition	Capital expenditure allocated to quality for sewage sludge disposal improvements required to deal with additional sludge at remote sites to deliver the PC10 programme. Also any enhancements to assets to deliver specified changes to sludge disposal to meet new obligations. The additional costs in enhancing infrastructure assets.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

6	Sewerage service quality programme (infra) – pre-synergies/efficiency	£m (3dp)
Definition	Capital expenditure for all sewerage service improvements to infrastructure assets to complete SBP and deliver PC10 programme	
Processing rules	Calculated field: sum of lines 2, 3, 4 and 5	
Reference		
Responsibility	Network Regulation Team	

7	Synergies with capital maintenance adjustment (infra)	% (1dp)
Definition	The additional savings assumed by the company between quality and capital maintenance in addition to that set out in proportional allocation in the capital investment plan spreadsheets (Part C5). These additional savings can take account of the reduced need for maintenance with a large quality programme affecting a significant proportion of the company's assets.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

8	Overall compounded assumed improvement profile (capital enhancement infra)	% (2dp)
Definition	Projected annual reductions in capital enhancement expenditure on infrastructure assets compared to projected levels based on the company's current unit cost database.	
Processing rules	Copied field: table B2-3, line 25	
Reference		
Responsibility	Network Regulation Team	

9	Total – sewerage service improvement programme (infra)	£m (3dp)
Definition	Capital expenditure allocated to the sewerage quality programme. Including adjustments for capital maintenance overlap and including efficiency adjustment.	
Processing rules	Calculated field: the sum of lines 2,3,4, and 5 multiplied by ((1 minus line 7/100) multiplied by (1 minus line 8/100)).	
Reference		
Responsibility	Network Regulation Team	

Block B – Capital enhancement expenditure for non-infrastructure assets

11	Completion of the SBP Quality Programme (non-infra)	£m (3dp)
Definition	Actual and forecast capital expenditure allocated to quality for wastewater treatment works improvements under the SBP quality programme. Also include disposal of sludge assumed in the SBP. Also include any infrastructure expenditure associated with improvement of continuous discharges. Report the amounts in the commentary.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

12	New sewerage improvement programme (non-infra)	£m (3dp)
Definition	Capital expenditure allocated to quality for sewerage improvements and first time sewerage required under the PC10 Quality Programme. Include the allocation to non-infrastructure assets.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

13	New wastewater treatment obligations continuous discharges	£m (3dp)
Definition	Capital expenditure allocated to quality for all sewage treatment works non-infrastructure improvements under the PC10 Quality Programme.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

14	New sewage sludge disposal obligations	£m (3dp)
Definition	Capital expenditure allocated to quality for sewage sludge disposal improvements required to deal with additional sludge at remote sites to deliver the PC10 programme. Also any enhancements to assets to deliver specified changes to sludge disposal to meet new obligations. (The additional costs in enhancing non-infrastructure assets.)	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

15	Sewerage service quality programme (non-infra) – pre-synergies/efficiency.	£m (3dp)
Definition	Capital expenditure for all wastewater treatment and sludge disposal improvements.	
Processing rules	Calculated field: the sum of lines 11 to 14	
Reference		
Responsibility	Network Regulation Team	

16	Synergies with capital maintenance adjustment (non-infra)	% (1dp)
Definition	The additional savings assumed by the company between quality and capital maintenance in addition to that set out in proportional allocation in the capital investment plan spreadsheets (Part C5). These additional savings can take account of the reduced need for maintenance with a large quality programme affecting a significant proportion of the company's assets.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

17	Overall compounded assumed improvement profile (capital enhancement non-infra)	% (2dp)
Definition	Projected annual reductions in capital enhancement expenditure on non-infrastructure assets compared to projected levels based on the company's current unit cost database.	
Processing rules	Copied field: table B2-3, Line 31	
Reference		
Responsibility	Network Regulation Team	

18	Total – sewerage service – non-infrastructure assets	£m (3dp)
Definition	Capital expenditure allocated to improvements in sewerage, wastewater treatment and sludge disposal to comply with legal requirements, net of adjustments for synergies with maintenance and efficiency.	
Processing rules	Calculated field: The ((sum of lines 11 to 14) multiplied by (1 minus line 16/100) multiplied by (1 minus line 17/100)).	
Reference		
Responsibility	Network Regulation Team	

Block C – Quality enhancement operating expenditure

20	Completion of SBP programme	£m (3dp)
Definition	Actual and forecast operating expenditure allocated to quality for sewerage and wastewater treatment works improvements under the SBP Quality Programme. Also include first time sewerage and the disposal of sludge assumed in the SBP.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

21	Synergies with base operating cost adjustment – (for SBP overlap)	% (1dp)
Definition	The synergies assumed by the company between quality and base service in addition to that set out in proportional allocation in the capital investment plan spreadsheets (Part C5). These additional savings can take account of additional efficiencies reducing the operating costs for the base service Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

22	Overall compounded assumed improvement profile (base)	% (1dp)
Definition	The overall cumulative improvement in sewerage service base operating efficiency resulting from catch-up in relative efficiency plus minimum improvements achievable by band A companies.	
Processing rules	Copied: Table B2-3 Line 4	
Reference		
Responsibility	Network Regulation Team	

23	Sewerage service quality enhancement additional operating expenditure for SBP	£m (3dp)
Definition	Projected sewerage enhancement – the additional operating expenditure for SBP schemes. This includes the operating costs for completion of the projects confirmed in the SBP as part of the Quality programme and all confirmed in 'logging-up'. Operating expenditure in addition to the 2007-08 position.	
Processing rules	Calculated field: Line 20 multiplied by (1-line 21/100)x(1-line22/100).	
Reference		
Responsibility	Network Regulation Team	

24	Sewerage improvement PC10 programme	£m (3dp)
Definition	Operating expenditure for intermittent discharge improvements and other obligations to comply with the PC10 Quality programme and first time sewerage. This is additional opex for the year compared with 2007-08 base year. Include additional opex from April 2007 and only include opex allocated to quality. Do not include any opex proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

25	Wastewater treatment quality PC10 programme	£m (3dp)
Definition	Operating expenditure for wastewater treatment works improvements to comply with the PC10 Quality Programme and other legally required enhancements. This is the net additional opex for the year compared with 2007-08 base year. Include additional opex from April 2009 and only include opex allocated to quality. Do not include any opex proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

26	Sludge treatment quality PC10 programme	£m (3dp)
Definition	Operating expenditure for sludge disposal improvements to comply with the PC10 programme and other legally required enhancements. This is the net additional opex for the year compared with 2007-08 base year. Include additional opex from April 2009 and only include opex allocated to quality. Do not include any opex proportionally allocated to supply/demand or enhanced service levels.	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

27	Sub total – sewerage service quality enhancement additional operating expenditure	£m (3dp)
Definition	The sub-total for the PC10 sewerage service additional operating costs for the PC10 programme confirmed by ministers and other legally required enhancements.	
Processing rules	Calculated field: sum of lines 24-26	
Reference		
Responsibility	Network Regulation Team	

28	Synergies with base operating expenditure adjustment – NIAMP3	% (1dp)
Definition	The synergies assumed by the company between quality and base service in addition to that set out in proportional allocation in the capital investment plan spreadsheet (Part C5). These additional savings can take account of additional efficiencies reducing the operating costs for the base service. Do not include any expenditure proportionally allocated to supply/demand or enhanced service levels	
Processing rules	Input field	
Reference		
Responsibility	Network Regulation Team	

29	Overall compound assumed improvement profile (opex enhancements)	% (2dp)
Definition	The overall year on year improvement in sewerage service enhancements operating efficiency resulting from catch-up in relative efficiency plus minimum improvements achievable by band A companies.	
Processing rules	Copied field: table B2-3, Line 9	
Reference		
Responsibility	Comparative Efficiency Team	

30	Sub total –sewerage service PC10 quality enhancement additional operating expenditure	£m (3dp)
Definition	Sub-total – projected additional operating expenditure to deliver the PC10 sewerage service quality enhancement programme. This comprises all the additional quality expenditure for completion of the PC10 programme confirmed by ministers and other legally required enhancements.	
Processing rules	Calculate line: line 27 multiplied by ((1-line 28/100)x(1-line 29/100))	
Reference		
Responsibility	Network Regulation Team	

31	Total – sewerage service quality enhancement additional operating expenditure	£m (3dp)
Definition	The net additional operating expenditure attributable to the sewerage service quality enhancement programme, after adjustment to account for synergies with base operating costs and efficiency assumptions. Any net additional opex in 2009-10 compared with the base year 2007-08 must reconcile with line 8 in table A8. This information will be used to inform the starting point for quality enhancement opex in 2010-11.	
Processing rules	Calculated field:-The sum of lines 23 and 30.	
Reference		
Responsibility	Network Regulation Team	