

# Water & Sewerage Services Price Control 2015-21

Draft Determination – Annex I  
PC13 Out-turn Report  
July 2014



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# Water and Sewerage Services Price Control 2015-21 PC15 Draft Determination Annex I – PC13 Capex Out-turn Report

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# 1.0 Introduction

- 1.1.1 This annex sets out the Utility Regulator's (UR) assessment of capital expenditure in the two year PC13 Price Control period (2013-2015) and 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 PC13.
- 1.1.2 Our assessment is based on the capital expenditure and outputs profile reported in the company's PC15 Business Plan submission and takes account of the supporting evidence provided in Appendix 6, Chapter 3 of the NI Water Business Plan submission.
- 1.1.3 Our assessment is based on the company's Business Plan submission which was based on information available at 2013-14 Q2, 18 months before the end of PC13. We have made an allowance in our assessment for more recent information provided by the company on changes to the programme. We will update this assessment for the final determination based on the latest information available at that time. to take account of the best information available at that time.
- 1.1.4 Our assessment of capital investment in PC13 takes account of three key issues:
- Any difference in capital cost inflation relative to the assumptions which were applied in the PC13 final determination;
  - Any change in budget relative to the allowances in the PC13 final determination; and
  - Any change to the outputs which will be delivered in the PC13 period relative to those included in the PC13 final determination.
- 1.1.5 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 levels of inflation relative to the inflation assumptions made in the PC13 final determination. This is 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 -£11.2m in 2010/11 prices. The build up of this figure is summarised in Table 1.1. More detailed information on the allocation of variance by Capex sub-programme is given in Table 5.1.

- 1.1.6 The figures in this report are expressed in real terms in 2010/11 prices unless stated otherwise. This is consistent with the use of a 2010/11 base year used for the PC13 final determination. The Construction Output Price Index has been used to adjust for inflation using base year index of 107.375.
- 1.1.7 We have summarised our analysis under 21 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.
- 1.1.8 The following sections provide more detailed information on our assessment of logging up and logging down for PC13:
- Section 2: Adjusting for inflation;
- Section 3 Capital expenditure variance over PC13;
- Section 4 Our Approach to logging up and logging down;
- Section 5 Logging up and logging down by sub-programme; and
- Section 6 Adjustment for return on capital.
- 1.1.9 A summary of the analysis is provided in Table 1.1.

**Table 1.1 – PC13 Logging up and logging down (2010-11 prices)**

Item description	RCV adjustment (£m)
Outputs logged up	6.5
Outputs logged down	-20.1
Return on capital adjustment	-0.6
Adjustment for Change Control submission	3.0
Total RCV adjustment	-11.2
Note 1. In 2010-11 prices consistent with the 'base year' for the PC13 final determination.	

## 2.0 Adjusting for Inflation

- 2.1.1 This section describes the treatment of inflation when assessing logging up and logging down.
- 2.1.2 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 2010-11 average (consistent with the 'base year' for the PC10 final determination).
- 2.1.3 In the PC13 final determination we noted that we would monitor compliance with the final determination using the Construction Output Price Index (COPI). The COPI indices used in this assessment are shown in Table 2.1.

**Table 2.1 – COPI indices**

	2010-11		2013-14	2014-15
PC10 assumed indices	107.375		115.490	118.377
Current actual and projected indices	107.375		117.979	121.518
<i>Note 1. Assumes that COPI will increase by 3% in 2014-15</i>				

## 3.0 Capital Expenditure Variance over PC13

- 3.1.1 This section summarises the change in capital expenditure from the PC13 final determination in nominal and real terms.
- 3.1.2 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 PC13 final determination the company may have to reduce the outputs delivered.
- 3.1.3 The variance in capital expenditure from the PC13 final determination is summarised in Table 3.1.

**Table 3.1 – Capital expenditure variance in PC13**

	2013-14	2014-15	PC13 Total
PC13 FD (real)	156.2	141.4	297.6
PC13 final determination nominal (applying PC13 final determination COPI assumptions)	168.0	155.9	323.8
PC13 out-turn (real 2010-11 prices)	152.5	136.8	289.4
PC13 out-turn (nominal)	167.6	154.9	322.4
PC13 variance (real)	-3.7	-4.6	-8.2
PC13 variance (nominal)	-0.4	-1.0	-1.4

*Note 1. Figures may not sum due to rounding.*

- 3.1.4 The variances are small when compared with the nominal and real (2007-08 prices) variances of expenditure which occurred in PC10 (-£41.4m real and -£60.9m nominal).
- 3.1.5 Funding and expenditure in PC13 has developed broadly to plan. A combination of a small reduction in the level of nominal investment and an increase in the level of inflation has resulted in a reduction in investment of £8.2m in real terms.

## 4.0 Our Approach to Logging Up and Logging Down

- 4.1.1 The section describes our approach to logging up and logging down expenditure.
- 4.1.2 We assess the outcome of the price control in terms of the outputs delivered for consumers rather than 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 PC13 period, a process commonly known as logging up and logging down.
- 4.1.3 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.
- 4.1.4 We have assessed logging up and logging down at a capital sub-programme level in the first instance. Where more detailed analysis of expenditure and outputs add value, we have undertaken a more detailed assessment of change to individual outputs or groups of outputs within a sub-programme.
- 4.1.5 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 five categories:
- Change in base maintenance expenditure or allocation;
  - Change in the level of expenditure carried over from the last year of the PC10 period (2012-2013);
  - 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).

4.1.6 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.

**Table 4.1 – Consistent allocation of adjustments**

Category	Positive adjustment	Negative adjustment
Base maintenance	Over-spend in PC13	Under-spend in PC13
PC10 carry over	Higher than planned expenditure in PC13 due to lower than planned spend in the PC10 period	Lower than planned expenditure in PC13 due to higher than planned spend in the PC10 period
Logging up and logging down	Value of additional output logged up	Value of additional output logged down
Performance	Higher than planned spend in PC13 to deliver the same output	Lower than planned spend in PC13 to deliver the same output

4.1.7 We have assessed the variance in base maintenance expenditure as a single category and not undertaken a detailed assessment by capital sub-programme. The level of expenditure on base maintenance is in line with the PC13 final determination. The company has maintained serviceability over the PC13 period. It is a matter for the company to decide how best to maintain its assets and this may require it to redirect investment to deal with emerging issues over the period of a Price Control. 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. For this draft 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.

4.1.8 Having considered base maintenance as a single item, the detailed assessment of logging up and logging down considers investment to enhance the assets. To arrive at a baseline for assessing variance we applied the efficiency assumptions of the final determination to the individual capital sub-programmes taking account of the allocation of expenditure by sub-service (water infrastructure, water non-infrastructure, sewerage infrastructure and sewerage non-infrastructure).



- 4.1.9 We asked the company to provide a detailed report on PC13 out-turn in its Business Plan submission. We have taken account of any detailed changes in outputs which the company has highlighted in its report. We asked the Reporter to audit and provide commentary on the changes identified by the company. The Reporter has not highlighted any material issues with the company's submission.
- 4.1.10 Our determination for PC13 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 PC13 period for the value of logging up and logging down. Our approach to this is described in Section 6.0 of this document.
- 4.1.11 We have identified a net increase in expenditure in the PC13 period in projects which carried over from the PC10 period. In our PC13 final determination we noted that, having applied logging up and logging down to the PC10 outcome and established a clear baseline for PC13, we did not intend to log up any additional carry over from PC10 into PC13 in our determination for PC15. Some delay and acceleration at the transition between Price Controls is inevitable. But this is an issue to be managed by the company and it is not necessary for the Regulator to re-assess this transition when considering logging up and logging down.
- 4.1.12 Where the investment in the PC15 period to complete an output included in the PC13 determination has increased, we have logged down the increased investment in the PC15 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 PC15 investment plan properly reflects the cost envisaged to complete the work.

## 5.0 Logging Up and Logging Down by Sub-programme

### 5.1. Introduction

- 5.1.1 This section provides summary information on our assessment of logging up and logging down by sub-programme.
- 5.1.2 We have summarised our analysis of investment in PC13 by 21 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.
- 5.1.3 This section sets out our assessment of variance by individual sub-programme. All figures are reported in 2010-11 prices consistent with the 'base year' for the PC13 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.

### 5.2. Base maintenance investment

- 5.2.1 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. 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.
- 5.2.2 The variance in base maintenance investment is shown below.

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
Base maintenance	145.7	141.2	-4.5	0.0	0.0	-4.5

- 5.2.3 The company projects an under-spend of 3% against the original base maintenance budget, we note that expenditure is broadly in line with expectations and serviceability has been maintained. In view of this we have decided not to log down the variance. We will consider this for the PC13 final

determination based on the company’s latest assessment of investment in the PC13 period.

### 5.3. Capital enhancement investment by sub-programme

#### Sub-programme 00 – Capitalised salaries and on-costs

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
00 – Capitalised salaries and on-costs	9.4	10.3	0.8	0.4	-1.4	1.9

5.3.1 There has been an overall increase in capitalised salaries and on-costs relative to the PC13 final determination of £2.0m with £0.8m attributed to enhancement. This reallocation has not been logged up as it results from an increase in the capitalisation in PC13 without any increase in outputs delivered.

5.3.2 A proportion of expenditure on capitalised salaries and on-costs has been logged up and logged down to reflect the delivery of outputs and the associated logging up and logging down which is described above. This resulted in a net logging down of £1.0m.

#### Sub-programme 01 – Base maintenance (water)

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
01 – Base maintenance (water)	1.0	1.7	0.7	0.7	-0.2	0.1

5.3.3 For the draft determination, we have logged up additional investment on security of treatment works and service reservoirs and additional investment proposed to secure water supplies on Rathlin Island. We have logged down the allowance for investment in Glenlough Pumping Station and Pumping main as it was not delivered.

**Sub-programme 02 – Base maintenance (sewerage)**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
02 – Base maintenance (sewerage)	1.3	2.2	0.9	0.0	0.0	0.9

5.3.4 The PC13 final determination included an allowance for minor enhancement improvements when base maintenance work was being undertaken. The current, actual and projected expenditure allocation in the Business Plan lacks granularity and the company did not ask for any of this expenditure to be logged up. For this draft determination, the variance has been allocated to 'other'.

**Sub-programme 03 – Water resources**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
03 – Water resources	0.1	1.2	1.1	0.6	-0.4	0.8

5.3.5 For the draft determination, we have logged up planned expenditure on Rathlin Island Borehole to secure supplies and work undertaken by NI Water to prepare Water Resource Management Plan requirements. An over-run on the Strule Derg project has been allocated to performance.

**Sub-programme 04 – Water treatment works**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
04 – Water treatment works	7.4	9.1	1.7	1.5	-0.5	0.7

5.3.6 The enhancement baseline expenditure has been adjusted to correct the allocation of Killyhevlin WTW in the PC13 baseline and add the baseline expenditure from Dorisland GAC which was added through the Change Control Process. Additional expenditure on water treatment works security has been logged up. A projected over-run of expenditure into PC15 on Killyhevlin WTW has been logged down.

**Sub-programme 05 – Trunk mains**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
05 – Trunk mains	17.2	17.4	0.2	0.0	-1.7	1.9

- 5.3.7 The trunk-main investment planned for PC13 will out-turn broadly as planned.
- 5.3.8 A projected over-run of expenditure into PC15 on the Ballydougan to Newry trunk main of £0.5m has been logged down.
- 5.3.9 An allowance in the PC13 final determination of £1.2m for investment in pumping plant at the Castor Bay PPP works associated with the Castor Bay to Belfast trunk main which will not be delivered in PC13 has been logged down.

**Sub-programme 06 – Service reservoirs**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
06 – Service reservoirs	0.9	0.7	-0.2	0.0	0.0	-0.2

- 5.3.10 The service reservoir enhancement programme has been delivered as planned with the variance attributed to out-performance.

**Sub-programme 07 – Service reservoir refurbishment**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
07 – Service reservoir refurbishment	3.1	1.6	-1.5	0.0	-1.5	0.0

- 5.3.11 The variation in expenditure relates to a planned Service Reservoir Enhanced Security project which has been delayed. For this reason, the delayed expenditure on this work has been logged down.

**Sub-programme 08 – Water mains rehabilitation**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
08 – Water mains rehabilitation	24.7	23.7	-1.0	0.0	0.0	-1.0

5.3.12 In its Business Plan submission, the company reported that it would not deliver the full activity output included in the PC13 determination. However, subsequent information suggested that the activity will be delivered in full. Pending further clarification, we have opted not to log down the variation for this draft determination.

**Sub-programme 09 – Leakage**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
09 – Leakage	2.0	1.1	-0.9	0.0	0.0	-0.9

5.3.13 The overall investment in leakage is at the level planned in PC13. The enhancement variance arises from a change in the allocation of investment between base and enhancement. In its Business Plan submission, the company highlighted a concern that the allocation may be unrepresentative. Pending clarification of the allocation, we have opted not to log down the variance for this draft determination.

**Sub-programme 10 – Ops capital (water)**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
10 – Ops capital (water)	7.6	5.0	-2.5	0.0	0.0	-2.5

5.3.14 The company has attributed the reduced level of enhancement investment to a lower than expected levels of activity in the housing market. We have not logged down the saving associated with the change in this reactive activity. It is one of a number of activities we expect the company to estimate at the start of a Price Control and then manage its overall activities and investment within the overall Price Control settlement. In the case of development work, the reduction in expenditure is off-set in part by a reduction in capital income from connections.

## Sub-programme 12 – Sewerage

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
12 – Sewerage	26.4	20.8	-5.6	2.7	-8.8	0.5

- 5.3.15 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.
- 5.3.16 The PC13 final determination included investment to deliver a defined programme of improvements to unsatisfactory intermittent discharges (UID). This programme of work has been subject to delay and the company has identified investment of £7.0m which will carry over to PC15 to deliver these outputs. This carry over expenditure has been logged down with the funding necessary to deliver the outputs reinstated in the PC15 period.
- 5.3.17 The PC15 Business Plan submission identified investment in improvements to additional UIDs which were not included in the PC13 determination. For the purpose of this draft determination, and pending an assessment of these and other UID outputs identified by the company in a recent Change Control submission, we have logged up the investment identified.
- 5.3.18 There has been a significant under-performance on alleviation of property flooding as measured by the number of properties the company plans to deliver in the PC13 period (23 now planned compared to 67 outputs allowed in the PC13 final determination). The company has attributed this to the outcome of feasibility studies carried out in PC13 to confirm the risk of flooding and identify solutions. The company has reported that these studies revealed that significant numbers of properties placed on the at-risk flooding register using preliminary information were not at risk of flooding due to hydraulic capacity of the sewerage system. The expenditure on solutions to flooding problems is £0.8m lower than the PC13 final determination allowance. Factoring the allowed investment by the change in outputs delivered would result in a reduction in investment of £2.6m. For this draft determination, and pending further information from the company, we have logged down £1.8m.

### Sub-programme 15 – WwTW carry over projects

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
15 – WwTW carry over projects	2.4	3.0	0.6	0.0	0.0	0.6

5.3.19 This programme of work related to one WwTW output initially planned for PC10 but delayed to PC13. The company plans to deliver the output in PC13 and the variance in expenditure is attributed to performance and PC10 carry over.

### Sub-programme 16 – WwTW new starts

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
16 – WwTW new starts	24.4	28.4	4.0	0.6	-2.9	6.3

5.3.20 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.

5.3.21 We assessed the variation of this programme in three categories and allocated the variance as follows:

- **Category 1 – Planned outputs**, covering delivery of the 38 WwTW outputs included in the PC13 final determination. The company intend to deliver these outputs broadly as planned. Investment of £2.9m which will carry over to PC15 has been logged down, including the deferral of Robinstown WWTW to PC15. Additional investment associated with storage at Newcastle WWTW of £0.6m has been logged up;
- **Category 2 – Preparatory work**, covering work in the PC13 period to plan investment in PC15 of £0.8m. Funding for this work was included in PC13 final determination under Sub-programme 02. The investment has not been logged up; and
- **Category 3 – Other**, other work included in the PC13 final determination not associated with a nominated output. Investment of £0.3m associated with the Ards North WWTW scheme has been logged down as the work is now planned for PC15.



**Sub-programme 17 – Small WwTW programme**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
17 – Small WwTW programme	4.1	3.1	-1.0	0.0	-0.5	-0.5

5.3.22 The company estimates that it will deliver 23 upgrades of small wastewater treatment works in PC13 compared to a target of 25. Taking account of the typical cost of upgrades, we have allocated the variance equally between logging down associated with delivery and performance to reflect the overall saving on the programme of work.

**Sub-programme 18 – Ops capital (sewerage)**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
18 – Ops capital (sewerage)	0.9	1.6	0.7	0.0	0.0	0.7

5.3.23 The company has attributed the increase in enhancement investment to a higher than expected levels of activity on sewerage connections. We have not logged up the additional cost associated with the change in this reactive activity. It is one of a number of activities we expect the company to estimate at the start of a Price Control and then manage its overall activities and investment within the overall Price Control settlement. In the case of development work, the increase in expenditure is off-set in part by an increase in capital income through connection charges, infrastructure charges and requisition receipts.

**Sub-programme 19 – Metering**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
19 – Metering	0.5	0.5	0.0	0.0	0.0	0.0

5.3.24 The planned level of expenditure has been delivered and the company has continued to provide metered connections on new properties as required. No adjustment has been necessary.

**Sub-programme 20 – Management & general**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
20 – Management & General	9.2	8.9	-0.3	0.0	-0.3	0

5.3.25 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.

**Sub-programme 23 – New and renew water mains**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
23 – New and renew water mains	2.4	2.8	0.4	0.0	0.0	0.4

5.3.26 The company has attributed the increase in enhancement investment to a higher than expected levels of development activity than expected. We have not logged down the reduction in cost associated with the change in this reactive activity. It is one of a number of activities we expect the company to estimate at the start of a Price Control and then manage its overall activities and investment within the overall Price Control settlement. In the case of development work, the increase in expenditure should be off-set in part by an increase in capital income through connection charges, infrastructure charges and requisition receipts.

**Sub-programme 24 – New and renew sewerage**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
24 – New and renew sewerage	5.7	5.1	-0.6	0.0	0.0	-0.6

5.3.27 The company has attributed the reduction in enhancement investment to a lower than expected levels of development activity. We have not logged down the reduction in cost associated with the change in this reactive activity. It is one of a number of activities we expect the company to estimate at the start of a Price Control and then manage its overall activities and investment within the overall Price Control settlement. In the case of development work, the reduction in expenditure should be off-set in part by a reduction in capital income.

**Sub-programme 98 – Additional outputs**

	PC13 variance (£m)			Variance allocation (£m)		
	PC13 FD	CAP	Var	Logged up	Logged down	Other
98 – Additional outputs	1.3	0.0	-1.3	0.0	-2.0	0.7

5.3.28 The PC13 final determination included an allowance of £6.1m to invest in additional outputs which had not been included in the company's PC13 Business Plan submission. This included a 19% allocation to base maintenance to allow for accelerated maintenance which might be associated with quality enhancement schemes. £3.6m of this budget was reallocated to Sub-programme 04 following PC13 Change Control 001 which added an additional water treatment works output for the provision of GAC at Dorisland WTWs to remove pesticides. The balance of the budget of £2.5m has been retained in Sub-programme 98 with a base maintenance allocation of 19%. In the absence of a clear plan for this investment, the enhancement element has been logged down.

## 5.4. Logging up and logging down summary

Table 5.1 – PC13 Out-turn allocation (£m 2010-11 prices)

	Variance in enhancement expenditure (£m)			Out-turn variance allocation (£m)				
	PC13 FD	CAP	Var	Logged up	Logged down	Base allocation	PC10 carry over	Performance
Base maintenance (total)	145.7	141.2	-4.5	0.0	0.0	-4.5	0.0	0.0
00 – Capitalised salaries and on-costs	9.4	10.3	0.8	0.4	-1.4	0.0	0.0	1.9
01 – Base maintenance (water)	1.0	1.7	0.7	0.7	-0.2	0.0	0.0	0.1
02 – Base maintenance (sewerage)	1.3	2.2	0.9	0.0	0.0	0.0	0.0	0.9
03 – Water resources	0.1	1.2	1.1	0.6	-0.4	0.0	0.1	0.7
04 – Water treatment works	7.4	9.1	1.7	1.5	-0.5	0.0	0.0	0.8
05 – Water trunk mains	17.2	17.4	0.2	0.0	-1.7	0.0	-0.8	2.7
06 – Service reservoirs and CWTs	0.9	0.7	-0.2	0.0	0.0	0.0	0.0	-0.2
07 – Service reservoir rehabilitation	3.1	1.6	-1.5	0.0	-1.5	0.0	0.0	0.0
08 – Water mains rehabilitation	24.7	23.7	-1.0	0.0	0.0	0.0	0.0	-1.0
09 – Leakage	2.0	1.1	-0.9	0.0	0.0	0.0	0.0	-0.9
10 – Ops capital (water)	7.6	5.0	-2.5	0.0	0.0	0.0	0.0	-2.5
12 – Sewerage	26.4	20.8	-5.6	2.7	-8.8	0.0	2.9	-2.4
15 – WWTW (Carry over projects)	2.4	3.0	0.6	0.0	0.0	0.0	-0.3	0.9
16 – WWTW (new starts)	24.4	28.4	4.0	0.6	-2.9	0.0	-1.6	7.8
17 – Small WWTW	4.1	3.1	-1.0	0.0	-0.5	0.0	0.0	-0.5

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18 – Ops capital (Sewerage)	0.9	1.6	0.7	0.0	0.0	0.0	0.0	0.7
19 – Miscellaneous	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
20 – Management & General	9.2	8.9	-0.3	0.0	-0.3	0.0	0.0	0.0
23 - Water mains new and renew	2.4	2.8	0.4	0.0	0.0	0.0	0.0	0.4
24 - Sewerage new and renew	5.7	5.1	-0.6	0.0	0.0	0.0	0.0	-0.6
98 - Additional outputs programme	1.3	0.0	-1.3	0.0	-2.0	0.7	0.0	0.0
Totals	297.6	289.3	-8.2	6.5	-20.1	-3.8	0.3	8.9

## 6.0 Adjustment for Return on Capital

- 6.1.1 This section describes a final adjustment to take account of the return on capital included in the PC13 final determination for investment logged up and logged down.
- 6.1.2 We have made a further adjustment to the RCV to recover the return on capital over the PC10 period included in the PC10 final determination to support capital investment subsequently logged down.
- 6.1.3 In principle we would apply an asymmetric adjustment which:
- Recovers the return on capital on the value of outputs logged; but
  - Does not fund a return on capital over the PC10 period for additional outputs which were logged up.
- 6.1.4 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 PC10 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.
- 6.1.5 The benefit of a compound return on capital to the 1st April 2013 was calculated on the net change in investment from the PC10 final determination. Net investment was assumed to be incurred at the half year point. The weighted average cost of capital for PC10 of 4.78% was applied. The calculation is summarised in Table 6.1.

**Table 6.1 – Return on capital adjustment (2010-11 prices)**

	<b>2014-15</b>
Logging up	6.5
Logging down	-20.1
Net position over PC13	-13.7
Return on capital	4.09%
Total return on capital adjustment (£m)	-0.6
<i>Note 1. Return on capital applied to the net position from the mid point of PC13 (31/3/14) to the opening position for PC15 (1/4/15) = 1 year RoC.</i>	

6.1.7 A total of £0.5 m in 2007-08 prices has been logged down to account for the return on capital investment in PC13.