Water & Sewerage Services Price Control 2021-27

Draft Determination – Annex H

PC15 Out-turn Report

September 2020

Contents

Executive Summary

This annex sets out the Utility Regulator's (UR) assessment of capital expenditure in the PC15 price control period (2015-16 to 2020-21). It describes the action we have taken to protect both consumers and NI Water in respect of changes in capital investment and delivery of outputs relative to our final determination for PC15.

We assess the outcome of the price control in terms of the outputs delivered for consumers rather than the amount of money spent. Expenditure in PC15 was lower than expected in real terms due to constrained public expenditure budgets. In principle, we would expect a reduction in real expenditure to result in an equivalent reduction in the value of the outputs delivered. However, the company may still out-perform and deliver more outputs than expected, or under-perform and deliver fewer outputs than expected. To ensure that any adjustment made to the Regulatory Capital Value (RCV) properly reflects the delivery of outputs, we have assessed the change in outputs delivered over the PC15 period, a process commonly known as logging up and logging down.

Where the delivery of additional outputs has been supported by additional contributions from consumers or external grants the additional income has been logged down.

The outcome of our analysis is summarised below.

	£m
Logging up	94.8
Logging down	-138.2
Additional grants and contributions	-38.4
Net position over PC15	-81.8

We will review our assessment for the final determination taking account of changes in inflation and the latest actual and estimated expenditure for PC15.

1. Introduction

1.1 This annex sets out the Utility Regulator's (UR) assessment of capital expenditure in the six year PC15 price control period (2015-16 to 2020-21). It describes the action we have taken to protect both consumers and NI Water in respect of changes in capital investment and delivery of outputs relative to our final determination for PC15.

1.2 Our assessment is based on the capital expenditure and outputs reported in the company's Business Plan submission for PC21. The Business Plan was submitted in January 2020 and includes estimates for the completion of 2019-20 and for 2020-21. We expect the company to update these estimates as part of its response to the consultation to this draft determination. We will update the final determination to take account of this updated information.

1.3 Our assessment of capital investment in PC15 takes account of three key issues:

- Any difference in capital cost inflation relative to the assumptions which were applied in the PC15 final determination;
- Any change in budget relative to the allowances in the PC15 final determination; and
- Any change to the outputs which will be delivered in the PC15 period relative to those included in the PC15 final determination.

1.4 We have made two adjustments to the Regulatory Capital Value (RCV) at the start of PC15 to reflect these changes:

- We updated the RCV to reflect actual inflation relative to the inflation assumptions made in the PC15 final determination. This work is described in Annex A; and
- The value of additional outputs delivered by the company has been added to the RCV and the value of outputs the company has not delivered has been deducted from the RCV – a process commonly known as logging up and logging down. The net change in the RCV at the start of PC15 due to logging up and logging down is a reduction of £77.8m in 2012-13 prices. The build-up of this figure is summarised in Table 1.1 and more detailed information on the allocation of variance by Capex sub-programme is given in Table 5.1.

1.5 The figures in this report are expressed in 2012-13 prices unless stated otherwise. This is consistent with the 2012-13 price base used for the PC15

final determination. The Retail Price Index (RPI) has been used to adjust for inflation.

1.6 We have summarised our analysis under 24 sub-programmes. These sub-programmes group together similar types of work taking account of the type of asset, the purpose of the investment and the procurement route. They are a practical grouping used to facilitate understanding of a substantial and wide ranging investment programme.

1.7 The following sections provide more detailed information on our assessment of logging up and logging down for PC15:

Section 2 Adjusting for inflation;

Section 3 Capital expenditure variance over PC15;

Section 4 Our approach to logging up and logging down;

Section 5 Logging up and logging down by sub-programme

Section 6 Additional grants and contributions; and

Section 7 Adjustment for return on capital.

1.8 A summary of the analysis is provided in Table 1.1 below.

	£m
Logging up	94.8
Logging down	-138.2
Additional grants and contributions logged down	-38.4
Net position over PC15	-81.8

Table 1.1 - PC15 Logging up and logging down (2012-13 prices)

2. Adjusting for Inflation

2.1 This section describes how PC15 out-turn has been adjusted for the impact of inflation.

2.2 When assessing logging up and logging down it is necessary to compare and report figures in a common price base. We have used a common price base of 2012/13 consistent with the base year for the PC15 final determination.

2.3 In the PC15 final determination we noted that we would monitor compliance with the final determination using RPI. The RPI indices used in this assessment of PC15 out-turn are shown in Table 2.1.

	Base	PC15 Period					
Year	2012/13	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Index	244.675	259.433	264.992	274.908	283.308	291.655	299.895
Multiplier	1.0000	0.9431	0.9233	0.8900	0.8636	0.8389	0.8159

Table 2.1 – RPI indices

2.4 For the draft determination we have applied the inflation indices used by NI Water in its Business Plan submission which includes forecasts for 2019-20 and 2020-21. Since the Business Plan submission the impact of COVID19 has reduced inflation. We will take account of the latest updates and forecasts of inflation for the final determination.

3. Capital Expenditure Variance over PC15

3.1 This section summarises the change in capital expenditure from the PC15 final determination in nominal and real terms. It shows the impact of changes in public expenditure budget and inflation.

3.2 The funding available to NI Water is constrained by public expenditure budgets which are set in nominal terms. Because the budget is constrained in nominal terms, NI Water might find it necessary to adjust the outputs delivered to reflect inflationary pressures. We assess NI Water's performance in real terms using a constant price base to ensure that the impact of inflation on the delivery of outputs is taken account of. If capital inflation moves in favour of the company we expect the company to deliver additional outputs. If capital inflation increases by more than assumed in the determination, the company may have to reduce the outputs delivered.

3.3 The variance in capital expenditure from the PC15 final determination is summarised in Table 3.1.

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	PC15 Total
PC15 final determination (real)	143.8	142.5	141.1	140.1	138.6	139.0	845.1
PC15 final determination (nominal)	156.8	160.7	164.5	168.9	172.7	179.2	1002.8
PC15 out-turn (real)	135.5	142.5	135.8	147.6	145.1	128.3	834.8
PC15 out-turn (nominal)	143.7	154.3	152.6	170.9	172.9	157.2	951.7
PC15 variance (real)	-8.3	0.0	-5.3	7.5	6.5	-10.8	-10.3
PC15 variance (nominal)	-13.1	-6.3	-11.9	2.0	0.2	-22.0	-51.1

Note 1. Figures may not sum due to rounding.
Note 2. Real in 2012-13 prices consistent with the base year for the PC15 final determination.

Table 3.1 – Capital expenditure variance in PC13

3.4 The company's latest best estimate is that it will spend £51.1m less than budget in nominal terms. This equates to an under-spend in real terms of £10.3m, a reduction of 1.2% in real terms. The reductions in public expenditure nominal budgets in PC15 have been largely off-set by lower than expected inflation.

4. Our Approach to Logging Up and Logging Down

Logging up and logging down investment

4.1 This section describes our approach to logging up and logging down capital investment taking account of the outputs delivered.

4.2 We assess the outcome of the price control in terms of the outputs delivered for consumers rather than the amount of money spent. In principle, we would expect a reduction in real expenditure to result in an equivalent reduction in the value of the outputs delivered. However, the company may still out-perform and deliver more outputs than expected, or under-perform and deliver fewer outputs than expected. To ensure that any adjustment made to the RCV properly reflects the delivery of outputs, we have assessed the change in outputs delivered over the PC15 period, a process commonly known as logging up and logging down.

4.3 The process of logging up and logging down investment reflects the value of the outputs delivered:

- Where an additional output is delivered, the post efficiency cost of delivery is 'logged up' by adding the value of the output to the RCV; and
- Where an agreed output is not delivered, the value of the output is 'logged down' by deducting the value of the output from the RCV.

4.4 We have assessed logging up and logging down at a capital sub-programme level in the first instance. Where more analysis of expenditure and outputs adds value, we have undertaken a detailed assessment of change to individual outputs, or groups of outputs, within a sub-programme.

4.5 Logging up and logging down is not intended to benefit the company by correcting errors or omissions in the company's business plan. Nor is it intended to adjust the RCV for differences between the final determination and the cost of delivery. Therefore, when explaining the change in a sub-programme of work, it is necessary to separate the impact of changes in outputs from other changes in the programme. To achieve this we have explained the variance in each capital sub-programme in four categories:

- Change in base maintenance expenditure or allocation;
- Logging up of an additional output;

- Logging down of an output deferred; and
- Performance of NI Water where the same output has been delivered for less (out-performance) or more (under-performance).

4.6 We have not accounted for any change in the level of expenditure carried over from the last year of the PC13 period (2014-15). When we assessed the opening RCV for PC15 we adjusted for PC13 delivery based on forecasts of costs and outputs delivered in the final year of PC13 and expenditure required to start work on outputs which would be delivered in PC15. Our assessment for PC15 takes account of the delivery of outputs scheduled for the final year of PC13. By doing so we do not need to adjust further the transition between Price Controls as under-delivery in PC13 would be reflected in a further performance challenge in PC15 and better than expected performance in the final 6 months of PC13 would be reflected in as improved financial performance in PC15.

4.7 To maintain a clear reconciliation of changes to the programme it is necessary to adopt a consistent approach for stating adjustments as either positive or negative. In our analysis, increased expenditure is classed as positive and reduced expenditure is classed as negative. The application of this approach to each category of change considered is set out in Table 4.1.

Category	Positive adjustment	Negative adjustment
Base maintenance	Over-spend in PC15	Under-spend in PC15
Logging up and logging down	Value of additional output logged up	Value of additional output logged down
Performance	Higher than planned spend in PC15 to deliver the same output	Lower than planned spend in PC15 to deliver the same output

Table 4.1 – Consistent allocation of adjustments

4.8 We have assessed the variance in base maintenance expenditure as a single category and not undertaken a detailed assessment by capital sub-programme. While we monitor changes in base maintenance to inform future price controls, we have concluded that it would not be proportionate to challenge these changes unless there is a compelling reason to do so. Consistent with our approach in the PC15 final determination, we have concluded that it would not be appropriate to adjust the RCV to reflect changes in base maintenance investment. If the company did not continue to invest at planned levels or serviceability had not been maintained, we would then seek further information on the application of base maintenance investment.

4.9 Having considered base maintenance as a single item, the detailed assessment of logging up and logging down considers investment to enhance the assets.

4.10 We have assessed variance against a post efficiency capital investment baseline for PC15 prepared by NI Water which incorporates the efficiency assumptions of the PC15 final determination.

4.11 We asked NI Water to provide a detailed report on PC15 out-turn in its business plan submission. We have taken account of the company's treatment of logging up and logging down in our assessment. The company's assessment was based on best information available to it at the end of September 2019. Our assessment is based on the Business Plan submission submitted in January 2020. While this creates some differences in both forecast expenditure and content, it has resulted in a slightly improved position from the company's submission. As noted above, we will update the assessment for the final determination based on an update submission from the company.

Treatment of additional grants and contributions

4.12 NI Water has received additional capital grants and contributions (income) in respect of some additional outputs delivered. In particular:

- The company receives additional income in respect of new connections including: infrastructure charges; payments for making connections; payments for local extensions of water mains and sewers requisitioned by developers; and, payments for sewer adoption activities.
- External grants through the EU INTERREG Programme to support work on environmental solutions in cross border catchments.

4.13 The additional cost of the associated work forms part of the overall capital expenditure and is logged up as additional outputs. The additional grants and contributions associated with this work has been logged down to offset these costs. Information on the treatment of additional grants and contributions is described in Section 6 below.

Treatment of return on capital

4.14 Our determination for PC15 allowed the company to recover a return on capital on planned investment. To account for this, we have made a further adjustment to the RCV to reflect the return on capital funded in the PC15 period for the value of logging up and logging down. Our approach to this is described in Section 7 of this document.

4.15 All the outputs included in the PC15 final determination were intended to be complete in the PC15 period. Where the company has now identified costs in the PC21 period to complete PC15 output we have logged down the costs in the PC21 period and then allowed the planned cost for completing the investment in the PC15 final determination. This ensures that consumers only pay once for the planned cost of the output while ensuring that the PC21 investment plan properly reflects the cost envisaged to complete the work.

5. Logging Up and Logging Down by Sub-programme

Introduction

5.1 This section provides summary information on our assessment of logging up and logging down by sub-programme.

5.2 We have summarised our analysis of investment in PC15 by 24 capital sub programmes. These sub programmes group together similar types of work taking account of the type of asset, the purpose of the investment and the procurement route. They are a practical grouping used to facilitate understanding of a substantial and wide ranging investment programme.

5.3 Our assessment of variance by individual sub-programme is reported in 2012-13 prices consistent with the base year for the PC15 final determination. Base maintenance is treated as a single block of expenditure. The assessment of the individual sub-programmes reflects the enhancement element of investment only.

Base maintenance investment

5.4 Base maintenance investment is the capital investment necessary to maintain the existing assets and the service they deliver. The key outcome of base maintenance investment in any price control is to maintain serviceability and the company must decide how to prioritise investment to best achieve this.

5.5 In view of this, when we assess the outcome of a price control we generally consider base maintenance investment as a block. We would only consider a more granular assessment if there was a significant variance in expenditure or serviceability had not been maintained.

5.6 The variance in base maintenance investment is shown below. The company projects an over spend of 3% against the original base maintenance budget.

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Base
Base maintenance	464.4	479.4	15.0	0.0	0.0	15.0

5.7 Expenditure is broadly in line with expectations and serviceability has been maintained. In view of this we have decided not to log up the variance. This

is consistent with our approach for PC13. It ensures that our decision is not based on short term considerations such as the need for the company to spend within its nominal budget in the final year of a price control. The company continues to have the ability to balance capital maintenance and enhancement investment in subsequent years to achieve the best overall outcome for consumers.

Capital enhancement investment by sub-programme

Sub-programme 00 – Capitalised salaries and on-costs

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Capitalised salaries and on-costs	30.0	31.0	0.9	0.0	0.0	0.9

5.8 Capitalised salaries and on-costs are the internal company staff and resources applied to the delivery of the capital programme. An overspend in PC15 has been allocated to other.

Sub-programme 01 – Base maintenance (water)

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Base maintenance (water)	3.5	11.0	7.4	7.3	-3.0	3.1

5.9 We have logged up additional investment on enhancement schemes reported under base maintenance (water) where a specific additional output was identified by the company as follows:

- Investment in solar generation at Dunore WTW. General renewable energy allowances in PC15 which have been substituted by this investment have been logged down.
- Service reservoir access works undertaken in response to issues identified during major incidents.

Sub-programme 02 – Base maintenance (sewerage)

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Base maintenance (sewerage)	3.2	7.3	4.1	5.3	-2.0	0.8

5.10 We have logged up additional investment on enhancement schemes reported under base maintenance (sewerage) where a specific additional output was identified by the company as follows:

- Investment in improvements to sewage pumping stations which where which were carried out when delays occurred to the delivery of the nominated Unsatisfactory Intermittent Discharge (UID) programme.
- Additional sampling works undertaken to assess the future compliance of treatment works against the mature compliance model which is currently being developed by NIEA.

5.11 General renewable energy allowances in PC15 have been logged down with the investment applied in specific projects such as the Dunore solar plant identified against Sub-programme 01 above.

Sub-programme 03 – Water resources

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Water resources	3.3	1.9	-1.5	0.6	-1.8	-0.2

5.12 Investment to improve the resilience of supplies in the Western Water Resource Zone and investment necessary in response drought measures in high temperatures have been logged up.

5.13 An underspend on the Sustainable Catchment Management (SCAMP) programme and abstraction monitoring has been logged down.

Sub-programme 04 – Water treatment works

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Water treatment works	11.1	12.5	1.5	3.8	-2.0	-0.3

5.14 The PC15 programme included funding for a major upgrade of Caugh Hill WTW. However, the final determination recognised that the recent installation of auto-coagulation equipment had already improved the performance of the works and there was a need for further investigation to understand whether further improvements were necessary. The company has deferred any major upgrade to PC21 and has submitted details of further improvement to DWI for its consideration (through the DWI 'Annex A' process). We have logged down the allowance included in the PC15 final determination and logged up necessary enhancement works carried out at the works in the interim.

5.15 Enhancement works not envisaged in the PC15 Business Plan but subsequently identified through treatability studies were delivered in PC15, absorbing some of the underspend at Caugh Hill. This investment has been logged up and includes works at Rathlin Island, Dorisland, Derg and Killyhevlin WTWs.

5.16 Investment at Balinress and Derg WTWs to address MCPA has been delayed as the company undertook a range of studies to optimise the solution. This work is on-going and is the subject of Provisional Enforcement Orders and undertakings with DWI. The resulting underspend has been logged down.

Sub-programme 05 – Trunk mains

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Trunk mains	5.2	8.6	3.4	0.1	-0.1	3.4

5.17 The PC15 Business Plan included investment in a trunk main to improve supplies from Carmoney to Strabane to improve supply resilience in the west. This was delayed while further work was done to establish abstraction licence conditions at Carmoney and the development of wider works to secure supply resilience in the north and the west. This scheme was removed from the baseline programme and works deferred to PC21 and initial works on the northern resilience scheme introduced into the baseline budget.

5.18 A feasibility study on the distribution of supplies from Castor Bay in preparation for PC21 has been logged up and the balance of an underspend on the residual allowance for the Carmoney to Strabane scheme was logged down.

Sub-programme 06 – Service reservoirs

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Service reservoirs	14.7	22.5	7.8	0.3	-0.5	8.0

5.19 Minor investment on additional projects has been logged up as follows:

- Rationalisation of service reservoirs on Rathlin Island.
- Completion of works on service reservoir by-passes to improve supply resilience following major incidents.

5.20 The completion of the Drumaroad SR now planned for PC21 has been logged down to allow the completion of the investment to be included in the PC21 plan without consumers paying twice.

5.21 The sum allocated to other includes overspend on the major clear water tanks at three water treatment works and the completion of Crieve SR which carried over from PC13.

Sub-programme 07 – Service reservoir refurbishment

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Service reservoir refurbishment	1.9	3.5	1.5	0.5	0.0	1.0

5.22 Work on service reservoir supply taps has been logged up as enhancement.

Sub-programme 08 – Water mains rehabilitation

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Water mains rehabilitation	70.0	39.5	-30.5	0.0	-12.5	-18.0

5.23 The company has broadly delivered against the activity output of length of mains delivered in PC15. It has done so a lower overall unit rate (delivering improved efficiency) but with a higher proportion of expenditure to base maintenance. Both effects have reduced the money spent on enhancement. Our assessment credits the proportion of underspend due to the reduced unit cost to performance (improved efficiency) with the lower unit costs

captured in the PC21 determination. The balance of the underspend on enhancement has been logged down.

Sub-programme 09 – Leakage

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Leakage	3.3	2.0	-1.3	0.0	-1.3	0.0

5.24 The company underspent the enhancement budget for leakage in PC15. At the same time it did not deliver the leakage target agreed for PC15. As a result we have logged down the under-spend.

Sub-programme 10 – Ops capital (water)

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Ops capital (water)	18.0	21.6	3.7	3.7	0.0	0.0

5.25 As well as minor base maintenance works, this sub-programme includes enhancement investment associated with new development. The increase in investment reflects increase in connection activities over that envisaged in the final determination for PC15. The additional investment has been logged up. These additional costs are off-set by an increased level of contributions from consumers which are identified in Section 6 below which have been logged down.

Sub-programme 12 – Sewerage

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Sewerage	46.5	60.8	14.3	30.8	-29.3	12.8

5.26 This sub-programme covers a range of activities related to the sewerage network including general maintenance of the sewerage system, upgrading unsatisfactory intermittent discharges and addressing the risk of property flooding. The latter activities contribute to enhancement investment.

5.27 The PC15 final determination included investment to deliver a defined programme of improvements to UID's. This programme of work has been subject to delay and the company has identified investment of £4.9m on

PC15 projects begun in PC15 which will carry over to PC21. This carry over expenditure has been logged down with the funding necessary to deliver the outputs reinstated in the PC21 period. One other major UID project and flood alleviation scheme was delayed and did not start in PC15 and the baseline investment has been logged down.

5.28 The investment released by the delay of some UID schemes allowed a range of other schemes to be undertaken including substitute UID schemes and enhancement to pumping station overflows carried out in conjunction with maintenance schemes. This investment has been logged up.

5.29 A parent line for flooding schemes has been logged down with the investment on individual schemes logged up.

5.30 Much of the residual investment allocated to performance (overspend) is the result of significant over-spends on major UID projects. This and the deferral of UID expenditure into PC21 suggests that the projects which NI Water included in its Business Plan were not sufficiently well developed to allow costs to be estimated with reasonable accuracy and to provide confidence that the planned project can be delivered within a 6 year price control period.

Sub-programme 15 – WwTW carry over projects

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
WwTW carry over projects	0.0	0.4	0.4	0.0	0.0	0.4

5.31 No work was planned in PC15 for this sub-programme. The expenditure identified relates to projects intended to be complete in PC13 which has carried over to PC15. The expenditure has been allocated to performance.

Sub-programme 16 – WwTW new starts

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
WwTW new starts	51.9	55.0	3.1	15.8	-16.4	3.7

5.32 This sub-programme covers the delivery of a defined programme of upgrades to wastewater treatment works to meet new consent standards or cater for historic and future growth.

5.33 The company has identified investment of £4.4m on two PC15 projects

begun in PC15 which will carry over to PC21. This carry over expenditure has been logged down with the funding necessary to deliver the outputs reinstated in the PC21 period.

5.34 Work on two PC15 project which are not expected to start until PC21 have also been logged down. This includes work on Dungannon WwTW where the company has yet to complete the investigations necessary to identify the optimal solution.

Sub-programme 17 – Small WwTW programme

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Small WwTW programme	6.7	6.8	0.1	0.0	0.0	0.1

5.35 The company estimates that it will deliver all targeted upgrades of small wastewater treatment works in PC15. We have allocated the small variance to performance to reflect the expected increase expenditure against baseline.

Sub-programme 18 – Ops capital (sewerage)

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Ops capital (sewerage)	3.9	7.7	3.8	3.8	0.0	0.0

5.36 As well as minor base maintenance works, this sub-programme includes enhancement investment associated with new development. The increase in investment reflects increase in development activities over that envisaged in the final determination for PC15. The additional investment has been logged up. These additional costs are off-set by an increased level of contributions from consumers which are identified in Section 6 below and are logged down.

Sub-programme 19 – Metering

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Metering	2.6	0.2	-2.4	0.0	-2.4	0.0

5.37 The company has not delivered the level of meter replacement planned for PC15. The reduction in investment has been logged down.

Sub-programme 20 – Management & general

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Management & general	23.4	13.7	-9.7	0.0	-9.7	0.0

5.38 The company has broadly maintained its services and continued to invest to enhance its management and general capability within the available budget. We have not investigated the programme in detail and have taken the pragmatic approach of logging down the variance. This reflects the response taken by the company in its own analysis.

Sub-programme 23 – New and renew water mains

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
New and renew water mains	11.2	10.3	-1.0	0.0	-1.1	0.2

5.39 We have allocated an increase in expenditure on lead pipe replacement to performance. The majority of the remaining expenditure relates to water mains extensions and diversions related to developments including road works. The company has logged down the balance of this investment which reflected a lower than expected level of activity.

Sub-programme 24 – New and renew sewerage

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
New and renew sewerage	14.2	21.5	7.3	7.3	0.0	0.0

5.40 The investment included in this sub-programme includes sewer extensions related to development and first time provision of sewerage. The increase in investment reflects increase in connection and requisition activities over that envisaged in the final determination for PC15. The additional investment has been logged up. These additional costs are off-set by an increased level of contributions from consumers which are identified in Section 6 below and are logged down.

Sub-programme 96 – INTERREG funded projects

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Additional outputs	0.0	15.6	15.6	15.6	0.0	0.0

5.41 During PC15 NI Water carried out work on environmental solutions in cross border catchments which was supported by grants from the EU INTERREG Programme. This was additional work and the expenditure has been logged up in full. The additional expenditure was off-set grants from the EU INTERREG fund and these have been logged down as described in Section 6 below.

Sub-programme 97 – IFRS adjustment

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
IFRS adjustment	0.0	0.0	0.0	0.0	0.0	0.0

5.42 During PC15 the company began accounting for expenditure in IFRS terms, moving from UKGAAP which was used for regulatory reporting in the past. This had an impact on the way base maintenance expenditure is reported but has no impact on the reporting of enhancement expenditure.

Sub-programme 98 – Additional outputs

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Additional outputs	56.1	0.0	-56.1	0.0	-56.1	0.0

5.43 In the final determination for PC15 we concluded that the outputs included in the company's business plan could be delivered for less than the company had estimated. As a result we concluded that additional outputs could be delivered within the capital budget which DfI had identified for planning purposes. During PC15 changes to the planned outputs and other changes has increased this Additional outputs fund for £56.1m. Additional outputs delivered have been included in the detailed sub-programmes and analysis above. As a result the Additional outputs fund has been logged down in full.

Sub-programme 99 – Management adjustment

	PC15 variance (£m)			Variance allocation (£m)		
	PC15 FD	CAP	Var	Logged up	Logged down	Other
Management adjustment	0.0	2.2	2.2	0.0	0.0	2.2

5.44 The company's detailed assessment of PC15 investment included in the Business Plan submission had a balancing line described as "management adjustment". This reflects the company's view of costs which are likely to be incurred but are not yet included in the detailed project cost lines. As this expenditure is not expected to deliver any additional output it has been allocated to performance.

Logging up and logging down summary

	Variance in enhancement expenditure (£m)			Out-turn variance allocation (£m)			
	PC15 FD	CAP	Var	Logged up	Logged down	Base allocation	Other
Base maintenance (total)	464.4	479.4	15.0	0.0	0.0	15.0	0.0
00 – Capitalised salaries and on-costs	30.0	31.0	0.9	0.0	0.0	0.0	0.9
01 – Base maintenance (water)	3.5	11.0	7.4	7.3	-3.0	0.0	3.1
02 – Base maintenance (sewerage)	3.2	7.3	4.1	5.3	-2.0	0.0	0.8
03 – Water resources	3.3	1.9	-1.5	0.6	-1.8	0.0	-0.2
04 – Water treatment works	11.1	12.5	1.5	3.8	-2.0	0.0	-0.3
05 – Trunk mains	5.2	8.6	3.4	0.1	-0.1	0.0	3.4
06 – Service reservoirs	14.7	22.5	7.8	0.3	-0.5	0.0	8.0
07 – Service reservoir rehabilitation	1.9	3.5	1.5	0.5	0.0	0.0	1.0
08 – Water mains rehabilitation	70.0	39.5	-30.5	0.0	-12.5	0.0	-18.0
09 – Leakage	3.3	2.0	-1.3	0.0	-1.3	0.0	0.0
10 – Ops capital (water)	18.0	21.6	3.7	3.7	0.0	0.0	0.0
12 – Sewerage	46.5	60.8	14.3	30.8	-29.3	0.0	12.8
15 – WwTW carry over projects	0.0	0.4	0.4	0.0	0.0	0.0	0.4
16 – WwTW new starts	51.9	55.0	3.1	15.8	-16.4	0.0	3.7
17 – Small WwTW	6.7	6.8	0.1	0.0	0.0	0.0	0.1

	Variance in enhancement expenditure (£m)			Out-turn variance allocation (£m)			
	PC15 FD	CAP	Var	Logged up	Logged down	Base allocation	Other
18 – Ops capital (sewerage)	3.9	7.7	3.8	3.8	0.0	0.0	0.0
19 – Metering	2.6	0.2	-2.4	0.0	-2.4	0.0	0.0
20 – Management & general	23.4	13.7	-9.7	0.0	-9.7	0.0	0.0
23 - New and renew water mains	11.2	10.3	-1.0	0.0	-1.1	0.0	0.2
24 - New and renew sewerage	14.2	21.5	7.3	7.3	0.0	0.0	0.0
96 – Interreg funded projects	0.0	15.6	15.6	15.6	0.0	0.0	0.0
97 – IFRS adjustment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98 – PC15 Additional outputs fund	56.1	0.0	-56.1	0.0	-56.1	0.0	0.0
99 – Management adjustment	0.0	2.2	2.2	0.0	0.0	0.0	2.2
Totals	845.1	834.8	-10.3	94.8	-138.2	15.0	18.2

Table 5.1: PC15 Out-turn allocation (£m 2012-13 prices)

6. Treatment of Additional Grants and Contributions

6.1 In the assessment of logging up and logging down set out in Section 5 we highlighted additional activities and outputs delivered in PC15 which were off-set by additional grants and contributions from consumers and external sources. Because the cost of these additional activities have been logged up the additional income received must be logged down. Our treatment of additional income is described in Table 6.1 below.

Source of additional grants and contributions	Logged down £m
Additional maintenance grants and contributions (£0.7m) Additional expenditure on base maintenance has not been logged up. Maintenance grants and contributions have not been logged down.	0.0
Additional infrastructure charge receipts (£6.8m) Infrastructure charges are a contribution to the general improvements to network capacity and are not related to additional costs logged up. As a result, the additional contributions have been logged down.	6.8
Additional consumer contributions for requisitions, connections and adoption. (£15.3m) Additional contributions from consumers are to cover the costs of water connections, requisitions and other developer services activities. The additional costs of this work has been logged up and the additional contributions have been logged down.	15.3
Other enhancement grants and contributions (£2.8m) The additional outputs linked to these contributions have not been identified and logged up. Therefore the contributions have not been logged down.	0.0
INTERREG fund (£16.2m) NI Water carried out work on environmental solutions in cross border catchments which was supported by grants from the EU INTERREG Programme. The additional costs have been logged up and the grant has been logged down.	16.2
Total additional grants and contributions logged down	38.4

Table 6.1: Treatment of additional income

7. Adjustment for Return on Capital

7.1 This section describes a final adjustment to take account of the return on capital included in the PC15 final determination for investment logged up and logged down.

7.2 We have made a further adjustment to the RCV to recover the return on capital over the PC15 period included in the PC15 final determination to support capital investment subsequently logged down.

7.3 In principle we would apply an asymmetric adjustment which:

- Recovers the return on capital on the value of outputs logged down; but
- Does not fund a return on capital over the PC15 period for additional outputs which were logged up.

7.4 This asymmetric approach would act as an incentive for the company to identify a complete set of outputs at the start of a price control allowing the outputs to be planned and delivered efficiently. It is also an incentive to delay delivery of additional outputs to a subsequent price control when they can be properly scrutinised and assessed in a subsequent determination. However, applying this principle to the variation in outputs seen in PC15 given the constraints on the company risks an unreasonable outcome. Therefore we have adopted a pragmatic approach to adjusting the RCV for the net position of logging up and logging down.

7.5 The benefit of a compound return on capital to the 1st April 2021 was calculated on the net change in investment and contributions from the PC15 final determination. The change in investment and contributions was assumed to be distributed equally across PC15. The weighted average cost of capital for PC15 was applied.

7.6 The calculation is embedded in the financial model allowing the adjustment to feed through to revenue and tariffs.