

PC21 Information Requirements

Chapter 4 - Outputs

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Chapter 4 - Outputs

4.1. Introduction

4.1.1. This chapter sets out the information requirements for NI Water's submission to the Utility Regulator in respect of the outputs it intends to deliver during the PC21 period and for the company's submission in respect of serviceability.

4.1.2. The information requirements are largely based on the PC15 information requirements and include key changes which are summarised below:

- A requirement to show how the business plan has addressed the views expressed by consumers through the PC21 consumer engagement process and other channels in addition to previous engagement work.
- Reporting data from the new customer satisfaction and advocacy measures. This is based on new customer service measures and research by the company.
- Inclusion of additional outputs measures proposed by NI Water in the PC15 process.
- The requirement to submit a report on the delivery of PC15 development outputs.
- The requirement to submit a report detailing the development outputs the company plans to deliver in PC21.

4.1.3. The PC21 Output submission shall comprise:

- A data submission consisting of five tables setting out the proposed outputs for PC21.
- Supporting information to explain and justify the data entered in the tables.

4.1.4. Outputs submitted for the PC10, PC13 and PC15 periods should reflect actual or projected performance as appropriate. The company should provide a clear explanation if the actual or projected performance in PC15 does not achieve the target levels set out in the PC15 Final Determination.

4.1.5. When setting out its proposed targets for PC21 the company should take account of the target levels for PC15 and current or projected performance for PC15. The company should provide an explanation of any target for PC21 which is less than either the target set for the end of PC15 or the actual or projected performance at the end of PC15.

4.1.6. The PC21 outputs proposed by the company should:

- be consistent with the Social and Environmental guidance issued by the Minister for Regional Development and the Long Term Water Strategy;

- reflect the individual drinking water quality and environmental quality improvements agreed by the quality regulators;
- reflect the level of investment proposed for PC21;
- take account of consumer preferences and views, expressed through the PC21 consumer engagement process and survey work;
- include those associated with any Living with Water Programme investment included in the PC21 capital investment tables; and,
- take account of other long term planning assessments such as the Water Resource and Supply Resilience Plan, incorporating Drought Management, and the sustainable Economic Level of Leakage assessment.

4.1.7. The serviceability information requirements included in Section 4.3 reflect previous guidance issued by the Utility Regulator including the definitions agreed with NI Water prior to implementation of the assessment process for the PC15 period.

4.2. Defining Additional Output Measures

4.2.1. The outputs and target measures included in the information requirements reflect those adopted for the PC15 period, including the new customer satisfaction measures introduced in AIR17.

4.2.2. NI Water is encouraged to propose additional service measures which better reflect the qualities of service which consumers value and which are relevant to their needs, taking account of:

- New consumer service measures developed through the company's consumer engagement processes.
- Stakeholder opinion on the current water quality measures and potential alternatives.
- The company's strategies to reduce consumption and waste which might address issues such as water demand management, leakage, stormwater and infiltration management, and reduced energy and chemical consumption.
- Activities necessary to deliver more sustainable approaches to achieving environmental and drinking water quality outcomes and water distribution and drainage outcomes.
- Preparatory work such as strategic studies, pilot trials and other work which will support the development of sustainable solutions, improved planning capability or improved service delivery in the longer term.

4.2.3. The company should include these in its submission by adding additional lines to the relevant output tables.

4.2.4. The company should discuss its proposals with the Utility Regulator in advance of the Business Plan submission to agree the definition of any additional outputs.

4.3. The Data Submission

Format

4.3.1. The data submission consists of five tables.

Table 1 - PC21 Output Submission Tables

Table	Title
4.1	Water Provision and Service Outputs
4.2	Sewerage Provision and Service Outputs
4.3	Overall Performance Assessment
4.4	Outputs delivered by PC21 Capital Projects and Programmes of Work
4.5	Serviceability

Tables 4.1 and 4.2 - Water and Sewerage Provision and Service Outputs

4.3.2. The tables comprise of six blocks of information.

Table 2 - Information Blocks in Output Submission Tables 4.1 and 4.2

Block	Title	Covers
A	Consumer Service	Level of service and sustainability outputs.
B	Quality	Water Quality and Environmental outputs.
C	Outputs	Water and sewerage activity and nominated outputs
D	Serviceability	Serviceability for above and below ground assets
E	Additional PC15 Measures	Additional output measures introduced for PC15
F	Additional PC21 Measures	Additional output measures introduced for PC21

4.3.3. Data is to be submitted for the periods specified in each table. The data entered in Tables 4.1 and 4.2 against the outputs listed in Table 5 of this Chapter should equal the totals of the individual entries in Table 4.4 of the submission.

4.3.4. For serviceability, the company should enter its estimation of the trend in serviceability for infrastructure and non-infrastructure assets in each service area during the period. This should be consistent with the information provided in Table 4.5. A 'stable', 'improving', 'marginal' or 'deteriorating' categorisation should be used.

4.3.5. The sequential numbering used in Tables A and B of the annual information return has been retained in Tables 4.1 and 4.2 for consistency and ease of reference at this stage. Any new or supporting measures in Blocks A to E are denoted using a letter suffix. The potential for rationalising and renumbering the line numbers will be considered as part of the PC21 process.

4.3.6. Additional lines (8a – 8g) have been added to Block A of Table 4.1 for PC21 to capture information on the additional consumer measures incorporated into the annual information return (AIR) during PC15. The company should follow the detailed definitions and guidance provided in the AIR documentation for reporting this data.

4.3.7. The aim of these customer measures is to establish satisfaction levels with the service the company provides. This includes those who contact the company, as well as the wider public (likely to use the service provided by NI Water even if they did not contact the company during the reporting period).

4.3.8. Any additional measures proposed by the company for PC21 should be added to Block F of Tables 4.1 and 4.2, along with their units, decimal places and whether NI Water intends them to form part of the monitoring plan. The rationale for their inclusion and their definitions should be provided in the business plan submission. Two additional PC21 measures have already been added to Block F of Table 4.1 by the Utility Regulator.

Table 4.3 - Overall Performance Assessment

4.3.9. Table 4.3 sets out the information required to calculate the OPA score. It replicates Table 44 of the Annual Information Return. Outturn and projected data is to be submitted for the PC10, PC13, PC15 and PC21 periods to provide a complete history of OPA scores.

4.3.10. The table comprises five blocks of information.

Table 3 - Information Blocks in Output Submission Table 4.3

Block	Title
A	Water Supply
B	Sewerage Service
C	Security of Supply
D	Customer Service
E	Environmental Performance

4.3.11. NI Water should enter the data used to calculate the Overall Performance Assessment scores, reported on line 11 and 11a of Table 4.1 of the submission, in Table 4.3. Line 11b is a ‘place holder’ for possible review and development of the OPA. The methodology for calculating the overall performance score is as detailed in Annex A of the reporting requirements for Table 44 of the Annual Information Return.

4.3.12. Data entries for Table 4.3 are generally defined as ‘inputs’ despite the commonality with certain data in Tables 4.1 and 4.2. In Table 4.3, NI Water should enter the most likely outturn of the individual performance measures rather than the target level included in Tables 4.1 and 4.2. NI Water should provide its assessment of the most likely outturn for each measure and provide a clear explanation of why any target in Tables 4.1 or 4.2 is set at a lower level than the most likely outturn.

4.3.13. Targets and current or projected performance figures should be entered for Leakage and Security of Supply for PC10, PC13 and PC15. It is recognised that the ‘actual’ and ‘target’ figures entered for PC21 may be the same. Any differences between ‘target’ and ‘actual’ figures for PC21 should be explained in the supporting information submitted by the company.

Table 4.4 - Outputs delivered by PC21 Capital Projects and Programmes of Work

4.3.14. Table 4.4 should be used to record the outputs that are being delivered by NI Water’s capital investment programme. Data is to be submitted for the PC10, PC13, PC15 and PC21 periods. PC10 information has been retained in this table to provide a single source of historic data on the delivery of nominated outputs. This will help avoid any potential confusion that might result from trying to assess variances between planned and actual delivery across multiple price control submissions.

4.3.15. In addition, NI Water should record any outputs it expects to deliver in the first three years of PC27 as a consequence of the completion of schemes started in PC21 or ongoing expenditure on programmes of work.

4.3.16. The table comprises two blocks of information.

Table 4 - Information Blocks in Output Submission Table 4.4

Block	Title
A	Project Information
B	Project Outputs

4.3.17. Common reference codes are included to allow outputs associated with individual capital projects or programmes of work to be identified. These should be completed by the company to allow a clear link to be established between:

1. nominated outputs required by stakeholders;

2. individual outputs and activities proposed by the company;
3. the detailed capital investment programme at project and sub-programme level; and,
4. the summary outputs and service levels proposed in Tables 4.1 and 4.2 of the Business Plan submission.

4.3.18. Project information should be entered in Block A. This information should be consistent with that entered in Table 3.3 of the capital investment submission.

4.3.19. The information requirements for Block A, including those for beneficial use date, are defined in Chapter 3. Table 3 in Chapter 3 lists the capital investment sub programme identifiers.

4.3.20. The company should enter the outputs associated with each capital project or programme of work in column 8 to 27 of Block B. Information, including that associated with programmes of work, should be disaggregated as far as possible for the purposes of completing this table and align with the level of disaggregation in Table 3.3 where possible.

4.3.21. Output reference codes should be entered in column 6 of Block B to define each output. Table 5 below lists the outputs that are to be recorded in Table 4.4 and their associated reference codes. It also defines the units of measurement to be entered in column 7 of Table 4.4 for each output and the number of decimal places to be used. At this stage all the PC15 reference codes have been retained for consistency, but the potential for rationalising and renumbering the list will be discussed as part of the PC21 process. All potential outputs have been listed in Table 5 for completeness. NI Water should however note that the purpose of Table 4.4 is to capture outputs delivered by Capex projects and Capex programmes only. Outputs delivered solely by Opex should therefore not be included in the table.

4.3.22. A separate line should be completed for each type of output that a project or sub-programme of work will deliver. More than one 'output' line may therefore be required for each project or sub-programme of work. Where this is necessary, the same project information should be repeated in Block A for each 'output' line. For example: a sewerage project might deliver multiple outputs including sewerage replacement, sewerage renovation, UID improvement and DG5 improvement. In these circumstances at least one line entry should be provided in Table 4.4 of the submission for sewerage replacement, sewerage renovation and DG5 improvement; and, one line entry would be completed for each UID improved. Where possible, further detailed information on aggregated outputs should be included in the relevant project or sub-programme Business Case. For example: in the sewerage example outlined above, the individual properties on the DG5 register improved as a result of the scheme should be identified in the Business Case providing a clear link from the DG5 register to the investment programme.

4.3.23. An additional column (column 28) has been added to Table 4.4 in PC21 to identify outputs related to the Living with Water Programme (LWWP). The company should identify whether this is the case by entering "Y" or "N" in the column. Separate

lines can be used (as detailed above) to disaggregate outputs if the company considers that a programme of work is delivering outputs which lie both within and outside LWWP.

Table 5 - PC21 Output Reference Codes

PC21 Output Description	Table	Line	PC21 Output Ref Code	Unit	DP
DG2 Properties at risk of low pressure removed from the risk register by company action	4.1	1	01	nr	0
DG5 Properties at risk of flooding-number removed from 2 in 10, 1 in 10 and 1 in 20 risk register by company action	4.2	1	02	nr	0
Water mains activity - Length of new water mains	4.1	18a	03	km	2
Water mains activity - Length of renewed water mains	4.1	18b	04	km	2
Water mains activity - Length of relined water mains	4.1	18c	05	km	2
Completion of nominated trunk main schemes	4.1	19	06	nr	0
Completion of nominated water treatment works schemes	4.1	20	07	nr	0
Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks	4.1	21	08	nr	0
Sewerage activity - Length of new sewers	4.2	7a	09	km	2
Sewerage activity - Length of sewers renovated	4.2	7b	10	km	2
Sewerage activity - Length of sewers replaced	4.2	7c	11	km	2
Delivery of improvements to nominated UIDs as part of a defined programme of work	4.2	8	12	nr	0
Delivery of improvements to nominated WwTWs as part of a defined programme of work	4.2	9	13	nr	0
Number of small wastewater treatment works delivered as part of the rural wastewater investment programme	4.2	10	14	nr	0
Number of Catchment Management Plans	4.1	24	15	nr	0
Number of catchments where management plan recommendations have been delivered	4.1	24a	16	nr	0
Number of lead communication pipes replaced under the proactive lead replacement programme	4.1	25	17	nr	0
Number of school visits	4.1	26	18	nr	0

PC21 Output Description	Table	Line	PC21 Output Ref Code	Unit	DP
Number of other education events	4.1	27	19	nr	0
% Service Reservoirs where sample taps have been assessed and are to required standard	4.1	28	20	%	1
Number of treatability studies completed	4.1	28a	21	nr	0
CSO and EO discharges at which event and duration monitoring equipment has been installed	4.2	13	22	nr	0
WwTWs upgraded to comply with PPC Regulations	4.2	14	23	nr	0
Impermeable surface water collection area removed from the combined sewerage network	4.2	15	24	m ²	0
Number of sustainable WwTW solutions delivered (p.e. ≥ 250)	4.2	16	25	nr	0
Number of sustainable WwTW solutions delivered (p.e. < 250)	4.2	17	26	nr	0

4.3.24. The blank table issued with these information requirements has 10 data rows. NI Water should insert sufficient additional rows to ensure that all outputs associated with capital investment projects or programmes of work are captured.

4.3.25. When summed, the individual entries for each type of output in Table 4.4 should equal the associated entries in Tables 4.1 and 4.2. Summary programme lines should be used where appropriate to ensure that this is the case.

4.3.26. For nominated output lines, the number “1” should be entered in the column relating to the year that ‘beneficial use’ was, or is to be, achieved.

4.3.27. Nominated outputs should include any work delivered as a consequence of Quality Regulator requirements, irrespective of whether the associated investment is categorised as ‘Quality’ or ‘Capital Maintenance’. The company should explain the rationale for any ‘Capital Maintenance’ inclusions.

Table 4.5 - Serviceability

4.3.28. Table 4.5 records the data that will be used to assess whether asset serviceability is improving, stable, marginal or deteriorating. It also records the company’s own assessment of historic and projected serviceability.

4.3.29. This table comprises of four blocks of information.

Table 6 - Information Blocks in Output Submission Table 4.5

Block	Title
A	Water Infrastructure
B	Water Non-infrastructure
C	Sewerage Infrastructure
D	Sewerage Non-infrastructure

4.3.30. The basket of indicators included in each block will together inform the assessment of serviceability to customers for the service area as a whole.

4.3.31. The Utility Regulator issued information requirements for the completion of an initial serviceability assessment to the company on 4th May 2013. This has subsequently been updated and incorporated into the annual information return reporting requirements. The guidance issued previously for these purposes provides details on the information to be submitted in each Block of the table and should be referred to by the company when completing its submission. The line definitions are restated in Annex 4A of the PC21 information requirements for ease of reference.

Serviceability indicator data requirements

4.3.32. The company should enter historic data in the table as far back as practically possible for the period commencing 2003-04. Cells have been shaded to reflect the history submitted in the annual information returns. However if the company believes historic information is available for these years it may enter it in the shaded cells in the table.

4.3.33. It is recognised that the quality and availability of historic data may vary for each indicator. The company should therefore explain any limitations in quality or availability in its submission. This should include an explanation of any changes in the methodology used to capture or report data and where possible an assessment of the impact that such changes may have had on the reported figures and the data trends.

4.3.34. We expect the company to submit the best historic data available. If better information exists than was previously provided by the company in other submissions, for example the annual information return or its initial serviceability assessment, the improved information should be entered in the table. Where data is not consistent with that previously submitted, the company should clearly identify and explain the reasons for any differences.

4.3.35. The submission should also identify performance in any year which the company considers to be atypical. The company should explain the cause of atypical performance and the basis of its assessment, quantifying the impact on performance as far as possible. The supporting information submitted by the company should include an estimate of performance which excludes the impact of any extreme or atypical events and explain how the company has arrived at the revised assessment. If the company is unable to provide such an estimate it should explain why.

4.3.36. The data entered for 2019-20 should reflect the company's best estimate of outturn performance for the year. This provisional information will be used to inform the Utility Regulator's draft determination. Updated serviceability information from AIR20 will subsequently be used to inform the final determination.

4.3.37. The company is not required to submit projections for individual serviceability indicators beyond 2019-20 as this is likely to mainly result in a restatement of target projections and is unlikely to provide a meaningful prediction of serviceability trends.

Company's overall serviceability assessments

4.3.38. The company should undertake and submit an overall assessment of the serviceability for each service area in Table 4.5. Overall performance should be categorised as 'improving', 'stable', 'marginal' or 'deteriorating'. In addition to the current assessment, the company should provide a projection of overall serviceability in each service area for PC21.

4.3.39. The company will be expected to propose reference and control limits for the PC21 period and to explain how they have been determined through reference to historic performance and the company's investment proposals.

4.3.40. We would expect the PC21 projections for each service area to be 'stable' or 'improving' in line with the requirements of the Social and Environmental Guidance. If this is not the case the company should clearly explain how it has come to a 'marginal' or 'deteriorating' assessment.

4.3.41. The supporting information provided with the serviceability submission should explain the basis of the company's overall assessments, including the projections for PC21.

4.3.42. This should include how historic trends in performance for individual indicators have been assessed, how individual assessments have been combined to come to the overall assessment for each service area, how the company's PC21 investment proposals for maintaining its asset base and the associated service provided to consumers has been accounted for and any other assumptions made in the process. An explanation of the approach adopted for establishing reference levels of service and control boundaries for assessing performance should also be provided where appropriate.

4.4. Supporting Information

4.4.1. The company shall provide all information necessary to explain its assessment of the proposed outputs and the links between the proposed outputs and the capital investment programme in its submission. The company should demonstrate:

- that the investment proposed represents the least cost balance of capital and operational expenditure required to deliver the proposed outputs;

- that outputs are consistent with the Social and Environmental guidance issued by the Minister for Regional Development and the Long Term Water Strategy;
- that outputs are consistent with requirements of the quality regulators and other long term planning assessments; and,
- how consumer preferences, expressed through the PC21 consumer engagement process and previous surveys or other engagement have been addressed.

4.4.2. The supporting information provided by the company should include:

- all the base data, assumptions and calculations that are necessary for the derivation of the data entries to be clearly understood;
- reference to any historic activity rates, expenditure and outputs used to support the derivation of future outputs; and,
- reference to any comparative industry data used to support the derivation of future outputs.

4.4.3. The company should provide a copy of the output from the consumer research carried out for PC21, including survey data and reports. The company should set out how it has used consumer preferences, expressed through PC21 consumer engagement, previous consumer surveys as well as any other actionable consumer feedback data it has collated since PC15, to define the outputs it plans to deliver in PC21. The company should outline and schedule any further consumer engagement which it intends to carry out to inform the development and delivery of its plan and this work should be identified as outputs.

4.4.4. The company should clearly demonstrate the link between the outputs in its Business Plan and the PC21 Investment Priorities included in the Social and Environmental Guidance. This should allow the Utility Regulator to cross reference the PC21 outputs and individual priorities.

4.4.5. The company should provide a report which summarises delivery against the development outputs set out in Table 3.5 of the PC15 final determination. The exact format is a decision for the company, but it should:

- provide sufficient detail to clearly explain the work undertaken to date, the outcomes of that work and the plans for further delivery;
- include quantitative assessments, delivery programmes and planned delivery dates where appropriate; and,
- clearly explain any variance to original plans for delivery, including the reason and any associated impact for the company.

4.4.6. The company should also provide a report which sets out the development objectives it plans to deliver in PC21. This should include the preparatory work, strategic studies and pilot trials necessary to:

- confirm investment proposals for the later stages of the price control period;
- improve planning capability and service delivery in the medium to long term; and,
- support the development of sustainable solutions in the medium to long term.

4.4.7. The company should set out its plans for continuing consumer engagement in PC21 to inform service improvements. These plans should build on its on-going consumer engagement activities, the consumer engagement undertaken for the PC21 Business Plan and the analysis of actionable data from consumer contact, works management and other sources. This submission should provide the foundation of a consumer engagement Development Objective.

4.4.8. The PC21 development output submission should clearly set out the investment requirements and the programme for delivery, including key milestones and delivery targets. The company should give equal weight to the development of these targets as it does to identifying targets for the activity, nominated and service level outputs for PC21.

4.4.9. The format of the supporting information submission is a matter for the company to decide. The format used should be proportionate to the need to set out the company's assessment of the proposed output and how it links to the capital and operational activities and expenditure proposed.

4.4.10. It is anticipated that the supporting information will consist of calculations and explanatory text. NI Water is asked to submit calculations in the form of spreadsheets, so that the submission can be more easily analysed. Where the calculations include a statement of the base data, the assumptions made, and clearly demonstrate the calculations made, it is not necessary to repeat this information in the supporting text. Supporting information can also be submitted in database format if this is appropriate.

4.4.11. Where possible, NI Water should provide the supporting information as part of its business case submissions, with appropriate cross-reference to the individual project or sub-programme outputs reported in Table 4.4.

4.5. Output Table Definitions

4.5.1. Individual line entry definitions are set out in Annex 4A of Chapter 4.

4.5.2. The output information requirements for PC21 are based on other established reporting requirements such as the Annual Information Return and the guidance previously issued for NI Water's serviceability assessments. Where appropriate, the more detailed definitions and reporting requirements contained in these documents apply.

4.5.3. Data is to be reported using the same detailed methodologies established for PC15, where appropriate. Where this is not the case the reason for any change in methodology should be provided. In addition, the process for back-casting data to ensure that historic performance has been reported on a consistent basis with any revised methodology should be explained.

4.6. Output Monitoring during PC21

4.6.1. Table 4.1 and 4.2 will form the basis of the PC21 Monitoring Plan. The column titled “PC21 MP Target” in Tables 4.1 and 4.2 indicates the targets that will be carried forward into the public facing monitoring plan.

4.6.2. Table 4.4 and the supporting information submitted in the Business Cases will form the basis of monitoring and managing change control in PC21.